Active Labor Market Policies in Russia: Regional Interpretation Determines Effectiveness?

Akhmed Akhmedov, Irina Denisova[1], and Marina Kartseva

Center for Economic and Financial Research and New Economic School (Moscow)

Suit 720, Nakhimovsky 47, 117418, Moscow, Russia

E-mails: ***aakhmedov@cefir.ru*** ***idenisova@cefir.ru*** ***mkartseva@cefir.ru***

First draft: September 2002

This version: June 2003

ABSTRACT

Persistently sizeable unemployment attracts interest to active labor market policy as an instrument to reduce unemployment. Moreover, sustainable economic growth requires an effective re-training system, a part of which is usually associated with state employment offices' programs. Little is known, however, about the effects of active labor market programs (ALMPs) on the unemployed in Russia. The paper is the first attempt to shed some light on effectiveness of ALMP in Russia from micro perspective.

The influence of ALMPs on the probability of re-employment is estimated using administrative individual-level data from employment service register on two Russian regions. Overall and group treatment effects of the programs are estimated using the non-experimental exact matching approach. Two cases - assuming that the first program has the major effect (single program participation) and examining sequences of programs (multiple program participation) – are considered.

A matching design allowing taking advantage of duration nature of administrative data to compensate for informational restrictions associated with the dataset is proposed.

We find that the programs under consideration seem to prolong the unemployment spells in one of the regions, and help to leave unemployment quicker in the other, with the size of the effects differing 3-5 times. The sizable difference in treatment effects prompt for substantial institutional differences: there seems to be high discretion in interpretation of employment service role in the local labor market revealed in procedures of program assignment.

Theme: Labor markets in transition economies

Keywords: Active Labor Market Policy, Unemployment, Duration Analysis, Exact Matching, Multiple Programs, Transition

JEL-Code: J65, J68, J71, P23

---

[1] Research for this paper was supported in part by a fellowship from the Economic Education and Research Consortium, with funds provided by the Government of Sweden through the Eurasia Foundation. The opinions expressed in the paper are those of the authors and do not necessarily reflect the views of the Government of Sweden, the Eurasia Foundation, or any other member of the Economics Education and Research Consortium.

1. Introduction

Persistently sizeable unemployment attracts interest to active labor market policy (ALMP) as an instrument to reduce unemployment. Moreover, sustainable economic growth together with the increasing openness of the economy requires an effective re-training system, a part of which is usually associated with state employment offices' programs.

The effects of ALMPs are largely analyzed in developed countries and in the Central and Eastern European transition countries (Heckman, Ichimura and Todd (1997), Kluve, 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. To the best of our knowledge, there is no study of ALMP effectiveness in Russia, the main reason being the absence of relevant data.

The paper is to shed some light on the effectiveness of ALMP in Russia from the micro perspective. We estimate the influence of ALMPs on the probability of re-employment using administrative individual-level data from the public employment office register on two Russian regions: Voronezh province and Chelyabinsk city. The information on types and timing of treatment, including the one on involvement into programs of social adaptation, occupational guidance and public works, is used.

Overall and group treatment effects of the programs are estimated using the non-experimental exact matching approach. Two cases - assuming that the first program has the major effect (single program participation) and examining sequences of programs (multiple program participation) – are considered.

We propose a matching design allowing taking advantage of the duration nature of the administrative data available to compensate for the informational restrictions associated with the dataset.

We find that the four programs under consideration seem to prolong the unemployment spells in Voronezh region, with amplification varying from 2 to 4 months for different programs. The situation appears very different when we look at Chelyabinsk sample results. All the programs except for psychological support one are likely at least not to amplify the unemployment spell (the effects are not significant if standard errors are taken into account), and some of them *help* to leave unemployment *quicker*. Moreover, the size of the effects (in weeks) is 3-5 times less in Chelyabinsk city than in Voronezh province.

The difference is unlikely to be explained by the difference in sectoral structure of the economies of the two regions only. The sizable difference in treatment effects prompt for substantial institutional differences: there seems to be high discretion in interpretation of employment service role in the local labor market (social support institute vs regulator in the labor market) revealed in procedures of program assignment.

The decomposition of the aggregate result into components reflecting the treatment effect for the sub-groups of participants, in particular, for various age groups, education categories, localities and pre-history types, show that the treatment effect for certain subgroups, including those with redundancy pre-unemployment status and often those with secondary professional and secondary general education, are relatively "positive" as compared with the average effect. The treatment effects turn to be better for females than for males for the majority of programs.

The decomposition results could be used while assigning participants to the programs so that to achieve better outcomes.

The paper is organized as follows: Section 2 introduces active labor market programs practiced in Russia; Section 3 discusses the methodology, data used and the principles of the match construction; Section 4 discusses results; and Section 5 concludes.

2. Introduction to Active Labor Market 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 significantly[2]. 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. Below we describe briefly the programs referred to in our analysis[3].

In particular, 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 unemployed[4]. 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.

Occupational guidance services comprise of four[5] 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 – Voronezh province and

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

[3] The data used is described in section 3.

[4] 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).

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

Chelyabinsk city[6] – issued instructions on 'profiling' the unemployed recently (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.

3. Data and methodology

The dataset we use is based on entries in personal registration form collected in Voronezh province (including Voronezh city) and Chelyabinsk city by the regional departments of Public employment office (PEO) for the years 1996-2000 and 1999-2001 respectively. The data contains information on demographic factors (age, gender, marital status), education, pre-unemployment history, characteristics of last employment (sector, form of ownership, qualification), experience, general and within 12 months before entering register, reasons for separation, reasons for exiting PEO register (employment, self-employment, vocational training and/or retraining, retirement, migration, quitting due to unspecified reasons).

Information on the "treatment" taken by those registered is available. In particular, information on participation in "Job Seekers' Club", "Fresh Start", public works and occupational guidance programs are available[7]. Moreover, dates of major events when in register, including dates of entries into programs, are known.

To estimate the effects of ALMPs, one would need to compare comparable things, so to say. In particular, let Y_{i1} be the outcome (income, employment status, etc.) of individual *i* in certain period if the person participated in a program (pr=1), and Y_{i0} is the outcome of individual *i* in the same period if the person did not participate in the program (pr=0). Then the effect of program participation - the treatment effect - calculated for individual *i* is $\delta_i = Y_{i1} - Y_{i0}$, and the aggregate effect is a weighted sum of δ_i over all i. The problem is, however, that Y_{i1} and Y_{i0} cannot be observed simultaneously. Hence, it is important to find a proper substitute for Y_{i0} .

There are two main approaches here: experimental and non-experimental. Under the experimental approach a comparison group is designed for a group of program participants, and randomization is to provide the independence of Y_{i1} and Y_{i0} of treatment assignment.

In non-experimental studies a set of comparison units that are characterized by the same as the treated units set of *pre-treatment* covariates is constructed. It is important that matching is based on the variables, which are not the outcome of participation in the program.

The average treatment effect is calculated as the weighted sum over the means of the treatment effects within the match groups, δ:

$$\textit{Treatment effect} = \sum_m w_m \, E(\delta \mid m, pr=1) \ ,$$

where *m* - an index of the matching group, w_m - the corresponding relative frequency of the match group in the sample, $E(\delta \mid m, pr=1)$ – the mean of treatment effects within the match group *m*, and $\delta = Y_{i1} - Y_{j0}$, $i, j \subseteq m$ (for every i there is a set of j-s that are the match).

The concrete parameters of the match depend on the structure of the data available.

[6] Voronezh province is in the Central Federal okrug. Chelyabinsk is in the Urals Federal okrug. Voronezh province is the one with high share if agricultural production, while Chelyabinsk city is one of the industrial capitals of the region.

[7] There are very few reported participants of programs of subsidized employment/job quotas and programs to support client entrepreneurial activities, preventing from analyzing effects of the programs. There is no information on the outcomes for those who took vocational training and retraining in the dataset since they are taken out of the register when take the offer.

We follow non-experimental exact match approach. To take advantage of the duration nature of the dataset, and to overcome its deficiencies (the lack of detailed information on the post-unemployment-spell history), we choose the *duration of unemployment till employment* as the outcome we compare participants and non-participants according to (Y_{i1} and Y_{i0}). By imposing the restriction on comparability between pre-program period duration for program participants and total spell duration for non-participants (the latter not less than the former plus program duration), we effectively compare *post-program duration of unemployment till employment* for the treated and untreated. Moreover, the control allows capturing a piece of otherwise unobservable heterogeneity (variation in employment motivation, e.g.) to the degree it is reflected by unemployment duration.

The weighted treatment effect of program *k*, δ_k , is calculated so that to take into account the differences in the size of the matching groups J_i for every *i* participant in program *k*:

$$\delta_k = \frac{\sum_{i \in I_k} \delta_i g_{J_i}}{\sum_{J_i} g_{J_i}} \quad ,$$

where δ_i - weighted individual treatment effect calculated as $\delta_i = Y_{i1} - \sum_{j \in J_i} Y_{j0} \Big/ g_{J_i}$,

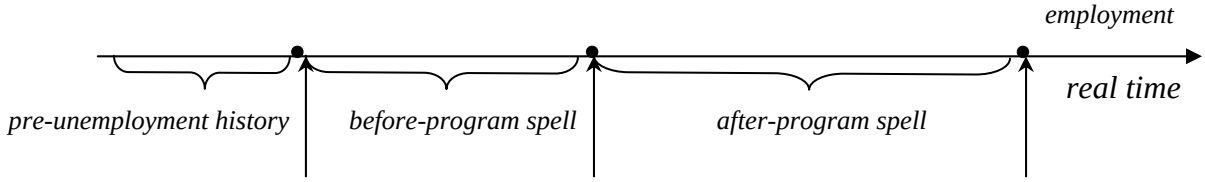
g_{J_i} - the size of matching group J_i for participant *i*, J_i – set of matches for participant *i*, I_k – set of participants in program *k*.

To generate the matching group, we limit the sample to those who entered the register after 1st January 1996 and exit the register before 1st January 2000 for Voronezh province and to those on the register since 1st January 1999 and not later than 1st January 2001. This allows to circumvent the initial conditions problem, and to get rid of right-censored observations[8].

