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Preliminary Evidence on Impacts of Active Labor Programs in Hungary and Poland

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Preliminary Evidence on Impacts of Active Labor Programs
in Hungary and Poland

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Preliminary Evidence on Impacts of Active Labor Programs in Hungary and Poland

ABSTRACT

To ease the hardship associated with worker dislocation and to maintain social stability during the transition to markets, the governments of Hungary and Poland provide labor force members with unemployment compensation and a variety of active labor programs (ALPs). Follow-up surveys of participants in retraining, public works, wage subsidies, self-employment, and comparison groups were done in Hungary and Poland in early 1997. Preliminary analysis suggests positive net impacts for most ALPs and additive benefits from the use of the employment service in both countries. Strong evidence of nonrandom assignment to programs means that great care should be used in interpreting the preliminary results and that further examination of the findings is necessary. Adjusted impact estimates for Hungary are provided, but supplementary data is needed from Poland to assess how representative the comparison groups are of the general population of registered unemployed workers.
1. INTRODUCTION

While they have adopted somewhat different macroeconomic strategies for the transition to a market economy, the central European nations of Hungary and Poland have pursued quite similar policies for labor market support. To ease the hardship associated with worker dislocation and to maintain social stability during the transition, the governments of these countries provide unemployment compensation and a variety of active labor programs (ALPs). The experience of Hungary and Poland may enlighten employment policy in other transition economies by revealing what works and what does not work during such a dramatic period of change.

The active labor programs adopted in recent years include nearly the full menu existing in nations with developed market economies. The five primary ALPs used in these countries are retraining, public service employment, wage subsidies, self-employment assistance, and the employment service. A cross-country net impact evaluation of these ALPs in Hungary and Poland is currently under way. This paper presents some preliminary findings of research financed by the U.S. Department of Labor and coordinated by the World Bank with similar projects in the Czech Republic and Turkey.

The remainder of the paper proceeds as follows. In Section 2, the macroeconomic context of employment policy is briefly described. The systems for administration of employment policy are then given, followed by a short overview of important labor market support programs in each country. Section 5 examines sample design, survey processes, and interview success. Section 6 considers the characteristics of the samples interviewed. Section 7 presents unadjusted estimates of ALP impacts. Section 8 reconsiders program impacts in light
of observable differences in sample composition. The concluding section offers summary remarks and outlines plans for continued analysis of the survey data.

2. THE MACROECONOMIC CONTEXT OF EMPLOYMENT POLICY

Since 1990, both Hungary and Poland have experienced dramatic declines in gross domestic product and increases in unemployment. The only comparable experience of such dramatic change is the Great Depression of the 1930s. Table 1 profiles the economic context of employment policy in Hungary and Poland during the 1990s, while Figure 1 graphically depicts the pattern of unemployment in the two countries.

In a population of about 10 million with a labor force nearly half that size, registered unemployment in Hungary rose from 23,000 in January 1990 to 705,000 in February 1993. Kollo (1993) estimates that during this three-year period a million jobs were lost in Hungary (with part of the loss (188,000) absorbed by the retirement of workers), while the working age population grew by over 100,000. He admits some job growth during the period, but also estimates that nearly a quarter-million dropped out of the labor force. Since 1993, measured unemployment in Hungary has declined somewhat and as of April 1997 stood at a 10.8 percent national average. Lázár and Szekely (1994) provide evidence from a survey of unemployment compensation exhaustees that the decline in Hungarian unemployment is associated with an excessive increase in inactivity.

Unemployment in Poland jumped from zero in 1989 to 16.4 percent in 1993 measured on the basis of registrations with the employment service (ES). While unemployment estimates based on registered unemployment may be overstated (because many persons who are truly inactive only maintain registration with the employment service so as to keep eligibility for
national health insurance), this remains a dramatic increase. The registered unemployment rate in Poland has gradually declined in recent months, falling to 13 percent in April of 1997.

The rise in unemployment is one of many consequences resulting from transition changes such as relaxed price controls, reduced state subsidies, and the loss of trading partners in COMECON countries. There have also been dramatic increases in consumer prices, public budget deficits, and foreign trade debts. These events have prompted international monetary authorities to require ever greater restraint on public spending. Nonetheless, the programs of employment policy pursued in both countries have been impressive.

3. ADMINISTRATION OF EMPLOYMENT POLICY

3.1 Administration in Hungary

Hungary is composed of 20 major administrative districts, which include 19 counties (megye) and the capital city of Budapest. These 20 districts are the political entities to which labor market support programs are provided by a network of 20 County Labor Centers.

The Ministry of Labor is the leader in labor market support policy. Services are provided to job seekers through a nationwide network of county labor centers and local labor offices. There is the National Labor Center (Orszagos Munkaugyi Kozpont - OMK) in Budapest. The OMK provides methodological support to the counties and general information on labor market trends and labor program activity to the public. There are 20 County Labor Centers and 179 local labor offices, where programs are delivered to job seekers. There are about nine local labor offices (on average) within each county, which are supervised and supported by county labor centers.
3.2 Administration in Poland

Poland is divided into 49 major administrative districts, called voivods. These districts are the political entities to which labor market support programs are provided.

The Ministry of Labor and Social Policy is the leader in labor market support policy. Services are provided to job seekers through a nationwide network of labor offices. There is the National Labor Office (Krajowy Urzad Pracy - KUP) in Warsaw, which provides administrative support to the voivods and information on labor market trends and labor program activity. There are 49 Voivod Labor Offices and over 500 Local Labor offices where programs are delivered to job seekers. There are about 10 local labor offices within each voivod, which are managed and supported by the voivod labor office.

4. OVERVIEW OF EMPLOYMENT POLICY

Employment policy in Hungary and Poland is carried out through administration of both active and passive labor programs. In both countries the employment service is the central function of local labor centers. The employment service helps unemployed workers get job interviews, helps employers fill job vacancies, keeps records of the unemployed and job seekers, provides aptitude testing and vocational guidance, and solicits and registers job vacancies. The local labor centers are one-stop-shopping places for reemployment assistance. In addition to providing placement services, these centers act as a unified clearing house for referral to a variety of active and passive support programs. The main ALPs in Hungary and Poland are listed in Table 2.

The main passive labor program in each country is unemployment compensation, which is available for a limited duration to unemployed workers with sufficient recent work
experience. Hungary also operates a national unemployment assistance program, which is a quasi-welfare type of means tested assistance. The only second-tier support in Poland is social welfare assistance, which is administered and financed by local governments.

For conciseness, descriptions of the programs examined here are presented in tables. Table 3 provides brief summaries of the ALPs evaluated in Hungary. Table 4 gives the main features of the passive labor programs in Hungary: unemployment compensation and unemployment assistance. Table 5 provides ALP summaries for Poland, and Table 6 describes the passive labor support available in Poland.

Both Hungary and Poland provide skill retraining, under similar arrangements. Wage subsidies are also available in each country, but in Hungary the long-term unemployed are the target group, while in Poland the program is not particularly targeted and operates under the name Intervention Works. Each country also operates direct job creation programs; in Hungary this is known as Public Service Employment and in Poland as Public Works. Assistance for the unemployed to become self-employed is also available in both countries. Hungarian self-employment assistance operates on the British model, which gives a series of periodic support payments during the start-up phase. The Polish self-employment program is somewhat like the French lump-sum assistance model, except that the Poles require repayment of the money advanced.

Table 7 shows the level of nominal spending on these and less significant ALPs, as well as spending on passive labor programs. In Hungary, passive labor programs include unemployment compensation, unemployment allowance, early retirement assistance, and a school leavers allowance. When Hungarian unemployment peaked in 1992-93, the share of
expenditures devoted to ALPs declined to 18 percent and less, but the share in recent years has remained firmly above 20 percent. In Poland since 1991, the share of all labor programs expenditures devoted to ALPs has also declined to below 18 percent, but unlike in Hungary, in recent years ALPs have received a declining share of labor market support in Poland.

5. SAMPLE CONSIDERATIONS

The sample for analysis in Hungary was drawn from randomly selected samples in a strategically selected group of 10 counties: Budapest (the capital city), Baranya, Bekes, Borsod, Csongrad, Fejer, Hajdu-Bihar, Pest, Szabolcs, and Vas. Map 1 shows the geographic distribution of the counties surveyed. These counties span the range of economic conditions. As can be seen in Table 8, three counties enjoy an unemployment rate below 8 percent, three suffer unemployment rates in excess of 15 percent, and four have unemployment rates in between.

