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**DEVELOPMENT OF FORMING MECHANISMS OF  
EFFECTIVE HUMAN RESOURCES DEVELOPMENT POLICY  
IN THE REGIONAL ECONOMY  
(ON THE EXAMPLE OF THE PAVLODAR REGION)**

**Abstract.** The article considers the current economic situation in the field of human resources development of the leading industrial region of the Republic of Kazakhstan – Pavlodar region. Special attention is focused on quantitative and qualitative indicative indicators of the state of human resources in the dynamics. In the course of the research, on the basis of statistical and analytical analysis, the main conceptual problems of the development of the human resources potential of the region, including labor potential and human capital, are identified. The detailed systematization of the problems of human resources development in the region by quantitative and qualitative components has also been made. The following were identified as the leading priorities in the formation of mechanisms for an effective human resources development policy: implementation of measures to enhance the role of industrial production in the development of human resources, through the instruments of social responsibility, allocation of grants for training and retraining of personnel; establishment of a regional corporate university; intensification of investment in increasing the level of demographic attraction of the region.

**Keywords:** human resources, labor resources, human capital, region, economic mechanisms, economic policy.

**Introduction**

The solution of current and future tasks of any society is connected, first of all, with the determining role of the human factor. To meet the needs of society, the dynamic development of productive forces requires three types of key resources:

- natural resources (raw materials and supplies);
- capital (buildings, structures, machinery and equipment, technologies, patents, licenses, know-how);
- human resources [1].

All other things being equal, human resources are of particular key and strategic importance along with all types of resources.

In modern scientific economic thought, there are several relatively identical approaches to the definition of the term "human resources":

- Human resources are a set of qualities and characteristics that characterize a person's ability to perform a certain type of activity;

- Human resources - represent a set of different qualities of people that determine their ability to work in the production of material and spiritual goods, and are a generalizing indicator of the development of social production;

- Human resources – a set of quantitative and qualitative parameters of the total population, studied, investigated within any territory [2, 3].

As an object of management, human resources are simultaneously producers and consumers of material and spiritual goods.

The peculiarity of human resource management in the system of regional economy is the need to take into account the interests of the individual, organization, region and society, to ensure their organic

combination. The subject of human resources management-the state-develops a set of socio-economic and organizational and legal measures aimed at their effective formation, distribution, redistribution and use [4].

The function of human resources management, along with the state, is carried out by non-state bodies.

The subject of human resources management also includes trade unions and associations, business structures, labor collectives.

The subject of human resources management is the system of socio-economic relations, emerging in the field of regulation of the processes of reproduction and development of human resources.

The mechanism of human resources management is a set of relations, forms and methods of influence on their formation, distribution, use and compensation [4].

Human resources management is the main content of human resources policy. It is directed:

- the formation of high-quality human resources and meeting the needs of social production in qualified personnel;
- to ensure effective employment of the able-bodied population and its optimal distribution among industries and regions of the country;
- rational use of personnel of enterprises, organizations and institutions [4].

#### Methods.

Pavlodar region is one of the leading industrial and socio-cultural regions of the Republic of Kazakhstan. The region is located in the north-East of Kazakhstan.

Research and analysis of trends in the formation and development of human resources in the functioning of the economy of Pavlodar region, it is important to carry out in the following areas:

- quantification of human resources;
- qualitative assessment of human resources.

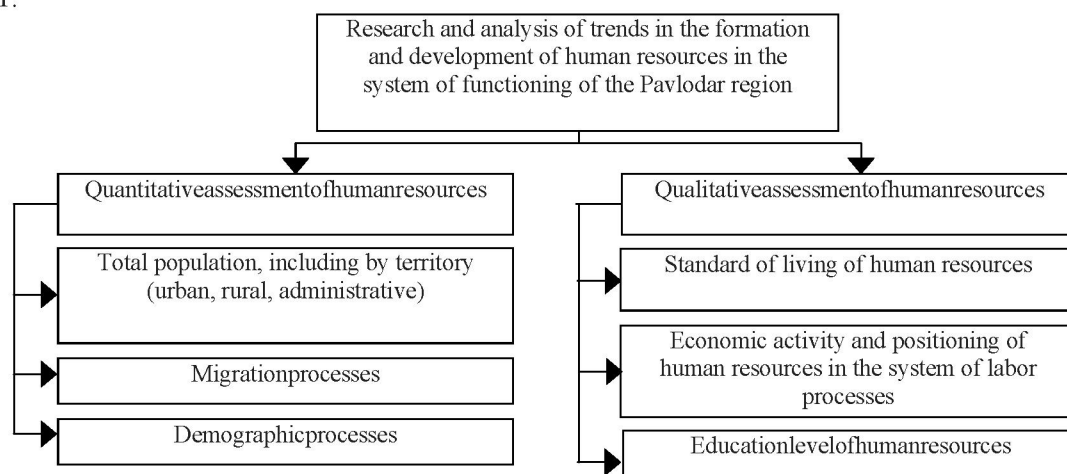
The quantitative assessment of human resources involves research and analysis of the following indicative indicators:

- total population, including by territories (urban, rural, administrative);
- migration processes;
- demographic processes.