Moreover, we limit the sample to only those who exit the register due to getting employed or self-employed. The reasoning behind this is that we are not sure about the outcome for those who quit register due to "vocational training", "retirement", "not reporting on time" or "other reasons", since they could still stay unemployed, though not registered. In this sense the observations are still right censored. To overcome the problem under the matching scheme, we choose to exclude the observations at all.

Males after 60 and females after 55, as well as those that reappeared on the register were dropped from the sample. While generating matches for those who participated in the programs, we make sure that there are no cases of matching when any of the matching parameters' values are missing. Those on the register for longer than two years are excluded from the samples.

As a result, we have the sample of those who entered the register having various employment histories, stayed on the register for various periods of time, were involved or were not involved in programs under consideration, but all of them have completed the spell of (registered) unemployment by getting employed. In this sense the effectiveness of ALMPs is estimated in terms of the effect of the program on the duration of registered unemployment, given that all the people in the sample got employed in the end. The diagram below clarifies the structure of the data used.



[8] Observations with incomplete unemployment spells.

time of entering register time of entering program time of exiting register

We should mention here that a person on the register could be involved in several programs. Tables 3 and 4 show the proportion of people in the two samples that took more than one program, and the frequency of cross-program participation. It turns out that less than 20% of program participants in Voronezh sample were involved into more than one program, and social adaptation programs (Fresh Start and Job Seekers' Club) have up to 20% of common participants. Multiple program participation is a bit higher in Chelyabinsk city: 37% for females and 27% for males, with occupational guidance being the most frequently combined with other programs.

We consider two cases. First, we assume that it is the first program that has the major effect. To diminish the influence of other programs while estimating the effect of program k, we generate treatment group for program k from only those for whom program k was the first to participate in[9]. Later we allow multiple program participation and examine sequences of programs. The matching group is looked for among those who *did not participate in any program.*

To provide the match, for every treated observation we generate the matching group of those non-treated with the same values of attributes considered important in determination of the unemployment spell:

- Age (3 categories);
- Education (4 categories);
- Marital status;
- Number of children[10] (3 categories);
- Pre-unemployment history (4 categories for Voronezh and 4 categories for Chelyabinsk);
- Time of entering the register (year);
- Comparable "before-program"[11] duration of unemployment spell;
- Location (rayon) for Voronezh province (to control for variation in local labor markets conditions).

The pre-unemployment history available from the dataset is the information on the labor market status of the unemployed before getting registered. For Voronezh province we have 2 categories for those out of the labor force (those who never worked before and those not employed for a long time), and 2 categories for those previously employed (those made redundant and those who lost the job for other than redundancy reasons). The pre-history categories in Chelyabinsk dataset are a bit different: those made redundant, those who quitted job, those never worked before, and 'other'. Hence, we cannot identify those not employed for a long time since they are among 'other' category now, as well as some of those who lost the job for other than redundancy and quit reasons.

The data are translated into survival format with a week as time unit. STATA statistical software is used for estimation. Taking into account the gender differences in labor market strategies, we run the analysis for males and females separately.

The list of main variables used in the study and the relevant summary statistics for Voronezh province and Chelyabinsk city are presented in Tables 1 and 2 respectively. As is seen from the Tables, Occupational guidance is the most popular among the four programs in Voronezh province for both males and females: there are 1495 female and 576 male recipients

[9] That would suggest that program k effects could be overestimated for those who took other programs (provided other programs had positive effects).

[10] For Chelyabinsk only.

[11] With respect to this criterion, an untreated case is the match for a treated case when the untreated person stayed on the register at least as long as the treated person before entering the program plus average treatment time for the program (1 week for occupational guidance, and 3 weeks for public works and programs of social adaptation).

of the service. Fresh Start program follows, with 443 female and 114 male participants, next comes Public Works and Job Seekers' Club (296 and 295 female participants, and 122 and 75 male participants). The sample of non-treated, i.e., those who did not participated in any of the programs, is 53003 for females and 36449 for males, thus providing good opportunities for finding matches[12].

The sample for Chelyabinsk city is larger when speaking about program participants, and smaller when non-treated are compared: there are 3979 and 1140 treated with various programs females and males, and 9344 and 4755 untreated females and males in Chelyabinsk sample. The structure of program participation in Chelyabinsk is the following: 948 females and 183 males took public works, 335 females and 32 males were members of Job Seekers' Club, 248 females and 45 males received psychological support, 1621 females and 580 males were provided with occupational guidance, 700 and 226 females and males respectively were informed, and 127 and 54 – tested for occupations.

The age structure of the programs' participants shows that they are a bit older than the average person in the relevant sample, and, among the programs, Public Works is the one with a bit higher than average age of participants. The educational structure of the programs' participants shows that, first, all the educational groups are there, with some bias into less educated, and, second, Fresh Start participants in Voronezh region and psychological support female recipients in Chelyabinsk city are relatively better educated. With respect to the pre-unemployment history, those previously employed but without job later (for reasons other than redundancy) are the majority in the total male and female samples in both regions, with employed and made redundant being the second largest group, followed by those out of the labor force before entering the register. It is noticeable that those made redundant are strongly over-represented among the participants of all the four programs in Voronezh province, while those who were long-term not employed before entering the register are under-represented. The average duration of unemployment spells is higher for most program participants as compared with the untreated (not controlling for observed heterogeneity). It is noticeable that the average duration till involvement in the programs is larger for Voronezh province if compared with Chelyabinsk city.

Figures 6a and 6b report distributions of estimated propensity scores for treated and untreated - a summary measure of balance of the distributions of pre-treatment covariates between treatment units and their comparisons. The propensity scores are estimated for each program and each region, males and females together. The graphs suggest that the chosen matching procedure is likely to provide the balance: predicted probability of program participation for participants and the controlling group seem to co-move.

4. Results

The results of estimating the treatment effects for the matched according to the abovementioned rules groups are reported in Tables 5 and 6 for Voronezh province and Chelyabinsk city respectively.

The four programs under consideration in Voronezh province seem to prolong the unemployment spell: the total difference between the "post-program" unemployment spells for the treated and non-treated is positive for both males and females, and for all the four programs.

The total effect varies across programs and - within programs - across age, education, location and pre-unemployment status.

The average amplification of the unemployment period for those who participated in the Public Works is almost 12 weeks (3 months) for females and more than 15 weeks (about 4 months) for males. The recipients of occupational guidance service stay on the register about

[12] While creating direct matching, we failed to find the match for about 10% of treated. Those observations were dropped from the sample.

15 weeks (about 4 months) on average longer than the comparison group (both males and females).

The average upsurge of the unemployment spell for participants of social adaptation programs is significantly less: it is almost 10.5 weeks (2.5 months) for females and 12 weeks (3 months) for males if we speak about Fresh Start program, and 9 weeks (a bit more than 2 months) for female- and 13 weeks (around 3 months) for male- members of Job Seekers' Club.

The situation appears very different when we look at Chelyabinsk sample results. All the programs except for psychological support one are likely at least not to amplify the unemployment spell (the effects are not significant if standard errors are taken into account), and some of them *help* to leave unemployment *quicker*. Moreover, the size of the effects (in weeks) is 3-5 times less than in Voronezh province.

Public works program shows to reduce the unemployment spell for about 6 weeks (1.5 months) for females and for 3.6 weeks for males. Occupational guidance helps females to leave unemployment 5 weeks earlier, and has very slight if any effect on males (-0.68 weeks). Informing is only weakly statistically significant, while testing having slight positive effect for females and small negative effect for males.

Participation in Job Seekers' Club helps females to reduce the unemployment spell by 2.3 weeks, and does not have any influence on males.

Finally, psychological support recipients stay longer on the register as compared to the matching group: 2.7 weeks longer if we speak about females and 3 weeks – about males.

It is natural to decompose the aggregate result into components reflecting the treatment effect for the sub-groups of participants, in particular, for various age groups, education categories, localities and pre-history types. The estimations of the treatment effects for the subgroups are presented in Tables 5 and 6.

In addition, to control for other factors while decomposing, we study how the treatment effects vary with respect to the determinants of the match by regressing the average treatment effect (in differences and in logarithm of ratio) on the relevant factors. The results for males and females are presented in Table 7 for Voronezh province and Table 8 for Chelyabinsk city.

It turns out that among female participants of Public works in Voronezh province it is those with secondary or secondary professional education, of younger or older ages, Voronezh residents and labor market newcomers who are doing relatively better (i.e., exit the unemployment register relatively quicker). In this sense, if corrected for the overall negative effect of the program participation, the abovementioned categories could be said to benefit relatively more (i.e., to lose less) from the program. Male Public works program participants doing relatively better after the program, and thus, benefiting relatively more from the program, are those married, of middle and older ages, and with redundancy pre-history.

The preferential categories for social adaptation programs are: not newcomers to the labor market, with redundancy pre-history - for females, and having junior professional education, of older ages and with redundancy status - for males (Fresh Start program); those with secondary professional education, redundancy or lost job pre-history, and Voronezh residents - for females, and with long-term not employed pre-history, junior professional or university degree (weakly) - for males (Job Seekers' Club).

Occupational guidance service is relatively more effective for males and females with redundancy or lost job pre-history. Achieving more than secondary general education is beneficial for female recipients of the program.

For Chelyabinsk city sample, we find that married males with secondary general education, and married females with higher education and redundancy pre-history tend to

benefit more from Job Seekers' Club program. Males with secondary professional degree who quitted jobs, and married females with secondary general education and quit-job-status are doing relatively better after Public Works program. Males with secondary professional and higher education benefit relatively more from all the four components of occupational guidance program, while it is rather quit-job-status that facilitates female program recipients to exit unemployment quicker.

There is no significant effect of 1998 crisis on the treatment effects on the programs in Voronezh province. Those who entered Chelyabinsk city register in 2001 tend to leave unemployment quicker, except for Public works participants.

Tables 9-11 report the results when multiple program participation is explicitly taken into account. As mentioned above, in this case we generate treatment group for program sequence *kl* from those for whom program k was the first, and program *l* – the second to participate in[13]. Given the significant reduction in the number of treated for every sequence of programs, we do not divide the sample by gender but instead estimate treatment effects for the total sample, and compose the four elements of occupational guidance services (informing, consultancy, testing and psychological support) into one.