Together the counties surveyed in Hungary comprise nearly two-thirds of the nation's population. These counties have a somewhat smaller proportion of employment in agriculture than does the nation as a whole largely due to the inclusion of the capital city, Budapest, in the sampling frame. Including Budapest also caused the population density to be higher, the mean unemployment rate to be lower, and the mean monthly wage to be higher in the areas surveyed relative to the nation as a whole. Among these counties, some have experienced steady labor market improvement since the peak of national unemployment in early 1993, while others have stagnated.

___________________________

2 The sub-national provincial divisions in Hungary are called counties and in Poland are called voivods.
Administration of the questionnaires in Hungary was managed by experts in the National Labor Center (OMMK) and was conducted through house-to-house visits by staff of local labor centers during their off-work hours.

Data for evaluating ALPs in Poland was gathered by surveys of randomly selected participant samples and strategically selected comparison samples in a group of eight voivods: Gorzow, Katowice, Konin, Krakow, Lublin, Olsztyn, Poznan, and Radom. Map 2 shows the 49 voivod divisions within Poland, and the cross-hatched areas indicate the eight voivods in which surveys were conducted for this project. While these locations were chosen partly because of information processing similarities, they nonetheless span the range of labor market experience in Poland during the transition to markets.

Among the eight voivods surveyed, four are among Poland's most populous: Katowice, Krakow, Lublin, and Poznan. The eight encompass over one-quarter of the population of Poland, including several large cities, yielding a higher than average population density. These areas also have unemployment rates much lower, wages somewhat higher, and a smaller share of agriculture than the nation as a whole.

Administration of the questionnaires for surveys in Poland was managed by experts employed by the voivod and local labor offices in the areas surveyed and was conducted by house-to-house visits by staff of local labor offices during their off-work hours.

5.1 Sample Size

In Hungary (where sample sizes were large enough), classical principles of experimental design were used for randomly drawing representative samples of program participants. Where the number of participants was too small for random sampling, the population was drawn.
Comparison group samples were randomly drawn from the population of registered unemployed persons.

In Poland, the samples of program participants were also drawn using classical principles, but the comparison group samples were strategically drawn from the population of registered unemployed persons to increase the information available for estimating program impacts. Persons were selected for each ALP comparison group sample based on the characteristics of those randomly selected for the participant samples.

For both countries, the sample sizes were specified to be of sufficient size to ensure the precision of the desired impact estimates. The sample sizes were set based on considerations of power tests for observing effects of a size that would be of interest to policy makers. That is, the samples were set to be large enough to reject the null hypothesis of no effect with sufficient power to accept the alternative that an intervention is efficacious. Furthermore, the sample sizes were specified to be of sufficient size to provide reliable estimates of differential program impacts on important demographic and regional subgroups.

The main program outcome guiding sample size determination was the duration of unemployment, and samples were set to be of sufficient size to detect program impacts of one week or more. These judgements were made on the basis of effect sizes estimated in earlier net impact analysis studies done in Hungary by Godfrey, Lázár, O'Leary (1993) and O'Leary (1997) and on the power tables given by Cohen (1988).

5.2 Selecting Samples

In Hungary, program participant groups were drawn from the outflow of program participation occurring in the second quarter (Q2) of 1996. There was random sampling from
the outflow where sample sizes were large enough, with random draws made by birth date. Where samples were small, as for self-employment assistance, the population was drawn. To spread the burden of conducting interviews, the samples were evenly distributed across the counties, so that about 10 percent for each program came from each county.

The Hungarian comparison group was randomly selected, using birth dates, from the 10 counties from the inflow to the unemployment register during the Q2 1995. As for participant samples, they were drawn to be about the same size in each county so as to evenly spread the burden of the survey work; that is, about 10 percent of the total sample for each program was drawn in each county. It was judged that Q2 1995 was about the time that most people drawn for the participant samples also flowed into the register.

In Poland, ALP entry during the whole of 1995 was taken as the sampling frame. Among ALP participants, there was random sampling, with random draws made by birth date. Where samples were small, as for self-employment assistance, the proportion randomly sampled from the population was larger. Sample sizes in each voivod were set to be in proportion to the number of program participants in the voivod. After the participant samples were selected, the observable exogenous characteristics of the groups selected were examined.

To increase the usable information for estimating program impacts in Poland, the comparison group samples were drawn from the population of registered unemployed persons by matching persons in each of the ALP participant samples to the most similar person from the unemployment register of the same local labor office. Separate comparison group samples for each program were selected from a sample of persons who registered as unemployed within the same time period, who never used active labor programs other than the employment service, and
were matched one-to-one with participants using a matched-pairs algorithm based on observable characteristics.\textsuperscript{3} Surveys were conducted in 8 voivods and 80 local areas within these voivods. This spread the burden of survey taking somewhat. Surveys were conducted between February and April of 1997. A relatively accurate nationally representative sample resulted.

\textbf{5.3 Conformance to Sample Design}

The National Labor Center in Hungary, working together with the 10 county labor centers involved, developed the sampling frame for selecting interview candidates. From the sampling frame, specific sample sizes for each of the four ALPs were determined, together with the sample size for comparison group members.

Because of the great distinctions identified in gross outcome analysis provided by the performance indicators monitoring system, retraining was divided into two categories: group and individual.\textsuperscript{4} Sample design and evaluation was therefore planned for five participant groups plus the ES. Table 9 lists the designed sample sizes and the actual number of respondents interviewed for each of the five ALPs in each of the 10 counties in Hungary. While there were differing response rates across counties, the overall response rates for each program averaged about 80 percent. Response rates above 80 percent provide a high degree of reliability that properly designed samples accurately reflect population behavior.

Table 10 provides a summary of survey response rates in Hungary across all counties for the comparison group and the combined ALPs. The response rate for the comparison group of

\textsuperscript{3} Matching was done by the minimum sum of squared distance measure described in O'Leary (1997).

\textsuperscript{4} An overview of the performance management system for active labor programs in Hungary is given in O'Leary (1995).
76.5 percent is somewhat below the 81.4 percent experienced for the ALPs, but both response rates are in the acceptable range.

The National Labor Office in Poland, working together with the eight voivod labor offices involved, developed the sampling frame for selecting interview candidates. From the sampling frame, specific sample sizes for each of the four ALPs were determined, together with the sample size for comparison groups. Table 11 lists the designed sample sizes and the actual number of respondents interviewed for each of the four ALPs in each of the 10 voivods. While there were differing response rates across voivods, overall response rates for each program averaged around 93 percent. Response rates this high are rare. Properly computed estimates from these samples have a very high probability of accurately reflecting population behavior.

Table 12 provides a summary of survey respondent totals across each voivod for each of the separate ALP participant and comparison groups in Poland, showing the very close matching of sample sizes for participants and comparison groups within voivods. Overall among the comparison groups in Poland the response rate was 95.5 percent (7,169 out of 7,507), while among participant groups the response rate was 92.6 percent (7,174 out of 7,749). The original sample targets were 7,500 for the participant and comparison groups. More supplementary observations were added for the participant samples. Workers conducting the house-to-house surveys in Poland made as many as three return visits to complete an interview. Clearly, the survey workers were successful at achieving high response rates.

6. CHARACTERISTICS OF THE SAMPLES INTERVIEWED

Table 13 presents simple comparisons of the various participant samples from Hungary on the following important characteristics: age, gender, education, activity prior to registering as
unemployed, occupational category, and household characteristics. Table 14 provides descriptions of the descriptive and outcome variables. Table 15 is similar to Table 13 except that under the ALP program headings, the mean difference from the comparison group is given rather than the program mean.

From Table 15 it is easy to see strong evidence that ALP participants in Hungary were not randomly selected from the pool of registered unemployed. Retraining participants tend to be significantly younger, more female, more educated, and more likely to be school leavers. Wage subsidy recipients are no different in age and gender, but are better schooled and have more recent work experience. PSE participants are somewhat older, more male, and less well schooled. The self-employed are older, more male, better educated, and with more recent work experience. The only group more likely to be in blue-collar occupations than the comparison group are the PSE participants.

For Poland, Table 16 provides a list of the descriptive characteristics used to examine the samples. The following are the important characteristics: age, gender, education, occupational category, prior earnings, physical disability status, and household characteristics.

Table 17 is presented in four separate pages, one for each of the four Polish ALPs considered. On each page the first column lists the means of the descriptive characteristics of the relevant comparison group as selected by matched pairs before surveys were conducted. The second column gives the mean of the participant group for each characteristic. The third column gives the difference computed as the participant mean minus the comparison group mean. The fourth column provides a statistical measure of significance for the difference.
From Table 17 it can be seen that the matching prior to conducting the surveys was done quite well in Poland. There are very few exogenous characteristics on which there are differences for any of the programs. Among the 24 characteristics listed, for retraining there are only three significant differences, which is far less than might be expected were the two samples randomly drawn from the same population. For Public Works there are somewhat more differences, but none on the basic age, gender, and education variables which formed the core of the matching process. For intervention works there are only five significant differences. For self-employment there are nine significant differences, but again these are outside the core matching factors.

