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Features of Russian labour market, 2008-2018

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Abstract

The study is devoted to the review of current trends in the Russian labour market after the transition from a planned economy to a market one. Significant changes affected both the process of formation of the workforce and its distribution and use. New problems have emerged, such as hidden and structural unemployment, which affect the possibilities of balancing supply and demand for labour. Particular emphasis is placed on the formation of the youth segment of the labour market, which is necessary for a close study, since the professional formation of the workforce affects the possibility of changing and building up the country's human capital in the future, and determines the future occupational structure, its prospects and the possibility of interactions with the global labour market. The identified trends allow us to measure the state influence on the labour market in order to increase its efficiency, and optimise the use of labour. The social component of the processes of formation, distribution and use of labour is undoubtedly also reflected in measures for forecasting and measures to increase the efficiency of the labour market.

Keywords: Labour market; Unemployment, Workforce; Human capital.

JEL: J2, J3, J6.

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Características do mercado de trabalho russo, 2008-2018

Resumo

O estudo é dedicado à revisão das tendências atuais no mercado de trabalho russo após a transição de uma economia planejada para uma economia de mercado. Mudanças significativas afetaram tanto o processo de formação da força de trabalho quanto sua distribuição e uso. Surgiram novos problemas, como o desemprego oculto e estrutural, que afetam as possibilidades de equilibrar a oferta e a demanda de trabalho. Ênfase particular é dada à formação do segmento juvenil do mercado de trabalho, necessário para um estudo detalhado, uma vez que a formação profissional da força de trabalho afeta a possibilidade de construir e mudar o capital humano do país no futuro, e determina a futura estrutura ocupacional, suas perspectivas e a possibilidade de interações com o mercado de trabalho global. As tendências identificadas nos permitem medir a influência do Estado no mercado de trabalho, a fim de aumentar sua eficiência e otimizar o uso da mão de obra. O componente social dos processos de formação, distribuição e uso do trabalho, sem dúvida, também está refletido nos prognósticos e nas medidas para aumentar a eficiência do mercado de trabalho.

Palavras-chave: Mercado de trabalho; Desemprego; Força de trabalho; Capital humano.

Características del mercado laboral ruso, 2008-2018

Resumen

El estudio se dedica a revisar las actuales tendencias en el mercado laboral ruso después de las transformaciones de la economía y la transición desde una economía planificada hacia una de mercado. Cambios significativos afectaron tanto el proceso de formación de la fuerza de trabajo, como su distribución y uso. Nuevos problemas han surgido de estas transformaciones, como el desempleo oculto y estructural, que afectan las posibilidades de equilibrar la oferta y la demanda por trabajo. Se hace especial énfasis en la formación del segmento juvenil del mercado laboral, que es necesario para un estudio detallado, dado que la formación profesional de la fuerza de trabajo afecta la capacidad de cambiar y construir capital humano para el país en el futuro, determina la estructura del futuro mercado laboral, sus perspectivas y la posibilidad de integración con el mercado laboral global. Las tendencias identificadas nos permiten determinar medidas de influencia estatal en el mercado laboral para aumentar su eficiencia, así como para optimizar el uso de la mano de obra. El componente social de los procesos de capacitación, distribución y uso de mano de obra también se refleja, indudablemente, en las predicciones y medidas para aumentar la eficiencia del mercado de trabajo.

Palabras clave: Mercado de trabajo; Desempleo, Fuerza de trabajo; Capital humano.

Caractéristiques du marché du travail russe, 2008-2018

Résumé

L'étude cherche à examiner les tendances actuelles du marché du travail russe suite à la transformation de l'économie et à la transition d'une économie planifiée à une économie du marché. Des changements importants ont affecté à la fois le processus de formation de la main-d'oeuvre, sa répartition et son utilisation. De nouveaux problèmes sont apparus, telles que le chômage caché et structurel, qui affecte les chances d'équilibrer l'offre et la demande. Un accent particulier est mis sur la formation du segment des jeunes du marché du travail, ce qui est nécessaire pour une étude détaillée, car la formation professionnelle de la main-d'oeuvre affecte la possibilité de changement et de renforcement du capital humain pour l'avenir du pays, détermine la future structure du marché du travail, ses perspectives et la possibilité d'intégration avec le marché du travail mondial. Les tendances identifiées nous permettent de déterminer des mesures de l'influence de l'État sur le marché du travail afin d'accroître son efficacité et d'optimiser l'utilisation de la main-d'oeuvre. La composante sociale des processus de formation, de distribution et d'utilisation de la main-d'oeuvre se reflète sans aucun doute également dans les prévisions et les mesures visant à accroître l'efficacité du marché du travail.

Mots clés: Marché du travail; Chômage; Main-d'oeuvre; Capital humain.

Introduction

By systematizing the accumulated theoretical experience of labour market research we determine the following basic directions of studying this issue and the main disciples of the indicated directions. Given the changing perceptions of the labour factor role in the system of international economic relations, it is necessary to single out theories and concepts of such authors as A. Smith, D. Ricardo, E. F. Heckscher, B. Ohlin, W. W. Leontief, W. F. Stolper, P. Samuelson, M. Porter, as well as a number of scientists studying the problems of the modern world labour market and the international division of labour based on the interests of TNCs, for example, I. Wallerstein, G. Gereffi, M. Castells, M. Korzeniewicz, P. L. Martin, J. Mittleman, K. Rüdiger, J. Stopford, R. Freeman, J. Henderson, R. Hopkins, A. Emmanuelle. Among Russian scientists who studied the impact of transnationalization on the labour market one can mention the works of G. Kostyunina, A. Makaryan, V. Stepanets, Y. Shishkov.

It should be noted that certain aspects of the impact of globalisation on national labour markets and the trends in the transformation of the world labour market are considered in the works of M. Vyshegorodtsev, L. Garuzov, I. Kiselev, V. Shcherbakov. In addition, the specifics of the development of regional and national labour markets have been studied by such Russian scientists as V. Antropov, A. Zezyulin, M. Kargalova, E. Kuznetsova, V. Laperdina, L. Lebedeva, G. Lukyanova, T. Matrusova, S. Nikitin, G. Nikolskaya, O. Rogovina, A. Sobolevskaya, T. Sokolova, M. Stepanova, M. Tsyganov, T. Chubarova, E. Shestakova, A. Schlichter.

Issues related to the professional development of labour resources in various aspects are studied in the following theoretical and practical fields: theory of personality development basing on the unity of the components of general, professional and socio-cultural education (Y. K. Babansky, V. I. Ginetsinsky, B. F. Lomov, *etc.*); theory of vocational education development (P. F. Anisimov, V. P. Bepalko, E. Y. Butko, E. A. Gnatyshina, K. G. Kyazimov, *etc.*); activity-based approach to the learning process (L. S. Vygotsky, A. N. Leontiev, S. L. Rubinstein and others); competence approach (V. I. Baidenko, E. F. Zeer, I. A. Zimnyaya, A. K. Markova, A. V. Khutorskoy and others); technological approach (P. R. Atutov, V. P. Bepalko, V. V. Guzeev, M. V. Clarin, V. M. Monakhov, G. K. Selevko, M. A. Choshanov and others); conceptual ideas of interdependence of an individual's activities and professional competence (V. A. Afanasyev, D. M. Gvishiani, V. M. Glushkov, V. A. Trapeznikov, *etc.*); technologies and methods of educational process modeling (A. Y. Nine, P. I. Pidkasisty, V. A. Slastenin, N. N. Tulkibaeva, N. E. Erganova, *etc.*).

The issues of education availability, labour mobility of the population, interrelationship between social capital and social mobility, education as a resource of vertical

mobility, identification of trends and prospects for the development of higher professional education, socio-economic status of households as a factor of formation of educational strategies, prospects for the formation of educational strategies are described in the works of E. M. Avraamova, O. A. Alexandrova, E. V. Kulagina, L. A. Migranova, A. A. Ovsyannikova, N. M. Rimashevskaya, A. Y. Shevyakova. The problems of development of education and establishment of higher vocational education institutions in Russia were analysed by Z. A. Abasov, B. S. Gershunsky, S. P. Myasoedov, A. P. Ogurtsov, N. P. Pishchulin, T. V. Sokhranyaeva, Y. V. Yakovets and others.

Problems of employment of youth as a separate socio-economic, age and educational group are considered in the works of E. B. Breeva, M. H. Garcia-Iser, I. K. Zolotova, R. P. Kolosova, L. S. Chizhova and others. The problems of studying the orientations of young people for higher education, the values of education and profession in the minds of youth, its educational plans are identified and described by S. S. Balabanov, N. V. Kuzmina, F. R. Filippov and others.

Studies of interests, needs and motives of an individual in the sphere of education in connection with the transition to work and professional activity, issues of professional self-determination of young people are analysed in the works of I. S. Kon, E. F. Zeer, G. E. Zborovsky, D. L. Konstantinovsky, A. V. Yupitov, V. A. Yakunin. Issues of labour behavior of students and graduates of higher educational institutions, influence of labour motivation and orientation on the process of their adaptation in the labour market are studied in works and studies of V. I. Gerchikov, M. N. Vrazhnova, V. V. Karezin, T. L. Klyachko, A. B. Maksimenko, T.G. Myasoedova, I. A. Pashinyan, V. V. Radaev, A. Y. Smolentseva, K. A. Tamirov, A. Sh. Khodjaev, E. V. Shchepkina and others.

The most important task of economic science is to analyze and predict cyclical dynamics of the labour market situation to be able to target it. Modern science has a wide range of relevant tools, among which a special place is occupied by economic and mathematical modeling. It is economic and mathematical methods and models that are designed to help comprehend the current situation in the labour market and to choose instruments for socio-economic regulation of the labour market in the context of the development of the state's economy, increasing competitiveness of labour resources and improving quality of their lives.

