

Re-Training Programs in Russia and Romania: Impact Evaluation Study¹

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ABSTRACT

Sustainable economic growth requires an effective re-training system that would facilitate the match of labor supply to the changing due to rapid technological progress labor demand. Moreover, the expected increased openness of the Russian economy due to WTO accession is likely to affect labor demand as well and could have adverse effects on employment. The degree of effectiveness of public re-training programs under operation would largely determine the adjustment costs of trade liberalization as well as the flexibility of the economy with respect to technological changes. A part of re-training system is traditionally associated with state employment offices' programs. Despite the greater than ever interest in Russia and Romania to governmental programs in the context of the on-going public discussion on the role and size of the government, little is known, however, on the impact of state programs in the labor market, and about the effects of public re-training programs in particular.

The project is to provide a comparative analysis of re-training programs provided by PEOs in Russia and Romania from micro perspectives. In particular, we analyze the net impacts of the programs in Russia and Romania using a rigorous quasi-experimental evaluation technique.

The study is based on the follow-up surveys in the two countries run by the authors in February-March 2004. The samples of program participants and controlling group were selected on the basis of 2002 administrative data on PEOs clients from two Russian and one Romanian regions. Highly reputable Russian and Romanian private survey firms were contracted to collect survey data on program outcomes. The questionnaire included questions to retrieve information on the outcomes (employment status, stability of job, wages, etc.) experienced by program participants and the controlling group during a year following program participation, on current employment situation of the two groups, and on participants' assessment of the quality and usefulness of re-training program. Socio-demographic characteristics and pre-unemployment history are available from administrative data.

Propensity score approach is utilised to estimate treatment effects. Overall and group treatment effects (for various age groups, education categories, localities and pre-history types) of the programs are estimated.

Our analysis of re-training programs' impact reveals that the impact of re-training programs in the Russian regions is statistically not significant for all the four outcome measures. In contrast, the program impact in Romania is statistically significant and positive for the three out of the four outcomes. Furthermore, our subgroup analysis of program impacts reveals substantial variation across subgroups in both Russian regions and in Romania. The effectiveness of training program can be enhanced by using results of our analysis to target the services in the future

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1. Introduction

Sustainable economic growth requires an effective re-training system that would facilitate the match of labor supply to the changing due to rapid technological progress labor demand. Moreover, the expected increased openness of the Russian economy due to WTO accession is likely to affect labor demand as well and could have adverse effects on employment. The degree of effectiveness of public re-training programs under operation would largely determine the adjustment costs of trade liberalization as well as the flexibility of the economy with respect to technological changes. A part of re-training system is traditionally associated with state employment offices' programs.

Despite the greater than ever interest in Russia and Romania to governmental programs in the context of the on-going public discussion on the role and size of the government, little is known, however, on the impact of state programs in the labor market, and about the effects of public re-training programs in particular.

The effects of ALMPs are largely analyzed in developed countries and in the Central and Eastern European transition countries (Heckman, Ichimura and Todd (1997), Kluge, Lehmann and Schmidt (1999, 2002), Lechner (2000)). Little is known, however, about the effects of active labor market programs (ALMPs) on the unemployed in Russia with Akhmedov et.al. (2003) and Nivorozhkina (2003) being the only examples. Benus and Rodrigues-Planas (2002) provide an example of a thorough study of ALMPs in Romania.

The project is to provide a comparative analysis of re-training programs provided by PEOs in Russia and Romania from micro perspectives. In particular, we analyze the net impacts of the programs in Russia and Romania using a rigorous quasi-experimental evaluation technique. The impact of the programs on employment prospects and on duration of unemployment spells in the two countries is in the focus of the study.

The study is based on the follow-up surveys in the two countries run by the authors in February-March 2004. The samples of program participants and controlling group were selected on the basis of 2002 administrative data on PEOs clients from two Russian and one Romanian regions. Highly reputable Russian and Romanian private survey firms were contracted to collect survey data on program outcomes. The questionnaire included questions to retrieve information on the outcomes (employment status, stability of job, wages, etc.) experienced by program participants and the controlling group during a year following program participation, on current employment situation of the two groups, and on participants' assessment of the quality and usefulness of re-training program.

Propensity score approach is utilized to estimate treatment effects. Overall and group treatment effects (for various age groups, education categories, localities and pre-history types) of the programs are estimated. The latter would allow defining the groups which benefit more from the program.

The paper is organized as follows. Unemployment benefits systems in Russia and Romania are briefly introduced in Section 2. Section 3 describes the data used, including the sample selection and questionnaire design. The methodology to identify a matched comparison group is defined in Section 4. Section 5 elaborates on profiles of participants and non-participants. Program outcomes are briefly discussed in Section 6. The main results – overall impact estimates for the two countries and subgroup impacts – are presented and discussed in Section 7. Section 8 concludes.

2. Unemployment benefit systems in Russia and Romania

2.1 Unemployment Benefit Provision in Russia

Russia's passive labor programs were adopted in 1991. Only individuals who are officially registered as unemployed with an employment centre can be eligible for unemployment benefits.² Unemployment benefit is conditional on the individual making genuine efforts to look for new employment and being available for work. Children under 16, retired individuals who receive normal retirement pension, and individuals, who did not register as job-seekers or refused to accept two suitable³ job offers within 10 days after registration, cannot be registered as unemployed.⁴ Registered unemployed are required to reregister at least twice a month. Benefits to individuals, who failed to reregister, or refused to take 2 suitable jobs, or were dismissed for infractions of work discipline, can be suspended for a period of up to 3 months. The benefits can be decreased by 25% if an individual did not show up for an interview with an employer within 3 days or if an individual failed to show up in the employment office for job posting.

For individuals, who worked for at least 26 weeks (out of 52) during the last 12 months before they became unemployed, benefits are equal to 75% of their average wage in the first three months of unemployment, 60% in the next four months, and 45% afterwards. However, the benefits cannot be lower than the minimum wage and cannot exceed the regional average wage.

The size of benefits paid to all other categories (i.e., those who worked for less than 26 weeks in the last 12 months before becoming unemployed, those who are seeking for a job for the first time and have no skills, or those unemployed for more than 1 year) is set at the level of the minimum wage.⁵

The size of benefits increases by ½ of the minimum wage for each dependent unable to work, but not by more than 1.2 minimal wages in total. If both parents are unemployed, each of them qualify for additional benefits for children.

Unemployment benefits cannot be provided to an unemployed person for more than 12 months in 18 consecutive calendar months.

A person registered as unemployed who has not found a job in 12 months, qualifies for social assistance as an unemployed if the average per capita income in his/her family does not exceed two minimum wages, and if he/she re-registers as unemployed as often as the rules require, and if he/she is immediately available for work. Social assistance can include monthly or one-off payments, subsidies for kindergartens, housing, utilities, transport, health care and catering. The amount of subsidies is regulated on the regional level according to regional standards.⁶

The monthly social assistance payment should not be higher than the minimum wage. The size of one-off cash payments is limited to 2 minimal wages. An unemployed person who ceases to be eligible for unemployment benefit because his/her unemployment spell has lasted too long, can receive social assistance payments for a period of up to 6 months. The dependents of an unemployed person can receive social assistance for a maximum of 12 months.

² There are several ways of being registered with the employment agency:

1. Initial registration, which is used to compute the number of people interested in getting a job, and does not require any document be submitted.
2. Registration as a job-searcher (the individual registered as a job searcher does not need to be unemployed).
3. Registration as an unemployed.

³ A temporary job is also considered as suitable.

⁴ A disabled individual can only be registered as unemployed if he/she has work certificate.

⁵ As usual, additional benefits are paid to individuals, who received radiation after Chernobyl or other catastrophes.

⁶ For example, there are regulations on the maximum size of the apartments to get housing subsidies, or minimal length of the commute to the employment center, and so on.

Unemployment benefits are administered by the formerly independent Federal Employment Service, which now reports to the Employment Policy Department of the Ministry of Labour⁷. The FES registers the unemployed, directs them to job vacancies offered by employers, pays unemployment benefits to the unemployed and arranges professional re-training. In addition, there is the Federal Migration Service (FMS), responsible for providing mortgages and housing construction for migrants within Russia.

2.2 Active Labor Programs in Russia

The list of active labor market programs (ALMPs) in Russia resembles the programs used in most countries, though the content of the programs could differ significantly⁸. In particular, the list of ALMPs comprises of the following programs:

- Assistance (mediation) in getting employment
- Occupational guidance
- Vocational training and/or retraining
- Public works
- Programs of social adaptation (“Job Seekers’ Club” and “Fresh Start”)
- Programs of subsidized employment and job quotas (including “Youth Practice” and quotas for disabled)
- Support of client entrepreneurial activities

The programs are to integrate unemployed and economically disadvantaged workers into the work force by facilitating job search, improving work habits and augmenting human capital, with concrete programs stressing one or other of the abovementioned components.