7. PRELIMINARY IMPACT ESTIMATES

7.1 Unadjusted Impacts of ALPs in Hungary

In most countries with ALPs, several different types are operated because each ALP has a distinct objective. The overriding goal of most ALPs is to secure regular unsubsidized employment at good wages. The main outcome examined by impact analysis in this study is obtaining a "normal unsubsidized job." To measure differential job quality, impacts on reemployment earnings were estimated. In future analysis of the survey results, we will also try to estimate the associated impact on the budget of passive labor programs such as unemployment compensation. Impacts on other particular program outcomes will also be estimated. For example, secondary employment impacts from self-employment programs that result when new entrepreneurs hire others will be examined.

For Hungary, preliminary estimates of the impact of ALPs are presented in Table 18 for two outcome measures. The first outcome is EMPLOYED, which is an indicator for whether or
not a survey respondent has returned to work since participating in an ALP, or for comparison group members whether there has been a return to work since registering as unemployed. The table indicates that by the survey date in April 1997, 54 percent of the comparison group had returned to work. With the exception of public service employment, participants in ALPs tended to return to work at a higher rate. By this estimate, return to work was 2 percentage points higher for group retraining participants (though not statistically significant), 9 points higher for individual retraining participants, 17 points higher for wage subsidy recipients, and 39 points higher for self-employment assistance recipients; the rate was 19 points lower for PSE participants.

Among those who became reemployed, with the exception of self-employment assistance recipients, earnings of ALP participants were higher than for the comparison group by about 10 percent.

These are preliminary unadjusted estimates for Hungary. As reported in O'Leary (1997), selection into ALPs in Hungary is not random, so that simple comparisons of ALP participants to a random sample of registered unemployed can be misleading. After examining unadjusted treatment impacts for Poland, we reexamine program impact estimates for Hungary while accounting for observable differences in samples.

7.2 Estimated Impacts of ALPs in Poland

The two outcomes examined in estimating ALP impacts in Poland were EMPLOYED, which means a job was started sometime after leaving an ALP or, for comparison group members, after registering as unemployed, and EARNINGS, which is average monthly earnings in new złoty on the most recent job. In future analysis of the survey results, we will also try to
estimate the associated impact on the budget of passive labor programs such as unemployment compensation. Impacts on other particular program outcomes will also be estimated. For example, secondary employment impacts from self-employment programs that result when new entrepreneurs hire others will be examined.

Preliminary estimates of the impact of ALPs in Poland are presented in Table 19 for the two outcome measures described above. Scanning down the first column, the variation in reemployment rates across comparison groups can be seen. The comparison group reemployment rate for retraining, public works, and intervention works all hover around 50 percent, while the rate for the self-employment comparison group is 66 percent. The preliminary impact estimates suggest that retraining increases the employment probability by 12 percentage points, intervention works by 26 points, and self-employment by 31 points; public works reduces the reemployment rate by 8 percentage points.

These are preliminary estimates and, while based on matched pairs analysis because of the sampling design used in Poland, still only reveal aggregate differences. Future analysis will examine other outcomes, other methods of estimation, regional differences, other demographic differences, and the importance of quality differences in ALP services.

The structure of the samples gathered in Poland also permits a preliminary examination of the effectiveness of the employment service (ES). Again, this preliminary analysis is very crude. It does not examine the importance of the many different ES services offered and used. The program instrument is simply whether or not any ES service was used. Preliminary impact estimates for the ES are presented in Table 20. All results reported in Table 20 were computed
on various groupings of the comparison samples, since members of these samples did not use other ALPs.

The first row of Table 20 reports the mean reemployment rate for those in the full combined comparison sample who did not use any service of the ES as being 50 percent. Also reported is the result that comparison group members who did use the ES had a statistically significant 5 percentage point greater reemployment rate. The remaining estimates of ES effects were estimated within the separate sample comparison groups. Two of the ALP participant groups benefitted significantly from the ES, and while the estimates from the other comparison samples are not statistically significant, they are positive. Future analysis of the effect of the ES will estimate interaction effects between the ES and the ALPs. This will involve combining participant and comparison samples. It will provide evidence about whether benefits of the ES are separable from ALPs and therefore additive, or whether a substitution or a synergy results.

### 7.3 Adjusted Impact Estimates for Hungary

Because there are great differences in the objective observable characteristics of program participants and the comparison group in Hungary, it is likely that in the absence of any labor market assistance the reemployment rates for the groups would differ significantly. As a first attempt to adjust for the wide differences in characteristics, the methods of O'Leary (1997) will be used. These methods are regression adjustment and matched pairs. Results from applying these methods are presented in Table 21.

In addition to the ALPs examined in Section 7.1, Table 21 also involves consideration of the influence of the employment service. Since many participants in ALPs also used services of the ES, it is important to estimate the independent effects of the ES and the other ALPs. Table
22 lists the variables used as controls in computing regression adjusted net impacts. Table 23 lists the factors on which observations were matched to construct similar comparison groups.

With the exception of individual retraining, the adjusted impacts appear different from the unadjusted impact estimates. In all cases, the matched pairs, regression adjusted, and regression adjusted with ES interaction impact estimators yielded similar results. It is impossible to generalize at this preliminary stage of analysis, but there is clear evidence that accounting for sample selection is important. Also important to note is a possible type of program management behavior opposite the "creaming" reported by O'Leary (1997). It appears that targeting to hard-to-serve persons may be going on. This issue requires further study, but the targeting may be due in part to the performance management system operating in Hungary (see O'Leary, 1995).

Impact estimates for the ES in Hungary are presented in Table 24. The first row reports the mean reemployment rate for those in the comparison sample who did not use any service of the ES as being 48 percent. Also reported is the result that comparison group members who did use the ES had a 10 percentage point greater reemployment rate. The remaining estimates of ES effects were estimated in regression models with the ALP and ES interacted. All but one of the ALP participant groups benefitted significantly from the ES. Furthermore, the effect appeared to be independent or "separable" from the ALP reemployment effect.

8. SUMMARY AND PLAN FOR FURTHER ANALYSIS

Surveys of active labor program (ALP) participants and comparison groups were responsibly performed in Hungary and Poland. They have yielded a wealth of information about
the effectiveness of ALPs. Preliminary analysis suggests positive impacts of most ALPs and additive benefits from use of the employment service (ES) in both countries.

Strong evidence of non-random assignment to programs means that great care should be used in interpreting the preliminary results, and that further examination of the findings is absolutely necessary. Some attempt to adjust impact estimates has been done using the data for Hungary. Supplementary data is needed from Poland to assess exactly how representative the comparison groups are of the general population of registered unemployed.

Future analysis of the survey results should also examine other measures of labor market success. Various measures of employment and earnings should be studied. These might include a broader employment definition which embodies subsidized work, and earnings at various times during the reemployment experience. Also, the timing and durability of reemployment should be studied.

The reemployment impacts of the employment service (ES), which has a unique nature among ALPs in that it closely interacts with all other reemployment efforts, should be more closely examined. Not only the interactions, but the multidimensional nature of the ES itself might be revealed. The ES provides a variety of distinct services including: skills assessment, resume preparation, job search training, job clubs and job interview referral. Effects of each of these might be investigated. Similarly, other ALPs are not homogenous. To the extent possible, future investigations will estimate the impacts of various ALP dimensions. It will be practical to examine program duration, participant group size, and provider industrial sector.

In addition to studying the influence of various components of ALPs, future work will also examine the effect of ALPs on different identifiable groups of program participants.
Subgroup analysis will be done on groups defined by both demographic and geographic characteristics. Additionally, ALP impacts on potential policy target groups such as the long term unemployed will be studied.

The extent to which spending on ALPs conserves on passive labor support in terms of unemployment compensation and unemployment assistance will also be investigated. Estimating these quantities is crucial to the preparation of comprehensive benefit-cost assessments. Cross-program comparisons of cost effectiveness may then be offered.