1. Structural disproportions of the labour market in Russia: features of the transition period

Russian economy reforming in general and the Russian labour market reforming in particular were marked by a period of revealed structural imbalances that manifested themselves in specific forms of employment and unemployment. It is particularly worth noting the changes that occurred in the emerging youth segment, associated with a change in the attitude of society to the system of vocational training and distribution of labour and its assessments in general.

Table 1. Distribution of economically active population by groups for the period of 1992-2015

Year	Economically active population (1,000)	Number of people employed in the economy (1,000)	Level of employment (in % to the economically active pop.)	Number of the unemployed (1,000)	Level of unemployment (in % to economically active population)	Number of the registered unemployed* (1,000)	Registered level of unemployment (in % to the economically active population)
1992	74,946	71,068	94.83	3,877	5.17	578	0.77
1993	72,947	68,642	94.10	4,305	5.90	836	1.15
1994	70,488	64,785	91.91	5,702	8.09	1,637	2.32
1995	70,861	64,149	90.53	6,712	9.47	2,327	3.28
1996	69,660	62,928	90.34	6,732	9.66	2,506	3.60
1997	68,079	60,021	88.16	8,058	11.84	1,999	2.94
1998	67,339	58,437	86.78	8,902	13.22	1,929	2.86
1999	72,176	63,082	87.40	9,094	12.60	1,263	1.75
2000	72,770	65,070	89.41	7,700	10.58	1,037	1.45
2001	71,547	65,123	91.02	6,424	8.98	1,123	1.58
2002	72,357	66,658	92.12	5,698	7.88	1,232	1.71
2003	72,391	66,432	91.76	5,959	8.23	1,569	2.15
2004	72,950	67,275	92.22	5,675	7.78	1,509	2.07
2005	73,432	68,169	92.83	5,263	7.17	1,830	2.50
2006	74,167	68,855	92.84	5,312	7.16	1,742	2.34
2007	75,159	70,571	93.89	4,589	6.11	1,732	2.30
2008	75,757	70,966	93.67	4,792	6.32	1,734	2.29
2009	75,658	69,285	91.57	6,373	8.40	2,202	2.91
2010	75,440	69,804	92.53	5,636	7.50	1,609	2.13
2011	75,779	70,857	93.50	4,922	6.49	1,286	1.69
2012	75,676	71,545	94.54	4,131	5.46	1,065	1.41
2013	75,529	71,392	94.52	4,137	5.48	918	1.22
2014	75,428	71,539	94.84	3,889	5.16	883	1.17
2015	76,588	72,324	94.43	4,264	5.57	-	-

Note: * Data for 1992-1995 are given as of the end of October; data for 2000-2006 are given as of the end of November.

Data for 2006 include data on the Chechen Republic.

Source: Federal State Statistics Service (Rosstat).

As shown in Table 1 and Table 2, the process of changing the structure of the economically active population for the period of 1992-2015 had a wave-like character,

reaching a minimum in 1998, a year of serious economic transformations and upheavals, and taking the growth trend up to the present time.

Table 2. Level of economic activity of the population of the Russian Federation for the period of 1992-2015

Year	Total population (1,000)	Population of active working age* (1,000)	Economically active population (1,000)	Level of economic activity (in relation to the population) (%)	Level of economic activity (in relation to the pop. of working age) (%)
1992	148.3	83,892	74,946	50.5	89.34
1993	148.2	83,748	72,947	49.2	87.10
1994	147.9	83,767	70,488	47.6	84.15
1995	147.9	84,059	70,861	47.9	84.30
1996	147.6	84,209	69,660	47.2	82.72
1997	147.1	84,337	68,079	46.3	80.72
1998	146.7	84,786	67,339	45.9	79.42
1999	146.3	85,548	72,176	49.3	84.37
2000	145.6	86,332	71,464	49.1	82.78
2001	146.3	88,040	70,968	49.0	81.52
2002	145.2	-	71,919	49.5	-
2003	145.0	89,206	72,835	50.2	81.64
2004	144.2	89,896	72,909	50.6	81.10
2005	143.5	90,218	73,811	51.4	81.80
2006	142.8	90,328	74,187	51.9	82.13
2007	142.2	90,152	75,159	52.8	83.70
2008	142.0	89,752	75,757	53.3	84.40
2009	141.9	89,266	75,658	53.3	84.80
2010	142.9	-	75,440	52.8	-
2011	142.9	87,847	75,779	53.4	86.30
2012	143.0	87,055	75,676	52.9	86.93
2013	143.3	86,137	75,529	52.7	87.68
2014	143.7	85,162	75,428	52.5	88.57
2015	146.3	85,415	76,588	52.4	89.67

Note: * Men aged 16-59, women aged 16-54 (adjusted taking into account the results of the 2002 Russian Census).

Source: Federal State Statistics Service (Rosstat). Statistical Yearbook of Russia 2011.

Structuring the process of reforming the sphere of employment in post-Soviet history, we can note several stages, namely:

- *1991-1993*: period of major institutional changes, full freedom of economic activity, rapid development of the new private sector. At that time, radical changes in employment were not observed. The main influx of the employed hit the newly created enterprises of trade and public catering, as well as banks and financial and credit companies.

At the turn of 1992-1993 it became obvious that further development of market relations in Russia was impossible without privatisation of large and medium-sized industrial enterprises.

- *1993-1995*: privatisation period. This stage of reforming the sphere of employment was more controversial. First, during this period, massive reductions in employment began; second, differentiation of the level of wages intensified depending on the positions and occupations within enterprises; third, enterprises gradually developed various approaches to employment regulation: accumulation or release of surplus labour, changing the ratio of constant and variable components of wages, use of reduced work schedules, as well as forms of temporary employment, *etc.*; fourth, signs of deepening of social and economic crisis of Russia's transition economy already manifested themselves. In general, the policy of employment of enterprise managers became more pragmatic, although it retained certain features of trust in non-economic means of interaction with partners and public authorities.

- *1996-1998*: employment sector reforming. That period was characterised by the intensification of crisis trends in the economy and social sphere, under the influence of which the development of the employment sector aspects acquired distorted features: formal phenomena intertwined with the informal ones, the boundaries between formal and informal employment, between employment and unemployment began to blur, latent forms of employment and unemployment, as well as shadow income activity became widespread. At the same time, new forms of enterprise functioning evolved: reorientation towards production of more competitive products; search for new partners; change in the relationship of administration and staff; change in the ways of financing innovations, *etc.*, which triggered shifts in the sphere of employment.

- The financial and banking crisis of 1998 exacerbated the state of the employment sector and labour market, social tension intensified, uncertainty became the main factor that characterised the entire economy.

- *2000-2006*: the number of people employed in certain industries continued to increase. The labour market stabilised, and, accordingly, the demand for labour and its qualitative characteristics became quite certain, as well as the labour supply began to be formed by a fairly stable, predictable, forecastable trajectory (Gnevasheva, 2003, pp. 46-48).

- *2007*: the economically active population was about 75.2 million people (52% of the country's total population); the predominant part of the employed population was concentrated in large and medium-sized organisations¹.

¹ URL: <http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/population/wages/>

• *2011 up to present time*: period is characterised by stabilisation of the basic social and economic indicators of the labour market in comparison with the general indicators in the number and distribution of the population. The general trends are as follows: at the level of small population growth in general, the number of the working-age population is slightly reduced, but there is also a slight decrease in the economically active population with a decrease in unemployment. The last year of the study, 2015, reflects the outlined prospects for changing the current changes, which requires additional estimates.

The disproportions in the labour market during the period of reforms in Russia in many respects focus on economic prerequisites, but today, apart from the economic component, the problems of employment and unemployment are also acute social issues that must be solved with the help of a properly established policy of all social institutions involved in regulation and formation of integrated links between the labour market and the education sector, and this should be done to minimise structural imbalances on the modern Russian labour market.

Table 3. Distribution of the employed population by types of economic activity (in %)

Year	Agriculture and forestry, hunting, fishing and fish farming	Mining	Manufacturing	Production and distribution of electricity, gas and water	Construction	Wholesale and retail trade, repair of motor vehicles, motorcycles, household products and personal items, hotels and	Transport and communication	Financial activity, operations with real estate, renting and provision of services	Public administration and military security, social security	Education	Health and social services
2005	10.2	1.8	18.4	2.9	6.7	17.1	9.2	7.3	7.1	9.1	6.9
2006	10.0	1.7	18.1	3.0	6.5	17.4	9.0	7.6	7.1	9.0	7.1
2007	9.0	1.9	17.5	2.9	7.0	17.6	9.3	8.0	6.9	9.1	7.3
2008	8.6	1.9	16.4	3.0	7.6	17.3	9.2	8.1	7.6	9.1	7.4
2009	8.4	2.0	15.2	3.2	7.1	17.3	9.4	8.2	8.0	9.4	7.9
2010	7.9	2.0	15.2	3.3	7.2	17.5	9.3	8.3	8.2	9.4	7.9
2013	6.8	2.2	14.8	3.2	7.6	16.1	9.5	8.9	7.4	9.2	7.9
2014	6.6	2.1	14.6	3.3	7.6	16.0	9.5	9.3	7.3	9.2	7.9

Source: Statistical Yearbook of Russia 2011.

URL: http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/publishing/catalog/statisticCollections/doc_1135087342078.

Note: since 2007 data have been generated with the consideration of the Chechen Republic situation.