In particular, vocational training and/or re-training programs target at augmenting human capital of the unemployed. The courses are typically not long – not longer than a year, with majority being of 3 to 6 months duration. The occupations believed to be in demand in the local market are taught for. There is no formal selection procedure to the program. It is only stipulated that those close to the unemployment benefit expiry date have priority in being selected to the program. The training is paid for by the employment office, and a scholarship is paid during the period of training. At the same time once a unemployed person is enrolled to the program he/she is taken off the register of unemployed. Those without job after re-training may re-appear in the register provided they choose to do so.

Programs of social adaptation, that include “Job Seekers’ Club” and “Fresh Start”, aim at improving the skills of searching for a job, of applying for a job position, and at improving self-estimation and motivation for the job search. Both programs assume collective forms of “therapy” together with individual consultation and support. The programs are typically recommended for those who are unemployed for about six months. The standard duration of the programs are 36 hours (distributed within 3 weeks) for “Job Seekers’ Club” and 15 hours for “Fresh Start”.

Participation in public works is believed to support labor motivation of those long-term unemployed, and provide additional temporary earnings to the unemployed⁹. There is no special rule of assignment to the program except for the demand from the unemployed. Public works typically include construction and maintenance of public communication and infrastructure objects, agricultural and forestry works, communal services, etc. The program participation time varies across jobs.

⁷ This is up to the administrative reform of 2004.

⁸ The estimated expenditure on ALMP per one unemployed is about Rbs 1,000 per year (about \$30).

⁹ According to the regulations, an unemployed is paid both the unemployment benefit and the salary from the public works during the period of public works. At the same time, if the job under public work category is considered as the appropriate job, and is accepted by the unemployed, the unemployed is taken out of the register (and is considered employed).

Occupational guidance services comprise of four¹⁰ elements: informing, consultancy, testing and psychological support. Informing is to update on the current and prospective occupational structure of demand in the local labor market, on the major characteristics of specific occupation and on the terms of getting training or retraining for certain occupations. Consultancy assumes consulting on occupational choice, together with possibilities of training and/or re-training. Testing is to check a person's fitness to the chosen profession/occupation, and hence, her fit for a vacancy or training program. Psychological support is to develop adaptive skills of the unemployed and to improve self-esteem and motivation for job search. The program participation time typically does not exceed one week.

The knowledge of selection procedure is beneficial for program evaluation design. There is no uniform formal set of criteria or rules of selecting a client to this or that program, though one could observe initiatives of regional employment offices to formalize the procedure. In particular, the regions under consideration issued instructions on 'profiling' the unemployed in 2001 where they summarize local experience in identifying clients' employment potential and motivation for employment. The criteria used are mostly social-demographic, educational and/or skill-based, with the stress on pre-unemployment period status in the labor market.

2.3 Passive Labor Programs and Eligibility Rules in Romania

Romania's passive labor programs were adopted in 1991. In Romania, unemployed individuals are eligible for financial support through *unemployment benefits*, *allowance for vocational integration* and *support allowance*. To be eligible, an individual must be:

- registered at the local Employment Office,
- aged 18 and over,
- income less than 50% of indexed minimum wage,
- unemployed due to liquidation or a lay-off,
- employed at least 6 months during the last 12 months, or
- recent graduate from school or university unable to find suitable employment.

Registered unemployment rate decreased from 11.5% in 2000 to 8.3% in 2003. The ILO-defined unemployment rate is lower and was 7% in 2003. The almost 20% difference between the registered unemployment and the unemployment according to the LFS points to possible difficulties in controlling for benefit eligibility.

Before 2002, unemployment benefits were paid for a maximum duration of 9 months, with the level ranging from 50% to 60% of the average monthly salary during the last three months of employment.¹¹ After exhausting unemployment benefits, those who remain unemployed received a support allowance (60% of the indexed minimum wage) for a maximum period of 18 months.

Unemployment benefits are administrated and paid by the National Agency for Employment (NAE) from the Unemployment Insurance Fund. The only resources of the Fund are the contributions to the unemployment insurance¹².

After the reform of 2002 the unemployed registered at local Employment Office are entitled to unemployment benefits if they have contributed to the unemployment insurance for at least 12 months during the last 24 months prior to their registration. Eligibility for unemployment benefit is conditioned by a monthly visit to the PEO and participation in training or other employment stimulation measures offered by the PEO. The unemployment benefit is paid for 6, 9 or 12 months, depending on the person's previous insurance records (up to 5 years, between 5 and 10 years, 10 years and over). One year of contributions is the minimum requested. Recipients finding a job before the end of their entitlement period continue to receive 30% of their benefit

¹⁰ In some regions participation in the components of occupational guidance is traced out, whereas in other only aggregate information is collected.

¹¹ 50% of average earnings over the last 3 months for those employed less than 5 years; 55% for those with a work history of 5-15 years; and 60% for those who worked more than 15 years.

¹² Subsidises from the State budget are legally possible in case of budget deficit but were never used.

amount for the time remaining until the end of the period. The monthly unemployment benefit is a flat amount fixed at 75% of the gross national minimum wage (or 1,312,500 ROL, which is about 23% of net average wage earnings at present) and is tax-free.

Unemployment benefits can also be granted to jobless young graduates and young people returning from military service meeting specific conditions¹³. In this case, the unemployment benefit ("integration allowance") is also a flat amount of 50% of the gross national minimum wage and is paid during 6 months maximum.

Severance benefits are paid by the PEO through the Unemployment Fund to workers laid-off from state-owned enterprises under restructuring and/or privatisation.

Welfare includes a financial support paid by the municipalities and is based on the minimum guaranteed income (MGI) differentiated in accord with the family type. At present, there are 5 levels of MGI. The financial support is a monthly cash payment granted to the family and calculated as the difference between the family's actual income and the relevant MGI. The beneficiaries of the minimum guaranteed income without job must be registered at the employment agency and are obliged to work 72 hours a month in community work programmes. The financial support from social assistance represents 16% of the net average wage earnings for a single person, 30% for a family with 2 children with one earner.

The coverage of registered unemployed with unemployment benefits remains high - 77% - even though it is lower than at the end of the 1990s. There is no clear information on the coverage of unemployed by income support from social assistance. It is likely that for a substantial share of the unemployed who are not or no longer entitled to unemployment benefit, in particular long-term unemployed, social assistance is the only income support available.

2.4 Active Labor Programs in Romania

County level Agencies for Employment and Vocational Training design and implement Active Labor Measures for displaced workers. These services are not provided by the county agencies themselves, but are contracted out to public or private service providers. The county agencies are responsible for the public announcements of the tenders, for conducting the tendering process and for contracting out the Labor Adjustment Services.

Four types of services are offered:

1. *Employment and Relocation Services* – Clients eligible for this service are offered a variety of employment and relocation services, including job and social counseling, labor market information, job search assistance, job placement services, and relocation assistance. Those clients receiving relocation assistance could be reimbursed for expenses associated with moving to another community (up to US\$500 equivalent in lei). In addition, the program offer up to two months of salary at the minimum wage.
2. *Training and Retraining Services* – Eligible clients for this service could receive up to nine months of training as well as a small subsistence stipend¹⁴. The cost of training is limited to US\$560 per unit. Another requirement of this service is that local service providers must agree to achieve a minimum negotiated job placement rate and to show evidence of demand for trained workers. Starting from 2001, 80% of course are organised only if jobs for the young graduates are ensured, usually at the economic agents' request. The rest of 20% are organised for labour market support. After 2002, the training courses became open to other unemployed, not eligible for the public unemployment insurance system, and also to any other employed person, by request and under different conditions of payment. If a beneficiary of the unemployment benefit refuses to attend the recommended training

¹³Young graduates eligible for unemployment benefits include those aged 18 and over who are without a job within 60 days from graduation and graduates of special schools for disabled people or educational institutions. Young people having been jobless before their military service and remaining without a job within 30 days from its completion are also eligible.

¹⁴The subsistence stipend was at the minimum wage level and for a period equal to the difference between the months of unemployment benefits and months of training.

course, the agency stops paying his benefit.

