

# STUDY OF THE THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF EMPLOYMENT AND THE EFFECTIVE DISTRIBUTION OF LABOUR

**Inha ZIANKOVA**

PhD.in Economics, associate professor, Head of the Department of Economics,  
Management and Economic Theory, Polotsk State University, Polotsk, Belarus,  
e-mail: azenkov@yandex.by, phone: +375 296160335

**Abstract.** *The paper describes the socio-economic relations between individuals and institutions of the labour market on the subject of reaching an effective employment and development of productive labour that ensure efficient distribution of labour resources.*

*The paper attempts to scientifically substantiate and develop a theory, methodology of employment and methodological support, conceptual frameworks of the formation of effective employment for the development of productive labour that ensure an efficient distribution of labour resources and endogenous economic growth in the Republic of Belarus.*

*In the research the following conceptual bases for the achievement of effective employment, productive labour, the efficient allocation of labour resources are proposed: it is proved that in the absence of technical changes, an increase in capital per employee does not bring about a steady increase in the growth rates of production per employee or per capita; it is noted that a high level of wages and salaries can affect the growth of labour productivity stimulating the growth of capital relative to labour and also affect the growth of the unit cost of production and result in a decrease of jobs; it is noted that the reason for the efficiency distribution of the labour force is the size analysis of unit costs, profits and income; it is proved that the firms are not profitable to invest in workforce for the reason that the dominant investment is spent on consumption; the analysis of the structure of employment on the question of the optimal ratio of managers in relation to working hands is noted as one of the ways of achieving effective employment.*

*The aim of the research is to study the theoretical and methodological foundations of labour force employment in economically viable jobs and the mechanism of its effective distribution for inclusive economic growth.*

*The novelty of the present research lies in the fact that the conceptual foundations of the theory of employment have been studied and scientifically substantiated. The fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment have been identified and systematized.*

**Keywords:** *employment optimization, socio-economic labour relations, labour market.*

**JEL code:** *J24*

## Introduction

A fundamental reason for the increase of labour productivity parameter lies in the endogenous growth of the national economy and world economy.

The theoretical approach to the effectiveness of D. S. North is interesting for us by allocation of the fundamental reasons for the growth of human welfare. The reasons are as follows: increase in the scope of knowledge, change in institutional incentives, change in relative prices for the factors of production, creation of new views, redistribution of resources, increase in the benefits of joint activities, strengthening of incentives for innovation, decrease in the cost of transactions in the markets (Hopt, 1997, p. 33-34).

The main productivity factor of the economy, according to D. S. North, is a streamlining of the political and economic environment, where an important role in the regulation belongs to the state, because it regulates economic rules (proprietary right of resource ownership and alienation) (Hopt, 1997, p. 91).

Growth factors of efficiency are as follows: the measurement of transaction costs in different markets of products and factors of production; the synthesis of miscellaneous knowledge for creation and development of productive capacities; the share of gross domestic product redistributed by executive power, and also constantly changing regulations; the reasonable use of transformation tools (a combination of economic, structural, investment policies) (Мартынова, 2010, с. 236-237).

The paper defines the conceptual framework of the process of achieving productive employment, productive work, effective distribution of the workforce based on methodological decisions on planning of professionally qualified structure of labour supply for technical-technological parameters of workplaces; on the calculation of loss of gross regional product in connection with untenable staff training.

The proposed conceptual framework involves determining the order of selection of prospective areas of employment at the hierarchical levels of the economy; the creation of communication channels to establish cooperation between industrial enterprises and educational institutions; methodical planning solutions to specialist competencies depending on the technical and technological peculiarities of production development. This will allow the government to shape industrial policy, taking into account the components of the prospects of employment of graduates.

The relevance of the research study of the mechanism for achieving the efficient employment of productive labour and, the efficient allocation of labour resources is determined by the need for the development of adaptive to the dynamic socio-economic environment optimization mechanisms for the workforce at all levels of the economic system to achieve faster growth of labour productivity over the wage growth rate.