The table data on the distribution of the employed population by industry show not only the dynamics of changes in the economic activity of individual economic sectors, but also the nature of changes in the demand for labour in a given period, and, accordingly, the structure of employment. In this regard, it is worth noting industries with a fairly stable distribution, such as: education, health care. Steadily increasing employment is shown in: mining, transport, financial, construction industries. And also there are those that demonstrate a decline in employment which may be caused not so much by the decline in output, but by the technological modernisation of industries, among them are agriculture, manufacturing.

Thus, the period of economic reforms in Russia can be characterised in general as a period of rapid employment decline in industrial enterprises. The non-rational ("non-market") sectoral structure of the economy created disproportions in the labour market, expressed, among other things, in structural unemployment.

2. Structural features of the labour market in Russia in accordance with segmentation by type of economic activity

At present, the growth in the enterprises' needs in the workforce only partially implies an increase in employment and a reduction in unemployment, these two indicators are now changing insignificantly. In addition, the employment rate has been decreasing in recent years, therefore, the reason for the growth in labour demand is different, most likely it is related to structural changes in the labour market.

The evaluation of the data on the distribution of the employed population by industry makes it possible to trace not only the dynamics of changes in the economic activity of particular economic sectors, but also to determine the nature of changes in the demand for labour in a given period, and, accordingly, to identify the structure of employment.

In the 1990s, there was a sharp decline in employment in the main sectors of material production and in a number of other industries such as: science and scientific services, education, culture and art. The opposite process was observed in the field of financial activity and insurance, wholesale and retail trade, as well as transport and communications, and others.

The decrease in employment in the sphere of material production was due to at least four reasons:

- reduction in output volume due to the general crisis of the Russian economy;
- lack of a financial-credit and tax system oriented to the development of production;

- a worldwide trend towards an increase in the share of the employed in the service sector;
- imbalance and ineffectiveness of the industrial structure of the Soviet economy, especially of industry and construction.

Table 4. Distribution of the employed population by types of economic activity (in %)

Year	Agriculture and forestry, hunting, fishing and fish farming	Mining	Manufacturing	Production and distribution of electricity, gas and water	Construction	Wholesale and retail trade, repair of motor vehicles, motorcycles, household products and personal items, hotels and	Transport and communication	Financial activity, operations with real estate, renting and provision of services	Public administration and military security, social security	Education	Health and social services
1998	14.3	1.8	18.8	2.86	6.9	13.2	7.8	8.2	4.6	9.5	6.9
1999	14.2	1.7	18.8	2.92	6.9	13.5	7.8	8.0	4.7	9.4	6.9
2000	13.9	1.7	19.1	2.9	6.7	13.6	7.8	8.0	4.8	9.3	6.8
2001	13.1	1.8	18.8	2.95	6.7	14.7	7.9	8.2	4.7	9.2	6.7
2002	12.5	1.8	18.4	2.9	6.8	15.1	7.8	8.6	4.8	9.2	6.7
2003	11.8	1.7	18.1	2.9	6.9	15.9	7.9	8.5	5.0	9.2	6.8
2004	11.2	1.6	17.7	2.9	7.1	16.3	8.0	8.5	5.2	9.2	6.8
2005	10.1	1.8	18.2	2.9	6.7	17.1	9.2	7.4	7.2	9.2	6.9
2006	9.9	1.7	18.0	3.1	6.5	17.3	9.1	7.6	7.1	9.0	7.2
2007	8.9	1.9	17.4	2.9	7.0	17.5	9.4	8.1	6.9	9.1	7.4
2008	8.5	1.9	16.5	3.0	7.6	17.2	9.3	8.2	7.6	9.1	7.4
2009	8.3	2.0	15.3	3.2	7.1	17.3	9.4	8.3	8.0	9.4	7.9
2010	7.7	2.0	15.2	3.3	7.2	17.5	9.3	8.4	8.1	9.4	7.9
2011	7.7	2.0	15.0	3.2	7.2	18.0	9.4	8.7	7.7	9.2	7.9
2012	7.3	2.0	15.0	3.3	7.4	18.2	9.4	8.7	7.5	9.2	8.0

Source: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/population/trud/trud10.xls

Over the years of reforms, employment declined in the sphere of science and scientific services, and the rates were higher only than those in the industry and the construction. This is explained by the specifics of the sphere, the effectiveness of which cannot be directly assessed in terms of the current effective demand, as well as by high mobility of scientific personnel who, from the beginning of market reforms, quickly moved into more

profitable sectors of economic activity *and, in part, emigrated*. In addition, low level of pay contributed to the development of various forms of part-time work. The number of employees in that period often did not reflect the real scope of employment.

According to some statistical estimates, the highest rates of employment growth were observed in the sphere of management, in the financial and credit sphere, in the wholesale and retail trade and public catering. Expansion of public administration was due, apparently, to a number of reasons, including a change in accounting methods, while growth of employment in other sectors was due to economic reasons: rapid turnover of capital, high rate of profit, which allowed payment of high wages to employees. The real growth rates of *employment* in these sectors might even exceed official data, as informal employment models were actively used in the case. At the same time, these industries were characterised by a high risk of loss of capital and insufficient social protection of workers.

Table 5. The change in the index of industrial production in the Russian Federation
(in % to the previous year)

Year	Industrial production	in % 1991	Extraction of minerals	in % 1991	Manufacturing	in % 1991
1991	100.0	100	100.0	100.0	100.0	100.0
1992	84.0	84	88.2	88.2	81.8	81.8
1993	86.3	72	89.6	79.0	84.6	69.2
1994	78.4	57	92.0	72.7	72.8	50.4
1995	95.4	54	97.3	70.7	94.2	47.5
1996	92.4	50	97.0	68.6	89.7	42.6
1997	101.0	51	100.2	68.8	102.0	43.4
1998	95.2	48	97.7	67.2	93.8	40.7
1999	108.9	52	104.0	69.9	112.8	50.0
2000	108.7	57	106.4	74.3	110.9	51.0
2001	102.9	59	106.0	78.8	102.0	52.0
2002	103.1	60	106.8	84.2	101.1	52.5
2003	108.9	66	108.7	91.5	110.3	58.0
2004	108.0	71	106.8	97.7	110.5	64.0
2005	105.1	75	101.4	99.1	107.6	69.0
2006	106.3	79	102.8	101.8	108.4	75.0
2007	106.8	85	103.3	105.2	110.5	82.5
2008	100.6	85	100.4	105.6	100.5	83.0
2009	90.7	77	99.4	105.0	84.8	70.3
2010	108.2	84	103.6	108.8	111.8	79.0
2011	104.7	90	101.9	110.8	106.5	83.7
2012	102.6	94	101.1	112.0	104.1	87.1

Source: Federal State Statistics Service http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls

The overall negative economic situation entailed dramatic changes in the dynamics of production, and its consideration helps easily trace the structural component of imbalance.

Export revenue from raw materials for a long time determined the revenue part of the country's budget and still does in many aspects. Naturally, decline in production in such sectors as fuel and electricity could not be catastrophic. Conversely, the industries that had long become uncompetitive because no one, especially the state, was interested in them, such as, for example, light industry, sharply reduced the volume of their production.

During the period of reforms there were also dramatic changes in the structure and number of people employed in various industries, which in one way or another was connected with a change in the nature and scale of production.

As a result of the transition from a planned economy to a market economy, the basic postulates of Soviet ideology, for example, about 100 per cent employment of the population under socialism, became irrelevant. Enterprises were trying to somehow stay in the collapsing system, reduced their expenses to a minimum getting rid of excess labour that emerged, among other reasons, due to a sharp decline in production.

Table 6. Change in employment and output in the power industry
(in % to total employment and production index in % to the previous year for certain types of economic activity)

Year	Volume of production	Employment level	Volume of production in the indices by 1998	Employment level in the indices by 1998
1998	97.7	2.86	100.0	100.0
1999	98.8	2.92	99.0	102.1
2000	104.0	2.90	103.0	101.4
2001	101.4	2.95	104.2	103.1
2002	104.8	2.88	109.2	100.7
2003	103.3	2.86	113.0	100.0
2004	101.1	2.86	114.0	100.0
2005	100.9	2.90	115.1	101.4
2006	103.4	3.10	119.0	108.4
2007	99.4	2.90	118.3	101.4
2008	100.6	3.00	119.0	104.9
2009	96.1	3.20	114.3	111.9
2010	104.1	3.30	119.0	115.4
2011	100.1	3.20	119.1	111.9
2012	101.2	3.30	120.6	115.4

Sources: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls;
http://www.gks.ru/bgd/regl/b11_36/lssWWW.exe/Stg/d1/03-10.htm

Despite the rapid decline in the number of people employed in the production as a whole, there was one industry where the number of the employees not only remained, but, on the contrary, increased by almost 45.8% in 2000 compared to 1992. It was electric power industry. The efficiency of the industry's production and changes in the structure of employment proves economic stability and stable dynamics of economic growth.

Such industries, as a rule, were partially or completely state owned, in addition, they practically did not lose their market during the reform period, but, on the contrary, acquired additional sales channels for their products, including those obtained due to the main changes in the production structure, demand for resources, a surge in investment activity in the priority sectors of the energy complex development.

Table 7. Change in employment and output in the resource industry
(in % to total employment and production index in % to the previous year for certain types of economic activity)

Year	Volume of production	Employment level	Volume of production in the indices by 1998	Employment level in the indices by 1998
1998	97.7	1.8	100.0	100.0
1999	104.0	1.7	104.0	94.4
2000	106.4	1.7	111.0	94.4
2001	106.0	1.8	117.3	100.0
2002	106.8	1.68	125.3	93.3
2003	108.7	1.63	136.2	90.6
2004	106.8	1.8	145.4	100.0
2005	101.4	1.8	147.5	100.0
2006	102.8	1.7	152.0	94.4
2007	103.3	1.9	157.0	105.6
2008	100.4	1.9	157.2	105.6
2009	99.4	2.0	156.3	111.1
2010	103.6	2.0	162.0	111.1
2011	101.9	2.0	165.0	111.1
2012	101.1	2.0	167.0	111.1

Sources: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls;
http://www.gks.ru/bgd/regl/b11_36/lssWWW.exe/Stg/d1/03-10.htm

In recent years, Russia has become an important reliable supplier of hydrocarbons to the world economy.