The average treatment effects for program sequences still show to be negative (i.e., unemployment spells are longer for programs' participants) in most cases for Voronezh province and positive or non-significant for Chelyabinsk city.

The combination Fresh Start/Public Works happens to be the worst (more than 4 months unemployment spell amplification) in Voronezh province, with Public Works/Occupational Guidance coming next. The asymmetry of the treatment effects in the region is striking: program sequencing turns very significant. The combinations Public Works/Job Seekers' Club and Fresh Start/Job Seekers Club (in the latter case sequencing does not matter) are even beneficial for program participants.

Program sequencing is not that striking in Chelyabinsk city, though it is better when the clients get Occupational Guidance before they participate in Job Seekers' Club than visa versa.

The variation of the treatment effects with respect to the determinants of the match (Tables 10 and 11) do not show any stable positive or negative influence of educational types or pre-unemployment history on the treatment effects: for different sequences different set of factors are beneficial or detrimental.

5. Conclusions

The paper investigates the effectiveness of active labor market programs in Russia using the non-experimental matching approach. The individual registered unemployment data from Voronezh province and Chelyabinsk city are utilized. Public Works program, two programs of social adaptation and Occupational guidance program are considered in Voronezh province, and Public Works program, Job Seekers' Club and Occupational Guidance program (subdivided into four components) are studied in Chelyabinsk.

Overall and group treatment effects of the programs are estimated using the non-experimental exact matching approach. Two cases - assuming that the first program has the major effect (single program participation) and examining sequences of programs (multiple program participation) – are considered.

We propose a matching design allowing taking advantage of the duration nature of the administrative data available to compensate for the informational restrictions associated with

[13] To provide "before-program-duration" compatibility, an untreated case is considered a match for a treated case when the untreated person stayed on the register at least as long as the treated person before entering *the last (the second) in the sequence* program plus average treatment time for the program (1 week for occupational guidance, and 3 weeks for public works and programs of social adaptation).

the dataset. To provide the match, for every treated observation we generate the matching group of those non-treated with the same values of attributes considered important in determination of the unemployment spell: age, education, marital status, pre-unemployment history, year of register entry, comparable "before-program" duration of unemployment spell, and location (for Voronezh province). The pre-unemployment history available from the dataset is the information on the labor market status of the unemployed before getting registered: out of labor force (those who never worked before and those never employed) and employed (those made redundant and those who lost the job for other than redundancy reasons).

We find that the four programs under consideration seem to prolong the unemployment spells in Voronezh region, with amplification varying from 2 to 4 months for different programs. The situation appears very different when we look at Chelyabinsk sample results. All the programs except for psychological support one are likely at least not to amplify the unemployment spell (the effects are not significant if standard errors are taken into account), and some of them *help* to leave unemployment *quicker*. Moreover, the size of the effects (in weeks) is 3-5 times less than in Voronezh province.

The difference is unlikely to be explained by the difference in the sectoral structure of the economies of the two regions only. The sizable difference in treatment effects prompt for substantial institutional differences: there seems to be high discretion in interpretation of public employment service role in the local labor market (social support institute vs regulator in the labor market) revealed in procedures of program assignment.

We would like to stress that the 'negative' result for some of the programs need not be interpreted as an argument for program turning down. There could be several contributors to the result.

It could be strong self-selection motive which is not easily identifiable using observable characteristics only: up to 30%[14] of those applying for the unemployed status are those without motivation[15] to find a job (and hence are out of labor force), but are awarded the status either because it is very costly to prove that they do not want to search for a job, or due to 'social support' consideration. Moreover, the current content of the programs is poor, and this itself could generate self-selection problem that could not be easily taken into account.

And this is here that discretion of regional PEO policies could come into play: it seems that the two regions under consideration pursued different policy with respect to the unemployed. The striking difference in the pattern of distribution of unemployment spells of program participants in the two regions (Figures 2a-5b) is likely to support the guess. It is evident from the graphs that there is a sort of structural break at 52 weeks[16] point in Voronezh province: it looks as if a vast share of program participants waited until benefit eligibility period expired, and then started to look for a job[17]. No such tendency could be seen in Chelyabinsk. Note that the distribution of unemployment spells for non-participants in the two regions seems alike (Figures 1a-1b), suggesting that it is rather not regional labor market specifics but the selection policy and/or motivation that are in place.

The decomposition of the aggregate result into components reflecting the treatment effect for the sub-groups of participants, in particular, for various age groups, education categories, localities and pre-history types, show that the treatment effect for certain subgroups, including those with redundancy pre-unemployment status and often those with secondary professional and secondary general education, are relatively "positive" as compared with the average effect. The treatment effects turn to be better for females than for males for the majority of programs.

[14] Estimation from a survey of experts of employment centers done by CEFIR in 2002.
[15] Applying to the service in order to present an unemployment registration certificate to social security agencies, e.g.
[16] The critical point is related to the date of cessation of paying unemployment benefits.
[17] Note that only those employed in the end are in the sample.

The decomposition results could be used while assigning participants to the programs so that to achieve better outcomes.

6. Bibliography

Ashenfelter, Orley, and David Card (1985), "Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs", *Review of Economics and Statistics* 67, 648-660

Brodaty, Thomas, and Denis Fougere (2002), "Do Long-Term Unemployed Workers Benefit from Active Labor Market Programs? Evidence from France, 1986-1998", - *mimeo*

Card, David, and Daniel Sullivan (1998), "Measuring the effect of Subsidized Training Programs on Movements In and Out of Employment", *Econometrica,* 56, 497-530

Frolich, Marcus (2002), "Programme Evaluation with Multiple Treatments", *Working paper no.2002-17, University St.Gallen*

Heckman, James J., Hidehiko Ishimura and Petra E.Todd (1997), "Matching as an Econometric Evaluation Estimator: Evidence from Evaluating a Job Training Programme", *Review of Economic Studies* 64, 605-54

Heckman, James J., Robert J. LaLonde, and Jeffrey A.Smith (1999), "The Economics and Econometrics of Active Labor Market Programs", in: Ashenfelter, Orley and David Card (eds.): *Handbook of Labor Economics*, vol.III, Amsterdam, North-Holland

Heckman, James J., and Jeffrey A.Smith (1999), "The Pre-Programme Earnings Dip and the Determinants of Participation in a Social Programme: Implications for Simple Programme Evaluation Strategies", *The Economic Journal* 109, 313-48

Kluve, Jochen, Hartmut Lehmann, and Cristoph M.Schmidt (1999), "Active Labor Market Policies in Poland: Human Capital Enhancement, Stigmatization, or Benefit Churning?", *Journal of Comparative Economics 27,* 61-89

Kluve, Jochen, Hartmut Lehmann, and Cristoph M.Schmidt (2002), "Disentangling Treatment Effects of Active Labor Market Policies: Evidence from Matched Samples", *William Davidson Working Paper Number 447*

LaLonde, Robert J. (1986), "An Evaluation of Public-Sector-Sponsored Continuous Vocational Training Programs in East Germany", *The Journal of Human Resources* 35, 347-75

7. Tables

Table 1. Summary statistics for program participants, females and males, Voronezh province

Females	**Public Works**	**Fresh Start**	**J S Club**	**Occup. Guidance**	**Non-treated**
Number of obs.	296	443	295	1495	53003
Average age	36.67	34.26	32.56	33.61	32.97
Share of people with secondary general education	32.77	24.83	27.46	26.56	36.17
Share of people with junior professional education	16.22	15.58	16.61	16.86	14.48
Share of people with secondary professional education	29.73	30.93	35.93	34.25	28.92
Share of people with higher education	21.28	28.67	20.00	22.34	20.43
Share of people with initial status "Redundant"	35.47	40.63	34.24	39.00	25.89
Share of people with initial status "Lost job"	44.59	37.92	35.59	34.52	40.07
Share of people with initial status "Long-term not employed"	9.46	8.13	7.46	9.50	14.99
Share of people with initial status "Never worked before"	10.47	13.32	22.71	16.99	19.06
Share of people from Voronezh city	64.53	61.40	62.03	59.46	64.75
Average duration till employment	57.26	52.92	52.50	51.68	28.38
Average duration till involvement in the program	17.47	20.13	19.73	12.21	

Males	**Public Works**	**Fresh Start**	**J S Club**	**Occup. Guidance**	**Non-treated**
Number of obs.	122	114	75	576	36449
Average age	38.90	37.89	36.25	35.76	35.40
Share of people with secondary general education	39.34	28.95	25.33	36.28	49.00
Share of people with junior professional education	16.39	13.16	28.00	22.74	16.87
Share of people with secondary professional education	15.57	16.67	18.67	20.14	16.45
Share of people with higher education	28.69	41.23	28.00	20.83	17.68
Share of people with initial status "Redundant"	16.39	37.72	48.00	34.55	17.30
Share of people with initial status "Lost job"	61.48	48.25	25.33	46.53	54.72
Share of people with initial status "Long-term not employed"	15.57	7.89	1.33	9.20	14.54
Share of people with initial status "Never worked before"	6.56	6.14	25.33	9.72	13.44
Share of people from Voronezh city	76.23	73.68	46.67	57.64	66.88
Average duration till employment	56.00	54.52	52.44	45.77	21.82
Average duration till involvement in the program	17.30	21.15	23.70	9.82	

Table 2. Summary statistics for program participants, females and males, Chelyabinsk city

Females	**J S Club**	**Public Works**	**Psych. Support**	**Occup. Guidance**	**Informing**	**Testing**	**Non-treated**
Number of obs.	335	948	248	1621	700	127	9344
Average age	32.6	35.4	38.3	33.5	31.0	34.0	32.4
Share of people with secondary or lower education	13.7	22.9	20.0	20.4	14.6	24.2	19.4
Share of people with junior professional education	15.5	17.4	16.4	16.7	18.2	21/1	18.7
Share of people with secondary professional education	44.9	41.4	32.8	38.9	41.4	27.3	39.4
Share of people with higher education	25.9	18.4	30.8	24.1	25.9	27.2	22.6
Share of people with initial status "Redundant"	11.0	15.1	12.4	9.8	9.1	9.4	15.6
Share of people with initial status "Never worked before"	19.6	18.3	10.4	19.4	27.4	14.8	22.7
Share of people with initial status "Quitted from previous job"	63.7	62.4	70.0	66.1	60.4	71.1	58.8
Average duration till employment	28.3	29.0	31.6	20.2	15.1	19.7	17.8
Average duration till involvement in the program	13.9	14.2	14.7	9.4	4.8	8.7	

