Research on the Effectiveness of Public Administration in the Sphere of Youth Policy

Rinat GALIN and Timofey ASMOLOV
V.A. Trapeznikov Institute of Control Sciences of Russian Academy of Sciences
65 Profsoyuznaya Street, Moscow, 117997, Russia
*Corresponding author

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Abstract. This paper is devoted to the problems of state administration in the youth sphere. The substantiation of efficiency increase of public administration in the youth sphere is presented in connection with adverse tendencies of its development. The economic and social indicators of the effectiveness of public administration in the field of youth policy, which should be considered in relation to the resources consumed by them, are substantiated. The algorithm of integral estimation of efficiency of public administration in the sphere of youth policy taking into account values of grouping of indicators has been constructed. The equation of calculation of an integral indicator of efficiency of public administration in the youth sphere are presented, taking into account mutual influences of indicators of efficiency and the total expenses made by the state for change of relative values of indicators of efficiency.

1. Introduction

Youth is a dynamic group of citizens with a range of ages from 15 to 29 years, consisting of three subgroups: 15-19, 20-24 and 25-29 years, which make up 17.98% (about one in five people) of the population of the Russian Federation [1]. The indicator of natural population growth of the Russian Federation is close to zero in its negative part. This is due to the natural decline of the rural population, overlapping the growth of the urban population. There is a tendency to reduce the number of marriages with a consistently high divorce rate. In the coming decades, Russia will experience a decline in the proportion of young people, which is a serious demographic, economic and social problem.

Well-known Russian methods of analysis of public administration in the youth sphere based on sociological or political approaches, which lead to recommendations of an abstract nature outside the technological aspect of the problem [2-5]. Technological domestic approaches mainly focused on production tasks, without affecting the social and economic aspects of youth issues. Foreign methods aimed at solving narrow, local problems of the youth sphere [6-9, 11].

In the current conditions in the youth sphere of the Russian Federation, new approaches to public administration, fully affecting all of the above trends and processes, are of particular relevance.

2. Criteria for the Effectiveness of Public Administration in the Field of Youth Policy

The problem of assessing the effectiveness of public administration technology in the field of youth policy [10] at the time of this study is debatable, which is especially important when discussing, setting and implementing a wide range of tasks in relation to the main target settings and specific areas of management in the field of research. According to a number of authors, the effectiveness of social technologies is associated with their innovation. In this regard, we focus mainly on the innovative aspects of the implementation of youth policy.

In our opinion, innovation in youth policy is only a form of its implementation, but not the ultimate goal. For example, when implementing youth policy in some Russia regions, a number of principles are used:
- directly involvement of young people in the social and political life of the region;
- program management of the state youth policy for the solution of problems of social and economic development and especially youth problems;
- support and implementation of socially significant initiatives of youth, both individual citizens and put forward by youth and children's public associations.

According to researcher T. A. Tonchu [3], the effectiveness of regional youth policy depends on the position of various authorities, on the standard of living of all segments of the population of Russian society. The results of political and socio-economic reforms affect the forms and methods, as well as the effectiveness of youth policy. In our opinion, these general conclusions, despite their social significance, are difficult to apply to the methods of technical (technological) management in the youth sphere. Thus, sociological tools, with general approaches to the problems of public administration in youth policy, still does not provide accurate technically verified solutions to influence the main indicators reflected in the reports of Rosstat [1].

In the work on the assessment of public administration in the youth sphere, good results were obtained by S.V. Ustinkin, A.V. Rudakov and A.Y. Hovrin [12-13], that presents systematic methodological approaches to assessing the effectiveness of youth policy, based on the following classification:

- approaches based on the analysis of social effects from the implementation of programs;
- approaches that focus on the calculation of the efficiency of economic costs and correlate the results with the consumed resources;
- integrate approaches that based on the definition of social outcomes of programs and analysis of their costs, taking into account the achieved stated political goals.

At the same time, defining the goals and directions of youth policy, relying solely on sociological and political approaches, it is likely that a limited understanding of the term effectiveness of youth policy will be obtained, in the case of abstract consideration of its resultant and resource components.

The effectiveness of any system can be understood as the ratio of the change of any indicator characterizing the system to the efforts expended (material, financial, human, temporary, etc.).

Structuring a generalized definition of the effectiveness of youth policy, that shows possible to identify the relationship between goals, performance indicators and resource provision. Due of this the goals of certain areas of youth policy are achieved through using of certain technologies of public administration. The results of youth policy testify to its effectiveness. Need to note that result indicators could be built into a system containing specific, measurable, qualitatively and/or quantitatively defined indicators, which are the product of targeted and planned activities carried out within the framework of certain technologies.

Thus, the effectiveness of the implementation of youth policy is a comprehensive indicator of the effectiveness of the subjects’ interaction of youth policy that will reflect the relationship between specific decisions, major efforts and resources involved in the development and implementation of youth policy. Approaches to the study of the effectiveness of youth policy should also include an analysis of its internal structure, in terms of the technological aspects that make up this structure.