Separate detailed country reports on the effectiveness of ALPs are being prepared for Hungary and Poland. These reports seek to fully exploit the available data, and fill the remaining gaps in the evaluation. A separate research group is preparing similar reports for the Czech Republic and Turkey. The final aim is a cross-country report which summarizes evidence from four countries on what works for supporting the development of competitive labor markets in transition economies.
APPENDIX A

FIGURES, MAPS, AND TABLES
REFERENCES


Map 1. Counties Surveyed in Hungary
   (available in hard copy only)

Map 2. Voivods Surveyed in Poland
   (available in hard copy only)
Table 1. Labor Market and Economic Conditions in Hungary and Poland, 1990-1996

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<thead>
<tr>
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<tbody>
<tr>
<td>Hungary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population (in thousands)</td>
<td>10,355</td>
<td>10,337</td>
<td>10,310</td>
<td>10,277</td>
<td>10,246</td>
<td>10,212</td>
<td>10,174</td>
</tr>
<tr>
<td>Labor force (in thousands)</td>
<td>5,520</td>
<td>5,531</td>
<td>5,353</td>
<td>5,024</td>
<td>4,705</td>
<td>4,553</td>
<td>4,474</td>
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<tr>
<td>Unemployment rate (percent)</td>
<td>0.9</td>
<td>4.1</td>
<td>10.4</td>
<td>13.4</td>
<td>12.1</td>
<td>11.2</td>
<td>11.2</td>
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<td>GDP Index (previous year = 100)</td>
<td>96.5</td>
<td>88.1</td>
<td>96.1</td>
<td>99.2</td>
<td>102.9</td>
<td>101.5</td>
<td>101.0</td>
</tr>
<tr>
<td>Price Index (previous year = 100)</td>
<td>128.9</td>
<td>135.0</td>
<td>123.0</td>
<td>122.5</td>
<td>118.8</td>
<td>128.2</td>
<td>123.6</td>
</tr>
</tbody>
</table>

|                |       |       |       |       |       |       |       |
| Poland         |       |       |       |       |       |       |       |
| Population (in thousands) | 38,119 | 38,245 | 38,365 | 38,505 | 38,544 | 38,609 | 38,639 |
| Labor Force (in thousands) | 17,102 | 17,285 | 17,734 | 17,651 | 17,761 | 17,643 | 17,349 |
| Unemployment Rate (percent) | 6.3   | 11.8  | 13.6   | 16.4   | 16.0   | 14.9   | 13.6   |
| GDP Index (previous year = 100) | 92.4  | 100.8 | 103.8  | 105.2  | 107.0  | 106.0  |       |
| Price Index (previous year = 100) | 585.8 | 170.3 | 143.0  | 135.3  | 132.2  | 127.8  | 119.9  |

### Table 2. Active Labor Programs in Hungary and Poland

<table>
<thead>
<tr>
<th>Active labor program</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
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<tr>
<td>Employment service</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Retraining</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Wage subsidy</td>
<td>Long-term unemployed</td>
<td>Intervention works</td>
</tr>
<tr>
<td>Public service employment</td>
<td>Yes</td>
<td>Public works</td>
</tr>
<tr>
<td>Self-employment assistance</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Job creation investments</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Work sharing</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Early retirement subsidy</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
### Table 3. Active Labor Wage Subsidy Programs in Hungary

<table>
<thead>
<tr>
<th>Program</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retraining</td>
<td>Occupational skill retraining may be provided to persons who are either unemployed, expected to become unemployed, or currently involved in public works. Unemployed recent school leavers may also qualify. Training support may include a supplement to earnings or a benefit in lieu of earnings equal to 110 percent of the unemployment compensation otherwise payable, plus reimbursement of direct costs.</td>
</tr>
<tr>
<td>Wage subsidy for hiring long-term unemployed</td>
<td>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 unemployed for more than 6 months (3 months for school leavers), provided the employer has not laid off anyone involved in the same line of work in the previous 6 months and after the assistance has ended, he further employs the unemployed persons for at least as long as he received assistance.</td>
</tr>
<tr>
<td>Public service employment</td>
<td>Workers hired for public maintenance and infrastructure projects or public social services may have direct costs of employment (wages, additional work tasks, work tools, working clothes, and transportation) subsidized by up to 70 percent from the Employment Fund, provided that the employer does no receive any net income as a result of the activity.</td>
</tr>
<tr>
<td>Self-employment assistance</td>
<td>Self-employment assistance is possible for persons who are eligible for unemployment compensation. The support may include up to six monthly payments of unemployment compensation beyond the basic one-year eligibility. 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.</td>
</tr>
<tr>
<td>Employment service</td>
<td>The employment service is the central function of local labor centers. The local labor centers are one-stop-shopping places for reemployment assistance. These centers act as a unified clearinghouse for referral to a variety of active and passive support. The employment service offers a full range of placement services including job interview referral, counseling, skills assessment, job search training, resume preparation, and job clubs.</td>
</tr>
</tbody>
</table>
Table 4. Passive Labor Programs in Hungary

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment compensation</td>
<td>Available to unemployed workers depending on work history over the previous four years. The maximum entitled duration of benefits is 12 months. The monthly benefit amount depends on previous earnings. During the first six months the benefit is 75% of prior earnings, and during the second six months the benefit is 60% of prior earnings. The unemployment benefit is paid for by a 3.9% tax that employers pay on total payrolls and a 1.5% tax paid by employees. Before 1996, there was also an unemployment benefit equal to the monthly unemployment assistance amount for recent school graduates. In 1995, there were an average of 185,000 unemployment compensation and recent school graduate beneficiaries. UC is administered by the system of labor centers.</td>
</tr>
<tr>
<td>Unemployment assistance</td>
<td>A monthly benefit available to unemployed exhaustees of regular unemployment compensation. Eligibility also depends on a means test. The maximum entitled duration is 24 months. The monthly benefit amount is uniform; in June 1996, the amount stood at 7780 HUF per month. UA benefits are financed from general governmental revenues. Beneficiaries who exhaust eligibility for UA may requalify for up to 3 months of regular unemployment compensation (UC) after six months of work, if the UC is exhausted, they may again become entitled to a means-tested two years of UA benefits. UA is administered by local government offices, not by labor centers.</td>
</tr>
</tbody>
</table>
### Table 5. Active Labor Programs in Poland

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retraining</td>
<td>Occupational skill retraining may not exceed 12 months duration. It should be targeted to areas of skill shortages. Stipends up to 115 percent of the unemployment benefit may be paid. If trainees leave before completing a course of study, they must reimburse the costs of training.</td>
</tr>
<tr>
<td>Loans to the unemployed for self-employment</td>
<td>Loans may not exceed 20 times the national average monthly pay. If self-employment is continued for 24 months, 50 percent of the loan amount may be forgiven. The loan must be repaid immediately if the agreed-upon business plan is not pursued. Loan contracts are made at the prevailing interest rates.</td>
</tr>
<tr>
<td>Public works</td>
<td>Wage and social insurance costs may be paid for up to six months from the Labor Fund at a rate of up to 75 percent of the national average pay. Projects should be infrastructure investments and may be operated by municipal authorities or by local representatives of the national government. Projects may not compete with any existing business, and workers should be recruited through the Local Labor Offices. Areas with the highest unemployment rates have priority for Public Works projects.</td>
</tr>
<tr>
<td>Intervention works</td>
<td>Wage and social insurance costs may be paid for up to six months from the Labor Fund for an amount up to the level of unemployment compensation otherwise payable. Projects may not compete with private companies and may be undertaken only by companies which during the most recent six months did not lay off more than 10 percent of their workers. Wages and social insurance costs for workers retained beyond the first six months may be reimbursed for the subsequent six months up to a total of 150% of the national average monthly wage.</td>
</tr>
<tr>
<td>Employment service</td>
<td>The employment service is the central function of local labor offices. The local labor offices are one-stop-shopping places for reemployment assistance. These centers act as a unified clearinghouse for referral to a variety of ALPs and for unemployment compensation. The employment service offers a full range of placement services, including job interview referral, counseling, skills assessment, job search training, resume preparation, and job clubs.</td>
</tr>
</tbody>
</table>
Table 6. Passive Means of Assistance for Unemployed Workers in Poland