Males	**J S Club**	**Public Works**	**Psych. Support**	**Occup. Guidance**	**Informing**	**Testing**	**Non-treated**
Number of obs.	32	183	65	580	226	54	4755
Average age	33.9	36.6	42.9	36.5	35.5	35.5	36.3
Share of people with secondary or lower education	21.2	38.7	28.8	34.0	31.9	34.0	36.9
Share of people with junior professional education	9.1	21.5	22.7	19.8	15.0	9.4	22.0
Share of people with secondary professional education	18.2	18.8	19.7	22.5	28.3	13.2	19.7
Share of people with higher education	51.5	21.0	28.9	23.7	24.8	43.4	21.4
Share of people with initial status "Redundant"		12.2	9.1	11.2	7.5	7.5	13.8
Share of people with initial status "Never worked before"	12.1	17.7	9.1	13.2	16.4	18.9	13.8
Share of people with initial status "Quitted from previous job"	84.8	60.8	69.7	68.0	69.9	64.2	64.9
Average duration till employment	25.4	23.4	27.1	16.4	15.1	20.7	14.5
Average duration till involvement in the program	15.5	9.8	14.0	6.8	5.3	8.9	

Table 3. Structure of program participation (multiple program participation, %)

Voronezh province	*Females*	*Males*
Participated in 1 program	81.1	85.01
Participated in 2 programs	17.0	13.98
Participated in 3 programs	1.74	1.01
Participated in 4 programs	0.16	-
Chelyabinsk city		
Participated in 1 program	62.2	72.6
Participated in 2 programs	26.9	21.3
Participated in 3 programs	8.4	4.5
Participated in 4 programs	2.1	1.4
Participated in 5 programs	0.3	0.2
Participated in 6 programs	0.1	-

Table 4. Frequency of cross-program participation

Voronezh province						
	Public works	J S Club	Fresh Start	Occup. Guidance		
Involved in Public works	100	7.24	7.61	5.6		
Involved in Fresh Start	10.65	100	17.75	9.35		
Involved in Job Seekers' Club	7.98	12.68	100	6.96		
Involved in Occupational Guidance	23.57	26.78	27.9	100		
Chelyabinsk city						
	Public works	J S Club	Occup. Guidance	Psych. Support	Occup. Inform.	Occup. Testing
Involved in Public works	100	3.2	3.6	2.7	3.3	1.5
Involved in Occupational Guidance	7.7	32.3	100	26.5	22.2	13.1
Involved in Job Seekers' Club	2.2	100	8.7	9.2	4.8	3.1
Involved in Psychological Support	1.3	9.5	4.4	100	2.3	5.4
Involved in Occupational Information	2.0	16.0	14.9	14.6	100	8.5
Involved in Occupational Selection	0.6	2.4	3.4	3.5	3.0	100

Table 5. Estimation of program treatment effects, males and females, Voronezh province (weeks)

FEMALES

category		Public works		J S Club		Fresh Start		Occup. Guidance	
		mean	SE	mean	SE	mean	SE	mean	SE
Age	<=30	10.66	0.46	10.09	0.34	13.00	0.44	13.70	0.17
	31-45	12.04	0.25	9.00	0.21	9.97	0.29	15.43	0.13
	>45	11.36	0.53	7.45	0.51	7.31	0.67	17.72	0.34
Education	Secondary or lower	10.34	0.30	10.28	0.31	8.24	0.43	17.40	0.18
	Junior professional	13.14	0.60	12.33	0.75	10.06	0.70	13.72	0.32
	Secondary professional	8.52	0.51	5.18	0.36	12.73	0.43	16.06	0.19
	University and more	15.87	0.42	9.71	0.25	10.37	0.39	12.85	0.18
Pre-history	Redundant	10.95	0.30	8.94	0.24	7.43	0.40	15.18	0.16
	Lost job	12.58	0.33	7.83	0.26	10.35	0.32	16.66	0.16
	Long-term not employed	21.50	1.04	14.02	1.29	3.45	1.26	16.21	0.50
	Never worked before	6.71	0.70	13.55	0.54	17.96	0.58	11.71	0.22
Voronezh Citizenship		11.53	0.22	8.95	0.17	10.53	0.23	15.12	0.10
Non-Voronezh Citizenship		15.48	0.77	11.94	1.02	9.90	1.22	16.32	0.43
Total		11.68	0.21	9.02	0.17	10.51	0.23	15.17	0.10

MALES

category		Public works		J S Club		Fresh Start		Occup. Guidance	
		mean	SE	mean	SE	mean	SE	mean	SE
Age	<=30	24.39	1.25	17.27	0.68	12.33	1.12	15.47	0.34
	31-45	14.16	0.42	13.50	0.55	11.46	0.87	14.58	0.25
	>45	16.60	0.80	8.94	0.88	12.00	0.92	15.56	0.54
Education	Secondary or lower	16.93	0.53	13.31	0.65	10.47	1.14	14.18	0.31
	Junior professional	18.35	1.21	11.31	1.92	4.14	1.43	19.11	0.42
	Secondary professional	16.38	1.12	15.72	1.17	15.29	1.62	14.39	0.71
	University and more	13.71	0.60	12.66	0.58	14.61	0.75	14.18	0.33
Pre-history	Redundant	7.61	1.04	13.15	0.97	7.16	0.84	14.16	0.42
	Lost job	16.97	0.41	13.12	0.46	14.40	0.88	14.52	0.25
	Long-term not employed	15.08	1.13	5.58	2.82			20.35	0.90
	Never worked before	23.36	1.69	15.16	1.15	13.66	1.16	17.18	0.49
Voronezh Citizenship		15.52	0.36	13.08	0.40	12.37	0.58	14.94	0.20
Non-Voronezh Citizenship		23.27	3.17	16.32	3.29	6.37	1.87	15.97	0.97
Total		15.62	0.36	13.11	0.40	11.90	0.55	14.97	0.19

SE - standard errors calculated for expanded sample.

Table 6. Estimation of program treatment effects, males and females, Chelyabinsk city (weeks)

FEMALES

category		J S Club		Public works		Psych.supp.		Occup.guid.		Informing		Testing	
		mean	SE	mean	SE	mean	SE	mean	SE	mean	SE	mean	SE
Age	<=30	-3.91	0.22	-7.05	0.11	1.01	0.33	-7.29	0.12	-1.43	0.14	-3.01	0.39
	31-45	-2.33	0.40	-5.66	0.21	4.58	0.40	-3.25	0.20	2.05	0.28	2.42	0.49
	>45	8.78	0.83	-4.90	0.35	2.21	0.66	0.40	0.35	-1.23	0.56	-7.19	1.48
Education	Secondary or lower	5.24	1.05	-5.71	0.42	4.23	0.89	-2.99	0.31	1.83	0.47	-2.35	1.05
	Junior professional	-3.15	0.72	-6.36	0.34	10.74	0.83	-4.08	0.27	1.42	0.36	5.42	0.97
	Secondary professional	-2.74	0.23	-6.22	0.13	-1.41	0.29	-7.26	0.13	-0.85	0.17	-1.22	0.51
	University and more	-2.42	0.47	-6.70	0.30	7.48	0.48	-1.08	0.21	-1.24	0.22	-1.50	0.50
Pre-history	" Redundant "	-4.84	1.82	-3.10	0.62	3.08	1.44	2.49	0.86	2.61	1.32	-1.55	2.65
	" Never worked before "	-4.30	0.25	-8.07	0.12	-2.10	0.29	-9.12	0.14	-3.51	1.32	-0.72	0.53
	" Quitted job "	-0.44	0.31	-5.20	0.17	4.65	0.32	-2.83	0.13	2.11	0.19	-1.10	0.42
Total		-2.34	0.20	-6.25	0.11	2.68	0.24	-5.31	0.10	-0.50	0.13	-1.01	0.34

MALES

category		J S Club		Public works		Psych.supp.		Occup.guid.		Informing		Testing	
		mean	SE	mean	SE	mean	SE	mean	SE	mean	SE	mean	SE
Age	<=30	-3.58	1.71	-1.77	0.41	11.47	1.76	-1.33	0.29	0.15	0.34	-0.49	0.96
	31-45	4.19	1.45	-6.38	0.58	1.36	1.05	0.31	0.37	0.16	0.61	-1.26	1.11
	>45	-8.84	1.95	-3.57	0.75	2.34	1.03	-0.83	0.42	1.87	0.62	5.86	1.24
Education	Secondary or lower	-7.47	2.13	-3.24	0.55	1.84	1.47	-1.28	0.36	4.21	0.59	7.01	0.83
	Junior professional	-5.10	2.48	-4.25	0.44	6.83	1.16	0.92	0.39	0.44	0.54	-6.25	1.64
	Secondary professional	2.59	2.75	-1.96	0.92	3.53	1.77	-0.25	0.41	-1.07	0.50	-4.02	1.88
	University and more	1.13	1.31	-4.65	0.98	0.59	1.24	-1.44	0.50	-2.29	0.61	-1.45	1.17
Pre-history	" Redundant "			-5.35	1.53	7.50	4.39	1.43	1.62	8.12	3.16	0.60	3.66
	" Never worked before "	3.49	3.12	-2.57	0.38	9.24	1.31	-1.32	0.41	-0.48	0.54	4.03	1.05
	" Quitted job "	-0.90	1.06	-3.89	0.46	2.32	0.75	-0.70	0.24	0.78	0.34	0.97	0.78
Total		-0.66	1.02	-3.63	0.34	3.08	0.69	-0.68	0.21	0.74	0.30	1.37	0.66

SE - standard errors calculated for expanded sample.