According to the State programme of employment promotion of the population for the Republic of Belarus, one of the measures that reduce the demand for labour against of the backdrop of decreasing of working-age

population can be "... the modernization of production and introduction of resource-saving technologies, increasing productivity and the reduction of excess employment ..." (Постановление 2015/77/ Совет Министров).

The theoretical foundation of the theoretical and methodological fundamentals of achieving effective employment, productive labour, and the efficient allocation of labour resources was laid by representatives of various economic schools.

Modern research has developed methodological tools:

1. V. E. Gimpelson's model of demand equations for labour, which takes into account the interrelation among the variables: wages and salaries, the dynamics of economic output, the vector of control variables describing structural characteristics and the economic and financial situation of enterprises (Гимпельсон, 2004).
2. The model equations of labour supply for decision-making on work are proposed by M. Killingsworth, which take into account the interrelation among the variables of unearned income, market wages and a set of socio-demographic and economic characteristics of the individual, determining the individual value of free time (Ashenfelter, 2005, p. 357 – 386).
3. J. Konings and H. Lehmann's model of labour demand which shows wages, capital costs, material costs, real output as the factors determining the demand for labour (Konings, 2002).
4. E. F. Denison, G. Psacharopoulos and M. J. Bowman's model of labour demand which takes into account the volume of production, the effectiveness of the unit of labour, depending on education, the amount of capital (Ashenfelter, 2005, p. 357 – 386).

Still there is no formulation of a new theoretical approach to the process of achieving full employment and productive work, to an efficient allocation of labour, which would be based on the conceptual foundations of formation of the theory of employment, which would take into account peculiarities of the phenomenological nature of employment and the fundamental prerequisites for the formation of the theory of employment in the context of effective allocation of labour as well as the methodological principles of effective employment.

There is no comprehensive research study of indicators of effective employment; the theoretical approach to the achievement of efficient employment and to the creation of productive labour and efficient allocation of labour is not fully developed.

At present in the researches studies of Belarusian scientists methodological principles of modelling in the achievement of efficient employment of productive labour, the efficient allocation of labour, as well as the conceptual framework for the process of achieving productive

employment, productive work, efficient allocation of labour are not sufficiently studied.

The choice of the object of research – socio-economic relations between labour market entities and institutions in reaching an effective employment and development of productive labour that ensure efficient allocation of labour resources is determined by insufficient development of the topic and is very important for endogenous economic growth in the Republic of Belarus.

The aim of the research is to study the theoretical and methodological foundations of labour force employment in economically viable jobs and the mechanism of its effective distribution for inclusive economic growth.

To achieve this aim, the following tasks were set:

- 1) To study the conceptual foundations of achieving effective employment, productive labour and efficient allocation of labour.
- 2) To identify and systematize the fundamental assumptions and methodological foundations of modelling of the process of achieving effective employment, productive labour and efficient allocation of labour.

The idea of the research lies in the scientific substantiation and development of theory, the methodology of employment and the development of methodological support, conceptual foundations of formation of effective employment for the development of productive labour that ensure efficient allocation of labour and endogenous economic growth in the Republic of Belarus.

The novelty of the present research lies in the fact that the conceptual foundations of the theory of employment have been studied and scientifically substantiated. The fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment have been identified and systematized.

To carry out the tasks of this research, the following methods were used:

- monographic;
- descriptive;
- analysis and synthesis;
- statistical data analysis;
- correlation analysis.

The basis for the development of conceptual frameworks to achieve the effective employment of productive labour and the efficient allocation of labour is a system of methodical developments.

To analyse the changes in employment at the micro level, depending on economic factors, a statistical model is developed and tested. It takes into account the following economic factors: the complexity of the product, average monthly salary per employee, a salary ratio, the capital intensity of

the enterprise, the average monthly volume of production, the capital-labour ratio of the enterprise.