3. *Public Service Employment* – Local governments and other eligible organizations could propose public works projects with a maximum cost of US\$50,000. These public works projects cover the cost of supervisory personnel and up to 6 months of program participants' stipends (stipend is set at a maximum of the average wage level of the type of activity provided).
4. *Small Business Consulting and Assistance Programs* – Displaced workers who start or operate a small business are eligible to receive legal, marketing, sales, financial services and consulting services. There are also provisions for short-term working capital loans of up to US\$25,000 to program participants.

3. Data

Our study is based on the follow-up surveys in Russia and Romania run in February-March 2004. The sample was selected on the basis of administrative data for public employment service clients in 2002 from the two Russian¹⁵ and one Romanian region. Highly reputable Russian and Romanian private survey firms¹⁶ were contracted to collect survey data on program outcomes.

3.1 Sites' selection

An analysis of the economies of the two Russian regions we had administrative data for indicates that they could be thought of as being representatives for at least some other Russian regions.

The first region is in the Central Federal District with comparatively low per capita GRP but with a high rate of GRP growth, a high share of the work force engaged in agriculture and simultaneously a high share of people employed in industry (machine-building and metal working, food industry); with diversified-industry cities. The region inherited major structural disproportions by accommodating a lot of manufacturing and defense-oriented enterprises. The level of total and registered unemployment in the region is slightly above the national average. Unemployment structure reveals a comparatively high share of people with higher education, on the one hand, and secondary general education on the other. The region has a comparatively high indicator of involvement of unemployed people in ALMPs.

The second region is in the Urals Federal District with a nation- average level of per capita income (GRP per capita) and growing rate of development, with a very high share of industry (steel-making mostly) and with diversified-industry cities. The level of total and registered unemployment is nation-average. Unemployment structure reveals a comparatively high share of people with secondary vocational education. The region has a high share of involvement of unemployed people in ALMPs and is known for well-developed programs to promote entrepreneurship, to help disabled and retired servicemen.

In Romania the judet (region) was chosen randomly from those localities where the NALFE has its own vocational training centers since the background administrative data is much better in the localities.

3.2 Selection of participants and potential comparison group

The sample was selected on the basis of administrative data for public employment service clients in the three regions in 2002. Only those in who entered the register not earlier than January 2001 and got off the register not later than December 2002 were considered for the sample in both countries. Only those with the status of unemployed were considered.

The procedure for sample selection was similar but not identical in the two countries. In Russian case in each of the regions the samples were chosen randomly from administrative data so that to meet the following targets (Diagram 1 in the Appendix): 20% those who got a job within the first 10 days, 20% - those, who did

¹⁵ One region in Central Russia and one region in the Urals.

¹⁶ We believe that, first, the quality of the data will be higher if the surveys are implemented by trained interviewers; second, respondents may be intimidated by interviewers from the local labor office (at the very least, answers to survey questions are likely to be affected); and finally, the credibility of the study will be enhanced if an outside independent agency, rather than the employment service, collects the follow-up survey data.

not find a job within the first 10 days and is reported to participate in re-training program, 10% - those, who did not find a job within the first 10 days and is reported to participate in public works program, 10% - those, who did not find a job within the first 10 days and is reported to participate in adaptation programs, and the rest 40% - those, who did not find a job within the first 10 days and is reported not to participate in any program (except for initial consultancy)¹⁷.

Total targeted samples were 1,200 in region 1 and 1,000 in region 2. The actual samples are 1227 in region 1 and 966 in region 2 implying 71% and 69% response rates respectively. The reasons for non-response are presented in Table 1 in the Appendix.

The targeted samples for Romania were 500 for participants and 700 for non-participants. Given the low number of participants in re-training and taking into account the expected non-response rate, all program participants from the administrative database were selected to the sample. The number of completed interviews with participants is 253 which is the size of the relevant sample.

The non-participants' sample was selected in the following manner: to enhance the comparability of the participant and non-participant samples, 50% of the non-participants were chosen so that to match participants on gender, age and education, with the rest 50% being selected randomly from the list of non-participants. The initial sample of non-participants comprised of 700 people, while the actual size is 349, implying the response rate of about 50%. The reasons for non-responses are presented in Table 1 in the Appendix.

3.3 Questionnaire

The questionnaire included questions to retrieve information on the outcomes (employment status, stability of job, wages, etc.) experienced by program participants and the controlling group during a year following program participation (2003 in our case), on current employment situation of the two groups, and on participants' assessment of the quality and usefulness of re-training program. The pre-unemployment historical labor market information, as well as the background information on personal characteristics was collected.

To rigorously choose a comparison group for re-training program participants one would need to have a clear idea of the selection procedures. There is not much on formal selection procedures to the program in the two countries. It is stipulated in the legislation of the countries that registered unemployed have a priority to access programs. At the same time there are some informal rules that are said to influence the selection procedure. In particular, employment officers in both countries in an attempt to increase the ratio of those employed after the program are said to set additional conditions for program participation. In Russia to be selected for re-training program an unemployed is to provide written guarantees of his or her employment after the program completion - a letter from future employer. In Romania the majority of training courses are organised on demand from employers and under commitment to employ the trained persons after the graduation. In some cases employers may participate in candidate selection. At the same time the evidence on selection rules are not clear. That is why a series of questions aiming at documentation of the content of the programs and the selection to program procedures was included in the questionnaire.

¹⁷ The structure imposed on the sample, and the inclusion of the group of "quick-leavers" in particular, is explained by the necessity to provide a whole range of potential comparison groups for program participants in the situation when no information on selection to program rules, and on the obligation to provide guarantee letters, was available. The analysis of the data for the rest of the groups is presented in the paper "Impact Evaluation Study of Social Adaptation and Public Works Programs in Russia" by Denisova and Kartseva (2004).

4. Methodology: Identifying a Matched Comparison Group

We analyze the net impacts of re-training programs in Russia and Romania using a quasi-experimental evaluation technique. The central issue in using non-experimental methods for evaluating program impacts is how to identify a comparison group of those who did not participate in the program that is as similar to the program participants as possible. The experiences of the comparison group are then used as a measure of what would have happened to participants in the absence of the program.

We define the following four outcomes on which we compare participants and the comparison group so that to identify the impact of program participation:

- (1) Likelihood of being employed at the time of the survey;
- (2) Likelihood of being employed at least once since getting off the register;
- (3) Likelihood of high salary;
- (4) Length of current unemployment spell.

A comparison group to match the participant group was constructed using the propensity score method pioneered by Donald Rubin (Rubin, 1973) and got popular in recent labor economics literature (Dehejia and Wahaba, 1998, 1999; Olsen and Decker, 2001).

Propensity score is defined as the conditional probability of being assigned to a particular program – to re-training in our case. The probability is conditional on a set of pre-intervention covariates that predict such assignment. To obtain an individual's propensity score, a logistic probability model to predict the likelihood that individuals would be selected to participate in re-training was estimated.

In addition to the standard candidates for determination of the probability of being selected to the program, it was necessary to check for the influence of the often referred to letter of guarantee from the employer as a condition to participate in re-training. We asked the Russian clients¹⁸ of PEO whether there were any conditions for participation in re-training program. Moreover, we asked directly whether they had to bring a letter of guarantee from an employer to be eligible for program participation. The responds to the latter question are summarized in Table 6 (by fields of training). As the Table indicates the condition was not binding for the majority of people: only from three to ten per cent of respondents report that they were asked to bring the letter. This implies that a standard procedure to the matching could be applied here.

Given that the guarantee letter was not binding in most cases, the following covariates were included in these logistic models (separate for each of the three regions): gender; age indicators; education indicators; pre-unemployment period status; health conditions; location (rural vs. urban)¹⁹. The matching covariates are summarized in Table 4 in the Appendix.

Using the coefficients from logit model, we then estimate (for each individual) the predicted probability (i.e., propensity score) of being a participant. The propensity score, thus, summarizes all the characteristics that contribute to the likelihood of being selected into the program.

The next step in the propensity score method is to match participants and non-participants based on their propensity scores. To do the matching, a caliper range that specifies how close predicted probabilities of

¹⁸ Unfortunately, the relevant questions on additional conditions for program participation are missing in the Romanian questionnaire.

¹⁹ The individual characteristics that cannot easily be measured, like motivation, could potentially create a bias in impact estimation which may arise from the choices of individuals who apply for the program (e.g., the highly motivated), or through screening operations of program operators (e.g., "creaming" of the most qualified candidates). Leaving out such unmeasured characteristics will not affect the impact estimates if these characteristics are, on average, the same for program participants and comparison group members. If, on the other hand, the unmeasured characteristics differ on average between the two groups and the unmeasured characteristics affect labor market outcomes, the impact estimates will be biased.

participants and non-participants must be for a match is defined. As a result of using a caliper range each participant is matched to all non-participants within the specified caliper range of the participants' propensity score. A caliper that insured that all participants would be matched to at least one comparison member is selected. The smallest range that successfully matches a fixed proportion of participants turns to be 90%. In case of multiple matches, each non-participant receives a weight that reflects the number of successful matches within the caliper range. All matching is done with replacement so that a non-participant may be matched several times.