Table 7. Variation of program treatment effects with respect to matching factors, males and females, Voronezh province
Dependant variable: log (duration_treated/duration_non-treated)
Weighted OLS

Treatment effect for females

	Public works		J S Club		Fresh start		Occup. Guidance	
	Delta	Log Delta	Delta	Log Delta	Delta	Log Delta	Delta	Log Delta
Age	-0.185***	-0.006***	0.016	-0.001	0.114***	0.002**	0.133***	-0.001**
	[5.52]	[6.65]	[0.57]	[1.48]	[3.43]	[2.07]	[7.84]	[2.38]
Married	-0.645	-0.009	-0.507	-0.027***	3.099***	0.113***	3.113***	0.074***
	[1.12]	[0.64]	[1.35]	[2.79]	[5.81]	[7.78]	[14.15]	[11.74]
Junior Professional	2.442***	0.121***	1.954**	0.027	-0.795	-0.061**	-2.281***	-0.109***
	[3.45]	[6.53]	[2.33]	[1.35]	[0.86]	[2.38]	[6.10]	[9.47]
Secondary Professional	-0.548	-0.021	-5.838***	-0.131***	0.688	0.023	-1.516***	-0.051***
	[0.89]	[1.14]	[12.05]	[10.94]	[1.01]	[1.24]	[5.78]	[6.67]
Higher degree	6.230***	0.133***	-0.691	0.032***	0.116	0.051***	-4.315***	-0.151***
	[11.87]	[9.88]	[1.56]	[2.97]	[0.20]	[3.18]	[17.07]	[20.70]
Redundant	7.733***	0.119***	-7.012***	-0.288***	-15.655***	-0.547***	-2.550***	-0.228***
	[6.83]	[3.10]	[8.63]	[12.31]	[15.73]	[18.80]	[5.98]	[18.07]
Lost job	9.213***	0.196***	-7.633***	-0.316***	-10.596***	-0.431***	0.288	-0.124***
	[8.76]	[5.35]	[10.76]	[14.56]	[12.28]	[16.15]	[0.73]	[10.35]
LT not employed	13.282***	0.316***	0.222	-0.113***	-17.011***	-0.524***	-0.026	-0.044**
	[8.79]	[6.60]	[0.16]	[2.88]	[11.23]	[12.11]	[0.04]	[2.19]
year1996	6.617***	-0.060***	0.435	-0.091***	15.169***	0.280***	7.726***	-0.090***
	[11.03]	[4.03]	[0.72]	[8.78]	[8.37]	[6.38]	[31.19]	[16.04]
year1997	-4.666***	-0.248***	3.979***	0.032***	1.879***	-0.027*	-0.580**	-0.105***
	[9.24]	[17.51]	[10.25]	[3.38]	[3.27]	[1.86]	[2.12]	[13.70]
Constant	9.999***	0.404***	15.508***	0.587***	14.247***	0.539***	10.311***	0.685***
	[9.45]	[11.04]	[17.06]	[22.69]	[13.96]	[18.23]	[23.29]	[49.25]
Observations	14035	14035	17536	17536	10327	10327	66076	66076
R2	0.049	0.057	0.024	0.038	0.041	0.066	0.027	0.022

Treatment effect for males

	Public works		J S Club		Fresh start		Occup. Guidance	
	Delta	Log Delta	Delta	Log Delta	Delta	Log Delta	Delta	Log Delta
Age	-0.163***	-0.003**	-0.167***	-0.006***	-0.216**	-0.008***	0.132***	0.004***
	[3.19]	[2.38]	[3.62]	[4.24]	[2.31]	[2.90]	[4.68]	[4.02]
Married	-1.863**	-0.084***	-2.798***	-0.261***	3.736**	0.014	5.494***	0.175***
	[2.19]	[3.42]	[3.14]	[9.53]	[2.37]	[0.35]	[11.53]	[11.46]
Junior Professional	5.777***	0.157***	-4.825**	-0.198***	-10.684***	-0.346***	5.645***	0.183***
	[3.94]	[3.28]	[2.35]	[2.81]	[4.90]	[4.95]	[9.98]	[8.83]
Secondary Professional	5.415***	0.02	1.025	0.003	4.402**	0.169***	0.306	-0.069***
	[4.45]	[0.61]	[0.74]	[0.09]	[2.03]	[3.06]	[0.40]	[2.86]
Higher degree	2.171***	-0.008	-1.247	-0.106***	4.479***	0.171***	0.575	-0.030**
	[2.61]	[0.36]	[1.42]	[4.14]	[3.06]	[4.60]	[1.28]	[2.09]
Redundant	-13.070***	-0.465***	0.3	-0.109*	-9.849***	-0.396***	-8.656***	-0.544***
	[5.70]	[6.58]	[0.17]	[1.72]	[3.84]	[4.81]	[10.20]	[17.32]
Lost job	-5.331**	-0.241***	1.755	-0.116**	-3.03	-0.243***	-6.283***	-0.409***
	[2.52]	[3.51]	[1.22]	[2.04]	[1.15]	[2.90]	[8.73]	[14.45]
LT not employed	-3.837*	-0.137*	-6.077*	-0.397***			-0.105	-0.133***
	[1.67]	[1.77]	[1.83]	[3.24]			[0.10]	[3.22]
year1996	20.158***	0.024	-7.262***	-0.324***	5.643***	0.01	5.943***	-0.133***
	[18.98]	[0.98]	[5.15]	[9.00]	[3.17]	[0.23]	[6.51]	[6.60]
year1997	1.515*	-0.121***	8.841***	0.079***	0.499	-0.079**	6.809***	0.017
	[1.70]	[5.03]	[8.75]	[3.07]	[0.35]	[2.20]	[9.97]	[0.85]
Constant	24.160***	0.928***	18.781***	0.936***	21.582***	0.859***	10.407***	0.669***
	[10.54]	[12.55]	[10.60]	[14.56]	[7.74]	[10.92]	[12.07]	[21.00]
Observations	3789	3789	3382	3382	1266	1266	16797	16797
R2	0.121	0.052	0.037	0.072	0.095	0.132	0.028	0.037

Table 8. Variation of program treatment effects with respect to matching factors, males
Chelyabinsk city
Dependant variable: log (duration_treated/duration_non-treated)
Weighted OLS

	Treatment effect for males											
	J S Club		Public works		Psych. support		Occup. Guidance		Informing		Testing	
	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta
Age	0.374***	0.014***	-0.062**	-0.002	0.098	0.008**	0.081***	0.004***	0.087***	0.007***	-0.150**	-0.006*
	[4.37]	[3.06]	[2.25]	[1.23]	[1.63]	[2.44]	[4.02]	[3.19]	[3.92]	[4.04]	[2.41]	[1.70]
Married	-5.193***	-0.156*	-0.849	0.013	0.831	0.282***	-0.106	0.159***	1.530***	0.05	4.121***	0.172**
	[3.87]	[1.87]	[1.26]	[0.36]	[0.68]	[3.99]	[0.24]	[5.43]	[2.81]	[1.26]	[2.86]	[2.36]
Junior Professional	6.095**	0.619***	1.316***	0.088***	-0.965	-0.140*	-0.491	-0.103***	-0.079	0.009	-4.566***	-0.287***
	[2.06]	[3.19]	[2.63]	[2.66]	[0.67]	[1.72]	[1.03]	[2.63]	[0.15]	[0.18]	[3.79]	[2.71]
Secondary Professional	10.559***	0.755***	-2.752***	-0.183***	-2.537*	-0.246***	-3.167***	-0.265***	-2.058***	-0.201***	-3.749***	-0.598***
	[4.22]	[5.56]	[5.28]	[5.69]	[1.82]	[3.37]	[6.88]	[8.08]	[4.37]	[5.23]	[3.08]	[8.44]
Higher degree	5.293**	0.549***	-0.56	0.011	-12.662***	-0.505***	-1.984***	-0.287***	-5.391***	-0.304***	-5.806***	-0.453***
	[1.99]	[4.47]	[0.66]	[0.28]	[8.04]	[6.52]	[3.97]	[8.49]	[8.76]	[7.13]	[4.56]	[6.75]
Redundant	0	0	0.934	-0.047	-9.468	-1.072***	-5.045***	-0.590***	-5.664**	-0.480**	4.902	0.281
	[.]	[.]	[0.42]	[0.37]	[1.39]	[2.80]	[2.86]	[3.93]	[2.03]	[2.09]	[1.40]	[1.08]
Quit job	-1.656	0.145	-7.183***	-0.583***	-17.688***	-0.800**	-11.837***	-1.043***	-4.113**	-0.482**	3.416	0.424*
	[0.60]	[0.93]	[3.36]	[4.69]	[2.93]	[2.20]	[8.41]	[7.48]	[2.21]	[2.34]	[1.60]	[1.89]
Never worked	0	0	-1.508	-0.174	-20.940***	-1.435***	-10.014***	-0.763***	-5.442***	-0.341*	5.882***	0.474**
	[.]	[.]	[0.73]	[1.44]	[3.52]	[4.03]	[7.40]	[5.60]	[2.96]	[1.67]	[2.95]	[2.25]
year2000	-18.834***	-0.266***	5.742***	0.237***	-9.163***	0.058	-32.956***	-0.679***	-29.077***	-0.588***	-27.730***	-0.387***
	[7.15]	[2.80]	[11.55]	[8.81]	[3.22]	[0.61]	[17.90]	[11.27]	[5.54]	[3.43]	[32.30]	[7.92]
year2001	-27.437***	-0.921***	9.182***	0.741***	-8.663***	0.089	-38.765***	-1.348***	-32.359***	-0.871***	-29.396***	-0.459***
	[9.89]	[8.23]	[11.96]	[8.95]	[3.01]	[0.84]	[21.43]	[22.71]	[6.17]	[5.05]	[25.91]	[6.07]
Constant	9.250*	-0.233	1.39	0.163	32.066***	1.290***	39.811***	1.427***	31.842***	0.786***	30.916***	0.649***
	[1.76]	[1.03]	[0.58]	[1.21]	[4.80]	[3.51]	[16.54]	[8.94]	[5.71]	[2.90]	[10.14]	[2.60]
Observations	867	867	9244	9240	1961	1961	13772	13735	6814	6809	1696	1656
R2	0.126	0.129	0.049	0.072	0.077	0.048	0.065	0.086	0.036	0.041	0.019	0.045