For the prospective analysis of professionally qualified structure of the employed population on the basis of information about the dynamics of the number of graduates from higher education institutions, about natural growth (decline) of the population, about the share of expenditure on wages in total costs of production by industry, the author's optimization model of consistency in the professional qualification structure of labour resources and demand at the regional labour market has been developed and evaluated. The factors affecting the growth of production efficiency are systematized taking into account the development of technical-technological parameters of work places. The peculiarity of the proposed model is in the relationship of the enterprises of industrial complex and national level.

To calculate the loss of gross regional product in connection with untenable staff training in the region the author's statistical model has been developed and tested. The main elements of the author's algorithm are as follows: calculation of an adjustment factor of gross regional product by means of untenable staff training, taking into account the following economic indicators: the coefficient of excess staff training, potential employment in the regional economy at full employment and the actual number of the employed population in the region's economy.

To create in the new economy economically cost-effective jobs that ensure high productivity and salaries, methodological tools for coordination of the vocational and qualification structure of labour resources with demand is determined. The peculiarity lies in the fact that the key points are based on the following:

- 1) introduction of an index of labour requirement and production-technological parameters of workplaces in the model of demand equations for labour;
- 2) use of the contingency coefficients of jobs, which allow us to derive a calculated rate of labour input of workers at different industrial levels.
- 3) accumulation of information on the number of employees by gender, qualification, education in the form of differentiated balance of labour resources and employment;
- 4) use of the principle of energy-cyclic planning that explains the logic of the studies of production chains across industries through linkages between the technological updating of enterprises and industries. The workload at the production stages differs by level of detail, flexibility to changing volumes of production and technology, takes into account the coefficients of contingency jobs, allows the analysis of labour force participation in the labour

market at various levels of the economic system to achieve the efficient allocation of labour resources.

The present research is based on various scientific publications, publicly available data, legal and regulatory information, statistical databases of Belarus and the World Bank.

### **The study of the conceptual foundations of achieving effective employment of productive labour and effective distribution of your workforce**

Theoretical approaches to achieve effective employment in the labour market are developed by foreign scientists. A significant contribution to research on the problems of employment was made by Belarusian scientists.

In the present research a theoretical approach by T. Schultz is developed ("szulczewski" allocative effect), which is notable for the explanation of the fact that educated labour adapts faster in the transition economy.

According to A.L. Lukyanova's theoretical approach, if the employee has a degree that does not match work duties, his/her education will not bring any compensating gain on this job (Лукьянова, 2010).

The value of Gary B. Hansen, W. Edwards Deming, Fried Foulkes and Ann Whitman's theoretical approach for the present research study is to identify the direct relationship between guaranteed employment and increase in productivity through competitive advantages (credibility to the company and to the management, reducing resistance to technological change) (Хансен, 2009).

M. Sattinger's assignment theory explains the inflexibility of adaptation of technologies under the supply of skilled labour resources and technological competencies. The economic losses for the society with an inefficient and low-quality connection between jobs and workers' education are determined. Consideration of the different ratios of elements of the system "competence in education – technical and technological parameters of jobs" is significant. In the economy there may be situations where technology is overtaking the education market or the education market ahead of technology (Sattinger, 1993).

In the era of globalization the conceptual framework to achieve effective employment is actualized. German researchers state the importance of taking into account innovative pressure from the economy on labour and a short half-life of graduates' knowledge in the employment process.

The law formulated by Kaldor-Verdoorn claims that there is a positive relationship between GDP growth and growth of labour productivity.

Belarusian scientists E.V., Vankevich, A.P. Morova, I.V. Novikova believe that labour market flexibility is seen in the willingness of its participants

(employers, employees and institutions in the labour market) to adjust to economic, social and technological changes (Ванкевич, 2008).

The research study examines the nature of salary as an indicator of stimulating productivity. The conclusion has been made that very often the motivation to work may be not so much the pursuit of prosperity through high earnings as requirements dictated by the position and status of the employee; the salary level should take into account special talent and abilities of a worker, the severity of the labour; the level of remuneration of workers shall be established in proportion to the efficiency of their labour; quantitatively the level of total wages is determined by the size of the unit wage and volume of employment in the industry; there is the differentiation of wage rates: the price of unskilled labour, the price of skilled labour (including rent on talent), as well as the price is unattractive to labour, which takes into account the economic benefit that covers discomfort during working; the cause-and-effect link among labour supply, labour demand and parents' desire to educate their children in more profitable occupations in expectation of high rewards to be made; additional costs to pay for the additional labour is determined.