5. Sample Profiles

5.1 Profile of Participants and Non-Participants

Tables 2 and 3 in the Appendix present the demographic characteristics, including the pre-unemployment labor market history, of programs participants and the comparison groups for the two Russian regions and the Romanian region. As is seen from Table 2, the majority of participants are females: 75% in Russian region 1, 86% in Russian region 2, and 71% in Romania. Also, more than 80% of re-training participants live in the city²⁰. The age structure varies across regions, with Romanian sample being the youngest: more than 50% of program participants are under 30 years old in Romania, as compared with 30% and 42% in Russian regions 1 and 2 respectively; moreover, the share of people older than 45 years is less than 2% in the Romanian sample, while the same category is about 25% in the Russian region 1 and 15% in the Russian region 2. Educational structure of program participants is very similar in the two Russian regions and is in contrast with the one in Romania. The Romanian sample of program participants is less educated: the share of those with general secondary education is less than 10% in Russia, and is almost twice as large in Romania; the share of program participants with primary professional and secondary professional degrees are at the level of 20 and 25% respectively in Russia, while they are 35% and 40% respectively in Romania; the share of people with university degree is almost 45% in Russian regions and only about 5% in the Romanian sample. Overall, the Russian sample of participants is older and better educated as compared to the Romanian sample. The share of disabled program participants varies between 10% in the first Russian region and 4% in the second Russian region, and is less than 1% in the Romanian sample.

Looking at the pre-unemployment history of program participants, one may notice that the majority of the Russian sample of participants – more than 60% - comprise of those with work experience, while 35% of program participants in Romania never worked before, i.e. recent graduates mostly.

The same tables provide information on the structure of non-participants' for the three regions. Given the difference in the sample design between Romania and Russia described above it is not surprising that the demographic structure of non-participants' in Romania is closer to the sample of participants than the Russian one.

In Russia the samples of participants and non-participants have some distinctions: the participant group appears to be slightly younger than the non-participants with a smaller proportion in the 45 and older category and larger proportion on below 30 category; in terms of gender, the participant group has a larger proportion of females (75% versus 58% in region 1 and 86% versus 72% in region 2) than the non-participant group. In terms of education, the two groups are very similar with a slight overrepresentation of university degree holders among participants (45% versus 30% in region 1 and 44% versus 38% in region 2) as compared to non-participants at the expense of under-representation of those with general secondary education.

In Table 2 the pre-unemployment history of the two groups (prior to the registration period). The comparison indicates a significant variation across regions in this respect. For instance, the pre-history of participants and non-participants is very close in the second Russian region, while those long-term not employed or those who never worked are overrepresented among program participants in the first Russian region. It is also evident from the Table that those made redundant are underrepresented among program participants in Romania.

²⁰ The second Russian region consists of the urban area only.

Thus, we conclude that the participant and non-participant groups are quite similar on some dimensions; on other dimensions, the two groups differ significantly. To improve the accuracy of the impact evaluations, it is necessary to select an appropriately matched comparison sample. It is also necessary to statistically control for any remaining differences between the participant and matched comparison groups using regression analysis.

5.3 Fields of training

We asked program participants on the field of training, the duration of training, and on their occupation prior to the program and after the program. The results are reported in Tables 6-9. It comes from Table 6 that PC operator, accounting and PC accounting and worker and service specialties are the most popular re-training fields in the Russian regions. Studying to become a secretary or a manager are the next popular fields. The length of the training period varies from a month to half a year. It is noticeable that the average duration of the programs is higher in the first region as compared to the second region.

The fields taught for during training courses in Romania differ from those in Russia. The share of those studying for worker professions are much higher in Romania²¹.

Table 7 reports before-program and program fields. It turns out that the majority of program participants in Russia studying for accounting and worker and services' specialties are those upgrading their skills: they tended to work in the field before entering the program. At the same time a significant re-training is going on with the change of the field of training. The degree of re-training in Romania is much less, though there is a significant re-training of former workers in metallurgy and metallic construction.

Table 8 presents the pre-unemployment history of those who participated in the program by fields of education. It comes from the table that those studying for a secretary are mainly those who never worked before (i.e., school graduates mainly). The participants of the rest of the specialties comprise more evenly of all the four groups of trainees.

The post-program employment fields are compared with the fields of education in Table 9. It turns out that the majority of those trained in accounting, secretary and worker and service specialties in Russia continue working in the field of re-training. This is not true for PC operator which could be a result of a general character of the training in PC skills. The share of training program participants working in the domain of the profession taught for during the program is significantly lower in Romania: it is only among light industry manufacturers that more than a half program participants continue working in the area. At the same time there a significant re-allocation in terms of the fields trained for and field of employment observed in both countries. A significant share of those trained are not employed, with no significant variation across fields of education.

5.4 Profile of Matched Comparison Samples

In this section we examine the profiles of the matched samples that resulted from applying the propensity scoring method described earlier. Using this method each training program participant is matched with all non-participants whose predicted probability of being assigned to the program is sufficiently close as specified by a caliper range. When there are multiple matches for a particular participant, the matched non-participants are weighted to reflect the number of matches. The number of matches for a participant was in the range from 9 to 12. As aforementioned, the matching covariates are presented in Table 4.

Table 2 and 3 present demographic characteristics and pre-unemployment history of re-training participants as well as the characteristics and history of non-participants and the comparison group (matched non-participants). The results indicate that the propensity matching technique generated a comparison sample that closely matches the participant sample. For instance, gender structure of the comparison group after applying

²¹ It could be that potential employers participate not only in selection to programs but also define the content of re-training programs in Romania, while there is no such an influence in Russia.

the matching process is much closer to the gender structure of participants: 25%, 14% and 29% of the participant sample in both Russian regions and Romania respectively is male; among the non-participants, 43%, 28% and 38% are male, while in the comparison sample we generated the share of males is 28%, 9% and 29% respectively which is much closer to the gender structure of participants' group. Similarly, education structure in both Russian regions and Romania, and age structure in the second Russian region are improved by applying the matching technique. The share of disabled in comparison group is closer to the one in the group of participants as compared to the relevant share in non-participants group. This is true for all the three regions. The pre-unemployment experience structure of the comparison group is not better than the one of non-participants' group, however.

Overall, the propensity scoring method generated a comparison sample that closely resembles the participant group on demographic and other characteristics.

6. Program Outcomes

Before analyzing program impacts in this section we describe selected program outcomes. First, we describe the re-training programs and the participants' assessment of their quality and usefulness. We also present a discussion of the outcomes experienced by participants and non-participants during 2002-2003 (a year after getting off the register) and at the time of the survey (February-March 2004).

6.1 Subjective Evaluation

Program participants were asked a number of questions to reveal their subjective evaluation of the program. The perception of the program quality is uniformly good across the three regions. As seen from Diagram 3 in the Appendix the vast majority of those who participated in re-training the program was "good." A relatively smaller group thought that the program was "excellent" and an even smaller group thought that the program was "poor". It is noticeable that the perception of the quality of the program is higher in Russian regions than in Romania.

In line to the uniformly good appraisal of the program quality, the participants feel that the skills acquired during the training program generally helped them to find a job. As seen from Diagram 2 in the Appendix, a majority of participants in re-training report that the acquired skills helped them in finding a job. Again, the subjective evaluation of the program by Russian participants is higher than that of Romanian.

6.2 Outcomes during 2002-2003 and current situation

In the survey we asked about participants' employment experience during the period following the moment of getting off the register in PEO (i.e., in 2002-2003) and about their current employment situation. Table 5 in the Appendix summarizes the information. It follows from the Table that 69%, 72% and 74% of program participants in the two Russian regions and Romania respectively were employed at the time of the survey. The corresponding proportion of employed at the time of the survey among non-participants is slightly lower in the Russian regions (65% and 70%) and is significantly lower (60%) in Romania. Even a higher portion of program participants and non-participants – more than 80% - report to have at least one job during the period following getting off the register. The length of current employment spell is on average about 13 months for program participants and more than 15 months for non-participants. The average length of unemployment spell is about 16 months for the Russian program participants and 15 months for the Romanian participants. The corresponding length of current unemployment spell for non-participants is higher for the Russian regions - more than 18 months for the first Russian region and 16 months for the second Russian region – and is lower for the Romanian non-participants – 9 months. The distribution of wages for those employed is similar for participants and non-participants in the Russian regions.