Treatment effect for females

	J S Club		Public works		Psych. support		Occup. Guidance		Informing		Testing	
	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta
Age	0.468***	0.016***	-0.013	0.001	-0.241***	-0.016***	0.137***	0.005***	-0.128***	-0.008***	-0.027	-0.008***
	[14.74]	[11.25]	[0.77]	[0.78]	[6.80]	[9.13]	[9.89]	[6.11]	[6.79]	[7.07]	[0.54]	[2.89]
Married	-3.896***	-0.145***	-1.464***	-0.031**	1.791***	0.096***	-1.491***	-0.064***	-0.436	-0.005	1.392*	0.104**
	[6.91]	[5.29]	[4.68]	[2.36]	[3.08]	[3.27]	[5.91]	[4.07]	[1.23]	[0.23]	[1.80]	[2.31]
Junior Professional	-5.270***	-0.431***	1.064**	-0.022	4.702***	0.259***	2.555***	0.140***	-1.266**	-0.047	9.045***	0.529***
	[5.06]	[7.95]	[2.09]	[0.90]	[4.20]	[4.45]	[7.01]	[5.53]	[2.38]	[1.35]	[8.14]	[7.70]
Secondary Professional	-5.417***	-0.458***	3.403***	0.105***	-5.334***	-0.315***	1.173***	0.139***	-0.446	-0.019	0.985	0.027
	[6.12]	[10.75]	[7.87]	[5.74]	[5.83]	[6.99]	[3.73]	[6.97]	[1.03]	[0.65]	[1.08]	[0.52]
Higher degree	-8.098***	-0.364***	0.779	0.049**	2.330**	0.07	5.670***	0.335***	-0.846*	-0.039	2.157**	0.194***
	[8.56]	[7.99]	[1.58]	[2.38]	[2.51]	[1.50]	[16.28]	[15.16]	[1.93]	[1.29]	[2.32]	[3.72]
Redundant	-7.676**	-0.471***	2.613*	0.179**	3.597	-0.11	-6.397***	-0.401***	-6.126***	-0.499***	-5.66	-0.947**
	[2.19]	[2.82]	[1.76]	[2.35]	[1.29]	[0.64]	[3.87]	[4.10]	[3.20]	[3.16]	[1.14]	[2.22]
Quit job	-4.355	-0.540***	-6.237***	-0.138*	-6.737***	-0.686***	-13.554***	-0.839***	-10.498***	-0.841***	-6.342	-1.011**
	[1.39]	[3.46]	[4.54]	[1.87]	[2.93]	[4.26]	[9.22]	[8.86]	[7.31]	[5.71]	[1.42]	[2.44]
Never worked	-2.758	-0.298*	-1.225	0.139*	2.003	-0.055	-10.850***	-0.574***	-6.472***	-0.455***	-5.31	-0.778*
	[0.89]	[1.92]	[0.90]	[1.89]	[0.88]	[0.35]	[7.47]	[6.14]	[4.52]	[3.10]	[1.22]	[1.92]
year2000	2.441	0.191***	0.857***	0.011	-1.992	0.068	-9.306***	-0.121***	0.072	0.066**	3.739**	0.232***
	[1.26]	[3.37]	[3.83]	[1.00]	[1.32]	[1.44]	[8.83]	[5.03]	[0.04]	[2.01]	[2.46]	[5.49]
year2001	-2.033	-0.193***	4.920***	0.151***	-5.033***	-0.072	-12.013***	-0.463***	-6.110***	-0.471***	0.717	-0.307***
	[1.03]	[3.01]	[16.59]	[5.46]	[3.34]	[1.29]	[11.48]	[18.63]	[3.27]	[13.86]	[0.46]	[5.12]
Constant	-4.953	0.223	-4.091***	-0.309***	14.197***	0.999***	9.859***	0.278***	11.936***	0.865***	1	0.866**
	[1.32]	[1.25]	[2.72]	[3.93]	[4.48]	[5.39]	[5.04]	[2.69]	[4.82]	[5.48]	[0.20]	[2.03]
Observations	11976	11976	48943	48934	7490	7488	45232	45227	25765	25756	3880	3880
R-squared	0.055	0.082	0.009	0.014	0.074	0.092	0.036	0.041	0.031	0.057	0.022	0.056

Table 9. Estimation of program treatment effects for multiple programs, Voronezh province and Chelyabinsk city (weeks)

first	second	mean	SE
	Voronezh province		
Public Works	J S Club	-1.56	0.59
Public Works	Fresh Start	4.71	0.61
Public Works	Occupational Guidance	10.82	0.54
J S Club	Public Works	5.90	0.49
J S Club	Fresh Start	-2.17	0.29
J S Club	Occupational Guidance	4.32	0.32
Fresh Start	Public Works	17.26	0.92
Fresh Start	J S Club	-1.25	0.74
Fresh Start	Occupational Guidance	8.53	0.56
Occupational Guidance	Public Works	6.36	0.45
Occupational Guidance	J S Club	6.10	0.35
Occupational Guidance	Fresh Start	-0.27	0.37
	Chelyabinsk city		
J S Club	Occupational Guidance	2.918	0.281
Public Works	Occupational Guidance	-0.062	0.464
Occupational Guidance	J S Club	-1.647	0.349
Occupational Guidance	Public Works	-0.86	0.49

Table 10. Variation of program treatment effects with respect to matching factors, multiple program participation, Voronezh province
Dependant variable: log (duration_treated/duration_non-treated)
Weighted OLS

	Public Works after JS Club		Public Works after FreshStart		Public Works after Occup. Guidance		JS Club after Public Works		JS Club after Fresh Start		JS Club after Ocup. Guidance	
gender	0	0	-24.430***	-1.169***	9.741***	0.091***	21.032***	0.499***	18.364***	0.396***	15.280***	0.302***
	[.]	[.]	[2.96]	[8.73]	[6.47]	[2.87]	[13.10]	[13.13]	[3.40]	[3.19]	[13.65]	[12.49]
Age	0.411***	0.006***	-1.676***	-0.081***	0.008	-0.001	-0.004	-0.004*	0.082	-0.001	-0.494***	-0.009***
	[4.08]	[3.74]	[4.98]	[8.29]	[0.10]	[0.39]	[0.04]	[1.78]	[0.78]	[0.65]	[8.59]	[6.96]
Married	-4.982***	-0.060***	-1.463	0.376***	-8.890***	-0.168***	4.499***	0.089**	9.668***	0.221***	5.123***	0.081***
	[3.58]	[2.91]	[0.56]	[5.50]	[5.51]	[4.90]	[2.70]	[1.99]	[5.04]	[5.39]	[5.87]	[4.03]
Junior Professional	0	0	33.033***	0.974***	-3.671**	-0.005	11.065***	0.111*	1.645	-0.116*	-6.515***	-0.103*
	[.]	[.]	[4.06]	[6.28]	[2.16]	[0.13]	[4.61]	[1.77]	[0.59]	[1.74]	[2.63]	[1.76]
Secondary Professional	0	0	-23.673***	-1.099***	-0.807	0.051*	5.439***	0.084**	11.718*	0.086	-12.360***	-0.176***
	[.]	[.]	[3.02]	[8.48]	[0.70]	[1.93]	[3.17]	[2.08]	[1.92]	[0.60]	[5.70]	[3.40]
Higher degree	0	0	0	0	-10.790***	-0.165***	-4.667***	-0.122***	11.155*	0.156	-8.504***	-0.144***
	[.]	[.]	[.]	[.]	[8.70]	[6.27]	[2.72]	[3.07]	[1.87]	[1.10]	[3.78]	[2.68]
Redunadant	4.306***	0.078***	14.161*	0.392***	-4.371	-0.357***	13.756***	0.216**	-11.197	-0.224	-4.402***	-0.269***
	[4.10]	[4.98]	[1.81]	[2.62]	[1.37]	[4.55]	[3.82]	[2.18]	[1.44]	[1.30]	[3.14]	[8.03]
Lost job	0	0	11.294	0.768***	-16.555***	-0.560***	7.994**	0.082	-1.825	-0.05	-0.308	-0.162***
	[.]	[.]	[1.31]	[3.78]	[7.36]	[9.03]	[2.40]	[0.87]	[0.61]	[0.88]	[0.23]	[4.84]
LT unemployed	0	0	0	0	3.065	-0.162*	20.775***	0.351***	42.576***	0.945***	-7.812***	-0.325***
	[.]	[.]	[.]	[.]	[0.89]	[1.79]	[4.99]	[3.10]	[5.66]	[5.76]	[3.04]	[5.38]
year1996	0	0	0	0	6.413***	0.071***	-16.054***	-0.214***	29.850***	0.580**	-7.912***	-0.154***
	[.]	[.]	[.]	[.]	[5.98]	[2.90]	[5.69]	[3.82]	[2.59]	[2.16]	[8.21]	[9.54]
year1997	3.615***	0.069***	-18.156***	-0.452***	-12.701***	-0.200***	-1.429	-0.037	6.014***	0.092***	5.091***	0.065***
	[2.77]	[3.46]	[11.48]	[13.82]	[3.79]	[3.39]	[0.97]	[1.13]	[3.82]	[3.07]	[5.73]	[3.21]
Constant	-10.870***	-0.156**	111.605***	4.336***	13.176***	0.595***	-33.623***	-0.492***	-30.852***	-0.428***	17.880***	0.478***
	[2.67]	[2.55]	[5.62]	[11.23]	[4.93]	[8.81]	[8.10]	[4.77]	[6.42]	[4.11]	[6.80]	[8.06]
Observations	462	462	193	193	1830	1830	859	859	687	687	2508	2508
R-squared	0.169	0.176	0.541	0.716	0.218	0.245	0.406	0.397	0.522	0.501	0.243	0.242