The qualitative assessment of human resources involves research and analysis of the following indicative indicators:

- the standard of living of human resources;
- economic activity and positioning of human resources in the system of labor processes;
- the level of education of human resources.

In general, the main directions of research and analysis of trends in the formation and development of human resources in the system of functioning of the Pavlodar region are presented in accordance with figure 1.



Note—Compiled by the authors

Figure 1 – Main directions of research and analysis of trends in the formation and development of human resources in the system of functioning of the Pavlodar region

At the present stage, as of the end of 2018, beginning of 2019, the number of human resources in Pavlodar region is estimated at 754.85 thousand people, while their maximum share, in accordance with table 1, falls on urban areas. The human resources of rural areas make up less than one third of the total population.

The share of human resources of Pavlodar region within the national scale of the country does not exceed 4.2%.

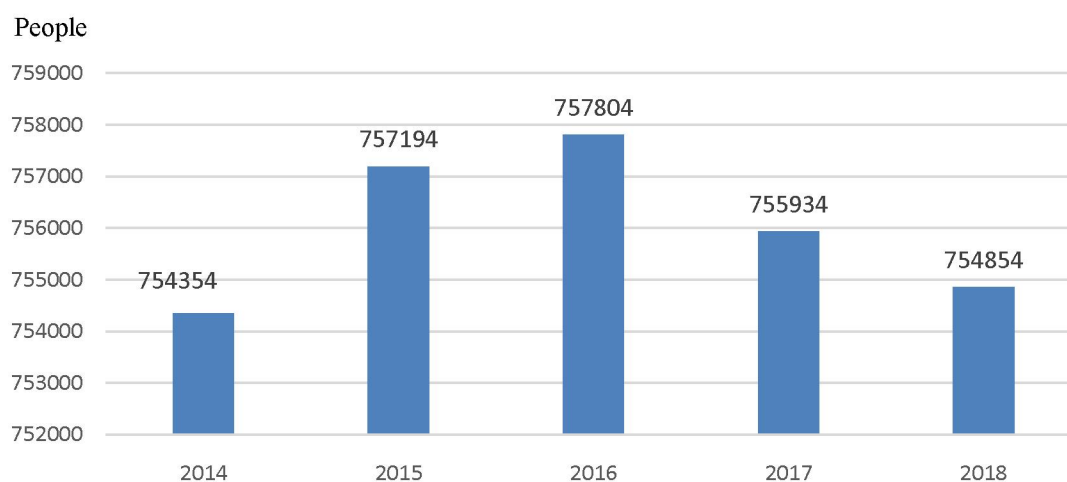
Table 1 – Dynamics of human resources in Pavlodar region

Indicatorname	Years			
	2015	2016	2017	2018
Population, including people:	755 793	758 594	757 014	754 854
- urban population	529 959	534 532	534 667	533 477
- rural population	225 834	224 062	222 347	221 377
Share of population in the republic, %	4,3	4,3	4,2	4,2

Note–Compiled from the source [5]

In recent years, from 2014 to 2018, the number of human resources, as shown in Figure 2, has been subject to fluctuating dynamics.

It should be noted that the dynamics of human resources in the Pavlodar region is uneven in the context of administrative areas. Thus, for example, studies show that there is an increase in the number of human resources mainly in urban administrative areas, the city of Pavlodar, Ekibastuz and Aksu. On the other hand, there is a steady decline in the number of human resources in the rural areas. In Pavlodar region for the last five years there has been no district where the number of human resources has been growing steadily, which indicates the current trends of stagnation of the rural economy.



Note–Compiled from the source [5]

Figure 2 – Dynamics of the number (quantity) of human resources in the Pavlodar region in the context of the temporary strategic period