<table>
<thead>
<tr>
<th>Assistance Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment compensation</td>
<td>Available to unemployed workers depending on work history over the previous year. To qualify for benefits a worker must have had a minimum of 180 days of work in the previous year. There is also a means test for eligibility: monthly income must be lower than 50% of the national minimum wage. Furthermore, weekly hours of work must be less than 20 hours. The maximum duration of benefits is 12 months. In local labor markets where the unemployment rate equals or exceeds 1.5 times the national average unemployment rate, the maximum duration of benefits is 18 months. The monthly benefit amount is fixed and uniform for all recipients. The level of the monthly benefit is reviewed each calendar quarter by the Minister of Labor and Social Policy and may be revised. In June of 1996 the monthly benefit stood at about 33% of the national average monthly wage. There is also a child dependents allowance equal to about 10% extra per child. The unemployment benefit is paid for with money from the Labor Fund. The Labor Fund is financed from two sources: 1) 35% of the Labor Fund in 1995 came from a 3% tax that employers pay on total payrolls, and 2) 65% of the Labor Fund came from general revenues of the state budget. In 1995 about 85% of the Labor Fund was spent on unemployment compensation (UC) and social insurance taxes for the unemployed, the remainder was spent on active labor programs. Since March 1996, recent school graduates are not eligible for unemployment compensation in the first 12 months after leaving school. Unemployment compensation beneficiaries also retain eligibility for national health insurance; this eligibility may be maintained even after exhausting benefits by continued monthly reporting as unemployed to the local labor office. In 1995 there were an average of about 1.3 million unemployment compensation beneficiaries per month. Since late 1995, the number of monthly beneficiaries steadily increased and reached a peak of 1.5 million per month in April 1996; the number has fallen gradually since. UC is administered by the system of labor offices.</td>
</tr>
<tr>
<td>General assistance</td>
<td>A monthly benefit available to unemployed exhaustees of regular unemployment compensation and others. Eligibility also depends on a means test. Average household income per family member must be lower than the minimum monthly public old-age pension. Benefits are financed from general governmental revenues. Eligibility is indefinite. General assistance is administered by local government offices, not by labor centers.</td>
</tr>
</tbody>
</table>
Table 7. Spending on Active and Passive Labor Programs in Hungary and Poland, 1990-1996

<table>
<thead>
<tr>
<th></th>
<th>Hungary</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ALP and PLP spending(^a) (million HUF)</td>
<td>7,640</td>
<td>28,654</td>
<td>77,208</td>
<td>90,419</td>
<td>69,889</td>
<td>64,174</td>
<td>77,157</td>
</tr>
<tr>
<td>ALP share of spending</td>
<td>0.648</td>
<td>0.269</td>
<td>0.169</td>
<td>0.180</td>
<td>0.255</td>
<td>0.233</td>
<td>0.218</td>
</tr>
<tr>
<td>Retraining share</td>
<td>0.108</td>
<td>0.043</td>
<td>0.053</td>
<td>0.073</td>
<td>0.107</td>
<td>0.102</td>
<td>0.069</td>
</tr>
<tr>
<td>PSE share</td>
<td>0.051</td>
<td>0.019</td>
<td>0.021</td>
<td>0.034</td>
<td>0.064</td>
<td>0.068</td>
<td>0.087</td>
</tr>
<tr>
<td>Wage subsidies share</td>
<td>0.000</td>
<td>0.004</td>
<td>0.016</td>
<td>0.034</td>
<td>0.033</td>
<td>0.033</td>
<td>0.025</td>
</tr>
<tr>
<td>Self-employment share</td>
<td>0.001</td>
<td>0.003</td>
<td>0.006</td>
<td>0.008</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td>Other ALP share</td>
<td>0.489</td>
<td>0.206</td>
<td>0.088</td>
<td>0.052</td>
<td>0.042</td>
<td>0.027</td>
<td>0.033</td>
</tr>
<tr>
<td>PLP share of spending</td>
<td>0.352</td>
<td>0.731</td>
<td>0.831</td>
<td>0.820</td>
<td>0.745</td>
<td>0.767</td>
<td>0.782</td>
</tr>
<tr>
<td>Price index (previous year = 100)</td>
<td>128.9</td>
<td>135.0</td>
<td>123.0</td>
<td>122.5</td>
<td>118.8</td>
<td>128.2</td>
<td>123.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Poland</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ALP and UC spending(^a) (million Pzl)</td>
<td>370</td>
<td>1,358</td>
<td>2,283</td>
<td>3,190</td>
<td>4,447</td>
<td>6,207</td>
<td>7,418</td>
</tr>
<tr>
<td>ALP share of spending</td>
<td>0.489</td>
<td>0.180</td>
<td>0.137</td>
<td>0.161</td>
<td>0.162</td>
<td>0.147</td>
<td>0.132</td>
</tr>
<tr>
<td>Retraining share</td>
<td>0.004</td>
<td>0.007</td>
<td>0.008</td>
<td>0.014</td>
<td>0.013</td>
<td>0.010</td>
<td>0.012</td>
</tr>
<tr>
<td>Public Works share</td>
<td>0.008</td>
<td>0.038</td>
<td>0.047</td>
<td>0.047</td>
<td>0.041</td>
<td>0.041</td>
<td>0.032</td>
</tr>
<tr>
<td>Intervention Works share</td>
<td>0.056</td>
<td>0.033</td>
<td>0.021</td>
<td>0.043</td>
<td>0.055</td>
<td>0.050</td>
<td>0.037</td>
</tr>
<tr>
<td>Self-employment loans share</td>
<td>0.008</td>
<td>0.007</td>
<td>0.008</td>
<td>0.008</td>
<td>0.008</td>
<td>0.008</td>
<td>0.008</td>
</tr>
<tr>
<td>Loans for employers share</td>
<td>0.260</td>
<td>0.030</td>
<td>0.010</td>
<td>0.017</td>
<td>0.005</td>
<td>0.004</td>
<td>0.003</td>
</tr>
<tr>
<td>Other ALPs share</td>
<td>0.260</td>
<td>0.030</td>
<td>0.010</td>
<td>0.017</td>
<td>0.005</td>
<td>0.004</td>
<td>0.003</td>
</tr>
<tr>
<td>UC share of spending</td>
<td>0.511</td>
<td>0.820</td>
<td>0.863</td>
<td>0.839</td>
<td>0.838</td>
<td>0.853</td>
<td>0.868</td>
</tr>
<tr>
<td>Price index (previous year = 100)</td>
<td>585.8</td>
<td>70.3</td>
<td>43</td>
<td>35.3</td>
<td>32.2</td>
<td>27.8</td>
<td>19.9</td>
</tr>
</tbody>
</table>

\(^a\) ALP, active labor programs; PLP, passive labor programs; UC, unemployment compensation.
### Table 8. Comparative Statistics for Provinces Surveyed

<table>
<thead>
<tr>
<th>Province</th>
<th>Population from Census (000s)</th>
<th>Population share (%)</th>
<th>Population density (per km²)</th>
<th>Unemployment rate April 1997 (%)</th>
<th>Employment in agriculture, 1995 (% share)</th>
<th>Average monthly wage 1996a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest</td>
<td>1,907</td>
<td>18.7</td>
<td>3,632</td>
<td>4.9</td>
<td>0.6</td>
<td>60,851</td>
</tr>
<tr>
<td>Baranya</td>
<td>409</td>
<td>4</td>
<td>93</td>
<td>13.6</td>
<td>10.2</td>
<td>43,888</td>
</tr>
<tr>
<td>Becs</td>
<td>403</td>
<td>3.9</td>
<td>71</td>
<td>13.8</td>
<td>12.1</td>
<td>40,348</td>
</tr>
<tr>
<td>Borsod</td>
<td>746</td>
<td>7.3</td>
<td>103</td>
<td>19.7</td>
<td>5.6</td>
<td>41,432</td>
</tr>
<tr>
<td>Csongrad</td>
<td>427</td>
<td>4.2</td>
<td>100</td>
<td>9.3</td>
<td>9.6</td>
<td>42,794</td>
</tr>
<tr>
<td>Fejer</td>
<td>426</td>
<td>4.2</td>
<td>97</td>
<td>9.3</td>
<td>10.3</td>
<td>50,666</td>
</tr>
<tr>
<td>Hajdu-Bihar</td>
<td>460</td>
<td>4.5</td>
<td>89</td>
<td>15.5</td>
<td>10.1</td>
<td>42,458</td>
</tr>
<tr>
<td>Pest</td>
<td>985</td>
<td>9.6</td>
<td>154</td>
<td>7.4</td>
<td>7.0</td>
<td>45,899</td>
</tr>
<tr>
<td>Szabolcs</td>
<td>572</td>
<td>5.6</td>
<td>96</td>
<td>19.9</td>
<td>6.7</td>
<td>39,313</td>
</tr>
<tr>
<td>Vas</td>
<td>272</td>
<td>2.7</td>
<td>81</td>
<td>6.7</td>
<td>9.6</td>
<td>41,623</td>
</tr>
<tr>
<td><strong>Total/Mean</strong></td>
<td><strong>6,606</strong></td>
<td><strong>64.7</strong></td>
<td><strong>137</strong></td>
<td><strong>10.2</strong></td>
<td><strong>5.3</strong></td>
<td><strong>49,863</strong></td>
</tr>
<tr>
<td><strong>Hungary</strong></td>
<td><strong>10,212</strong></td>
<td><strong>100</strong></td>
<td><strong>110</strong></td>
<td><strong>10.8</strong></td>
<td><strong>6.8</strong></td>
<td><strong>47,577</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Province</th>
<th>Population from Census (000s)</th>
<th>Population share (%)</th>
<th>Population density (per km²)</th>
<th>Unemployment rate April, 1997 (%)</th>
<th>Employment in agriculture in 1995 (% share)</th>
<th>Average monthly wage 1995a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gorzow</td>
<td>511</td>
<td>1.3</td>
<td>60</td>
<td>16.3</td>
<td>21</td>
<td>606</td>
</tr>
<tr>
<td>Katowice</td>
<td>3,925</td>
<td>10.2</td>
<td>590</td>
<td>7.7</td>
<td>6.4</td>
<td>860</td>
</tr>
<tr>
<td>Konin</td>
<td>480</td>
<td>1.3</td>
<td>94</td>
<td>16.9</td>
<td>41.7</td>
<td>724</td>
</tr>
<tr>
<td>Krakow</td>
<td>1,240</td>
<td>3.2</td>
<td>381</td>
<td>6.2</td>
<td>20.9</td>
<td>669</td>
</tr>
<tr>
<td>Lublin</td>
<td>1,027</td>
<td>2.7</td>
<td>151</td>
<td>11.5</td>
<td>36.8</td>
<td>647</td>
</tr>
<tr>
<td>Olsztyn</td>
<td>772</td>
<td>2.0</td>
<td>63</td>
<td>22.6</td>
<td>23.9</td>
<td>618</td>
</tr>
<tr>
<td>Poznan</td>
<td>1,354</td>
<td>3.5</td>
<td>166</td>
<td>5.2</td>
<td>14.4</td>
<td>669</td>
</tr>
<tr>
<td>Radom</td>
<td>763</td>
<td>2.0</td>
<td>105</td>
<td>16.9</td>
<td>46.3</td>
<td>589</td>
</tr>
<tr>
<td><strong>Total/Mean</strong></td>
<td><strong>10,072</strong></td>
<td><strong>26.1</strong></td>
<td><strong>174</strong></td>
<td><strong>10.3</strong></td>
<td><strong>19.1</strong></td>
<td><strong>731</strong></td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td><strong>38,609</strong></td>
<td><strong>100</strong></td>
<td><strong>123</strong></td>
<td><strong>13</strong></td>
<td><strong>26.9</strong></td>
<td><strong>691</strong></td>
</tr>
</tbody>
</table>