The analysis of theoretical approaches to education has proven the relevance of education for economic development of society, it has allowed us to systematize the skills and abilities that promote productivity and finally, clearly pointed to the need for the alignment of knowledge and skills with assigned tasks, technology. In our view, the importance of an educated nation is indicated by the following theoretical generalizations: firstly, a synthesis of knowledge enables the society to shape the institutional and organizational framework, including the production capacity; secondly knowledge is necessary for the organization to achieve the result at the appointed time, thirdly, applied knowledge is an important factor in the development of pure knowledge in the economic system, and finally, the possibility of obtaining income from the use of the best knowledge or judgment ability taking onto account agreements with the manufacturers.

It is noted that in different times and places the society presented the actual requirements to the working power. They are: the ability to remember multiple things; the ability to adapt to changing work environments; self-confidence and confidence in one's own judgments; having the skill of accuracy; ability to pull oneself up in an emergency; the development of mental life; the dedication and curiosity of the mind; education; scientific thinking; professional skills and managerial abilities; development of intellectual capacity; skill to predict; skills of coordination; entrepreneurial skill; tendency to intense labour; the possession of a high work morality.

We believe that an important condition for productive work is the clear alignment of employees' abilities with the scheduled task. We agree with the

following theoretical generalizations: the importance of alignment of professionals with the equipment and the organization of labour itself; matching of employees' abilities to the task as an important condition for the realization of talents; professional skills must be deepened and specialized regarding the specific employer with preservation of the economic value of skills and subject recruitment (dismissal).

The research study identifies and systematizes the fundamental prerequisites for the formation of the theory of employment for productive labour and the efficient allocation of labour. They are: to achieve effective employment by aligning the educational services market with the labour market, it is important for the employer to identify the level of costs and the remuneration level of labour; the relation between high labour turnover and low pay is noted and also there is the relation between low labour turnover and high wages; a regularity is noted that if the labour force is associated with the goals of the company and in terms of crisis management, the wage level is kept at a constant level, then in principle, the performance of the labour force should not decrease as the labour force participation rate is not reduced; an inverse relation between the skill level and the direct wage elasticity of demand is determined; the interdependence between the duration of working time in the short term and determining a nature of the demand in the labour market is discovered; the interdependence between the duration of working time in the long run and the nature of the supply of labour is noted because over time new firms may enter the market and new technologies could appear; the relation among the level of productivity in the labour market, labour productivity in the household and the life cycle of the person is identified; the relation between the degree of elasticity of supply for female labour and wages and the number of children in the family, their age is emphasized; there is a relation between institutional rules on the labour market and the market rules, as the first helps eliminate competitive pressure on the labour market and equate levels of wages; the influence on the process of reallocation of labour unemployment or a sharp decline in the income level of the population is proved; also the influence of the process of retirement and temporarily leaving of the workforce to work from home or for professional development is determined; mobility of labour within the profession or within the industry; the change of residence for new job search, labour migration over short and long distances is noted (Ashenfelter, 2005).

The research study notes that structural shifts in employment could be associated with the development of new types of products, its distribution, marketing and the regulation of the process of creating new products and production technology; efficient spatial allocation of mobile capital requires an equal amount of capital per unit of labour productivity at each site; regularities are determined that with the growth of wages and the growth of



labour costs average labour costs remain unchanged as long as the average product of labour is increasing, offsetting the increase in costs, and contribute to the achievement of X-efficiency.

The research study analyses the dynamics of public expenditure on education in the context of countries such as: Belarus, the Czech Republic, France, Israel, Kazakhstan, Poland, Lithuania, Latvia, the Russian Federation, Sweden, Ukraine, the USA.