Table 2 – Dynamics of human resources migration in the Pavlodar region

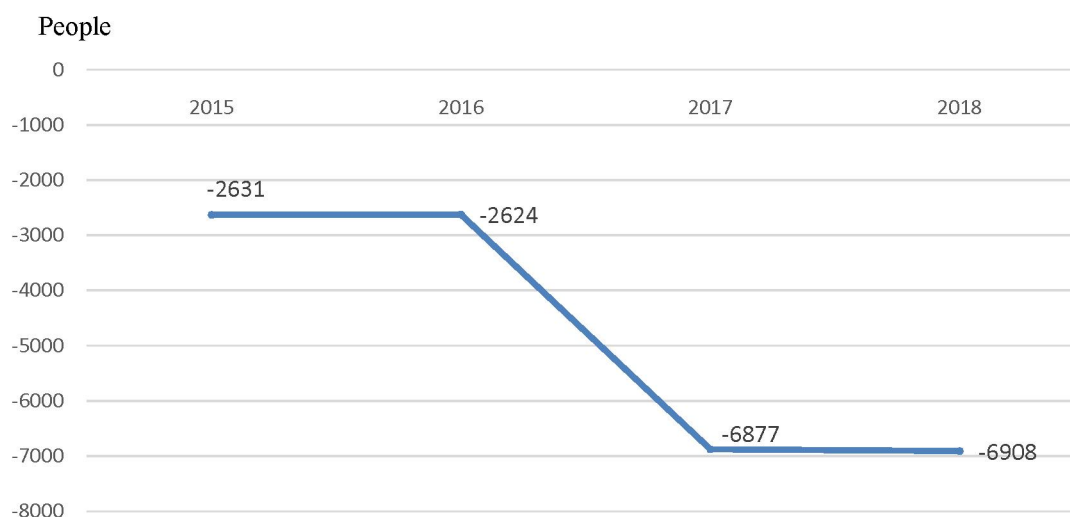
Indicator name	Years			
	2015	2016	2017	2018
Arrived	16 729	19 476	22 666	28 970
Retired	19 360	22 100	29 543	35 878
Migration balance(+, -)	-2 631	-2624	-6 877	-6 908

Note–Compiled from the source [5]

The quantitative indicators of human resources are directly affected by migration and internal demographic processes.

According to Table 2, in general, there is a negative balance of migration processes in the Pavlodar region.

In recent years, there has not been a single fact of a positive balance of migration processes. The dynamics of the balance of migration processes is shown in figure 3.



Note—Compiled from the source [5]

Figure 3 – Dynamics of migration balance in Pavlodar region

In modern practice, attention is paid to migration processes not only in the regional aspect, but also at the macroeconomic levels [6].

In the context of quantitative demographic indicators, in Pavlodar region, in accordance with table 3, there are trends of declining fertility, the number of births, the natural increase in the number of human resources.

Quantitative trends in the development of human resources of Pavlodar region are accompanied by qualitative trends, one of which is the standard of living of the population.

Table 3—Demographic indicators of human resources movement in Pavlodar region

people

Indicator name	Years			
	2015	2016	2017	2018
Numberofbirths	13 041	12 771	12 613	12 025
Numberofdeaths	7 531	7 346	7 316	7 277
Naturalincrease (decrease)	5 510	5 425	5 297	4 748
Birthrateper 1000 people	17,29	16,87	16,64	15,91

Note—Compiled from the source [5]

The quality of life of the population can be studied by such indicative parameters as:

- average monthly salary;
- per capita nominal cash income;
- the value of the minimum subsistence minimum;
- lifeexpectancy.

According to official statistics, in accordance with table 4, in Pavlodar region there is a continuous trend of growth of the nominal average monthly wage. At the same time, the per capita nominal income of the population is also growing.

Table 4–Dynamics of living standards of human resources

Indicator name	Years				
	2014	2015	2016	2017	2018
Nominal average monthly salary, tenge	102 310	108 630	122 633	131 709	136 889
Per capita nominal income of the population, tenge	64 026	66 488	78 408	84 865	93 578
The cost of living on average per capita, tenge	17 474	17 654	19 492	21 676	24 434

Note–Compiled from the source [5, 7]

The average life expectancy of human resources in Pavlodar region is relatively low and in accordance with table 5, is:

- 72,1 years-average for the entire population;
- 67,4 years - for men;
- 76,4 years - for women.

A particularly significant qualitative aspect of the life of human resources, are the processes of their participation in the functioning of the economy of the region – participation in the production and distribution of wealth, services.

Participation of human resources in economic processes can be characterized by such indicative indicators as:

- total workforce;
- level of economic activity of labor resources;
- structuring of labor resources by gender, age and administrative-territorial.

Table 5–Average life expectancy of human resources in Pavlodar region  
numberofyears

Indicator name	Years			
	2015	2016	2017	2018
Entire population	70,59	71,40	71,72	72,10
Men	65,70	66,31	66,80	67,40
Women	75,15	76,17	76,29	76,42

Note–Compiled from the source [5]

The total number of labor resources, in accordance with table 6, as of 2017 is 416.3 thousand people. At the same time, the dynamics of the number of labor resources is subject to a downward trend.