Sources: National Labor Center and CSO, Budapest; National Labor Office and CSO, Warsaw.
a In HUF for Hungary; in Pzl for Poland.
### Table 9. Sample Design and Survey Response in Hungary

<table>
<thead>
<tr>
<th>County</th>
<th>Group Training</th>
<th>Individual Training</th>
<th>Wage Subsidy</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Sample Responses</td>
<td>Rate</td>
<td>Sample Responses</td>
</tr>
<tr>
<td>Budapest</td>
<td>76</td>
<td>50</td>
<td>229</td>
</tr>
<tr>
<td>Baranya</td>
<td>159</td>
<td>133</td>
<td>175</td>
</tr>
<tr>
<td>Bekes</td>
<td>213</td>
<td>180</td>
<td>130</td>
</tr>
<tr>
<td>Borsod</td>
<td>161</td>
<td>107</td>
<td>109</td>
</tr>
<tr>
<td>Csongrad</td>
<td>221</td>
<td>155</td>
<td>182</td>
</tr>
<tr>
<td>Fejer</td>
<td>141</td>
<td>127</td>
<td>200</td>
</tr>
<tr>
<td>Hajdu</td>
<td>146</td>
<td>124</td>
<td>151</td>
</tr>
<tr>
<td>Pest</td>
<td>176</td>
<td>148</td>
<td>167</td>
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<tr>
<td>Szabolcs</td>
<td>210</td>
<td>193</td>
<td>113</td>
</tr>
<tr>
<td>Vas</td>
<td>119</td>
<td>104</td>
<td>99</td>
</tr>
<tr>
<td>Total</td>
<td>1,546</td>
<td>1,321</td>
<td>1,555</td>
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<table>
<thead>
<tr>
<th>County</th>
<th>Public Service Employment</th>
<th>Self-employment</th>
<th>Comparison Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budapest</td>
<td>138</td>
<td>50.7</td>
<td>502</td>
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<td>Baranya</td>
<td>128</td>
<td>78.9</td>
<td>400</td>
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<tr>
<td>Bekes</td>
<td>117</td>
<td>90.6</td>
<td>394</td>
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<td>Borsod</td>
<td>178</td>
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<td>520</td>
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<td>Csongrad</td>
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<td>353</td>
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<tr>
<td>Fejer</td>
<td>144</td>
<td>88.2</td>
<td>399</td>
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<tr>
<td>Hajdu</td>
<td>180</td>
<td>93.9</td>
<td>482</td>
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<td>Pest</td>
<td>142</td>
<td>83.8</td>
<td>479</td>
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<td>Szabolcs</td>
<td>150</td>
<td>95.3</td>
<td>499</td>
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<td>Vas</td>
<td>64</td>
<td>81.3</td>
<td>387</td>
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<tr>
<td>Total</td>
<td>1,090</td>
<td>84.1</td>
<td>4,415</td>
</tr>
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</table>
Table 10. Sample Sizes and Survey Response Rates in Hungary

<table>
<thead>
<tr>
<th>County</th>
<th>ALPs sample</th>
<th>ALPs responses</th>
<th>Response rate</th>
<th>Comparison sample</th>
<th>Comparison responses</th>
<th>Response rate</th>
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<tbody>
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<td>Baranya</td>
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<td>563</td>
<td>75.1</td>
<td>400</td>
<td>312</td>
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<tr>
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<td>303</td>
<td>76.9</td>
</tr>
<tr>
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<td>876</td>
<td>726</td>
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<td>434</td>
<td>83.5</td>
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<tr>
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<td>558</td>
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<td>245</td>
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<td>613</td>
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<td>482</td>
<td>393</td>
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<td>661</td>
<td>563</td>
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<td>499</td>
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<tr>
<td>Vas</td>
<td>538</td>
<td>446</td>
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<td>387</td>
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<td>63.6</td>
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Table 11. Sample Selection Process in Poland

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<th>Voivod</th>
<th>Retraining</th>
<th>Intervention Works</th>
<th>Public Works</th>
<th>Loans</th>
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<td></td>
<td>Number part.</td>
<td>Sample size</td>
<td>Number resp.</td>
<td>Number part.</td>
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<td>170</td>
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<td>150</td>
<td>2,928</td>
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<tr>
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<td>139</td>
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<td>1,768</td>
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<td>438</td>
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<tr>
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<td>435</td>
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<td>169</td>
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<td>Individual retraining</td>
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<tr>
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<td>------------------</td>
<td>------------------</td>
<td>-----------------------</td>
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</tr>
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<td>0.06</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
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<td>0.80</td>
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<td>0.02</td>
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<td>0.81</td>
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<td>0.25</td>
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<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>PRIORWAGE</td>
<td>Average monthly earnings before unemployment</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>Age in years as of April 1, 1997</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>Gender: male=1, female=0</td>
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<td></td>
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</tr>
<tr>
<td>PRIMARY</td>
<td>Education level, less than 8 classes: 1=yes, 0=no</td>
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<tr>
<td>SECONDARY</td>
<td>Education level, vocational: 1=yes, 0=no</td>
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<td></td>
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</tr>
<tr>
<td>VOCATIONAL</td>
<td>Education level, secondary: 1=yes, 0=no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COL-UNIV</td>
<td>Education level, higher education: 1=yes, 0=no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASWORKING</td>
<td>Earlier employment status, employed: 1=yes, 0=no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASUNEMP</td>
<td>Earlier employment status, lost employment: 1=yes, 0=no</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>WASSCHOOL</td>
<td>Earlier employment status, school leaver: 1=yes, 0=no</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>WASOTHER</td>
<td>Earlier employment status, other: 1=yes, 0=no</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLUECOLLAR</td>
<td>Occupation of wanted job, blue collar: 1=yes, 0=no</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MARRIED</td>
<td>Spouse living in same household: 1=yes, 0=no</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>KIDS_LE6</td>
<td>Number of children in household age 0-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEPENDENTS</td>
<td>Number of children in household age 6+ plus other dependents</td>
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</table>
Table 15. Unadjusted Differences from the Comparison Group Mean for ALPs in Hungary