7. Program Impacts

Matched comparison groups for re-training program participants in each of the three regions is then used to measure the program impacts as the difference between participant group outcomes and comparison group outcomes. The estimated impacts are reported in Table 10 in the Appendix.

For any given outcome, one measure of the program impact is provided by a simple difference in participant and comparison group means. We refer to this simple difference in outcome means as the unadjusted program impact. In Table 10 we present the simple difference in means in the column labeled ‘Difference’.

A more precise impact estimate can be obtained through multivariate analysis using covariates to explain some of the variation in outcomes across the sample. By including a variable that captures participant status (i.e., $P=1$ if the labor office registrant is in the participant group and $P=0$ if the registrant is in the comparison group) we obtain an estimate of the average impact of the program on the outcome. In addition to the dummy variable for participant status, the regression equations include variables reflecting gender, age, education, pre-unemployment labor market status, health conditions and place of living. We refer to impact estimates obtained from such multivariate regression techniques as regression adjusted program impact. The regression-adjusted impacts are presented in the Table’s last column labeled ‘Impact’.

In both the unadjusted and adjusted program impact estimates, a standard t-test can be calculated to determine whether the estimated impact is significantly different from zero. The relevant significance is indicated in the Table. Only estimates that are significantly different from zero at the 10% level or better are treated as evidence of a real effect of the program.

Using ordinary least squares regression technique we analyzed the following four outcomes:

- Likelihood of being employed at the time of the survey;
- Likelihood of being employed at least once since getting off the register;
- Likelihood of high salary;
- Length of current unemployment spell.

7.1 Overall Impact Results

The results of the overall unadjusted and adjusted program impacts are presented in Table 10. It is clear from the Table that the impact of re-training programs in the Russian regions is statistically not significant for all the four outcome measures. In contrast, the program impact in Romania is statistically significant and positive for the three out of the four outcomes. In particular, the likelihood of being employed at time of the survey is almost 14 percentage points higher for program participants, controlling for other effects. In terms of the likelihood of being employed at least once after getting off the register, the impact of the program is almost a 9 percentage point increase in the indicator. The influence of re-training on current wage is less significant and sizable, but is still positive. The impact of the program on the length of current unemployment is statistically not significant for Romania as well.

Such a significant difference in the impact of re-training between Russia and Romania could be attributed to a number of factors. In principle, three sources of the difference could come into play. First, it could be that programs are different in terms of demand for the graduates from the local labor market: it could be that the graduates of the program in Romania are in higher demand than in Russia. In this case one would expect that the graduates in Romania are more likely to work in the field of training as compared to the Russian course graduates. As Table 9 shows, however, this is not the case. Second, it could be that the pool of unemployed from which program participants are selected is on average worse – from the labor market perspective - in Russia than in Romania. This seems plausible since not everybody unemployed gets registered in Russia, while the ratio of registered unemployment to general unemployment is more than 1 in Romania. At the same time this explanation would not work alone and the difference in selection procedures is needed. It could be the case that the result is driven by the ‘creaming’ of better motivated people and more qualified candidates.

The indirect support for the explanation comes from the involvement of employers in selection to re-training program in Romania.

7.2 Subgroup Impacts

In this section, we examine whether these overall results are consistent for all population subgroups or whether they vary by the participants' characteristics. Specifically, we examine whether program impacts vary by gender, age, education, health conditions and place of living²². The results for all the four outcomes are presented in Table 11.

The Table shows that subgroup impacts vary substantially by subgroups in both Russian regions and in Romania.

The re-training program in Russia had no impact significant overall effect. At the same time we find statistically significant subgroup effects in both Russian regions. In particular, training shows to improve current employment status and wage prospects of those older 45 and to worsen the likelihood of being employed and of the higher salary of those below 30 in the first Russian region. The age differentiated subgroup effect is less pronounced in the second Russian region: there is only a slight positive impact of the program on those older than 45.

The program is rather beneficial for those with general secondary education in the first region, though there is practically no difference in program impact across educational categories in the second region. At the same time there is a pronounced positive effect of program participation for disabled in the second Russian region in terms of three out of four outcomes. There is no such an effect in the first Russian region. Moreover, there is a significant negative effect of program participation on the likelihood of being employed at least once for the disabled in the first region.

Surprisingly, there is no significant gender variation in program impact in Russia. In contrast, a strong gender variation is observed for Romania: re-training has no impact on males but is very beneficial for females in terms of the probability of employment. At the same time there is a significant negative program impact on females in terms of current wage. Hence, re-training helps to find and to maintain a job but with lower wage. With respect to the age profile, the program is beneficial for middle-age candidates. The impact on younger participants – below 30 – is mixed: it is only weakly significantly positive in terms of the probability to have a job, but is weakly negatively significant in terms of wages and duration of unemployment spells. The program is beneficial for lower educational groups and is at most insignificant or even detrimental for the holders of university degrees. Rural program participants show to gain from re-training.

It comes from the Table that for many subgroups in Romania the positive impact of the program in terms of employment probability is counteracted by the negative impact in terms of lower wages and longer unemployment spells. It is likely that either the program participant takes the offers from employers involved in selection to program, and, hence, ends up with lower wages, or faces the chance of longer unemployment period in case he/she rejects the offer.

8. Conclusions

The paper presents a comparative analysis of re-training programs provided by PEOs in Russia and Romania from micro perspectives. In particular, we analyze the net impacts of the programs in Russia and Romania using a rigorous quasi-experimental evaluation technique.

The study is based on the follow-up surveys in the two countries run by the authors in February-March 2004. The samples of program participants and controlling group were selected on the basis of 2002 administrative

²² To test for differential subgroup program impacts, we added interaction terms to the basic multivariate regression model described earlier (e.g., participation status interacted with subgroup designation). The estimated coefficient on the interaction term represent the subgroup impact.

data on PEOs clients from two Russian and one Romanian regions. Highly reputable Russian and Romanian private survey firms were contracted to collect survey data on program outcomes. The questionnaire included questions to retrieve information on the outcomes (employment status, stability of job, wages, etc.) experienced by program participants and the controlling group during a year following program participation, on current employment situation of the two groups, and on participants' assessment of the quality and usefulness of re-training program. Socio-demographic characteristics and pre-unemployment history is available from administrative data.

Propensity score approach is utilized to estimate treatment effects. Overall and group treatment effects (for various age groups, education categories, localities and pre-history types) of the programs are estimated.

Our analysis of re-training programs' impact reveals that the impact of re-training programs in the Russian regions is statistically not significant for all the four outcome measures. To put it differently, there is no positive overall effect found for the programs, which is in contradiction with the perception of the employment officers that this particular program is '100% efficient'. There is no overall negative effect as well, which is against the view of some experts that all the public programs in the area are harmful.

In contrast, the program impact in Romania is statistically significant and positive for the three out of the four outcomes.

Such a significant difference in the impact of re-training between Russia and Romania could be attributed to a number of factors. In principle, three sources of the difference could come into play. First, it could be that programs are different in terms of demand for the graduates from the local labor market: it could be that the graduates of the program in Romania are in higher demand than in Russia. In this case one would expect that the graduates in Romania are more likely to work in the field of training as compared to the Russian course graduates. As Table 9 shows, however, this is not the case. Second, it could be that the pool of unemployed from which program participants are selected is on average worse – from the labor market perspective - in Russia than in Romania. This seems plausible since not everybody unemployed gets registered in Russia, while the ratio of registered unemployment to general unemployment is more than 1 in Romania. At the same time this explanation would not work alone and the difference in selection procedures is needed. It could be the case that the result is driven by the 'creaming' of better motivated people and more qualified candidates. The indirect support for the explanation comes from the involvement of employers in selection to re-training program in Romania.

Furthermore, our subgroup analysis of program impacts reveals substantial variation across subgroups in both Russian regions and in Romania. The re-training program in Russia had no impact significant overall effect. At the same time we find statistically significant subgroup effects in both Russian regions. In particular, training shows to improve current employment status and wage prospects of those older 45 and to worsen the likelihood of being employed and of the higher salary of those below 30 in the first Russian region. The age differentiated subgroup effect is less pronounced in the second Russian region: there is only a slight positive impact of the program on those older than 45.

There is a pronounced positive effect of program participation for disabled in the second Russian region in terms of three out of four outcomes. There is no such an effect in the first Russian region.