Success of the oil industry is conjunctive, i.e., it is inextricably linked with fluctuations of the world energy prices. Favourable years of the oil prices rise allowed the

industry to develop, increase production capacity and at the same time not to cut workforce, but, on the contrary, to provide their professional growth, to teach and retrain them. Despite sharp fluctuations in oil prices, changes in the volume of the fuel industry in Russia are insignificant due to the fact that they were determined by other fuel resources of the country. Russian coal industry has always had a complex set of economic and social problems. Most of them originated many decades ago.

Table 8. Change in employment and output in the processing industry
(in % to total employment and production index in % to the previous year for certain types of economic activity)

Year	Volume of production	Employment level	Volume of production in the indices by 1998	Employment level in the indices by 1998
1998	93.8	18.8	100.0	100.0
1999	112.8	18.77	112.8	99.8
2000	110.9	19.06	125.1	101.4
2001	102.0	18.77	127.6	99.8
2002	101.1	18.42	129.0	98.0
2003	110.3	18.08	142.3	96.2
2004	110.5	17.7	157.2	94.1
2005	107.6	18.2	169.2	96.8
2006	108.4	18.0	183.4	95.7
2007	110.5	17.4	202.6	92.6
2008	100.5	16.5	203.7	87.8
2009	84.8	15.3	173.0	81.4
2010	111.8	15.2	193.1	80.9
2011	106.5	15.0	206.0	79.8
2012	104.1	15.0	214.1	79.8

Sources: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls;
http://www.gks.ru/bgd/regl/b11_36/lssWWW.exe/Stg/d1/03-10.htm

Many enterprises of the industry were created as planned unprofitable ones, and maintaining the existing structure of the industry always required huge budgetary subsidies. Gradually it became obvious that the industry needed structural changes. The corresponding restructuring program was developed by the government with the participation of trade unions. The program envisaged privatisation of coal industry enterprises, liquidation of particularly unprofitable enterprises and social protection of the released workers, in particular creation of conditions for their employment. By 2001, the situation had stabilised. However, today, without additional large-scale investments in the reconstruction of the industry its future activities face obvious major social and technical problems.

Recently iron and steel industry has been functioning better than many other industries. It is noteworthy that the growth in production in the iron and steel industry is largely due to demand on the domestic market, rather than on the external one. The financial position of iron and steel industry enterprises remains relatively stable. The share of unprofitable enterprises remains at about the same fairly low level, and the amount of the loss grows insignificantly. The economic crisis of recent years has identified potential problems of a social nature in the iron and steel industry, caused by the monopsony status of enterprises in regional labour markets, and demanded state regulation, including employment in the monopsonistic regions.

Table 9. Change in employment and output in the metal industry
(% of total employment in processing industry to total volume of the employees and production index in % to the previous year for certain types of economic activity)

Year	Volume of production	Employment level	Volume of production in the indices by 1998	Employment level in the indices by 1998
1998	94.2	18.8	100	100.0
1999	108.5	18.77	109	99.8
2000	115.3	19.06	125.1	101.4
2001	104.6	18.77	131	99.8
2002	105.1	18.42	137.5	98.0
2003	107.2	18.08	147.4	96.2
2004	103.9	17.7	153.2	94.1
2005	107	18.2	164	96.8
2006	109.7	18.0	180	95.7
2007	104.5	17.4	188	92.6
2008	97.8	16.5	184	87.8
2009	85.3	15.3	157	81.4
2010	112.4	15.2	176.2	80.9
2011	102.9	15.0	181.3	79.8
2012	104.5	15.0	189.5	79.8

Sources: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls;
http://www.gks.ru/bgd/regl/b11_36/lssWWW.exe/Stg/d1/03-10.htm

In recent years, non-ferrous metallurgy has shown quite good results. Among the main sub-sectors, we should note the growth in production in the aluminum and nickel-cobalt industries.

The industrial boom in Russia has also affected the chemical industry. However, the condition of production assets does not look very promising. According to the Federal State Statistics Service (FSSS), the producers of the Russian chemical industry have the biggest depreciation of fixed production assets among industrial enterprises of other industries. The main problem is caused not by deterioration of equipment, but by the technologies used. The production process in the chemical industry is energy intensive. The share of energy costs in the cost structure for some types of products may exceed 50%. Outdated technologies adversely affect price and quality of products that does not always meet the standards.

Table 10. Change in employment and output in the chemical industry
(% of total employment in processing industry to total volume of the employees and production index in % to the previous year for certain types of economic activity)

Year	Volume of production	Employment level	Volume of production in the indices by 1998	Employment level in the indices by 1998
1998	93.6	18.8	100.0	100.0
1999	127.6	18.8	127.6	99.8
2000	115.2	19.1	147.0	101.4
2001	100.3	18.8	147.4	99.8
2002	100.2	18.4	147.7	98.0
2003	105.4	18.1	155.7	96.2
2004	106.6	17.7	166.0	94.1
2005	104.1	18.2	173.0	96.8
2006	104.7	18.0	181.0	95.7
2007	106.6	17.4	193.0	92.6
2008	95.4	16.5	184.0	87.8
2009	93.1	15.3	171.3	81.4
2010	114.6	15.2	196.3	80.9
2011	105.2	15.0	206.5	79.8
2012	101.3	15.0	209.2	79.8

Sources: Federal State Statistics Service. URL: http://www.gks.ru/free_doc/new_site/business/prom/ind_prom_okved.xls;
http://www.gks.ru/bgd/regl/b11_36/lssWWW.exe/Stg/d1/03-10.htm

Estimating the nature of changes in employment in industries, we note that the decline in employment in mechanical engineering, chemical and forestry industries is associated with a general gradual but steady decline in the scale of production of the industries' products. While in the chemical industry there has been a recovery of production in recent years, the engineering industry is still in a state of economic depression. The strategy of automotive companies in the domestic and foreign automobile markets is to strengthen and

expand their positions in the sale of automotive equipment by increasing its competitiveness, developing service, improving the sales system. This will be facilitated by the adoption by Russian manufacturers of measures to ensure the sustainability of prices for automotive equipment; this can be reached by reducing costs, developing cooperative relations with suppliers of materials and components.

Increasing the competitiveness of automotive equipment is achieved through institutional changes, development of high-tech automotive components and materials, use of state standards that meet international requirements, improvement of scientific, technical and personnel support, and joint investment activities with foreign partners.

Enterprises that produce construction materials in Russia have significantly reduced their scale of production, and at the same time, employment. At present, almost the whole structure of production of this product is changed, and instead of large plants, numerous small private firms prevail.

The dynamics of employment in the food industry differs from all other industries by greater resistance to external market fluctuations (Ryazantsev & Gnevasheva, 2014). This is perhaps the only industry that could initially compete in the market.

At the same time, other conditions for changing the structure of employment in industries are associated with insufficient training of personnel in the relevant specialties, which can strengthen the already existing trend of structural disproportions in the distribution of labour resources.

Thus, the period of economic reforms in Russia can be characterised in general as a period of rapid employment decline in industrial enterprises. The non-rational ("non-market") sectoral structure of the economy created disproportions in the labour market, expressed, among other things, in structural unemployment.

Table 11. Graduation of specialists of higher professional education institutions by specialty groups 1994-2011 (thousand people)

Years	Graduated specialists - in total, including the following specialties:	Natural science	Humanitarian and social	Education*	Health care	Culture and art	Economics and management
1994	404.5	35.9	49.1	41.33	24.6	13.2	56.7
1995	403.2	36.4	60.9	38.3	27.5	10.8	60.8
1996	428.2	36.8	66.4	37.7	29.1	11.2	69.3
1997	457.7	35.7	72.4	37.7	29.23	10.5	83.5
1998	500.8	35.3	83.9	39.6	28.0	10.8	100.6
1999	554.8	37.3	101.1	40.5	24.4	10.9	122.3
2000	635.1	38.4	118.4	43.5	23.5	11.2	155.0
2001	720.1	39.4	145.1	49.2	23.7	12.1	188.1
2002	840.4	41.6	184.3	54.9	24.5	13.2	230.6
2003	976.9	41.9	224.0	58.8	26.1	14.6	294.4
2004	1,076.2	32.7	205.4	130.8	27.1	15.8	332.1
2005	1,151.7	26.2	212.7	132.1	28.4	17.7	369.7
2006	1,255.0	26.0	234.5	128.5	31.2	19.0	421.8
2007	1,335.5	26.8	251.3	132.3	31.5	19.3	457.1
2008	1,358.5	26.1	254.4	128.8	32.4	19.4	472.2
2009	1,442.4	25.3	263.9	126.6	33.1	21.2	504.6
2010	1,467.9	23.3	266.9	119.7	33.5	22.0	527.5
2011	1,442.9	21.8	261.7	107.5	33.8	22.1	518.9

Source: Federal State Statistics Service. URL: http://www.gks.ru/bgd/regl/b03_33/Main.htm

3. Structural features of the labour market in Russia in accordance with the segmentation by income level

Multifactority of the model of real labour income socio-economic interpretation and the possibilities of its measurement presupposes studying multiplicity, variability of the defining criteria to substantiate the most significant ones in social and economic conditions. In the framework of the topic of this section, we will examine the overall correlation dynamics

between individual macroeconomic and microeconomic indicators, namely: the level of vocational training of the labour force, the number of economically active population in the country and the number of the registered unemployed, as well as the level of accrued wages and the level of inflation.