3. Economic and Social Indicators of the Effectiveness of Public Administration in the Field of Youth Policy

We expect that because of this analysis, the effectiveness of social and economic indicators will be calculated. It seems unreasonable to take into account the indicator of youth involvement in state projects without its connection with the estimates of final social and economic performance indicators, which takes into account by Rosstat [1].

3.1 Economic performance indicators

Consider the First group of indicators—efficiency define as the ratio of the change of any indicator characterizing the economic system to the efforts expended (material, financial, human, temporary, etc.).
1. **Unemployment rates by age group of youth.**

   It is necessary to reduce unemployment for all age groups of young people by providing employment for urban and rural populations. The rural population is more prone to seasonal unemployment (that is, it needs employment in the off-season), and the urban population suffers most from structural unemployment (that is, it requires timely retraining for market-demanded specialties).

2. **Average time of job search by age groups of young people.**

   It is obvious that it is necessary to reduce the average time of job search by age groups of young people due to better awareness of vacancies, greater mobility of the population and greater adaptation of the regions providing vacancies to the reception and creation of decent living conditions for visiting youth.

3. **The minimum living area (number of rooms) to a member of the young family.**

   The availability of quality and affordable housing and its parameters determine the very existence of a young family. The provision of housing for young families should be increase, either through sufficient, rented, affordable housing or through low-cost mortgages for young families in the primary or secondary housing market.

4. **The minimum income per member of a young family.**

   A young family, because of its shortage, multidimensional development and the birth of children, is in dire need of financial, material, information and other resources. Therefore, the minimum level of income coming to a member of a young family should be higher than the same figure for an ordinary family.

5. **Indicator of the level of professional readiness of young people by age.**

   Young people choose the level of professional training available to them (higher professional, secondary professional, secondary education) for the development of related and additional professions in demand in the market.

3.2 **Social performance indicators**

   Consider the *Second* group of indicators—efficiency is define as the ratio of the change of any indicator characterizing the social system to the efforts expended (material, financial, human, temporary, etc.).

6. **The ratio of young men to young women.**

   It is necessary to ensure the preservation of gender balance: an approximate dynamic parity between the number of young men and young women in the conditions of overcoming the latest trend of accelerated growth of the male population in the recent peaceful history of Russia, perhaps by attracting the female population from the former Soviet Union.

7. **The ratio of young men and young women in cities and towns.**

   The result of calculation of such ratio it is necessary to provide an increase of rural population from cities for formation of balance between urban and rural settlements. With the development of information technology, road and energy infrastructure, the cost of living should decrease and the quality of life should improve in rural areas.

8. **Increasing life expectancy in rural areas.**

   With regard to the increase in life expectancy, it is necessary, first, to ensure that the number of deaths in rural areas falls below the level of positive population growth in cities.

9. **Fertility rates by age group.**

   In the coming years, it is necessary to increase the birth rate for middle and older age groups of young people.

10. **Mortality rates for all age groups.**

    In order to reduce mortality for all age groups of young people, it is necessary to analyze the main
causes leading to death: road traffic accidents, maternal mortality during childbirth, pathological diseases, domestic and industrial incidents, terrorist acts and armed conflicts, etc.

11. The number of marriages by age group of young people.

It is necessary to increase the number of marriages in all age groups of young people, especially in the middle and older age groups.

12. The number of divorces by age group.

The society needs to preserve families, especially those consisting of young people (for this purpose it is necessary to investigate all the main reasons leading to the disintegration of families: unpreparedness for life difficulties; psychological and physiological incompatibilities; financial, material, housing problems; adultery, etc.), as well as to create a predominant dynamics of the number of marriages over the number of divorces.

13. Provision of preschool facilities in urban areas for children aged 1-6 years and in rural areas.

The availability of places in public preschools, as well as encouraging the development of certified private preschools or the creation of communities of “duty mothers (grandmothers)” in the places of residence will help to solve the demographic problem.

14. The number of children and adolescents left without parental care in institutions.

The society needs to increase the number of foster families and reduce the number of children and adolescents left without parental care in order to achieve family status, if possible, for all children.

15. The number of interruptions of pregnancy (abortions) among young people.

The most important social problem is to reduce non-medical indications of abortions. We need to multifaceted work among youth on education of moral responsibility for life of the children.

The considered economic and social indicators of the effectiveness of public administration in the field of youth policy presented on Figure 1.

Figure 1. Economic and social indicators of the effectiveness of public administration in the field of youth policy.

Thus, this section substantiates the economic and social indicators of the effectiveness of public administration in the field of youth policy, which should be consider in relation to the resources consumed by them.
4. Algorithm of Integrated Assessment of the Effectiveness of Public Administration in the Field of Youth Policy

Social and economic performance indicators linked to social groups, specific families and individual young people. The resources spent by the state on individual indicators and families are associated with changes in these resources over time. In the current conditions in the youth sphere of the Russian Federation, the algorithms of public administration, taking into account all the above trends and processes, are of particular relevance [2, 14].

