Ministry of Finance of the Republic of Latvia

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Executive Summary of the Evaluation

Evaluation of the impact of the State Employment Agency's profiling method on the success of finding employment for the registered unemployed

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During 2011-2013 in framework of ESF co-financed project "Strengthening of the Capacity of State Employment Agency" an electronic unemployed persons' profiling method was developed. The main objective of it is to identify the unemployed persons' potential for finding employment, self-assessment of skills and motivation to search for employment in order to provide employment agents of State Employment Agency (here and after – SEA) and career counselors the information for identifying appropriate support measures for unemployed, thus reducing the length of unemployment period and eliminating the potential risks that could prevent successful return to the labor market. Profiling method has been applied starting from the end of 2013, while in 2014 the first adjustments were made to the profiling matrix. At the end of 2016 it is possible to assess the application of profiling method and its short-term effect on the success of finding employment in 2014 and 2015.

The objective and tasks of the evaluation

The objective of the evaluation is to assess the profiling method's impact on finding employment and further improvement of the method in order to increase the efficiency of the measures recommended to the unemployed. The subject of the evaluation is the efficiency of the employment measures in respect to finding a job. The measurements of efficiency are performed, using six months reference period after the profiling day, thus it is measured whether the unemployed person has found an employment within six months period. Time spent attending employment measures is excluded from the unemployment period. The evaluation methodology has been chosen in order to address the objective of the evaluation and its tasks as optimally as possible, applying at least one counterfactual method, namely:

1) To assess the impact of the profiling method on the success of finding employment through assessing the employment measures effect on the profiling groups in period between beginning of January 2014 and end of December 2015:

► Perform an evaluation on the efficiency of finding employment for clients at the level of profiling groups that have been engaged in SEA measures after the particular measures have been recommended during the respective period of time;

► Perform an evaluation on the efficiency of finding employment for clients at the level of profiling groups that have been engaged in SEA measures that have not been recommended during the profiling in the respective period of time;

► At the level of each profiling group to compare and evaluate the results of finding employment for clients that have been engaged in SEA measures according to profiling recommendations and those clients that have not been engaged in SEA measures according to the profiling recommendations or have not been profiled in the respective period of time.

2) Based on the findings of evaluation to develop recommendations for improving the active labor market measures attribution towards the profiling matrix at the level of profiling groups in order to define the specific measures for each of the profiling group that would improve the success of finding employment for the persons belonging to the particular group.

Methodology of the evaluation

The methodology is developed taking into account the application of counterfactual methods in other scientific and applied studies, as well as aspects of the data accessibility, extent and content. **Methodology of evaluation consists of applying of two consecutive methods, the combination of which forms the counterfactual analysis:**

1. **Exact Matching** – each individual of the treatment group is matched to equal individual from the control group based on matching variables (such as gender, place of residence, education and others). The purpose of exact matching is to eliminate the effect of other factors on the results, except the treatment.
2. **Difference in Means and Difference between the Two Proportions** – depending on the analysis, the share of unemployed who have found employment within six months and the average length of unemployment period is compared for the matched treatment and control groups.

Microsoft Office Excel 2013 and IBM SPSS Statistics 22 programmes are used for the data processing and analysis.

According to the data provided by SEA, there have been 200 932 unemployment cases during 2014-2015 (including the persons who became unemployed for several times). During the period from 1 January, 2014 till 31 December, 2015, each observation where a person has been unemployed for more than once has been used as an individual case. During the particular period 271 231 events of profiling have been recorded, including the re-profiling of the unemployed (including re-profiled to the same profiling group), as well as profiling of the unemployed who have been unemployed before 1 January, 2014.

The period in scope of the evaluation is 1 January, 2014 till 31 December, 2015. In order to assess the measures impact on finding a job, there is a necessity for the period of observations after the treatment where to control the changes in dependable variable, i.e. whether the unemployed has found a job within the six months period starting from the day of profiling. During the period from 1 January, 2014 till 30 June, 2015 there are registered 150 987 unemployment cases, out of them 7 046 cases (4.67% of the total number of unemployment cases) are un-profiled. The analysis excludes the persons who have been registered as unemployed and have returned to the same employer afterwards, there are 13 156 such cases (or 9.1% of the total number of unemployment cases).