Table 12.
Change in the level of income of labour resources and the demand for professional education at different levels in the context of certain macroeconomic and microeconomic indicators

Years	Number of students of HPE institutions	Number of students of SPE institutions	Number of students of IPE institutions	Average annual number of employees (thousand people)	Number of the unemployed (before 2000 these are people registered with the state employment service) (thousand people)	Average monthly nominal accrued wages of employees in the economy sector, rubles (1992-1997 - thousand rubles)
1991	2,762.8	2,201.9	4,321	73,848	62	0.548
1992	2,638.0	2,089.9	4,269	71,905	578	6.0
1993	2,612.8	1,993.8	4,273	70,720	856	58.7
1994	2,644.6	1,870.9	4,203	68,070	1,637	220.4
1995	2,790.7	1,929.9	4,166	66,330	2,327	472.4
1996	2,964.9	1,986.3	4,114	65,748	2,506	790.2
1997	3,248.3	2,029.9	4,050	64,574	1,999	950.2
1998	3,597.9	2,068.2	3,954	63,683	1,929	1,051.5
1999	4,073.0	2,175.6	3,911	64,114	1,263	1,522.6
2000	4,741.4	2,360.8	3,893	64,517	7,699.5	2,223.4
2001	5,426.9	2,470.2	3,872	64,980	6,423.7	3,240.4
2002	5,947.5	2,585.5	1,651	65,574	5,698.3	4,360.3
2003	6,455.7	2,612.1	1,649	65,979	5,933.5	5,498.5
2004	6,884.2	2,599.6	1,604	66,407	5,666.0	6,739.5
2005	7,064.6	2,590.7	1,509	66,792	5,242.0	8,554.9
2006	7,309.8	2,514.0	1,413	67,174	5,250.2	10,633.9
2007	7,461.3	2,408.2	1,256	68,019	4,518.6	13,593.4
2008	7,513.1	2,244.1	1,115	68,474	4,697.0	17,290.1
2009	7,418.8	2,142.1	1,035	67,343	6,283.7	18,637.5
2010	7,049.8	2,125.7	1,007	67,600	5,544.2	20,952.0
2011	6,490.0	2,081.7	921	67,727	4,922.4	23,369.0

Source: Federal State Statistics Service. URL: <http://www.gks.ru/>. Reference date: 25.06.2013.

The determining criterion of the workforce quality is the level of professional competencies, which also allows assessing the level of possible labour income.

Professional competencies in modern world, in particular, the modern labour market, can be defined as a measure of the acquired abilities of an individual to bring profit, including knowledge and skills based on the existing (innate) abilities and those acquired through life and through vocational education, and also obtained as part of the work activity (on-the-job training) in accordance with the achieved professional level (Gnevasheva, 2012).

The formulation focuses on the economic and investment component of the results of the professional training of young people, taking into account the qualitative assessment of the process of applying professional competencies, namely, profile employment and the quantitative assessment, i.e. meeting investment expectations of youth through labour income based on the results of the vocational education received.

At the dawn of the economic theory A. Smith (1956, p. 490) wrote that “the increase in labour productivity efficiency depends primarily on increasing agility and skill of the worker, and then by improving the machines and tools with which he worked”. He believed that the fixed capital consists of machines and other instruments of labour, buildings, land and “the acquired and useful abilities of all inhabitants and members of society”. He noted that the acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realised, as it were, in his person.

Those talents, as they make a part of his fortune, so do they likewise that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade which facilitates and abridges labour, and which, though it costs a certain expense, repays that expense with a profit (Smith, 1956, pp. 208-235).

Adopting the level of vocational training as a criterion for segmentation of labour income is determined by many models, including models of evaluation and definition of human capital as measures of a person's incarnated ability to generate income. G. Becker (1964) proved that many of the decisions made in the family – for example, about getting married, about how many children the family should have, what kind of education they should receive, etc. are taken as decisions about investments. In this sense, professional competencies' formation process can be regarded as the extension of the general theory of investments to a particular case, namely investment in building up professional competences of a person which act in the future as a criterion for differentiating the standard of living of the population.

The decision to enter the institution of higher professional education presupposes an individual's awareness that his/her future income depends on the level of education and it means that the costs of education are investments. The process of investing in the formation of professional competencies does not at all deny the usefulness of education as welfare.

The ratio of the average wage of 10% of workers with the largest wages and 10% of workers with the lowest wages in April 2011 was 16.1 times (in April 2009 it was 14.7 times). The widening gap between the average wage of 10% of the most paid and 10% of the least paid workers was the result of higher growth rates of the average salary of the group of the most paid workers (by 24%) compared to the group of low-paid workers (13%). The largest gap in the payment of the extreme 10% groups of employees was observed in financial activities; organisations engaged in the field of operations with real estate, leasing and provision of services; wholesale and retail trade, repair of motor vehicles, motorcycles, household products and personal items.

By kinds of economic activity, the most significant deviations in the indicated ratios by categories of personnel were observed in the ratio of the average salaries of managers and workers. While in most types of economic activity the average salary of managers exceeded the workers' wages by 1.9-2.8 times, in wholesale and retail trade, repair of vehicles, motorcycles, household products and personal items; health and social services, in organisations engaged in real estate transactions, leasing and provision of services, this ratio was 3.0-3.1 times, and in education it equaled to 3.6 times.

Based on the results of the survey, the differentiation of the wages of each category of workers was observed depending on the type of economic activity. The highest salary among the organisations surveyed in October 2011 was in the category of managers in organisations engaged in the extraction of crude oil and natural gas, the provision of services in these areas, it was 82,459 rubles; in the organisations of air transport it equaled to 88,406 rubles. The lowest-paid employees of the same category of personnel were workers in the textile and clothing production organisations whose salary level was 29% of the wages of the managers of air transport organisations; 31% of the wages of specialists, 40% of workers and 53% of the category "other employees".²

Comparison of wages of workers by age groups in the estimates of the Federal State Statistics Service (FSSS) shows that the lowest wages in the majority of enlarged occupational groups were observed in the extreme age groups: up to 20 years and at the age of 65 years and older. The exception applied to the groups of heads of organisations and their structural divisions (services) and specialists of the highest qualification level, where the

² Federal State Statistics Service. URL: http://www.gks.ru/bgd/regl/B12_04/IssWWW.exe/Stg/d06/3-plat.htm.

wages of workers aged 65 and older were at the level of average or above average salary of the whole professional group. Heads of organisations and their structural subdivisions (services) had the highest wages at the age of 30-34. In the group of specialists of the highest qualification level, specialists in the field of natural and engineering sciences and other specialists of the highest qualification level had the highest wages also at the age of 30-34; specialists in the field of biological sciences and public health services had the highest wages at the age of 35-39; specialists in the field of education had the highest wages at the age of 65 years and older.

In the group of specialists of mid-level qualification, the specialists of physics and engineering fields had the highest salary level at the age of 35-39 years; specialists in natural sciences and health care – at the age of 60-64, specialists in the field of education – at the age of 40-45 years; the middle level staff in the field of financial, economic, administrative and social activities – at the age of 30-34 years.³

At the same time, according to the data of sociological research, including the data of the professional preferences of student youth (Gnevasheva, 2011), the process of forming the labour force is associated with increased expectations of labour resources in relation to the workplace and the level of wages. The factor of high level of wages in the workplace is regarded by respondents as one of their key criteria for a “good life” and determines their motivational aspirations to find an appropriate place of work. The goal of obtaining higher professional education is defined by the respondents as a possibility of finding a well-paid job in the future, and respondents mainly put 4 and 5 for their professional perspectives on a five-point scale of assessments. At the same time, the determining criteria for choosing an educational institution are the opportunity for future successful employment, prestige of a university and its diploma among employers, opportunity to obtain necessary connections in the educational process. The connection between academic excellence and future employment in the respondents' view is extremely small. Knowledge as such does not act as a determining motive for respondents to enter university.

Massiveness of higher professional education in modern world has led to a decrease in the importance of the level of training as such, leveling the value of “knowledge”, and gave rise to the connection the level of the educational institution determines the level of future labour income. Labour force desire to get a high level of professional education means that they expect to receive a higher level of income, a high-paying job, but when choosing a place of study the most important criteria for entering a university are not knowledge as such, but the possibility of future successful employment, connections, high income. At the same time,

³ Federal State Statistics Service. URL: <http://www.gks.ru>.

the choice of the specialty by entrants today is predetermined by the existing distribution of wages depending on the professional and status structure on the labour market, which leads to the formation of the list of “fashionable specialties”, the further choice of which leads to “overproduction” of the corresponding workforce and, according to the cobweb model, to reduction of the level of wages of these categories of employment and therefore to partial implementation of the expectations of labour resources in terms of employment conditions, structures disproportions in the labour market, underutilisation of the labour potential of the nation.

4. Temporary employment as a feature of the labour market in Russia

Market economy, by definition, is multifaceted and significantly expands the boundaries of voluntary choice of employees, at the same time it introduces contractual relations between employers and employees.

The mechanism of supply and demand of labour creates the flexibility of labour relations and employment.

The adopted labour legislation has normatively established the possibility of using term contracts, opening the way for an increase in the share of precarious work force, including those hired to perform a certain amount of temporary work in accordance with the norms of civil and contractual relations.

Thus, any employment within the framework of labour relations, the duration of which is predetermined in an employment contract (written or oral) and finite in time, is *temporary*. In particular, it can be both casual, and one-time employment connected with performance of certain volume of works (Gimpelson, 2004, pp. 225-245).