	Fresh Start after Public Works		Fresh Start after JS Club		Fresh Start after Occup. Guidance		Occup Guid after Public Works		Occup Guid after JS Club		Occup Guid after Fresh Start	
gender	-21.144***	-0.121	22.606***	0.392***	8.026***	0.059*	20.580***	0.396***	6.300***	0.189***	12.009***	0.181***
	[3.54]	[0.56]	[24.49]	[22.49]	[5.12]	[1.66]	[11.36]	[9.48]	[7.00]	[9.22]	[4.89]	[3.31]
Age	0.913***	0.018***	-0.11	-0.004**	0.295***	0.004**	0.472*	0.014**	0.354***	0.007***	0.391***	-0.001
	[6.40]	[3.52]	[1.47]	[2.30]	[4.55]	[2.38]	[1.65]	[1.97]	[4.96]	[4.64]	[4.12]	[0.50]
Married	-2.066	0.037	-0.718	-0.002	0.291	0.047	-7.516***	-0.100***	-4.304***	-0.113***	-12.210***	-0.230***
	[0.75]	[0.37]	[1.06]	[0.14]	[0.27]	[1.61]	[5.45]	[2.77]	[5.25]	[6.80]	[5.16]	[3.36]
Junior Professional	-0.651	0.356*	5.467***	0.089***	-1.995	-0.110***	-4.119**	-0.014	-6.302***	-0.173***	-5.618**	-0.044
	[0.14]	[1.85]	[4.23]	[3.35]	[1.48]	[2.75]	[2.06]	[0.26]	[2.76]	[3.49]	[2.14]	[0.72]
Secondary Professional	2.88	0.128	3.879***	0.069***	-0.151	0.019	0.587	-0.079	2.668**	0.01	-2.99	0.052
	[1.07]	[1.28]	[4.82]	[4.34]	[0.13]	[0.57]	[0.20]	[0.90]	[2.11]	[0.36]	[1.03]	[0.69]
Higher degree	-11.851***	-0.137***	0.261	0.004	-10.662***	-0.262***	2.483	-0.042	2.389**	0.044**	-10.348***	-0.128**
	[9.27]	[4.75]	[0.33]	[0.26]	[9.43]	[7.79]	[0.79]	[0.56]	[2.34]	[2.32]	[4.45]	[2.25]
Redunadant	-29.004***	-1.079***	0.004	0.06	-1.603	-0.003	-28.678***	-1.073***	-2.582	-0.122***	13.107***	0.484***
	[3.25]	[2.86]	[0.00]	[0.90]	[0.88]	[0.06]	[3.15]	[3.71]	[1.60]	[3.14]	[4.15]	[5.53]
Lost job	-21.915***	-0.850**	6.697**	0.155**	2.692	0.055	-13.229**	-0.725***	1.47	-0.059	33.985***	0.888***
	[2.90]	[2.52]	[2.35]	[2.40]	[1.58]	[1.09]	[2.15]	[2.85]	[1.01]	[1.63]	[9.48]	[8.67]
LT unemployed	-13.374*	-0.646**	9.592***	0.190***	2.781	0.132	-3.882	-0.547*	-4.259	-0.157**	0	0
	[1.85]	[2.29]	[2.92]	[2.67]	[0.74]	[1.48]	[0.55]	[1.96]	[1.63]	[2.09]	[.]	[.]
year1996	-6.495	-0.315	5.048***	0.075***	-7.323***	-0.124***	-12.760**	-0.321***	-10.161***	-0.176***	4.175*	-0.033
	[1.32]	[1.57]	[6.64]	[5.89]	[6.28]	[5.69]	[2.30]	[2.84]	[7.59]	[7.99]	[1.89]	[0.66]
year1997	8.443***	0.231***	1.438*	-0.004	1.986*	0.082***	13.008**	0.215	8.936***	0.103***	6.492***	0.025
	[3.16]	[3.29]	[1.79]	[0.23]	[1.76]	[2.83]	[2.37]	[1.48]	[9.53]	[5.90]	[5.46]	[0.88]
Constant	16.464**	0.301	-23.642***	-0.372***	-12.954***	-0.138**	-6.953	0.235	-13.899***	-0.190***	-18.967***	-0.267**
	[2.34]	[1.38]	[7.91]	[5.63]	[6.46]	[2.47]	[0.91]	[0.89]	[6.80]	[4.52]	[3.99]	[2.16]
Observations	546	546	3973	3973	2174	2174	977	977	2550	2550	1169	1169
R-squared	0.348	0.306	0.149	0.131	0.133	0.083	0.32	0.265	0.146	0.12	0.417	0.296

Table 11. Variation of program treatment effects with respect to matching factors, multiple program participation, Chelyabinsk city
Dependant variable: log (duration_treated/duration_non-treated)
Weighted OLS

	Multiple treatment effect							
	JS Club & Occup.Guidance		Public Works & Occup.Guidance		Occup.Guidance & Public Works		Occup.Guidance & JSClub	
	delta	ldelta	delta	ldelta	delta	ldelta	delta	ldelta
Gender	-4.189***	-0.190***	-0.522	0.169	-2.091	-0.125	2.826*	0.317***
	[4.25]	[4.23]	[0.25]	[1.55]	[1.18]	[1.61]	[1.86]	[4.68]
Age	0.375***	0.014***	-0.185**	-0.006	-0.164**	-0.005	0.110**	0.002
	[8.62]	[7.88]	[1.96]	[1.49]	[2.15]	[1.40]	[2.21]	[0.88]
Married	-1.019	0.031	1.261	0.272***	-1.343	-0.046	-0.728	0.052
	[1.40]	[0.98]	[0.94]	[4.96]	[1.02]	[0.64]	[0.82]	[1.31]
Junior Professional	1.297	0.116	8.130***	0.462***	11.135***	0.476***	14.195***	0.679***
	[0.74]	[1.50]	[4.93]	[5.53]	[5.38]	[4.30]	[7.83]	[8.14]
Secondary Professional	-7.521***	-0.331***	8.155***	0.292***	13.167***	0.552***	7.159***	0.480***
	[5.41]	[5.94]	[4.98]	[4.28]	[7.42]	[6.73]	[5.05]	[7.09]
Higher degree	-4.548***	-0.093*	-5.292***	-0.243***	9.420***	0.354***	8.241***	0.522***
	[3.19]	[1.66]	[3.19]	[3.25]	[5.22]	[4.15]	[5.72]	[7.65]
Redunadant	-1.784	-0.064	-6.634	-0.299	6.099	-0.740***	-18.602**	-1.054***
	[0.34]	[0.31]	[1.21]	[0.81]	[0.54]	[2.99]	[2.26]	[4.06]
Lost job	5.377	0.186	-4.898	0.053	-21.293***	-1.757***	-19.467***	-1.129***
	[1.16]	[0.96]	[0.88]	[0.14]	[13.34]	[18.55]	[2.62]	[4.97]
Never worked	3.688	0.12	-1.87	-0.15	-9.240***	-1.127***	-20.100***	-1.120***
	[0.80]	[0.62]	[0.40]	[0.41]	[6.70]	[15.58]	[2.67]	[4.94]
year2000	5.753*	0.250***	0.286	-0.02	13.323	0.428	0.738	0.078
	[1.73]	[3.50]	[0.16]	[0.37]	[0.95]	[1.45]	[0.15]	[1.16]
year2001	0.949	-0.031	-2.047	-0.07	11.579	0.332	-4.204	-0.397***
	[0.28]	[0.36]	[0.99]	[0.73]	[0.83]	[1.12]	[0.83]	[5.28]
Constant	-8.643	-0.36	5.206	-0.067	-2.896	0.722*	5.374	0.178
	[1.39]	[1.60]	[0.65]	[0.14]	[0.20]	[1.93]	[0.48]	[0.67]
Observations	4360	4360	1313	1313	1089	1089	2857	2857
R-squared	0.07	0.089	0.103	0.142	0.105	0.097	0.048	0.108