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<th>Comparison group</th>
<th>Group retraining</th>
<th>Individual retraining</th>
<th>Wage subsidy</th>
<th>Public service employment</th>
<th>Self-employment</th>
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<tr>
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<td>-4,033**</td>
<td>-3,107**</td>
<td>-2,342**</td>
<td>-2,524**</td>
<td>11,668**</td>
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<td>-6.08**</td>
<td>-0.12</td>
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<td>2.53**</td>
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<tr>
<td>MALE</td>
<td>0.56</td>
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<td>-0.07**</td>
<td>0.00</td>
<td>0.10**</td>
<td>0.06**</td>
</tr>
<tr>
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<td>-0.10**</td>
<td>-0.19**</td>
<td>-0.08**</td>
<td>0.12**</td>
<td>-0.27**</td>
</tr>
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<td>-0.11**</td>
<td>-0.03</td>
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<td>0.25**</td>
<td>0.27**</td>
<td>0.05**</td>
<td>-0.01</td>
<td>0.22**</td>
</tr>
<tr>
<td>COL-UNIV</td>
<td>0.03</td>
<td>0.03**</td>
<td>0.03**</td>
<td>0.01**</td>
<td>0.00</td>
<td>0.08**</td>
</tr>
<tr>
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<td>-0.16**</td>
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<td>0.52**</td>
</tr>
<tr>
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<td>-0.09**</td>
<td>-0.49**</td>
<td>-0.32**</td>
<td>-0.41**</td>
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<tr>
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<td>0.09</td>
<td>0.20**</td>
<td>0.23**</td>
<td>-0.07**</td>
<td>-0.07**</td>
<td>-0.09**</td>
</tr>
<tr>
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<td>0.05**</td>
<td>0.02**</td>
<td>-0.02**</td>
<td>-0.02**</td>
<td>-0.02**</td>
</tr>
<tr>
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<td>-0.22**</td>
<td>-0.04**</td>
<td>0.08</td>
<td>-0.19**</td>
</tr>
<tr>
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<td>0.62</td>
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<td>-0.21**</td>
<td>-0.02</td>
<td>-0.03**</td>
<td>0.20**</td>
</tr>
<tr>
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<td>-0.08**</td>
<td>-0.01</td>
<td>0.05**</td>
</tr>
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<td>-0.05*</td>
<td>0.05</td>
<td>0.09**</td>
<td>0.08**</td>
</tr>
</tbody>
</table>

Sample size 3,338 1,321 1,222 1,131 1,140 1,067

** Difference significant at the 95 percent level of confidence in a two-tailed test.
* Difference significant at the 90 percent level of confidence in a two-tailed test.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARNPRE</td>
<td>Average earnings before registering</td>
</tr>
<tr>
<td>MALE</td>
<td>Respondent is male: 1=yes, 0=no</td>
</tr>
<tr>
<td>AGE</td>
<td>Age at survey completion date, in years</td>
</tr>
<tr>
<td>EDELEM</td>
<td>8 years or less schooling: 1=yes, 0=no for all in this category</td>
</tr>
<tr>
<td>EDVOC1</td>
<td>Basic vocational school</td>
</tr>
<tr>
<td>EDVOC2</td>
<td>Completed secondary vocational school</td>
</tr>
<tr>
<td>EDGYM</td>
<td>Completed general secondary school</td>
</tr>
<tr>
<td>EDCOLL</td>
<td>Some higher education</td>
</tr>
<tr>
<td>OCCMGR</td>
<td>Last job top manager: 1=yes, 0=no for all in this category</td>
</tr>
<tr>
<td>OCCPROF</td>
<td>Last job specialist/professional</td>
</tr>
<tr>
<td>OCCTECH</td>
<td>Last job technician w/out university degree</td>
</tr>
<tr>
<td>OCCTERVE</td>
<td>Last job service worker</td>
</tr>
<tr>
<td>OCCSERVE</td>
<td>Last job skilled work</td>
</tr>
<tr>
<td>OCCSERVE</td>
<td>Last job service worker</td>
</tr>
<tr>
<td>OCCEARN5</td>
<td>Average gross monthly earnings on the most recent job</td>
</tr>
<tr>
<td>PHYSDIS</td>
<td>Respondent has a physical disability: 1=yes, 0=no</td>
</tr>
<tr>
<td>HHSIZE</td>
<td>Number of people living w/respondent</td>
</tr>
<tr>
<td>SPOUSEHM</td>
<td>Spouse lives with you: 1=yes, 0=no</td>
</tr>
<tr>
<td>SPOEMPL</td>
<td>Spouse is employed or self-emp: 1=yes, 0=no</td>
</tr>
<tr>
<td>OTHEREMP</td>
<td>Number of other employed members of household</td>
</tr>
<tr>
<td>DEPEND1</td>
<td>Number of people dependent economically on respondent</td>
</tr>
<tr>
<td>DEPEND2</td>
<td>Number of dependents under 18 or pensions</td>
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<tr>
<td>LOOKWORK</td>
<td>Number of other household members not working but looking for work</td>
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<td>EARN5</td>
<td>Average gross monthly household earnings excluding respondent</td>
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</tr>
<tr>
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<td>Average gross monthly earnings on the most recent job</td>
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<tr>
<td>Variable</td>
<td>Comparison group</td>
</tr>
<tr>
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<td>------------------</td>
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<tr>
<td>EDVOC2</td>
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<tr>
<td>EDCOLL</td>
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<tr>
<td>OCCMGR</td>
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<td>OCCPROF</td>
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** Statistically significant at the 95 percent confidence level in a two-tailed test.
* Statistically significant at the 90 percent confidence level in a two-tailed test.
Table 17B. Treatment/Comparison Group Differences for Public Works in Poland

<table>
<thead>
<tr>
<th>Variable</th>
<th>Comparison group</th>
<th>Retraining</th>
<th>Difference</th>
<th>t-Statistic on difference</th>
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** Statistically significant at the 95 percent confidence level in a two-tailed test.
* Statistically significant at the 90 percent confidence level in a two-tailed test.
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** Statistically significant at the 95 percent confidence level in a two-tailed test.
* Statistically significant at the 90 percent confidence level in a two-tailed test.
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<th>Difference</th>
<th>t-Statistic on difference</th>
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** Statistically significant at the 95 percent confidence level in a two-tailed test.
* Statistically significant at the 90 percent confidence level in a two-tailed test.
Table 18. Unadjusted Impacts of ALPs on Employment and Earnings in Hungary

<table>
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<th>Outcome</th>
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<th>Group retraining</th>
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<th>Wage subsidy</th>
<th>Public service employment</th>
<th>Self-employment</th>
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** Difference significant at the 95 percent confidence level in a two-tailed test.
* Difference significant at the 90 percent confidence level in a two-tailed test.
<sup>a</sup> EMPLOYED - Started a new non-subsidized job or self employment after registering as unemployed or completing participation in an active labor program (ALP).
<sup>b</sup> EARNINGS - Starting average monthly earnings on the first new non-subsidized job or self employment after registering as unemployed or completing participation in an active labor program (ALP).
### Table 19. Unadjusted Impacts of ALPs on Employment and Earnings in Poland

<table>
<thead>
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** Statistically significant at the 95 percent confidence level in a two-tailed test.
* Statistically significant at the 90 percent confidence level in a two-tailed test.
Table 20. Impact Estimates of Employment Service Use in Poland

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** Statistically significant at the 95 percent confidence level in a two-tailed test.  
* Statistically significant at the 90 percent confidence level in a two-tailed test.
Table 21. Comparison of Alternative Impact Estimates of ALPs on Employment and Earnings in Hungary

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<th>Group retraining</th>
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<th>Wage subsidy</th>
<th>Public service employment</th>
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<tr>
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<td>Regression</td>
<td>0.09**</td>
<td>0.11**</td>
<td>-0.09**</td>
<td>-0.26**</td>
<td>0.15**</td>
</tr>
<tr>
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<td>Adjusted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matched pairs</td>
<td>0.08**</td>
<td>0.11**</td>
<td>-0.11**</td>
<td>-0.37**</td>
<td>0.13**</td>
</tr>
<tr>
<td></td>
<td>With ES Interaction</td>
<td>0.09**</td>
<td>0.11*</td>
<td>-0.11**</td>
<td>-0.26**</td>
<td>0.14</td>
</tr>
<tr>
<td>EARNINGS</td>
<td>Means</td>
<td>18,202</td>
<td>20,237</td>
<td>20,205</td>
<td>20,740</td>
<td>18,952</td>
</tr>
<tr>
<td></td>
<td>Unadjusted Impact</td>
<td>2,035**</td>
<td>2,003**</td>
<td>2,538**</td>
<td>750*</td>
<td>-5,157**</td>
</tr>
<tr>
<td></td>
<td>Regression</td>
<td>1,788**</td>
<td>1,649**</td>
<td>2,070**</td>
<td>802*</td>
<td>-6,218**</td>
</tr>
<tr>
<td></td>
<td>Adjusted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matched pairs</td>
<td>2,413**</td>
<td>1,536**</td>
<td>2,217**</td>
<td>727*</td>
<td>-6,604**</td>
</tr>
<tr>
<td></td>
<td>With ES Interaction</td>
<td>1,805*</td>
<td>1,603**</td>
<td>1,836</td>
<td>742</td>
<td>-7,057**</td>
</tr>
</tbody>
</table>