Surprisingly, there is no significant gender variation in program impact in Russia. In contrast, a strong gender variation is observed for Romania: re-training has no impact on males but is very beneficial for females in terms of the probability of employment. At the same time there is a significant negative program impact on females in terms of current wage. With respect to the age profile, the program is beneficial for middle-age candidates. The program is beneficial for lower educational groups and is at most insignificant or even detrimental for the holders of university degrees. Rural program participants show to gain from re-training.

The effectiveness of training program can be enhanced by using results of our analysis to target the services in the future.

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APPENDIX 1. TABLES AND DIAGRAMMS

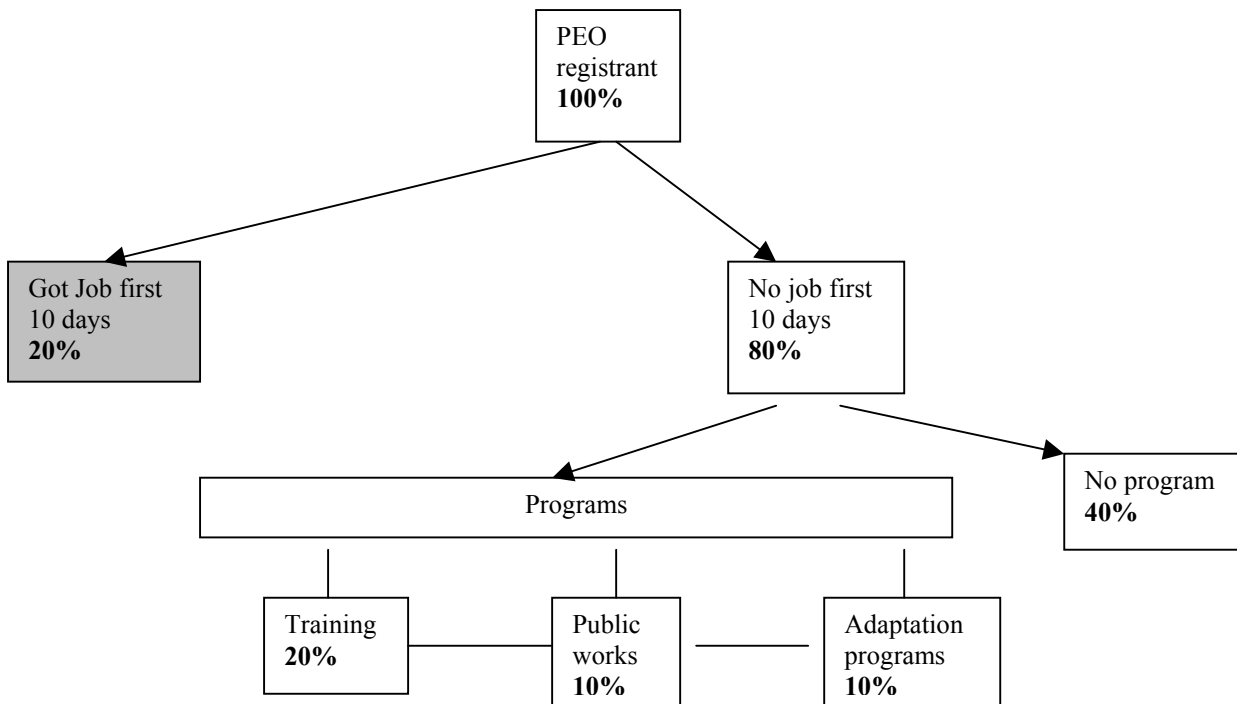


DIAGRAM 1. SAMPLE SELECTION IN RUSSIA

TABLE 1. RESPONSE RATES

RUSSIA		
	REGION 1	REGION 2
Overall response rate	71%	69%
Reasons of replacement in the sample:		
Register drawbacks	16%	18%
Migration, death, imprisoned	7%	5%
Refusal	11%	15%
Not found at the address, can't get into the building	66%	62%
Completed interviews	1227	966
ROMANIA		
	Participants	Non-Participants
Overall response rate	50.6%	49.8%
Wrong Address	7.9%	8.4%
Moved Away	16.1%	10.7%
Respondent Abroad	10.6%	12.3 %
Not at Home	10.3%	12.5 %
Refused/Busy	2.1%	4.5 %
Other	2.4%	1.8%
COMPLETED INTERVIEWS	253	349

TABLE 2 . DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS AND NON-PARTICIPANTS AND COMPARISON GROUP

	TRAINING PARTICIPANTS	NON-PARTICIPANTS ²³	COMPARISON GROUP
RUSSIA, REGION 1			
AGE			
<30	29.7%	17.0%	15.7%
30<45	45.3%	44.4%	49.4%
>45	25.0%	38.6%	34.9%
AVERAGE AGE	34.4	38.7	38.1
GENDER			
Male	25.3%	42.6%	28.2%
Female	74.7%	57.4%	71.8%
EDUCATION			
General Secondary	9.8%	24.6%	11.5%
Primary Professional	21.6%	19.1%	19.5%
Secondary professional	23.7%	26.2%	28.8%
Higher Professional	44.9%	30.1%	40.2%
PLACE OF LIVING			
City	82.4%	77.4%	88.0%
HEALTH CONDITION			
Disabled	9.8%	12.6%	9.1%
NUMBER OF OBSERVATIONS	296	554	500
RUSSIA, REGION 2			
AGE			
<30	42.3%	37.1%	44.2%
30<45	42.7%	33.0%	45.7%
>45	14.8%	29.9%	10.2%
AVERAGE AGE	31.5	34.5	31.7
GENDER			
Male	13.7%	27.7%	8.4%
Female	86.3%	72.3%	91.6%
EDUCATION			
General Secondary	9.9%	14.6%	11.7%
Primary Professional	20.3%	20.9%	13.1%
Secondary professional	25.8%	26.3%	26.0%
Higher Professional	44.0%	38.2%	49.2%
HEALTH CONDITION			
Disabled	3.9%	6.1%	2.8%
NUMBER OF OBSERVATIONS	182	479	411
ROMANIA			
AGE			
<30	50.4%	51.9%	55.0%
30<45	48.0%	40.4%	44.6%
>45	1.6%	7.7%	0.4%
AVERAGE AGE	28.8	29.5	27.9
GENDER			
Male	28.9%	38.4%	28.8%
Female	71.2%	61.6%	71.3%
EDUCATION			
Gymnasium	19.0%	15.2%	9.4%
Professional/Vocational School	35.6%	41.8%	41.0%

²³ Do not participate in ANY program

High School	40.7%	34.7%	45.0%
University	4.7%	8.3%	4.6%
PLACE OF LIVING			
City	83.8%	90.3%	96.7%
HEALTH CONDITION			
Disabled	0.4%	1.4%	0.2%
NUMBER OF OBSERVATIONS	253	349	229

TABLE 3. EMPLOYMENT AND UNEMPLOYMENT EXPERIENCE OF PARTICIPANTS AND NON-PARTICIPANTS AND COMPARISON GROUP BEFORE ENTERING PEO

	TRAINING PARTICIPANTS	NON-PARTICIPANTS	COMPARISON GROUP
RUSSIA, REGION 1			
LONG-TERM UNEMPLOYED	24.0%	18.9%	16.3%
NEVER WORKED	13.3%	6.1%	6.8%
REDUNDANT	23.6%	24.7%	28.2%
QUITTED VOLUNTARY	39.1%	39.4%	38.3%
YEARS OF WORK EXPERIENCE ²⁴	13.9	19.0	17.1
NUMBER OF OBSERVATIONS	296	554	525
RUSSIA, REGION 2			
LONG-TERM UNEMPLOYED	12.6%	11.7	12.7
NEVER WORKED	21.4%	18.4	26.0
REDUNDANT	16.5%	20.7	7.5
QUITTED VOLUNTARY	45.6%	42.4	50.9
YEARS OF WORK EXPERIENCE ²⁵	12.6	15.9	13.9
NUMBER OF OBSERVATIONS	182	479	411
ROMANIA			
LONG-TERM UNEMPLOYED	11.4%	7.1%	5.4%
NEVER WORKED	34.5%	32.4%	33.8%
REDUNDANT	36.0%	51.9%	45.7%
QUITTED VOLUNTARY	5.1%	7.7%	2.1%
YEARS OF WORK EXPERIENCE ²⁶	13.1	14.3	12.4
NUMBER OF OBSERVATIONS	253	349	229