In total, there are 39 profiling groups, i.e., 13 groups for each of three levels of probability of finding the employment (high, medium and low). There are six priority levels of employment measures in profiling matrix, as well as the option that the measure is not recommended for the profiling group at all.

Within evaluation two modes of analysis are carried out at the level of proofing groups and one mode of analysis at the overall level about the unemployed profiled between 1 January, 2014 and 31 December, 2015:

1. Comparison between the profiled unemployed who took part in the recommended measures and those who did not take part in the recommended measures;
2. Comparison between the profiled unemployed who took part in the recommended measures, and those who took part in measures that were not recommended to them;
3. Comparison of attending the measures of those unemployed who were profiled and those unemployed who were registered during the respective period, but were not profiled.

<u>Results of the analysis</u>

The evaluation provides short-term assessment, the results would change if the factors such as time spent in the new employment, increase of income or other qualitative aspects of employment would be observed in long-term perspective that is out of the scope of this evaluation. **Application of short-term assessment negatively impacts the efficiency of the measures that are targeted at the involvement of long-term unemployed**. The results for the measures containing various different activities (i.e. sewing courses, welding qualification courses, computer user trainings and language courses) could not be interpreted explicitly, also their target groups are different (i.e. youth and long-term unemployed). **In order to evaluate efficiency of particular measures, the activity level analysis needs to be performed** that is not possible within the scope of this assessment as the recommendation is recorded at the level of measure, not the activity.

The first mode of the analysis is the most appropriate to evaluate the effect of attendance of the recommended measure on the finding of employment during the six months period. **Positive effect** on finding the employment has been observed for measures as follows: training at work place or priority sectors (the measure has been developed so that the person stays employed after completing the measure), workplace for youth (the result was statistically insignificant), measures for specific target groups and youth voluntary work. **Negative effect** has been observed in respect to the vocational education measure, in-formal education measure, measures for improving the competitiveness, workshops for youth (only at the significance level $\alpha=0,1$) and temporary paid social work (unemployed who attended this measure and their matched counterparts on average rarely found employment).

When performing analysis from the regional perspective and level of education, results show similar evidence about the problems that are widely discussed in society – firstly, the low activity of Latgale region labor market, and, secondly, relatively high unemployment among persons having obtained the vocational education. More successful in finding the employment are unemployed living in Riga and Pierīga region, as well as ones with higher and secondary education.

Table: The share of unemployed who have found employment in treatment group and control group, comparing the unemployed who has / has not attended the recommended measure

Measures	Share of founding employment for treatment group	Share of founding employment for control group	The statistical significance (p-value) of the difference	Number of matched pairs	Average length of unemployment period for treatment group in days	Average length of unemployment period for control group in days	The statistical significance (p-value) of the difference
Vocational education, trainings for getting the car and tractor driving license	18%	30%	***	6 624	239.00	170.94	***
Informal education, except training for getting the car and tractor driving license and state official language training	24%	31%	***	2 572	164.15	141.28	***
Participation in training at work place or priority sectors	86%	27%	***	22	38.37	209.20	***
Activities for improving the competitiveness	23%	37%	***	78 020	209.66	139.51	***
Workplace for youth	61%	43%	not sig.	23	71.55	117.69	not sig.
Measures for specific target groups	40%	23%	***	457	132.50	183.91	***
Youth voluntary work	47%	39%	***	941	95.49	139.44	***
Workshops for youth	33%	46%	*	80	175.38	122.93	*
Temporary paid social work	8%	11%	***	1 648	161.68	142.83	not sig.
Career consultations	26%	38%	***	41 640	168.79	134.96	***

The second analysis could be considered as complimentary to the first one, and in general it does not contradict with the results of the first analysis. The difference in the shares of unemployed that have found employment between the treatment and control groups is not statistically significant, because **it is not expected that exactly matched (i.e. similar to each other) unemployed would have different results depending on the fact of recommendation of the measure or lack of it** (taking into account that the exact matching envisages to match the observations within the profiling group, including the probability of finding a job). The results shows that on average there is no need for consultant to make a subjective decision on full or partial application of the basket of the services in a result of profiling. Nevertheless, the automatic recommendation could not be suggested for measures that are formed of many various activities as the impact of particular activities needs to be analyzed in more detail.