The analysis has shown that in this group of countries the share of public spending on education ranged from 2.8% (in Kazakhstan in 2007) to 19.3% (Lithuania in 2009). The largest share of these costs was in Lithuania, the lowest in Kazakhstan. The level of expenditure on education in the Republic of Belarus did not change significantly and it was at about 5% of GDP, which was slightly different from the share of expenditure on education in the United States, Poland, France and Israel. At the same time investing in the education of children, youth and adults was not imparted sufficiently to the growth of macroeconomic indicators and did not allow keeping their values unchanged: the GDP growth rate has decreased by 6.4%, the labour productivity (in percent of GDP) has decreased almost 8 times. All this leads to the importance to identify the factors in the growth of productivity and tools to its achievement.

The research study analyses the dynamics of GDP across the countries such as Belarus, the Czech Republic, France, Israel, Kazakhstan, Poland, Lithuania, Latvia, the Russian Federation, Sweden, Ukraine, the USA (NY.GDP.PCAP, 2015).

The analysis showed that the greatest reduction in the rate of growth of the economies of the countries was in Lithuania, Ukraine and Latvia in 2009, which were particularly affected by the crisis and its consequences. The highest rates of GDP growth for 2008-2014 in the analysed countries were in 2011. The rate of GDP growth of the Republic of Belarus amounted to 5.5% per year, while the average growth rate of GDP in this group of countries was 4.4% per year. As a positive trend it should be noted that in the Republic of Belarus in 2008-2014 the decline in the GDP growth rate was not observed.

In absolute terms, the highest value of GDP per capita was in Switzerland, the USA, France and Israel. The Republic of Belarus, by this indicator, was in next-to-last place among this group of countries (last place in this sample belonged to Ukraine). At the same time, the steady tendency of growth of GDP per capita in Belarus in dollar terms indicates a progressive increase in the level of economic development of the country, successful implementation of measures for social support of the population.

The analysis of the dynamics of productivity in the context of the countries studied showed that the leader in the growth rate of labour productivity over the period from 2003 to 2008 was the Republic of Belarus.

At the same time, since 2005, there has been the slowdown in the rate of growth of labour productivity that in conditions of increasing negative impact of the global economic problems has led to the deterioration of the main macroeconomic indicators. A particularly strong decrease in this indicator was characteristic of the economies of small countries such as Israel, the Czech Republic, Lithuania, Latvia, and also for the economy in terms of instability of the political situation (Ukraine).

It is concluded that the main factors of productivity growth and the tools to achieve it are: the formation of abilities of the employee, talent and self-improvement; the production of producer goods and durable goods that contribute to economic growth; the division of labour contributes to its performance, special attention is given to such a quality of the labour force as physical dexterity, there is the heterogeneous contribution to the production of the product; the presence of productive capital and its prudent management by specialists leads to higher productivity; diligent conscientious performance, estimable approvable behaviour of the workforce determines productivity; saving time on the coordination of labour, the specialization of labour, the response from the employer on contract formation at the aggregated requests of the working forces.

In the research study a theoretical analysis has shown that the indicators of effective employment are as follows: a certain number of working hours per week; the participation factor of the  $j$ -th group in the labour force in a certain period of time; the employment rate of the population aged 35 – 44 years in a certain period of time; responsiveness of the degree of participation of the employed population in the business cycle; wages, exogenous income, a vector of background characteristics (demographics, for example), the level of consumer spending, leisure time, technical and technological options, differentiated labour. They also include the following ones: the working time of the  $i$ -th family member, the sales price of production, a function of income, the level of employment in a certain structure of the economic cycle, wage determination in the company, the interest rate of capital for period  $t$ , the steady increase of the recruitment number, the value of the recruitment stream, which is added to the cost of wages for effective labour prices; the hourly wage rate, the amount of internal consumption, leisure time, individual characteristics of the workforce, all types of income, the value of their allotted time going to the labour (the number of hours worked for the product and hourly wages); the reserve wage below which an individual will not work.

