

# Evaluation of the Active Employment Programs in Astrakhan Region

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**Abstract**—The article deals with theoretical approach and methodology of the evaluation the effectiveness of the active programs in the labor market. The current state of the labor market in Russia is analyzed. Special attention is paid to regional labor market. Factors influencing the effectiveness of programs at the regional level are revealed. The impact of active employment programs on wages and the increase in job opportunities was assessed. The influence of active employment programs on the social welfare and social cohesion of citizens seeking work was revealed. An analysis of the costs and benefits of training programs for each district employment center in the Astrakhan region was conducted. It was determined for which population groups' employment programs are most effective.

**Keywords**—Active programs, Labor market, Effectiveness, Employment.

## I. INTRODUCTION

The 2017 average general unemployment rate in the Russian Federation made up 5.2 %; whereas that of registered unemployment made up under 2 %. For over 5 years, the unemployment rate has been tending to decrease. If compared with the 2016 rates (See Table 1), unemployment was decreasing in all the Federal Districts of Russia. However, reduction in unemployment occurs at a different pace in different regions. A considerable decrease in unemployment (0.6 % and 0.8 %) takes place in the Ural and the Siberian Federal Districts respectively.

According to Table 1, the unemployment rate exceeds the average national unemployment rate in five of eight Federal Districts. The minimal unemployment rate relates to the Central Federal District (in particular, in Moscow – 1.4 %); whereas the maximal unemployment rate is in the North Caucasian Federal District (in the Republic of Ingushetia – 26.4 %). The median value of the unemployment rate in Russia made up 6.0 % in 2016 and 5.5 % in 2017 (i.e. it decreased by 0.4 %).

TABLE I. GENERAL EMPLOYMENT RATE IN FEDERAL DISTRICTS, RUSSIA

Federal District	General Unemployment Rate		
	2016	2017	Percentage Changes
Central Federal District	3.5	3.2	0.3
Northwestern Federal District	4.6	4.2	0.4
Southern Federal District	6.4	6	0.4
North Caucasian Federal District	11.0	10.9	0.1
Volga Federal District	4.8	4.7	0.1
Ural Federal District	6.1	5.5	0.6
Siberian Federal District	8.0	7.2	0.8
Far Eastern Federal District	5.8	5.6	0.2

Source: Compiled by the authors based on the following data [1]  
[http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/wages/labour\\_force/#](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/labour_force/#)

## II. THEME URGENCY

Since 2013, the State Program “Assistance to Population’s Employment” has been implemented. The program duration is eight years – from 2013 to 2020. The government is planning to spend 579025967.3 thousand rubles [2]. The main activities to implement this program are events related to active employment policy and actions aiming to increase the population’s labor mobility. A number of target rates of this program has already been achieved in large centers of Russia with a well-developed industry; however, those rates are far from the target ones in southern regions, whose population is mostly rural. Efficiency of employment programs may be assessed with workforce distribution efficiency rates. Yet, there are setbacks related to determination of efficiency criteria and selection of methodological strategies to assess active employment programs.

## III. BRIEF LITERATURE REVIEW

Employment assistance programs were introduced in 1930s by Herbert Hoover in the USA [3]. Since 1962,

programs to train and retrain unemployed citizens have been included in those programs. In 1970s, the first research papers by US scientists assessing efficiency of employment assistance programs were published. Efficiency assessment of state programs at the labor market includes monitoring of the program execution, as well as the costs and benefits analysis to compare expenses due to the program realization with benefits obtained. There are two approaches to measuring the efficiency of active employment programs.

The first approach regards the program results at the macrolevel for various categories of population. In particular, it implies assessment of indirect effects of the program realization: the substitution effect; the displacement effect; the taxation effect; the zero effect. The substitution effect implies that benefits of the state programs correlate to losses for those who do not participate in those programs. The displacement effect means that companies attracting subsidized employees increase their outputs and reduce their costs simultaneously, which violates fair competition principles and displaces those companies that do not employ subsidized staff. The taxation effect relates to funding of state programs by increasing taxes, which reduces taxpayers' wealth. The zero effect implies that the same effect has been obtained as a result of implementing those programs as if they were not implemented at all. American researchers support this approach. For instance, those are Chris Edwards and Daniel J. Murphy who published their paper "Employment and Training Programs: Ineffective and Unneeded". This paper proves that the US economy does not need a federal employment and professional training service. Based on their costs and benefits analysis, Chris Edwards and Daniel J. Murphy [4, p. 6] prove that professional training programs are inefficient and that the best way to stimulate employment is the governmental market policy encouraging entrepreneurship and private business.

The other approach is based on measuring the social or economic effect of a particular program for its participants. To calculate an individual effect, one has to create a comparative situation that would provide an answer to the question what would have happened if that program had not been implemented. The program is acknowledged as an efficient one, provided one's employment status has changed and one's salary has risen upon its completion. One might also compare average wages of those who participate in such programs with wages of those who do not participate in them. This approach has been applied mainly in Eastern and Central Europe since 1990s. In Romania, Nuria Rodriguez Planas [5] considered this issue. In her research, this author determined for which categories of population the employment assistance programs have been the most efficient. This research made it possible to monitor changes in wages and status of the surveyed employed individuals during two years after the employment assistance program had been initiated.