When comparing the profiled and un-profiled unemployed, the higher frequency for finding a job could be observed among the un-profiled unemployed. It could not be considered that more frequent fact of getting a job for the un-profiled unemployed who attended the measures could be the evidence of the effect of those measures in respect to the finding a job, also the differences between the groups most frequently are not statistically significant. The results show that there is non observed characteristic among all un-profiled unemployed that leads to the more frequent and faster finding of employment. One of the potential explanations could be the motivation of the person to find a job or

the probability of getting a job that in case of the un-profiled unemployed is not being identified. Therefore, it is extremely significant to perform the profiling for all unemployed.

Conclusions and recommendations

The conclusions and recommendations from the analysis are developed using three levels of significance: α=0.01 (***), α=0.05 (**), and α=0.1 (*). The positive effect is being defined in cases when the positive effect has been observed for all three levels of significance. The negative effect is concluded only at significance levels α=0.01 (***) and α=0.05 (**), excluding α=0.1 (*), taking into consideration that short-term assessments of employment measures have the tendency to show worse results in comparison with the longer period observations. Thus, 90% probability level could not be sufficient in order to conclude about the decrease of the priority level of the measures or the cancelation of the recommendation for particular profiling group[1]. In case of the positive effect, if such an effect has been observed already at the significance level of α=0.1, the respective measures for the encouraging of the positive effect need to be promoted.

1.   The results of the analysis conclude that **vocational education measure could be recommended for groups with low probability of finding employment** (those groups do not have negative effect from the participation), which are the target groups for the vocational education measure already now. Taking into account that there is no significant difference in frequency of finding a job between the participants to whom the measure was recommended and those who attended the measure without the recommendation, the consultants do not need to judge on the suggestion to recommend the measure – the recommendation for attending the vocational education measure could be applied automatically during the profiling process. Nevertheless, before the implementing the changes to the profiling matrix and applying of the recommendation automatically, it could be suggested to perform the activity level analysis as not all participants of all activities have been equally successful in finding a job. Most likely, improving the range of the activities within the vocational education measure, the total impact of vocational education measure on the finding a job would increase, accordingly that means that after the improvement of the range of activities the changes in the matrix are not needed, i.e. maintaining the priority level for the measure, the activities would have higher value added.

2.   **The effect of the informal education of the finding the employment for the profiled unemployed needs to be assessed in longer perspective**, as a part of the activities most likely do not create immediate advantages in finding a job, they are targeted at improvement and strengthening of the skills (for example, computer user skills) that in longer term most likely allows to find a job more successfully in comparison if not having the particular skills. In short-term the informal education measure is not effective, excluding for groups H12 and H13 as well as L10. Taking into account that there is no significant difference in frequency of finding a job between the participants to whom the measure was recommended and those who attended the measure without the recommendation, the consultants do not need to judge on the suggestion to recommend the measure – the recommendation for attending the informal education measure could be applied automatically during the profiling process. However, before the implementation of the changes to the profiling matrix or application of the method, detail analysis assessing the effect of particular activities towards finding a job would be necessary.

3.   **Participation in training at work place or priority sectors is the most effective measure for finding a job in short-term assessment,** the measure is being recommended very often, but quite few unemployed have taken part in it. Taking into account that the evaluation results are inconclusive in respect to the reasons of low attendance, **SEA needs to assess the reasons for the imbalance between the high volume of recommendations and low volume of attendance and to introduce the respective changes to the profiling matrix** that accordingly could be – to reduce the number of recommendations by applying the guidance for the consultants how to recommend the measure (if there exist in this analysis not examined circumstances that are representative for unemployed that influence the actual

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[1] Here and after profiling group is defined as combination of one letter and one or two digits, and is marked as follows:
   ▶   H – in those profiling groups unemployed have high probability of finding employment;
   ▶   M – in those profiling groups unemployed have medium probability of finding employment;
   ▶   L – in those profiling groups unemployed have low probability of finding employment;
   ▶   Digit(s) 1 to 13 shows the group that is developed depending on the person's level of motivation to find employment, level of motivation to cooperate with SEA and person's self-assessment of his/her skills.

participation) and/or promote the conditions for the provision of the measure according to the recommendation.