** Difference significant at the 95 percent confidence level in a two-tailed test.
* Difference significant at the 90 percent confidence level in a two-tailed test.

a EMPLOYED - Started a new non-subsidized job or self employment after registering as unemployed or completing participation in an active labor program (ALP).
b EARNINGS - Starting average monthly earnings on the first new non-subsidized job or self employment after registering as unemployed or completing participation in an active labor program (ALP).
Table 22. Control Variables for Regression Adjusted Impact Estimates of Hungarian Active Labor Programs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIORWAGE</td>
<td>Average monthly earnings before unemployment</td>
</tr>
<tr>
<td>AGE</td>
<td>Age in years as of April 1, 1997</td>
</tr>
<tr>
<td>MALE</td>
<td>Gender: male=1, female=0</td>
</tr>
<tr>
<td>PRIMARY</td>
<td>Education level, less than 8 classes: 1=yes, 0=no</td>
</tr>
<tr>
<td>SECONDARY</td>
<td>Education level, vocational: 1=yes, 0=no</td>
</tr>
<tr>
<td>VOCATIONAL</td>
<td>Education level, secondary: 1=yes, 0=no</td>
</tr>
<tr>
<td>COL-UNIV</td>
<td>Education level, higher education: 1=yes, 0=no (omitted category)</td>
</tr>
<tr>
<td>WASWORKING</td>
<td>Earlier employment status, employed: 1=yes, 0=no (omitted category)</td>
</tr>
<tr>
<td>WASUNEMP</td>
<td>Earlier employment status, lost employment: 1=yes, 0=no</td>
</tr>
<tr>
<td>WASSCHOOL</td>
<td>Earlier employment status, school leaver: 1=yes, 0=no</td>
</tr>
<tr>
<td>WASOTHER</td>
<td>Earlier employment status, other: 1=yes, 0=no</td>
</tr>
<tr>
<td>SPECIAL</td>
<td>Special difficulties in finding a job: 1=yes, 0=no</td>
</tr>
<tr>
<td>LEGIS2</td>
<td>Occupation of wanted job, legislators, managerial: 1=yes, 0=no</td>
</tr>
<tr>
<td>PROF2</td>
<td>Occupation of wanted job, professionals: 1=yes, 0=no</td>
</tr>
<tr>
<td>TECH2</td>
<td>Occupation of wanted job, technicians: 1=yes, 0=no</td>
</tr>
<tr>
<td>CLERK2</td>
<td>Occupation of wanted job, clerks: 1=yes, 0=no</td>
</tr>
<tr>
<td>SERV2</td>
<td>Occupation of wanted job, service workers: 1=yes, 0=no</td>
</tr>
<tr>
<td>SKILLAG2</td>
<td>Occupation of wanted job, skilled agricultural: 1=yes, 0=no</td>
</tr>
<tr>
<td>CRAFT2</td>
<td>Occupation of wanted job, craft workers: 1=yes, 0=no</td>
</tr>
<tr>
<td>MACH2</td>
<td>Occupation of wanted job, machine operators: 1=yes, 0=no</td>
</tr>
<tr>
<td>ELEM2</td>
<td>Occupation of wanted job, elementary: 1=yes, 0=no (omitted category)</td>
</tr>
<tr>
<td>ARMED2</td>
<td>Occupation of wanted job, armed forces: 1=yes, 0=no</td>
</tr>
<tr>
<td>MARRIED</td>
<td>Spouse living in same household: 1=yes, 0=no</td>
</tr>
<tr>
<td>SPOUSEMP</td>
<td>Spouse employed: 1=yes, 0=no</td>
</tr>
<tr>
<td>HHOTHER</td>
<td>Other household members (count)</td>
</tr>
<tr>
<td>KIDS_LE6</td>
<td>Number of children in household age 0-6</td>
</tr>
<tr>
<td>DEPENDENTS</td>
<td>Number of children in household age 6+ plus other dependents</td>
</tr>
<tr>
<td>HHEARN</td>
<td>Net monthly household earnings</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Ten county indicator variables: 1=yes, 0=no (Budapest was omitted)</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>AGE</td>
<td>Age in years as of April 1, 1997</td>
</tr>
<tr>
<td>MALE</td>
<td>Gender: male=1, female=0</td>
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<tr>
<td>PRIMARY</td>
<td>Education level, less than 8 classes: 1=yes, 0=no</td>
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<tr>
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<td>Education level, secondary: 1=yes, 0=no</td>
</tr>
<tr>
<td>COL-UNIV</td>
<td>Education level, higher education: 1=yes, 0=no (omitted category)</td>
</tr>
<tr>
<td>WASWORKING</td>
<td>Earlier employment status, employed: 1=yes, 0=no (omitted category)</td>
</tr>
<tr>
<td>WASUNEMP</td>
<td>Earlier employment status, lost employment: 1=yes, 0=no</td>
</tr>
<tr>
<td>WASSCHOOL</td>
<td>Earlier employment status, school leaver: 1=yes, 0=no</td>
</tr>
<tr>
<td>WASOTHER</td>
<td>Earlier employment status, other: 1=yes, 0=no</td>
</tr>
<tr>
<td>LEGIS2</td>
<td>Occupation of wanted job, legislators, managerial: 1=yes, 0=no</td>
</tr>
<tr>
<td>PROF2</td>
<td>Occupation of wanted job, professionals: 1=yes, 0=no</td>
</tr>
<tr>
<td>TECH2</td>
<td>Occupation of wanted job, technicians: 1=yes, 0=no</td>
</tr>
<tr>
<td>CLERK2</td>
<td>Occupation of wanted job, clerks: 1=yes, 0=no</td>
</tr>
<tr>
<td>SERV2</td>
<td>Occupation of wanted job, service workers: 1=yes, 0=no</td>
</tr>
<tr>
<td>SKILLAG2</td>
<td>Occupation of wanted job, skilled agricultural: 1=yes, 0=no</td>
</tr>
<tr>
<td>CRAFT2</td>
<td>Occupation of wanted job, craft workers: 1=yes, 0=no</td>
</tr>
<tr>
<td>MACH2</td>
<td>Occupation of wanted job, machine operators: 1=yes, 0=no</td>
</tr>
<tr>
<td>ELEM2</td>
<td>Occupation of wanted job, elementary: 1=yes, 0=no</td>
</tr>
<tr>
<td>ARMED2</td>
<td>Occupation of wanted job, armed forces: 1=yes, 0=no</td>
</tr>
<tr>
<td>MARRIED</td>
<td>Spouse living in same household: 1=yes, 0=no</td>
</tr>
<tr>
<td>SPOUSEMP</td>
<td>Spouse employed: 1=yes, 0=no</td>
</tr>
<tr>
<td>HHOTHER</td>
<td>Other household members (count)</td>
</tr>
<tr>
<td>KIDS_LE6</td>
<td>Number of children in household age 0-6</td>
</tr>
<tr>
<td>DEPENDENTS</td>
<td>Number of children in household age 6+ plus other dependents</td>
</tr>
<tr>
<td>HHEARN</td>
<td>Net monthly household earnings</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Ten county indicator variables: 1=yes, 0=no</td>
</tr>
</tbody>
</table>
Table 24. Impact of the Employment Service in Hungary on Employment and Earnings

<table>
<thead>
<tr>
<th>HUNGARY</th>
<th>EMPLOYED</th>
<th>EARNINGS</th>
<th>Impact of ES</th>
<th>t-statistic on difference</th>
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</thead>
<tbody>
<tr>
<td>Comparison group</td>
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<td></td>
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<tr>
<td>EMPLOYED</td>
<td>0.48</td>
<td>-187</td>
<td>0.10**</td>
<td>6.17</td>
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<td>0.49</td>
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<td>Group Retraining</td>
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<td>0.09**</td>
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<tr>
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<td></td>
<td>1.69</td>
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<tr>
<td>EARNINGS</td>
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<td></td>
<td></td>
<td>1.36</td>
</tr>
</tbody>
</table>

** Impact estimate significant at the 95 percent confidence level in a two-tailed test.
* Impact estimate significant at the 90 percent confidence level in a two-tailed test.
Figure 1
Unemployment Rate in Hungary and Poland, 1990-96