²⁴ Excluding those with no experience

²⁵ Excluding those with no experience

²⁶ Excluding those with no experience

TABLE 4. MATCHING COVARIATES

Covariates	Description
GENDER	
	Male
	Female
AGE	
	<30 years
	30<45
	over 45
EDUCATION	
	General Secondary
	Primary Professional
	Secondary professional
	Higher Professional
PLACE OF LIVING	
	Urban
	Rural
PRE-UNEMPLOYMENT HISTORY	
	Never worked
	Long-term not employed
	Redundant
	Quitted
HEALTH CONDITIONS	
	Disabled
	Not disabled

TABLE 5. SUMMARY OF EXPERIENCE AFTER GETTING OUT OFF REGISTER

	TRAINING PARTICIPANTS	NON-PARTICIPANTS
RUSSIA, REGION 1		
Employed at the Time of the Survey	68.6%	64.9%
Had at Least One Job	84.1%	83.9%
Length of Current Employment Spell, month	13.6	15.4
Length of Current Unemployment Spell, month	16.6	18.6
CURRENT WAGE		
<1 thousand	4.9%	5.9%
1-3 thousand	40.4%	42.5%
3-6 thousand	24.1%	28.2%
>6 thousand	5.4%	5.6%
Refused	25.1%	17.9%
RUSSIA, REGION 2		
Employed at the Time of the Survey	72.0%	69.3%
Had at Least One Job	89.0%	86.2%
Length of Current Employment Spell, month	12.8	15.5

Length of Current Unemployment Spell, month	15.4	15.7
CURRENT WAGE		
<1 thousand	3.3%	1.3%
1-3 thousand	30.2%	25.9%
3-6 thousand	24.7%	28.0%
>6 thousand	7.9%	5.9%
Refused	34.0%	39.0%
ROMANIA		
Employed at the Time of the Survey	73.9%	59.8%
Had at Least One Job	85.3%	73.8%
Length of Current Employment Spell, month		
Length of Current Unemployment Spell, month	14.9	9.2
Wage on current job, lei	3140580	3146888

TABLE 6. SOME CHARACTERISTICS OF TRAINING PROGRAM BY FIELD OF TRAINING

	PC OPERATOR	ACCOUNTING AND PC ACCOUNTING	SECRETARY	MANAGER	WORKER AND SERVICES SPECIALITIES
RUSSIA, REGION 1					
DID FIELD OF TRAINING COINCIDE WITH YOUR SPECIALITY BEFORE ENTERING FES?	8.3%	50.0%	7.1%	4.4%	22.5%
GUARANTEE LETTER	6.5%	6.5%	7.1%	4.4%	7.9%
LENGTH OF TRAINING	60	86	118	125	100
NUMBER OF OBSERVATIONS	108	62	14	23	89
<i>FIELD AS % OF TOTAL NUMBER OF PARTICIPANTS</i>	<i>36%</i>	<i>21%</i>	<i>5%</i>	<i>8%</i>	<i>30%</i>
RUSSIA, REGION 2					
DID FIELD OF TRAINING COINCIDE WITH YOUR SPECIALITY BEFORE ENTERING FES?	12.9%	67.3%	20.0%	22.5%	21.6%
GUARANTEE LETTER	3.2%	5.6%	10.0%	10.6%	11.1%
LENGTH OF TRAINING	32	51	49	78	88
NUMBER OF OBSERVATIONS	31	55	10	49	37
<i>FIELD AS % OF TOTAL NUMBER OF PARTICIPANTS</i>	<i>17%</i>	<i>30%</i>	<i>6%</i>	<i>27%</i>	<i>20%</i>

TABLE 7. SUMMARY OF BEFORE- PROGRAM EMPLOYMENT FIELDS²⁷

Training Field Previous Profession	PC operator	Accounting and PC accounting	Secretary	Manager	Worker and services specialities
RUSSIA, REGION 1					
PC operator	3.1%	3.3%	0	4.4%	2.4%
Accounting	10.4%	51.7%	7.7%	4.4%	4.8%
Secretary	0	0	0	0	0
Management	1.0%	3.3%	0	8.7%	0

²⁷ As percentage of those who are currently employed

Workers specialties	18.8%	6.7%	0	8.7%	52.4%
Trade	16.7%	1.7%	15.4%	13.0%	7.1%
Engineering	6.3%	8.3%	7.7%	30.4%	3.6%
Other specialties	13.5%	5.0%	23.1%	17.4%	10.7%
Refuses to answer	30.2%	20.0%	46.2%	13.0%	19.1%
RUSSIA, REGION 2					
PC operator	0	0	0	0	0
Accounting	0	51.9%	0	2.1%	0
Secretary	7.1%	3.7%	12.5%	6.4%	0
Management	7.1%	0	0	2.1%	0
Workers specialties	46.4%	13.0%	0	17.0%	71.4%
Trade	14.3%	7.4%	25.0%	12.8%	3.6%
Engineering	7.1%	0	12.5%	4.3%	0
Other specialties	7.1%	13.0%	25.0%	38.3%	0
Refuses to answer	10.7%	11.1%	25.0%	17.2%	25.0%

ROMANIA

Training Field \ Previous Profession	Services (Bakery, Cooking, Cosmetics)	Manufacturer -textile -footwear -leather goods	Workers in constructions & assimilated	Workers in metallurgy & metallic constructions	Other specialties
Services (Bakery, Cooking, Cosmetics)	0	100%	0	0	0
Manufacturer -textile -footwear -leather goods	15%	85%	0	0	0
Workers in constructions & assimilated	33.3%	0	66.7%	0	0
Workers in metallurgy & metallic constructions	3%	57.6%	15.2%	12.1%	12.1%
Unskilled Workers	6.5%	64.5%	19.4%	3.2%	6.5%
Other Specialties	12.8%	53.8%	6.4%	3.8%	23.1%

TABLE 8. PRE- UNEMPLOYMENT HISTORY OF TRAINING PARTICIPANTS BY FIELD OF TRAINING

	PC OPERATOR	ACCOUNTING AND PC ACCOUNTING	SECRETARY	MANAGER	WORKER AND SERVICES SPECIALITIES
RUSSIA, REGION 1					
REDUNDANT	16.7%	24.2%	28.6%	34.8%	21.4%
QUITTED VOLUNTARY	38.0%	35.5%	21.4%	21.7%	39.3%
LONG-TERM UNEMPLOYED	18.5%	29.0%	7.1%	34.8%	20.2%
NEVER WORKED	16.7%	6.5%	35.7%	8.7%	10.1%
NUMBER OF OBSERVATIONS	108	62	14	23	89
RUSSIA, REGION 2					
REDUNDANT	20.8%	25.0%	0%	13.5%	6.5%
QUITTED	45.8%	50.0%	28.6%	59.5%	29.0%

VOLUNTARY					
LONG-TERM UNEMPLOYED	16.7%	12.5%	28.6%	5.4%	16.1%
NEVER WORKED	12.5%	10.4%	42.9%	13.5%	48.4%
NUMBER OF OBSERVATIONS	31	55	10	49	37

TABLE 9. SUMMARY OF AFTER- PROGRAM EMPLOYMENT FIELDS²⁸

Training Field Current Profession	PC operator	Accounting and PC accounting	Secretary	Manager	Worker and services specialties
RUSSIA, REGION 1					
PC operator	22.7%	4.6%	0	0	0
Accounting	4.6%	63.6%	0	5.3%	3.2%
Secretary	0	0	54.6%	0	0
Management	15.2%	6.8%	9.1%	47.4%	0
Workers specialties	15.2%	2.3%	9.1%	10.5%	73.0%
Trade	10.6%	2.3%	18.2%	0	7.9%
Engineering	9.1%	4.6%	0	5.3%	0
Other specialties	13.6%	6.8%	0	15.8%	3.2%
Refuses to answer	9.1%	9.1%	9.1%	15.8%	12.7%
Currently did not work	38.9%	29.0%	21.4%	17.4%	29.2%
RUSSIA, REGION 2					
PC operator	4.4%	2.2%	0	0	0
Accounting	13.0%	55.6%	0	10.8%	4.8%
Secretary	0	2.2%	100%	18.9%	4.8%
Management	4.4%	0	0	16.2%	0
Workers specialties	52.2%	6.7%	0	10.8%	71.4%
Trade	13.0%	6.7%	0	2.7%	9.5%
Engineering	8.7%	2.2%	0	8.1%	4.8%
Other specialties	0	8.9%	0	21.6%	0
Refuses to answer	4.4%	15.6%	0	10.8%	4.8%
Currently did not work ²⁹	25.8%	18.2%	50.0%	22.5%	40.5%