We systematized the indicators as: the ability to influence the size of future and current productivity through the accumulation of human and physical capital, technological and managerial innovation, the marginal productivity of employment in a typical firm, the quantity of homogeneous

labour employed in period t, all possible determinants of labour demand, the discount rate applied to future cash flows, the loss of additional jobs due to layoffs and retirement, the number of employees per one employer, a lot of employers with positive employment in period t and t-1, the subset of employers that are expanding (increasing employment), or belong to the sector (create new jobs) in periods t and t-1, the subset of employers who offer additional employment in the form of contracts and leave the sector in periods t and t-1, gross reduction of workplaces in sector S in period t, the size of the stream of jobs as an indicator of the measured size of the business unit as the arithmetic mean of employment, gross redistribution of workplaces in sector S in period t.

**The identification and systematization of the fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment and efficient allocation of labour**

*We have defined the fundamental prerequisites and methodological basis for modelling the process of achieving productive employment, productive work, and efficient allocation of labour ( Altman, 2012, p. 51-56, 58, 63, 67-69, 75-77).*

It is proved that the investment capacity of industries is defined by the institutional environment of the region with low or high profitability;

It is concluded that in conditions of perfect competition with high capital mobility and the absence of tariff barriers, the firm can work effectively with the regime of the high level of wages;

There is a regularity between the institutional frame (as the stated right of ownership of the business, corporate governance) and the change in the level of wages;

The importance of use of macro level tools in modelling effective employment is noted, which minimizes the difference between actual and potential unemployment in the reverse case, and a reduction in equilibrium production per capita on the demand side leads to a decrease in the potential level of production per capita on the supply side.

The Gini coefficient is used as an indicator in the simulation of achievement of an effective employment, which allows tracing a correlation between GDP per capita, labour productivity and inequality in income distribution.

As a tool promoting efficiency and technological change and the increase in economic welfare, the following tool is determined: a comparison of "income and effort for effective work", the implementation in the economy of the conditions of Pareto optimality.

To create a high marginal product in the niches of the labour market with lower incomes the following indicators are noted: increase of current consumption of goods (services), monitoring of the health of a nation, the formation of a higher level of human capital.

It is concluded that according to the behavioural model, the peculiarity of formation of human capital in terms of formal education and skill formation, the age structure of the population and technical progress lie at the bottom of income inequality.

In the modelling of achievement of an effective employment such institutional settings as employment policy, unions, minimum wages, social benefits (unemployment insurance) are taken into account. The approach to the modelling of effective employment is valuable for the exact matching of human capital and its place in the production function.

According to the conceptual approach to the modelling of achievement of effective employment of David's and Arthur's theoretical cases in which the quantity and quality of effort per unit of labour cost is maximum at any given time, changes in productivity do not depend on variations in the cost of labour and differentials in labour productivity, and depend on input from differential effort; the effort per unit of labour input is positively associated with wages (Altman, 2012, p. 83-84).

The regularity is noted that average costs will not change on condition that there are higher wages and improved working conditions, as a result, higher levels of effort and productivity that offset the increase in wages (Altman, 2012, p. 116).

The approach to modelling the achievement of efficient employment of productive labour, the efficient allocation of labour force is valuable by justification for the change in demand for labour due to the elasticity of demand for labour to changes in production volume, which is defined by using the function of production. Maurice Altman rightly pointed out that in talking about the degree of elasticity of labour, it is important to dwell on institutional settings. He introduced the category of "the institute of free labour market", in which the labour is free and does not interfere with the mobility of labour among firms and among cities within the country (Altman, 2012, p. 133).