Temporary employment is formed among: i) the employed; ii) the self-employed.

International statistics singles out the following set of types of temporary employment among employees:

- employment under fixed-term labour contracts;
- employment of temporary workers hired by agencies that provide employment to a third party;
- contracts for the performance of a certain amount of work;
- replacement of temporarily absent employees;
- seasonal work;
- workers hired for one day for a daily work;

- students (employed in the training program but without guarantee of subsequent employment);
- individuals employed within the job creation program.

According to the Survey of the Population on Employment Issues (SPEI), which has been held regularly in Russia since 1992, the proportion of the non-permanently employed among all the people employed in the period of 1992-2014 ranged from 2.55% to 3.98% with a certain maximum in 2008 of 7.62% (Table 13).

Table 13. Distribution of the proportion of non-permanently employed among all the employed

Year	All employed	Non-permanently employed	Share of the non-permanently employed among all the employed (%)
1992	71,068	1,810	2.55
1993	68,642	1,699	2.47
1994	64,785	1,617	2.50
1995	64,149	1,686	2.63
1996	62,928	1,513	2.40
1997	60,021	2,851	4.75
1998	58,437	3,044	5.21
1999	62,475	3,322	5.32
2000	64,255	3,088	4.81
2001	64,400	4,296	6.67
2002	66,070	4,390	6.64
2005	62,871	4,162	6.62
2006	63,517	4,379	6.89
2007	65,384	4,244	6.49
2008	65,774	5,009	7.62
2009	64,120	3,461	5.40
2010	64,998	2,963	4.56
2011	65,669	2,522	3.84
2012	66,598	2,361	3.55
2013	66,197	2,217	3.35
2014	66,378	2,639	3.98

Source: SPEI, Federal State Statistics Service.

An important criterion for assessing the degree of expression of temporary employment is the *length of service*.

Thus, according to the analytical report of the Federal State Statistics Service in 2010, 7.7 million people, or about 11.3% of the employed population, worked at the main workplace for less than 1 year, including 0.8 million people (1.2%) who worked for less than 1 month. At the same time, the share of employees working less than 1 year at the place of their main work among hired workers of individuals and individual entrepreneurs was 2.7 times higher than that of employees of enterprises and organisations.

The average value of length of employment at the place of the main work for all forms of employment (excluding employment in a personal subsidiary household) was 8.5 years in 2010. The gender aspect in this structural section was expressed quite clearly. Among women working in organisations, the average value of work experience at the place of primary work exceeded the value of this indicator for men by 1.1 years.

Of the people looking at other jobs, 65% were hired workers of enterprises and organisations, 28% were employees in the informal sector (hired by individual entrepreneurs and individuals) and 6% were individual entrepreneurs and individuals working on an individual basis. Among those employed in the informal sector, the proportion of job seekers was 4.4 times higher than that among hired employees of enterprises and organisations, and was 5.6%.

Of the employed people looking for another job, 62.7% wanted to change their place of work as they were not satisfied with the level of pay, 9.1% wanted to find work in their specialty, 4.7% sought another job in connection with the end of the term of hiring, 4.1% - in connection with the forthcoming release or reduction of the staff of the enterprise.

Among specialists with higher professional education who wanted to change their place of work, the percentage of people who wanted to do that because the work *didn't match their occupational profile*, was the highest and amounted to 19.3%.

In official statistical assessments, the following categories of precarious work are noted: temporary, casual and one-time. Temporary one can be statistically tracked more or less in full, since the main criterion for its evaluation is a fixed-term employment contract and its duration, but two other types, i.e. casual and one-time, are difficult to estimate. It can be noted that by separate estimates, the share of casual and one-time employment accounts for about 1.5% of the total number of people employed in the economy.

Representatives of all social and demographic groups of the population work in non-permanent employment environment. However, the degree of its prevalence among the population is different.

If the benefits of non-permanent employment for the employer stem from the need to reduce the costs of dismissal, we can expect that, in the first place, it will apply to those workers whose human capital is relatively less productive for this employer.

Characterizing the socio-economic portrait of the temporarily employed, we can say that it is more likely that it is an uneducated man aged 15-19 living in rural areas.

Statistically and methodologically (from the point of view of the International Labour Organization and macroeconomic indicators), employed citizens are registered from the age of 14 (when they receive a passport). At this time, the primary inclusion of young people in the process of reproduction of the labour force occurs.

Most often, labour relations during this period are of a temporary nature, since the labour force (labour ability) media continuing to form their qualifications through training in the sphere of secondary, vocational and, later, higher education, are only able from time to time to perform work activity which is often not related to their future employment.

Both objective and subjective factors influence such temporary employment:

- decrease in the incomes of an adolescent's family and the need for temporary earnings;
- desire for relative financial independence;
- business activity of relatives and acquaintances;
- offers from educational organisations and social services (vacation work practices, public works);
- seasonal agricultural work (in rural areas).

Of course, such a practice of youth involvement in social and labour relations has positive results. Young people feel more responsible when performing their family obligations and choosing their future profession, they adapt more quickly to new jobs.

Children under 14 years old are not considered employed. Rather, they can be considered temporarily employed (in their free time after studies).

To build effective society and labour market in the country, it is necessary to comprehensively approach the solution of the problem of social and professional adaptation of youth, its labour socialisation evaluating all stages of the formation of an individual in modern society (Gnevasheva, 2016).

Minimizing the moral, social and professional losses at the stages of early socialization of adolescents, it is possible to largely prevent the problems of youth unemployment, early labour socialisation and professional demotivation.

4.1. Methods of regulating temporary employment

Methods of temporary employment regulation include (Chukreev & Korytova, 2010, pp. 16-21):

- Economic methods: preferential lending and taxation, policies to encourage employers to retain and create jobs (employment subsidies and hiring subsidies).
- Organisational methods: creation of employment services; creation of information system that serves the labour market; development of the state system of professional orientation of youth, training and retraining of personnel.
- Administrative and legislative methods: regulation of the procedure for concluding employment contracts, working hours' duration, overtime, introduction of mandatory contributions of entrepreneurs to national employment funds, establishing quotas for employment, working life period regulation.

Growth in the number of people employed on the basis of a fixed-term employment contract is characteristic of most industrialised countries reflecting the general trend towards a more flexible labour market.

For enterprises, transaction costs of labour turnover under permanent employment contracts remain significant. As a consequence, they try to meet the demand for labour through fixed-term contracts. The scope of fixed-term contracts for enterprises is legislatively limited, but the desire for their use will be strengthened. A significant share of temporary employment today is occupied by the informal sector, which includes unincorporated enterprises and individual entrepreneurs. All employment for hire is actually short-term in this case. Growth of non-permanent employment may reflect an increase in the proportion of small and micro-business firms. It is also important to note the increase in temporary employment among young people due to the emerging tendency of their early labour socialisation which requires close attention of management bodies and the formation of effective schemes of labour relations among young people with a view to motivating young people for long-term, productive and professionally oriented work.

4.2. Labour migration to Russia

There exist large and stable migration corridors between Uzbekistan, Tajikistan, and Kyrgyzstan, on the one hand, and Russia and Kazakhstan, on the other. Central Asians who go to Russia or Kazakhstan to work number up to 4.2 million, accounting for 16% of the above-mentioned countries' economically active population. This scale of migration has serious political, social, economic, and demographic effects both on the migrants' home countries and on the countries they come to. In 2013, earnings that Central Asian workers

sent back home from Russia reached 13.5 billion USD (Ryazantsev, Osadchaia, Seleznev & Pismennaya, 2018). Although end-of-2015 statistics showed remittances to have dropped because of the depreciation of the ruble and 30% outflow of foreign labour from Russia, labour migration remains an important source of income for most of the Central Asian countries. According to the World Bank, in 2015 the world's top countries that were recipients of recorded remittances in terms of shares of gross domestic product were Tajikistan (it ranked first: 47%) and Kyrgyzstan (it ranked third: 29%) (Ryazantsev *et al.*, 2018).

Central Asians coming to Russia have been acquiring Russian citizenship on a wide scale, and this is apparently an indication of a desire to integrate into Russian society. Unfortunately, Russian law is not too consistent in granting citizenship to Central Asians. Liberal rules, for example for Kyrgyz or Tajik nationals, have been revised and made more restrictive. Restrictions put into force in 2002 and 2010 resulted in a lot fewer Central Asians receiving Russian passports (Ryazantsev, Bogdanov, Dobrokhleb & Lukyanets, 2017).

Russia's main attractions are the capacious labour market coupled with workforce deficit and shortage of workers and specialists. In fact, its labour market is 8 times bigger than the labour market of Kazakhstan; 17 times bigger than that of Belarus; 30 times bigger than Kyrgyzstan's and 58 times bigger than Armenia's (*Evrziyskaia ekonomicheskaiia integratsia 2017*). There is an obvious disproportion between national labour markets. On the one hand, Russia and Kazakhstan are in dire need of labour resources, while Kazakhstan and Belarus require highly qualified workers and specialists (Kotliarov N.N., L.V. Levchenko, *etc.*, 2015). On the other hand, in some countries (Armenia and Kyrgyzstan) the workforce is much larger than their employment potentials. With the average unemployment level of 5.3% in 2017, 16.5% of Armenia's able-bodied population remained unemployed, the highest number within EAEU (*Evrziyskaia ekonomicheskaiia integratsia 2017*).

Migration, primarily labour migration, has become a form of mutual economic and political integration of former Soviet republics, facilitating the creation of the Eurasian Economic Union (EAEU). The member nations' total population is 183 million. Nationals of the EAEU member states - Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia - need no visas to cross the borders between any of them. Nor do nationals of any of them need permission to work in any of the other four countries. The EAEU's member countries constitute an area with free movements of goods, services, capital, and labour, and with coordinated or uniform economic policies.