ROMANIA

Training Field Current Profession	Services (Bakery, Cooking, Cosmetics)	Manufacturer -textile -footwear -leather goods	Workers in constructions & assimilated	Workers in metallurgy & metallic constructions	Unskilled workers	Other specialties	Refuses to answer
Services (Bakery, Cooking, Cosmetics)	35.4%	4.2%	0	2.1%	4.2%	14.6%	39.6%
Manufacturer -textile -footwear -leather goods	0	51.2%	0.8%	2.4%	14.6%	13.0%	17.9%
Workers in constructions & assimilated	0	2.8%	38.9%	2.8%	5.6%	13.9%	36.1%

²⁸ As percentage of those who are currently employed

²⁹ As percentage of those who participated in program

Workers in metallurgy& metallic constructions	0	0	0	33.3%	11.1%	22.2%	33.3%
Other Specialties	0	2.7%	0	2.7%	10.8%	56.8%	27%

TABLE 10. IMPACT ESTIMATES, TRAINING

	TRAINING	COMPARISON GROUP	DIFFERENCE	IMPACT
RUSSIA, REGION 1				
Likelihood of Being Employed at time of the Survey	68.6%	69.7%	-1.1%	-0.2%
Likelihood of Being Employed at in the Period After Registry	84.1%	85.5%	-1.4%	-0.6%
Likelihood of high salary (>6 th)	5.4%	4.8%	0.6%	0.6%
Length of Current Unemployment Spell, month	16.6	18.6	-1.8	-1.3
RUSSIA, REGION 2				
Likelihood of Being Employed at time of the Survey	72.0%	72.0%	0%	2.0%
Likelihood of Being Employed at in the Period After Registry	89.0%	87.3%	1.7%	3.0%
Likelihood of high salary (>6 th)	6.0%	3.7%	2.3%	1.8%
Length of Current Unemployment Spell, month	15.4	16.8	-1.4	-0.2
ROMANIA				
Likelihood of Being Employed at time of the Survey	73.9%	61.4%	12.5%	13.9%***
Likelihood of Being Employed at in the Period After Registry	85.3%	76.6%	8.7%	8.8%***
Wage on current job (log)	14.92	14.93	0.01	0.04**
Length of Current Unemployment Spell, month	9.4	9.6	-0.2	0.7

Note: *** - significant at 1% level; ** - significant at 5% level; * - significant at 10% level; ^ - significant at 15% level

TABLE 11. SUBGROUP IMPACT ESTIMATES, TRAINING

SUBGROUP	IMPACT			
	Likelihood of Being Employed at time of the Survey	Likelihood of Being Employed at in the Period After Registry	Likelihood of high salary (>6 th)	Length of Current Unemployment Spell, month
RUSSIA, REGION 1				
AGE				
<30	-10.3**	-1.7	-5.6***	-4.1
30<45	0.4	0.1	3.1**	-2.5
>45	11.1**	-0.7	3.1^	5.3
GENDER				
Male	1.9	-1.6	1.5	-5.1
Female	1.0	-0.3	0.4	-0.6
EDUCATION				
General Secondary	27.5***	13.4***	-0.1	-12.2*
Primary Professional	-7.1	0	3.1	1.5
Secondary professional	4.1	-1.5	-3.5*	0.4

Higher Professional	-5.4 [^]	-3.6	1.9	-2.3
HEALTH CONDITION				
Disabled	6.8	-17.7***	0	4.5
Not disabled	-1.0	1.2	0.7	-2.4
PLACE OF LIVING				
Urban	-1.6	-0.7	1.2	-3.1
Rural	6.5	-0.5	-2.2	4.6
RUSSIA, REGION 2				
AGE				
<30	-4.1	5.2	2.4	-0.3
30<45	6.4	-1.6	0.2	4.1
>45	5.5	9.2 [^]	4.9	-8.2 [^]
GENDER				
Male	-15.4*	0.9	3.8	-7.7 [^]
Female	4.5	3.1	1.5	2.0
EDUCATION				
General Secondary	-5.2	-3.8	-2.9	-8.9
Primary Professional	1.0	5.6	1.2	10.1***
Secondary professional	8.9	7.3 [^]	2.3	-2.4
Higher Professional	-0.4	2.6	2.9	-3.6
HEALTH CONDITION				
Disabled	29.2*	14.9	12.4*	-26.6***
Not disabled	0.8	2.4	1.4	1.0
ROMANIA				
AGE				
<30	7.2% [^]	7.1%*	-0.04 [^]	3.4***
30<45	20.0%***	9.9%***	-0.04	-2.3**
>45	26.6%	26.6%	-0.12	-8.9
GENDER				
Male	1.5%	1.3%	0.06	2.6**
Female	18.7%***	11.8%***	-0.04*	-0.3
EDUCATION				
General Secondary	23.0%**	19.7%***	-0.12*	5.0***
Primary Professional	13.0%**	10.0%***	-0.03	-0.1
Secondary professional	13.9%***	3.5%	-0.02	-1.7
Higher Professional	-22.4% [^]	1.3%	-0.11	8.4***
HEALTH CONDITION				
Disabled	-43.2%***	-16.6	--	--
Not disabled	13.6***	8.9%***	-0.04**	0.7
PLACE OF LIVING				
Urban	12.0***	4.6% [^]	-0.06***	-0.6
Rural	27.6***	39.6%***	0.18**	8.5***

Note: *** - significant at 1% level; ** - significant at 5% level; * - significant at 10% level; ^ - significant at 15% level

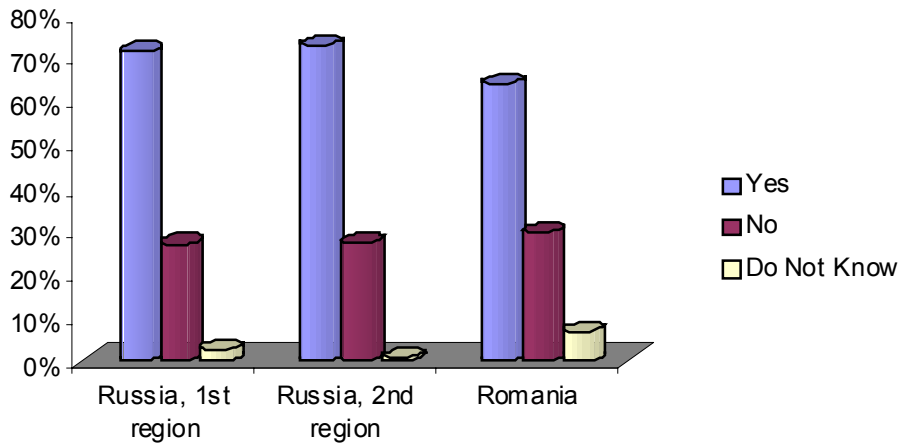


DIAGRAM 2. SUBJECTIVE EVALUATION OF RE-TRAINING PROGRAMS (DISTRIBUTION OF ANSWERS ON THE QUESTION “DID THE PROGRAM HELP YOU TO FIND A JOB?”)

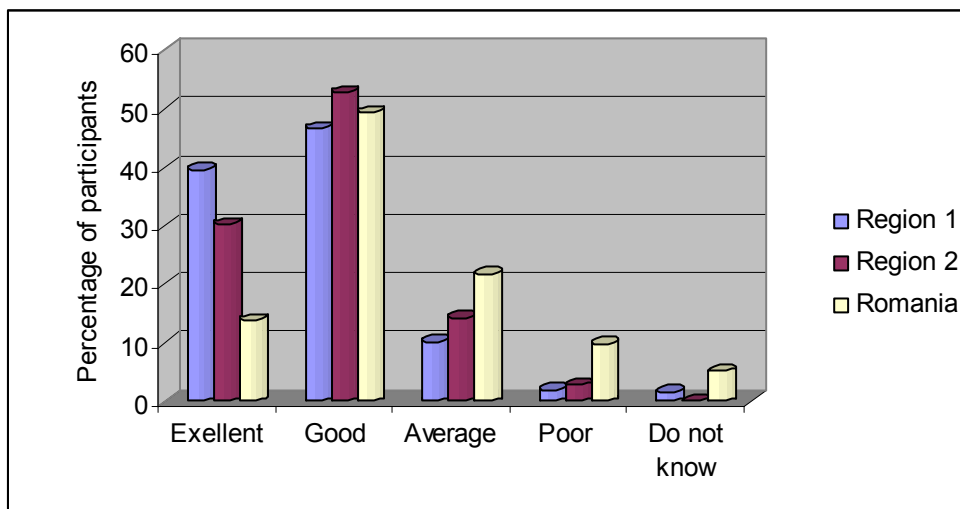


DIAGRAM 3. PERCEPTION OF RE-TRAINING QUALITY.