In Hungary and Poland, Christopher J. O'Leary [6, p. 24] has assessed the self-employment programs, the unemployed retraining programs, and the programs of subsidiz-

ing and public works. Based on the 1990-1996 data panel, he proves in his paper that the maximal positive effect was gained by the unemployed retraining programs and the minimal positive effect was gained by the self-employment stimulation programs, since only a tiny share of population was prepared to perform self-employment activities [7]. Since the structural type of unemployment prevailed in ex-Communist countries in 1990s, retraining of workforce was the most efficient action of all the active employment programs then.

In Russia and Romania, Benus, Brinza, Cuica, Deniso-va, and M. Kartseva assessed programs of retraining the unemployed and public works programs. Based on data by the employment agencies of Voronezh and Chelyabinsk, the researchers have not revealed any considerable influence of those programs on either the employment rates, or an increase in wages in the Russian regions. At the same time, participation in those programs increases chances to get a job and contributes to increase in wages in Romania [8, p. 6].

Based on data of employment agencies of Rostov-on-Don, L.I. Nivorozhkin and A. Nivorozhkin carried out a statistic assessment of the effect of programs of the unemployed professional training and retraining. The effect of those programs expressed in changes in average wages is positive in both the short-term and the long-term run, which is a convincing proof of the fact that those programs are an efficient tool of active policy that the state employment agencies execute at the labor market. The unemployed indeed obtain much more benefits if they participate in those programs than if they do not take part in them [9].

Many researches of effect of active employment programs do not provide a definite answer to the question what influences the efficiency of those programs.

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#### IV. RESEARCH OBJECT

The object of this research is Astrakhan Region as a region with a considerable share of the rural population<sup>1</sup>. The local unemployment rate fluctuates from 2 % to 18 % in different districts; in the regional center (Astrakhan) this rate is under 1 %. There are no employers in 40 settlements of Astrakhan Region at all.

#### V. GOAL SETTING

The goal of this research is to assess efficiency of active employment programs in the regional aspect and de-

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<sup>1</sup>The share of rural population in the Russian Federation is 26 % and that of the urban population is 74 %. In Astrakhan Region, the share of the urban population is 52 % and that of the rural population is 48 %.

termination of the factors that influence their efficiency (in the economic and social scopes).

The following tasks have been set in accordance with the set goal:

- assess the influence of active employment programs on wages and increasing chances to find a job (at the microlevel);
- assess the influence of active employment programs on the social unity and well-being of citizens searching for a job;
- analyze the costs and benefits of training programs for each district employment agency of Astrakhan Region;
- assess the influence of training programs on the employment rate in districts of Astrakhan Region;
- determine for which categories of population active employment programs are the most efficient.

This project also aims to assess the effect of training programs and self-employment assistance programs at the microlevel, since it provides particular quantitative rates for a target audience, considering with impact of those programs upon the regional economy.

The paper is based on report and survey data for 2016 and 2017. In total, of the 1,018( 423 in 2016 and 295 in 2017) people who have completed a professional training program at employment agencies of Astrakhan Region, 270 people have been surveyed.

The age structure of the respondents corresponds to the structure of those who applied to the employment agencies in search of a job (See Table 2):

TABLE II. AGE STRUCTURE OF RESPONDENTS

Age of Respondents	Age Category	Sampling Share
14 to 29 y. o.	Young people	45%
30 to 50 y. o.	Active population	25%
Over 50 y. o.	Pre-pension age	30%

To assess the effect of one’s participation in a professional training program or a self-employment program, let us compare wages of employees with the same characteristics (gender, age, education, marital status, district, etc.) who participated in those programs and who did not participate in them. It is necessary to provide a district-by-district comparison, since the employment rate in different districts varies from 38 % to 71 %.

$$D = E[Y_i^T|T] - E[Y_i^C|C] = \{E[Y_i^T|T] - E[Y_i^C|C]\} + \{E[Y_i^C|T] - E[Y_i^C|C]\}$$

where T is a group of individuals who participated in training programs; while C is a group of individuals who did not participate in training programs;

$Y_i^T$  is a salary of a person who participated in a training program;

$Y_i^C$  is a salary of a person who did not participate in a training program;

Differences in the observed and unobserved characteristics in the two groups result in a shifted assessment of this effect.

The analysis of costs and benefits has been carried out considering with costs for training, which include the direct costs of training and the allowance paid to the person who covered that training. As for the benefits, we took into account the sum of an unemployment relief that a person could receive if he or she was unable to find a job, as well as the sum of taxes subtracted from his or her salary (or from his or her revenues in case of self-employment).

## VI. OBTAINED RESULTS

Programs of professional training are more efficient for people of senior age, who have a secondary professional or higher education, since those programs increase one’s chances to change their professional status and influence their salaries positively. The employment rate of citizens of pre-pension age who completed a training program is 100 %.

Participation in a professional training program increases chances of employment for women with a secondary, a secondary professional, or a higher education up to 89 % and reduces duration of their unemployment period.

The training programs for the rural unemployed residing in areas with an underdeveloped infrastructure influence economic development in those areas positively.

Comparison of costs and benefits per person who completed a professional training program proves that benefits of those programs exceed the relevant costs insignificantly.

Active employment programs influence salaries positively; they increase one’s chances to find a job for those who completed those programs.

Programs of professional training are more efficient for people of pre-pension age (over 50 y. o.) and for the young (from 14 to 29 y. o.) with a secondary professional or a higher education, since they increase one’s chances to change their professional status and influence one’s salary positively.

The training programs for the rural unemployed residing in areas with an underdeveloped infrastructure influence self-employment, development of business and economy in those areas positively.

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