In the 1990s and early 2000s, ethnic Russians and other Russian speakers living in Central Asian and Transcaucasian countries have been emigrating to Russia for a range of reasons, including civil wars, local nationalism in the 1990s, ethnic conflicts, restrictions on the use of the Russian language, and obstacles to career progress in 2000-2010 (Ryazantsev,

Bogdanov *et al.*, 2017). Former Soviet republics have been rapidly building up political and economic ties. The EAEU founding treaty, which was signed on 29 May, 2014, and put into force on 1 January, 2015, offers significant opportunities to nationals of EAEU member states.

A citizen of an EAEU member state needs no visa to enter any member country or permission to work there. Nationals of EAEU member states may stay in Russia for a maximum of 30 days without having their temporary residence registered, while other aliens entering Russia for temporary stay are to register within seven business days of arrival. Nationals of EAEU member states who come to Russia are also allowed to spend up to 90 days looking for work. Nationals of Tajikistan, Uzbekistan, Azerbaijan, Ukraine, and Moldova need no entry visas for Russia either. However, a Tajik national must register within 7 and a national of Uzbekistan, Azerbaijan, Ukraine, or Moldova within 15 calendar days of arrival. After registration, they may look for work for a maximum of 30 days but they need a work permit, although one of a preferential type as distinct from regular work permits needed by nationals of all other countries. The similar system of preferential work permits exists in Kazakhstan. Russia has a three-level system of regulations on the use of foreign labour (see Table 14).

Table 14. Regulations on employment of aliens in the Russian Federation depending on their nationality
(as of 1 December, 2018)

Nationality	Documents Needed for Entering Russia	Type of Work Permit	Necessary Procedures
EAEU member states: Armenia, Belarus, Kazakhstan, and Kyrgyzstan	Passport and migration card	None needed	<ol style="list-style-type: none"> 1. Registration at temporary residential address within 30 calendar days of arrival in Russia; 2. Contract with employer to be signed within 90 days of entering Russia; 3. Notification of Federal Migration Service (FMS) by employer about signature/ severance of contract with foreign national within 3 business days of signature/ severance date.
Former Soviet republics whose nationals need no entry visas for Russia: Azerbaijan, Moldova, Tajikistan, Ukraine, and Uzbekistan	Passport and migration card	Preferential permit	<ol style="list-style-type: none"> 1. Registration at temporary residential address within 7 calendar days of entering Russia for Tajik nationals and within 15 calendar days for nationals of the other states; 2. Acquisition of work permit within 30 days of entering Russia; 3. Notification of FMS by employer about signature/severance of contract with migrant within 3 business days of signature/ severance date.
States whose nationals need entry visas for Russia: ex-Soviet republics of Estonia, Latvia, Lithuania and Turkmenistan, and other countries	Passport, visa, and migration card	Regular permit	<ol style="list-style-type: none"> 1. Acquisition by employer of employment permission; 2. Registration of alien at temporary residential address within 7 calendar days of arrival in Russia; 3. Acquisition by alien of work permit within 30 days of entering Russia; 4. Notification of FMS by employer about signature/severance of employment contract within 3 business days of signature/ severance date.

Russia is today the main destination in Eurasia for nationals of Central Asian countries who are planning to work abroad. Statistics in Table 15 represent the scale of migration into Russia. Seekers of temporary jobs make up the bulk of Central Asian migrants arriving in Russia. They were employed on a large scale in Russia in the nineties as the country was short of labour. Labour migration into Russia peaked in the 2000s. Today Russia is still attractive for people in Central Asia, some other Asian, some Eastern European countries, and Transcaucasian countries who are planning to work abroad. Official statistics on numbers of foreign nationals who come to Russia to work are based on recorded numbers of work permits issued by the FMS. In 2014, the FMS issued a total of 3,690 thousand permits - 2,387 thousand preferential and 1,303 thousand regular ones. However, because of the recent financial and economic crisis, only 1,887 thousand permits were issued – 1,710 thousand preferential and 177,000 regular ones (see Fig. 1). In 2017, 1,9 billion permits were issued – 1,700 thousand preferential and 148,000 regular ones.

Table 15. Scale and structure of migration from Central Asia to Russia, 2018
(numbers of people)

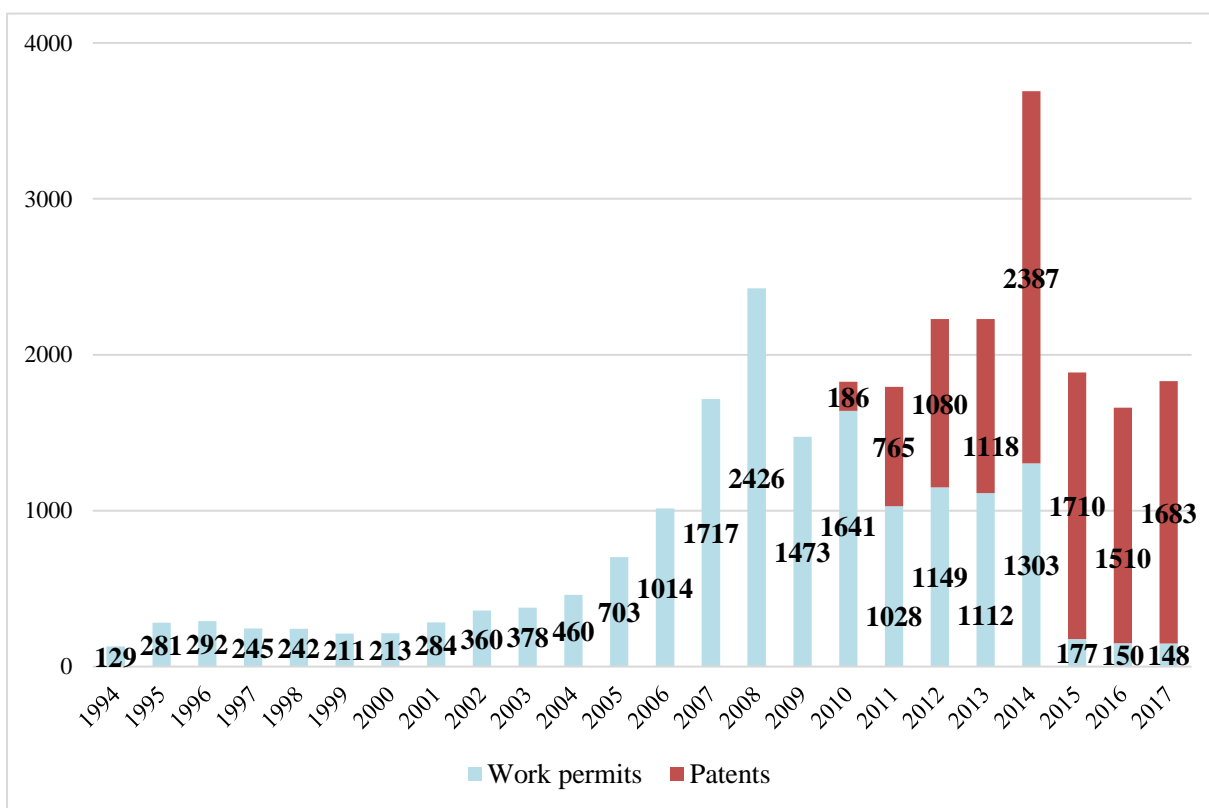
Purpose of Migration	Total Number of Migrants	Migrants from Central Asia
Foreign citizens registered at the place of stay for the purpose of working in Russia, 2017	4,854,004	3,226,701
Total number of patents and work permits issued to foreigners in Russia, 2015	1,887,034	1,381,862
Total number of work permits issued to foreigners in Russia, 2015	176,875	24,285
Include number of work permits issued to highly qualified foreign specialists in Russia, 2015	35,011	157
Total number of patents to foreigners in Russia, 2015	1,710,159	1,357,577

Source: Ministry of Internal Affairs of Russian Federation.

Russia receives its foreign labour from various countries but the Central Asian states are a source of a steadily increasing inflow of migrant workers. In 2017, the majority of foreigners who came to Russia to look for work were nationals of Uzbekistan, Tajikistan, Ukraine, Moldova, China, Azerbaijan, and Kyrgyzstan (Figure 1 and Figure 2). All these countries have been stable sources of labour for Russia since the nineties. The list has practically remained unchanged since then, but there have been changes to ratios between