4. **The negative effect of the competitiveness improving measure could be explained by not only the short-term limitation of the evaluation, but also the diversity of activities within the measure**, i.e. consultation of psychologist, courses for creating a web-page, accounting courses, etc. The suggestion (according to the methodology of the evaluation) would be to lower the priority level of the measure, firstly offering the measures that are closer to the labour market. However, in longer perspective the development of the skills could be among the reasons for finding a better job, changing a job or receiving a higher income that is out of the scope of this analysis.

5. **It is necessary to promote the participation in the measure of the unemployed who were recommended to attend the workplace for youth measure**, taking into account the positive effect on finding a job, as well as currently high volume of the recommendations and low attendance rate for the measure. The evaluation is inconclusive towards the subjective reasons of unemployed leading to the low participation in measure, thus SEA needs to assess the reasons for the imbalance between the high volume of recommendations and low volume of attendance and to introduce the respective changes to the profiling matrix. SEA needs to get assurance on the introduction of the preconditions for the implementation of the measure if it is recommended, otherwise the measure does not need to be recommended.

6. **It is suggested to apply the automatic recommendation of the specific target groups measure**, according to the profiling matrix and taking into account the positive effect on finding a job among the all participants disregard the fact of recommendation. In profiling matrix the priority level of the measure for the specific target groups could be increased for profiling groups H6, H13, M7, M10, M13, L12, and L13.

7. **To promote the participation in the measure of the unemployed to whom the youth voluntary work were recommended.** SEA needs to assess the reasons for the imbalance between the high volume of recommendations and low volume of attendance. The opportunities for the attending of the measure needs to be ensured (accordingly, the measure could not be recommended if the preconditions are not met), however, if there are circumstances related to the specific characteristics of unemployed (besides those taken into account when matching the treatment group and control group) that prevents the participation in measure when it is recommended, the measure does not need to be recommended (the consultant should be able to identify and take the respective actions for not recommending the measure). Applying of the recommendation automatically could not be suggested yet, because even the frequency of finding a job for unemployed who attended the measure without the recommendation is equal to the unemployed who attended the measure after it was recommended, the average period for finding a job is significantly longer.

8. The analysis suggests that **in short-term there is no positive effect on getting a job from the participation in the workshops for the youth**, however the measure also does not have the negative effect. The difference between the participants who attended the measure with or without the recommendation is statistically insignificant, thus the recommendation of the measure could be applied automatically. However, in longer perspective there is a need to monitor the positive effect of the measure – it could be suggested to carry out the long-term evaluation or evaluation focusing on the qualitative aspects of the employment.

9. **The lowest frequency for getting a job in six months period in comparison with other measures could be observed for participants of the temporary paid social work measure that could be explained with the involvement of target group of the measure – long-term unemployed persons.** The target group of the measure is formed of the unemployed who are registered in SEA for at least six months or are registered as unemployed for less than six months, but is not being employed for at least 12 months. Unemployed who are registered in SEA for at least six months always will fall into the category of those unemployed who has not succeeded in getting a job within six months from the day of profiling. Taking into account that by the substance the second target group is long-term unemployed, even if they are registered in SEA relatively recently, the opportunities for finding a job within period of six months are quite limited for those persons. **The impact of the measure needs to be assessed in long-term perspective in order to conclude on the changes in profiling method.**

10.   **Career consultations in short-term perspective is not an efficient measure for finding the employment.** Nevertheless, the effect from the career consultations could be both qualitative (i.e., getting a job that corresponds to the education or previous profession) and long-term that could not be observed in short-term. Thus, there is a need to apply another methods in assessing the effect of this measure, including to carry out the impact assessment for the indicators characterizing the quality of the employment, not only the frequency for finding a job.

The evaluation identifies the problems in respect to the data quality, data extent and appropriateness for the counterfactual analysis. Data on registered unemployed, suggested measures and attended activities are prepared in different data files that makes the data selection more complicated. For example, the participation in activities is recorded at the level of activities; at the same time not all activities belong to the measures included in profiling matrix; the recommendation is done at the measure level, not activity level; thus it is not possible to identify whether the particular activity has been recommended.

Carrying out of the long-term analysis could be suggested for the in-depth evaluation of the efficiency of the profiling method, including employment indicators such as period spent in the new job, income level, etc. The application of the counterfactual methods after two-three year period after the cut-off date of the analysis would provide wholesome assessment as the wider changes in respect to the unemployed persons could be taken into account.