## **Conclusions and suggestions**

*In the research study as a conceptual basis to achieve effective employment of productive labour, the efficient allocation of labour resources is proposed:*

- 1) it is proved that in the absence of technical change, the increase in capital per worker does not entail a steady increase in the growth rate of production volume per worker or per capita;
- 2) it is noted that the high level of wages may affect the growth of productivity by stimulating the growth of capital relative to labour, and also affect the growth of the unit cost of production and result in a decrease of jobs;
- 3) it is determined that the motive for the efficiency distribution of the labour force is the size analysis of unit costs, profits and income;
- 4) it is proved that the firms are not profitable to invest in the workforce for the reason that the dominant investment is spent on consumption;
- 5) the analysis of the structure of employment regarding the question of the optimal ratio of managers in relation to working hands is noted as one of the ways of achieving effective employment (Altman, 2012, p. 39, 41, 42, 52, 71, 99 – 100).

*To identify the fundamental prerequisites for the formation of the theory of employment and methodological basis of modelling the process of achieving effective employment and efficient allocation of labour, we tend to identify the following key assumptions:*

- 1) the institutional environment of any region determines the investment capacity of industries and, therefore, contributes to the creation of new jobs and a more complete inclusion of the labour potential of the region in the establishment of the regional GDP;
- 2) when modelling the process of achieving full employment, it is important to have a balance between the income of a business entity and the efforts of the workforce towards productive labour;
- 3) when modelling the process of achieving effective employment, it is important to consider the following economic indicators: the degree of labour elasticity of demand for price, the institutional framework of labour market, the level of wages, the value of regional GDP.

### **References**

1. ASHENFELTER, O.C., LAYARD, R. (2005). *Handbook of labour economics*. 3 vol. North-Holland, p. 2712 – 2805.
2. ASHENFELTER, O.C., LAYARD, R. (2005). *Handbook of labour economics*. 2 vol. North-Holland, p. 357 – 386.
3. GDP per capita, (current US). 2015, from <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.
4. KONINGS, J. (2002). Marshall and labor demand in Russia: Going back to basics. *Препринт ГУ ВШЭ, WP3/2002/02*, 36 с.

5. MORRIS, ALTMAN. (2012). *Economic Growth and the High Wage Economy. Choices, constraints and opportunities in the market economy*. Taylor & Francis Group, London and New York. p. 39, 41, 42, 52, 71, 99–100.
6. ORLEY C., ASHENFELTER, RICHARD, LAYARD. (2005) Handbook of labour economics: 3 vol. North-Holland, Volume B, p. 2712 – 2805.
7. SATTINGER, M. (1993). Assignment Models of the Distribution of Earnings. *Journal of Economic Literature*, Vol 31, Iss: 2, p. 831 – 880.
8. ВАНКЕВИЧ, Е.В., МОРОВА, А.П., НОВИКОВА, И.В. (2008). *Рынок труда Республики Беларусь: особенности формирования и развития*. УО ВГТУ, 303 с.
9. ГИМПЕЛЬСОН, В.Е. (2004) Дефицит квалификации и навыков на рынке труда: недостаток предложения, ограничения спроса или ложные сигналы работодателей? *Препринт Гос. ун-т Высш. шк. экономики, WP3/2004/01*, 36 с.
10. ЛУКЪЯНОВА, А.Л. (2010) Отдача от образования: что показывает метаанализ. *Препринт Гос. ун-т Высш. шк. экономики, WP3/2010/03*, 60 с.
11. МАРТЫНОВА, К. (2010). *Понимание процесса экономических изменений*, Гос. ун-т Высш. шк. экономики. Москва, Изд. дом Гос. ун-та, Высш. шк. экономики, с. 236–237.
12. НОРТ, ДУГЛАС. (1997). *Институты, институциональные изменения и функционирование экономики*. Москва, Фонд экономической книги «Начала», с. 33–34.
13. Постановление 2015/77/ Совет Министров. Об утверждении Государственной программы содействия занятости населения Республики Беларусь от 7 февраля 2015 г, 13.02.2015, 5/40106. *Нац. правовой Интернет-портал Респ. Беларусь*, из [http://www.mintrud.gov.by/ru/min\\_progs](http://www.mintrud.gov.by/ru/min_progs).
14. ХАНСЕН, Г.Б. (2009). Вытеснение рабочей силы: некоторые методы смягчения последствий для работника, местных сообществ и предприятий. *МОТ*, 87 с.