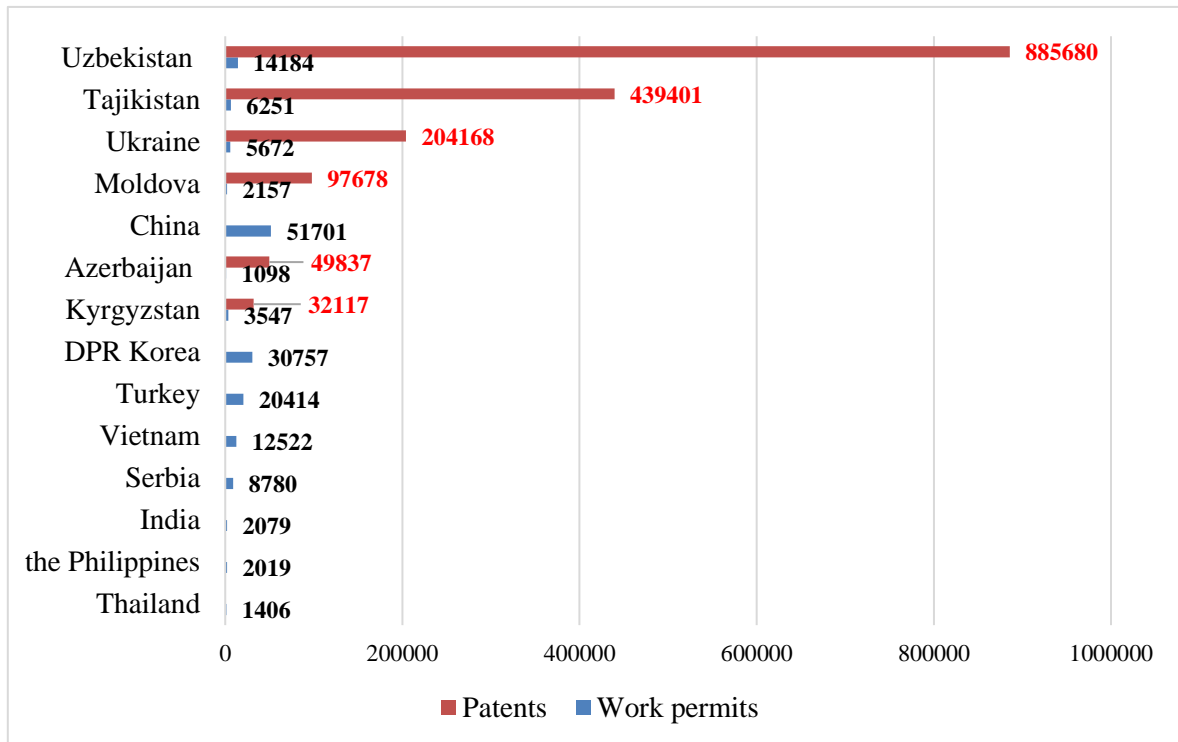
the two types of work permits issued by the FMS to nationals of some of those states. Since 2015, nationals of Uzbekistan, Ukraine, Moldova, Tajikistan, and Azerbaijan have been eligible for preferential permits. Nationals of states that were not republics of the Soviet Union may only receive regular permits. Nationals of the EAEU member states of Armenia, Belarus, Kyrgyzstan and Kazakhstan need no work permits in Russia. Obviously, the actual number of foreign workers in Russia is much larger than the number of work permits issued by the FMS. For instance, there is a major gap between the number of work permits issued in 2014 and the number of foreign nationals registered at their residential addresses in Russia (Figure 3). The territorial distribution of the foreign workforce in Russia is uneven, with 43% of migrants working in the Central Federal District. The city and region of Moscow accumulate about one third of migrants working in Russia.

Figure 1. Total number of permits FMS-issued to migrant workers in the Russian Federation
1994-2017 (thousands)



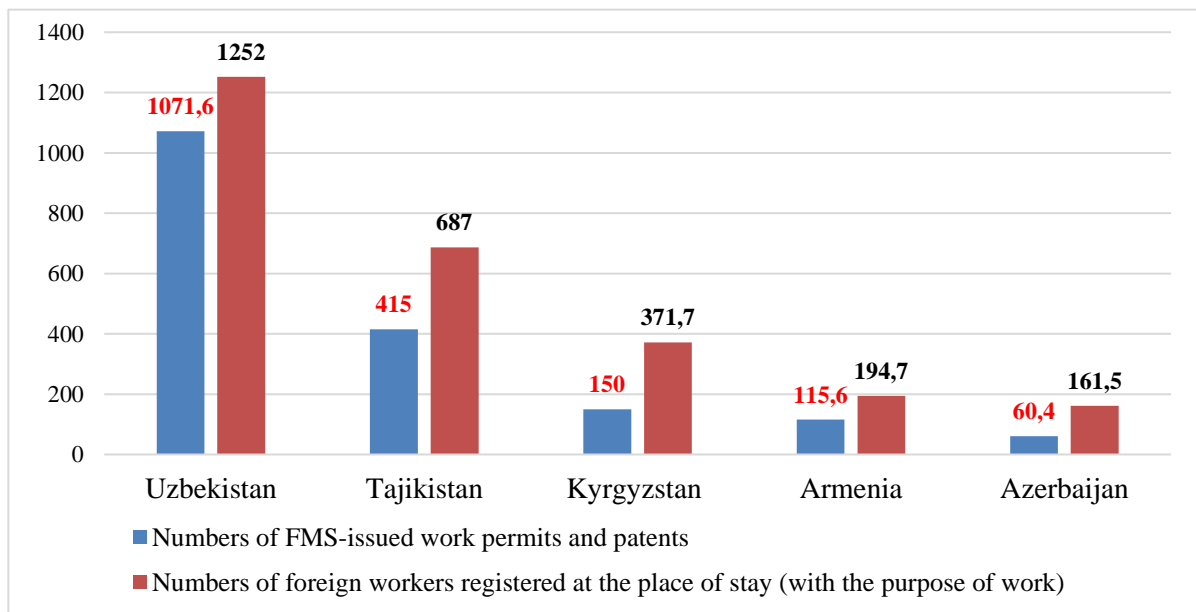
Source: Ministry of Internal Affairs of Russian Federation.

Figure 2. Number of migrant workers in the Russian Federation by countries of origin and types of permits
2015 (persons)



Source: Ministry of Internal Affairs of Russian Federation.

Figure 3. Numbers of FMS-issued permits and numbers of foreign workers registered at the place of stay
in Russia, 2014 (thousands)



Source: Ministry of Internal Affairs of Russian Federation.

5. Scenarios of labour migration within the EAEU in condition of enhancing economic integration

Two different scenarios – extensive and intensive – of labour mobility in the EAEU countries may emerge in the near future. According to the former, the integrative structure may acquire new members (Ryazantsev, Ter-Akopov, Pismennaya & Khramova, 2017). In 2015, it signed a free trade agreement with Vietnam; Tajikistan has also come close to EAEU membership. If and when it joins the common labour market, the volume of remittances will increase by 15-25% to reach 50-55% of GDP (Ryazantsev, Ter-Akopov *et al.*, 2017). The Eurasian Economic Commission has already received 30 agreement proposals, the most important being the potential agreement between Russian and Chinese leaders about the unification of the EAEU and the New Silk Road. According to the latter, the labour market might stabilise if and when the quality of labour resources improves due to a higher educational level and higher professional skills. As long as non-qualified workforce dominates in the migrant flow, social and cultural adaptation will remain a big problem, while the situation with medical services and dwelling for migrants stays the same. Jobs are few and far between for low-skilled or unskilled labour migrants; this adds tension to the social and economic situation in the host countries (Ryazantsev, 2013). The problem can be resolved by teaching the Russian language to potential and actual migrants in their countries; the infrastructure of Russian-language courses should be improved, while access to it should be made significantly easier and free of charge. In fact, good command of the Russian language should become a social project (Ryazantsev, Bogdanov *et al.*, 2017). Today, migrants have to pay for Russian-language exams at various centers and universities. The Russian language is the working tongue of the Eurasian Economic Commission, the CIS, the Shanghai Cooperation Organization and the Collective Security Treaty Organization. We should bear in mind that labour migrants from Kyrgyzstan, Armenia and Tajikistan who flock to Russia in great numbers can count on better-paid jobs and successfully integrate in the host society if they have a reasonably good command of Russian (Ryazantsev, Ter-Akopov *et al.*, 2017).

In this context, the EAEU should pay particular attention to the development of innovative economy that requires highly qualified workers and engineers as a road towards higher mobility of labour resources. Innovative economy is the objective basis on which infrastructure and unified educational space will emerge. It is very important to create the conditions attractive to highly qualified specialists and students, etc. This means that the intensive scenario will lead us to a single labour market of qualified specialists and a common educational space (Pismennaya, Ryazantsev & Bozhenko, 2016). Education can and should be regarded as an important instrument of deepening integration within the second scenario. The integrated labour market requires common approaches to training and education; today, the

EAEU has no common educational system. Unified economic policy within the EAEU makes the integrated educational space a requirement: mobility of highly qualified specialists is an important factor that will positively affect the national labour markets of all member states. Indeed, an integrated economic space will offer employment to university graduates from any country that belongs to the integrated educational space and allow them to compete successfully on the national and the common labour markets (Ryazantsev & Lukyanets, 2017).

The time has come to establish normal living and labour conditions for migrants and to finally liquidate exploitation and corruption in the migration segment of Russia's economy. Today, there is a so-called migration-based economy in Russia that brazenly exploits labour migrants who have no documents, hence no rights and who can, therefore, be shamelessly taken advantage of, underpaid, kept in appalling conditions and often treated with cruelty. All those who use migrant labour should be bound by law to build or rent temporal dwellings for them, which should comply with at least minimal habitation requirements project (Ryazantsev, 2013). Trade unions and labour inspections should regularly check the conditions in which migrants work and to which they return after working hours, assess accident prevention systems at industrial enterprises, etc. (Ryazantsev, Ter-Akopov *et al.*, 2017).

It is highly advisable to apply the instrument of taxation to encourage employers to include the hired workers in the corporate medical insurance system: the rate of employers' social contributions (payroll tax) can be lowered for those employers who invest in the programs of corporate life and health insurance for Russian citizens and labour migrants. It is likewise highly important to integrate the migration politics of the EAEU countries: in its migration policy Russia concentrates on the regulation of migration flows into the country and integration of immigrants. Republic of Belarus is doing more or less the same and considers migration an element of its demographic policy. Kazakhstan welcomes the return of ethnic Kazakhs (the Oralman repatriation program) to maintain the ethnic and cultural balance within the country; it is willing to admit labour migrants to cope with the deficit of labour resources. Armenia and Kyrgyzstan stimulate emigration to enhance the contacts with the corresponding diasporas and lead them to invest in national economies (Pismennaya, Ryazantsev, Pichkov & Lukyanets, 2017).

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