Voronezh province

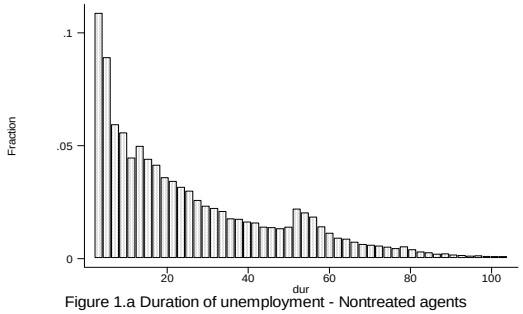


Figure 1.a Duration of unemployment - Nontreated agents

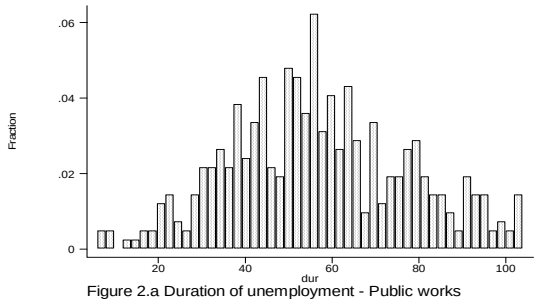


Figure 2.a Duration of unemployment - Public works

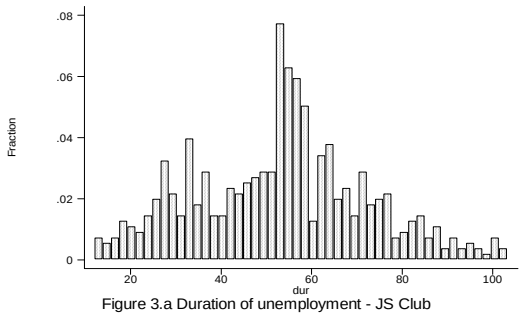


Figure 3.a Duration of unemployment - JS Club

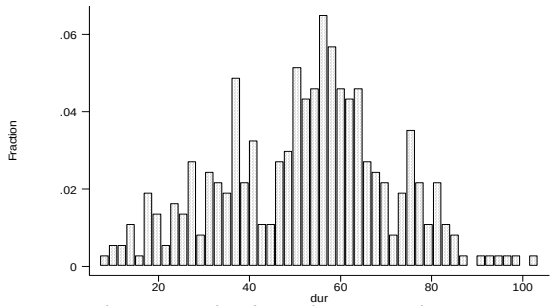


Figure 4.a Duration of unemployment - Fresh Start

Figure 5.a Duration of unemployment - Occup. Guidance

Chelyabinsk city

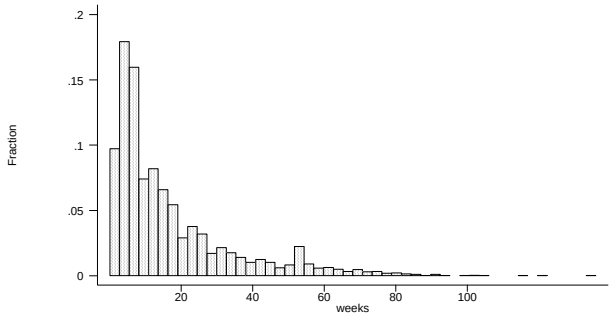


Figure 1b.Duration of unemployment - nontreated agents

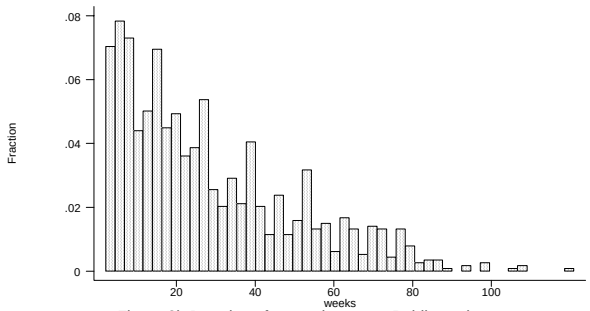


Figure 2b.Duration of unemployment - Public works

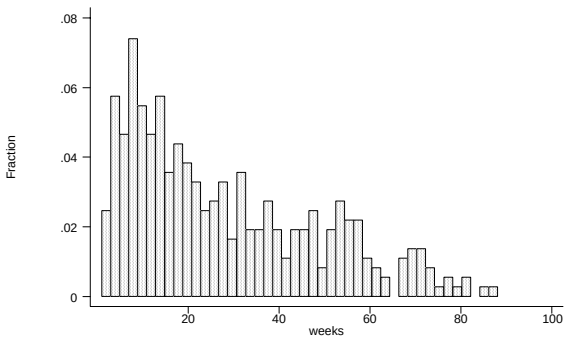


Figure 3b.Duration of unemployment - JS Club

No data on Fresh Start Participation to compare

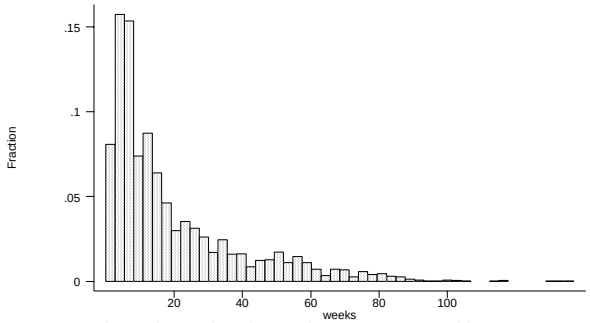


Figure 5b.Duration of unemployment - Occup.Guidance

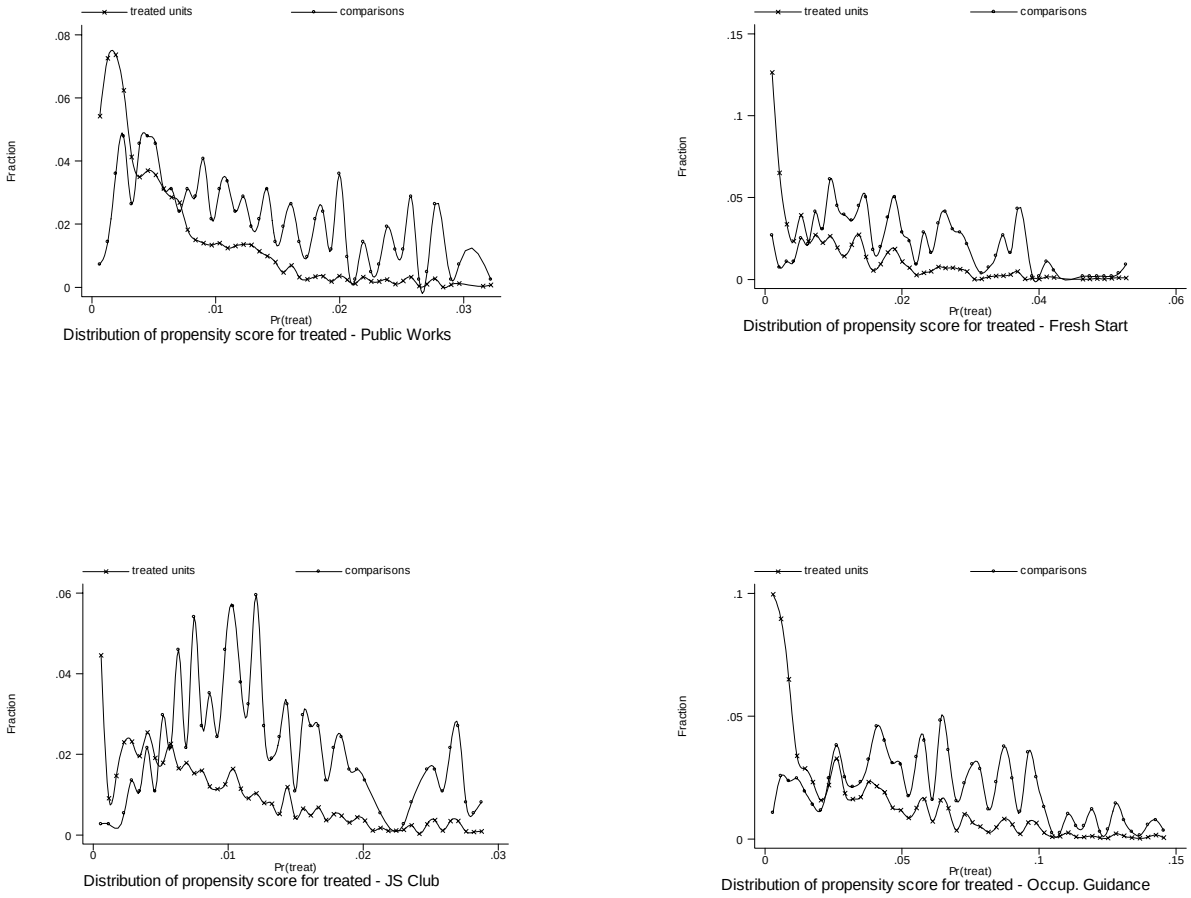
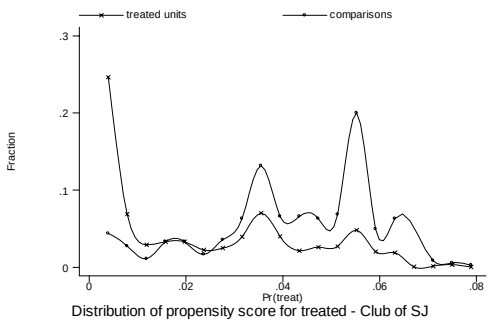
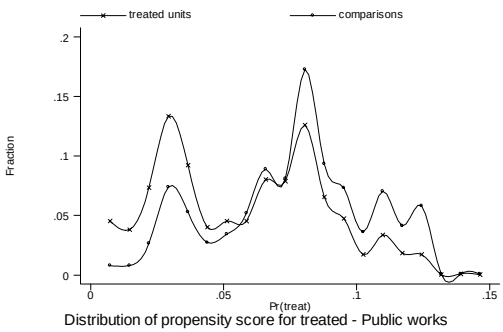


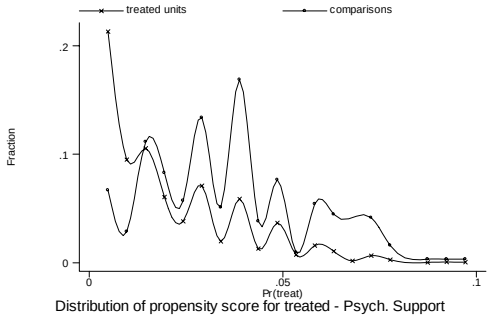
Figure 6a.
Propensity Scores, Voronezh province sample



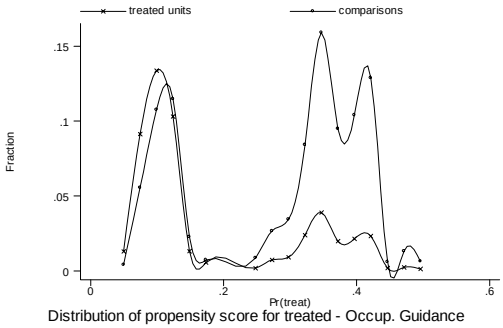
Distribution of propensity score for treated - Club of SJ



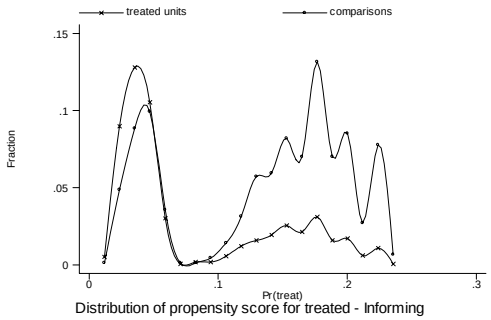
Distribution of propensity score for treated - Public works



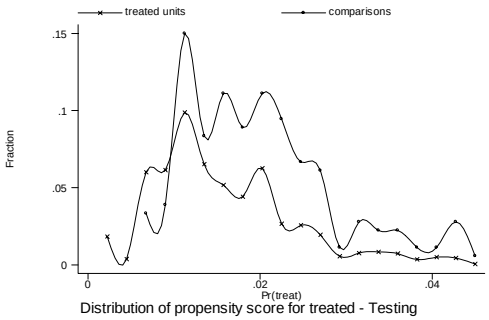
Distribution of propensity score for treated - Psych. Support



Distribution of propensity score for treated - Occup. Guidance



Distribution of propensity score for treated - Informing



Distribution of propensity score for treated - Testing

Figure 6b.
Propensity Scores, Chelyabinsk sample