Further, the task of determining the integral mutual influence of performance indicators was set, based on a simple expert assumption that if one indicator affected another, the value of their mutual influence on each other was equal to “+” or “1”, if there was no such obvious influence, then – “-” or “0”.

The values of mutual influences will be summarized and normalized for each performance indicator. Based on the obtained normalized values, the grouping of performance indicators made and four following groups were formed: the first group – S1, S9, S10, S12 (S >= 0.9), the second group – S3, S6, S7, S11, S15 (0.9 > S >= 0.8), the third group – S2, S4, S8, S11, S14 (0.8 > S > =0.6), and the fourth group – S5, S13 (S < 0.6).

To verify the formed groups of performance indicators, the cluster analysis apparatus from the STATISTICA App. [15]. The result of grouping presented on Figure 2. The results of the grouping obtained due to different metric approaches are differing from those given above: the first group – S6, S7, S8, S9, S10, S11, S12, S15+ S1 (LD <= 1.0), the second group – +S3, S4, (LD <= 1.7), the third group – + S2, S13, S14 (0.8 > LD >= 0.6), and the forth group – +S5 (LD > 2), where LD – Linkage Distance (the mutual Euclidean distances between the performance indicators).

![Tree Diagram for 15 Variables](image)

Figure 2. The grouping of performance indicators.

Thus, groups of performance indicators are obtained, which are distributed according to the integral (cumulative) influence of indicators on each other.

The algorithm of integral estimation of efficiency of public administration in the sphere of youth policy was developed. The values of parameters of groupings of indicators were also taken into account. Figure 3 shows the algorithm.
1. Definition of economic and social indicators of public administration in the youth sphere

2. Grouping of economic and social performance indicators by the degree of mutual influence

3. Formation of the state plans, programs and measures on groups of mutual influence of efficiency indicators

4. Formation of technologies of public administration in conditions of limited resource

5. Evaluation of the practical implementation of state programs on the simulation model, according to the presented data

6. Evaluation of practical implementation of state programs and plans by groups of mutual influence of performance indicators

7. Adjustment purposes, objectives, programs and plans of the coefficients of the simulation model. Based on the results of the effectiveness assessment

Figure 3. Algorithm of integrated assessment of the effectiveness of public administration in the field of youth policy, taking into account the grouping of indicators.

The novelty of this algorithm is that the implemented state plans, programs and measures are based on different metric approaches taking into account the integral mutual influence of economic and social performance indicators. It allows forming priorities on financing of the youth sphere and other measures of support in the form of the packages of social services provided to youth in the Russian Federation.

In view of the different dimensions of social and economic performance indicators, it is proposed to calculate their relative changes (in percentage), which were obtained from the resources used.

Integral assessment of the research is defined as the summation of the ratio of the values of performance indicators for individual indicators, youth, gender and social groups, to the resources spent and taking into account the mutual influence of indicators.

The integral indicator of the efficiency of public administration is propose by Equation 1.

\[
\delta S = \left( \sum_{i=1}^{N} q_i \cdot \delta S_i \right) / \left( R \cdot \sum_{i=1}^{N} q_i \right),
\]

where \( N \) – Number of performance indicators;
\( q \) – Mutual effects of performance indicators;
\( \delta S_i \) – Relative changes in the values of economic and social performance indicators, (in %);
\( i \) – The index of summation;
\( R \) – Total costs incurred by the state to change the relative values of performance indicators (in rubles).

The considered algorithmic approach will allow concentrating on key groups of indicators of efficiency of management in the youth sphere at the limited state resources.

Thus, in this paragraph the algorithm of integral estimation of efficiency of public administration in the sphere of youth policy taking into account values of grouping of indicators was constructed. The formula of calculation of an integral indicator of efficiency of public administration in the youth sphere were presented, taking into account mutual influences of indicators of efficiency and the total expenses made by the state for change of relative values of indicators of efficiency.

**Summary**

An analysis of the dynamics of the development of the youth sphere revealed negative trends (a decrease in the birth rate, an increase in the number of abortions, a decrease in the number of divorces to marriages, etc.), which are expected to be overcome at the system level. Known methods for
analyzing public administration in the youth sphere based on sociological or political approaches, which leads to general (not specific) recommendations of an abstract nature outside the technological aspect of the problematic. To overcome these shortcomings, it is suggest using the method of simulation with operators of system dynamics. The youth sphere considered in the form of three dynamic flows characterizing different status (economic and social) conditions of young men, young women and minor children. Between these streams, direct and reverse links created that enter and emerge from different storage devices and flow gates, reflecting various aspects of the state of the youth sphere. The status of the youth sphere influenced by the state's control actions. Various combinations of control actions integrated into the main technologies of public administration in the youth sphere. Thus, depending on the applied state management technology, it is possible to simulate the various effects that arise in the youth sphere. The proposed model could be useful to rationalize the distribution of limited public resources in order to obtain a synergistic effect in the youth sphere in order to overcome the identified negative trends.

Due to the redistribution of limited state resources, with the help of the developed tools, the synergetic effect could be maximize in the direction of overcoming the identified negative trends in the youth sphere.

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