Table 6 – Dynamics of labor resources in Pavlodar region

Indicator name	Years			
	2015	2016	2017	2018
Total human resources, man.				
Including:	441300	426200	421400	416300
- city	288500	287600	286300	284600
- ruralareas	136400	124300	121200	117100
Employed in the economy, people	420300	405100	401100	396400
Employees, people.	331400	331100	331700	331500
Self-employedpopulation, people.	88900	74000	69400	64900
Unemployed, people.	21000	21000	20300	19900
Unemploymentrate, %	4,8	4,9	4,8	4,8
Levelofeconomicactivity, %	58,50	56,29	55,61	55,07

Note–Compiled from the source [7]

The employment rate of the working population has a stable trend of 95.2%. At the same time, the unemployment rate has not exceeded 4.8% in recent years.

The maximum share of the working-age population, according to table 7, falls on the following sectors of the economy:

- industry, including mining and processing;
- wholesale and retail trade;
- education.

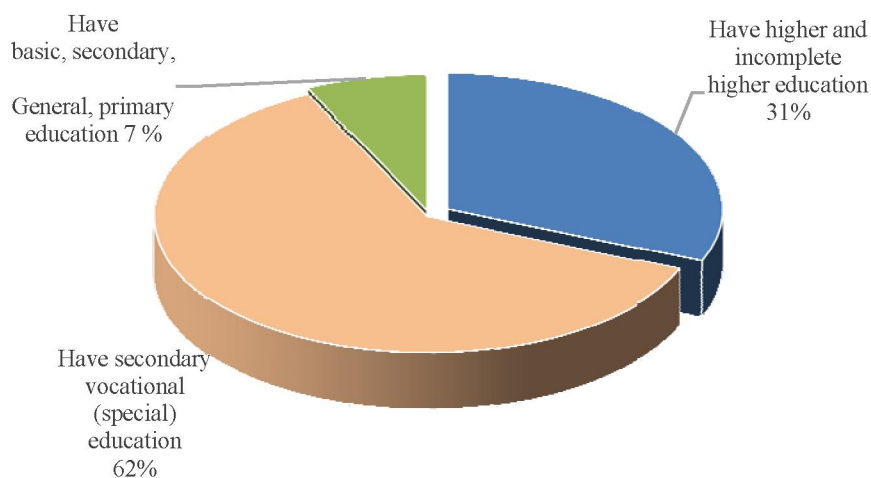
The average positions in the employment of human resources have such sectors of the economy as:

- agriculture;
- construction;
- transport and warehousing;
- health.

Table 7 – Dynamics of employment of labor resources by sectors of the economy

Indicator name	Years			
	2015	2016	2017	2018
Employees, man.				
Including:	331400	331100	331700	331500
- agriculture, forestry and fisheries	28100	29000	30200	29900
- mining industry	96100	92900	94700	92800
- manufacturing industry	57000	55800	57700	57500
- electricity, gas, steam and air conditioning	20800	18700	19100	17400
- water supply	6400	6400	6000	5600
- construction	22900	22800	21000	19700
- wholesale and retail trade; car repair	37400	38600	37200	36200
- transport and warehousing	22000	21100	20300	20200
- accommodation and catering services	4900	4400	4600	4900
- information and communication	4900	5100	5000	5000
- financial and insurance activities	5400	5400	5600	6200
- real estate transactions	3700	4500	3900	6300
- professional, scientific and technical activities	4200	4800	4500	5300
- administrative and support services activities	8600	8900	9400	9600
- public administration and defence; compulsory social security	20400	20400	20400	20300
- education	41900	42100	43000	43000
- health and social services	18500	19500	19700	20000
- arts, entertainment and recreation	8700	8300	8700	8700
- provision of other services	3500	3400	3500	3400

Note—Compiled from the source [7]



Note—Compiled from the source [7]

Figure 4 - Structure of human resources in Pavlodar region by level of education (as of the end of 2018, beginning of 2019)

In our opinion, the quality of human resources in the workforce has a relatively low position. As of the end of 2018, beginning of 2019, according to figure 4, of the total workforce, only 31% have higher and incomplete higher education. The largest share of labor resources – 62%, have secondary vocational (special education). The minimum share of labor resources is represented, having only secondary, primary education. Their share does not exceed 7%.

Also, studies show that in accordance with table 8, in recent years there has been a trend of decline in the number of labor resources with higher education and growth in the number of labor resources with secondary vocational (special) education.

Table 8 – Dynamics of the quality of labor resources (level of education)

Indicator name	Years			
	2015	2016	2017	2018
Total workforce, people.				
Including:	441300	426200	421400	416300
- have higher and incomplete higher education, people.	150800	114400	126500	130100
- have secondary vocational (special) education, people.	195400	268900	259600	256600
- have basic, secondary, general, primary education, people.	95100	42800	35300	29600

Note–Compiled from the source [7]

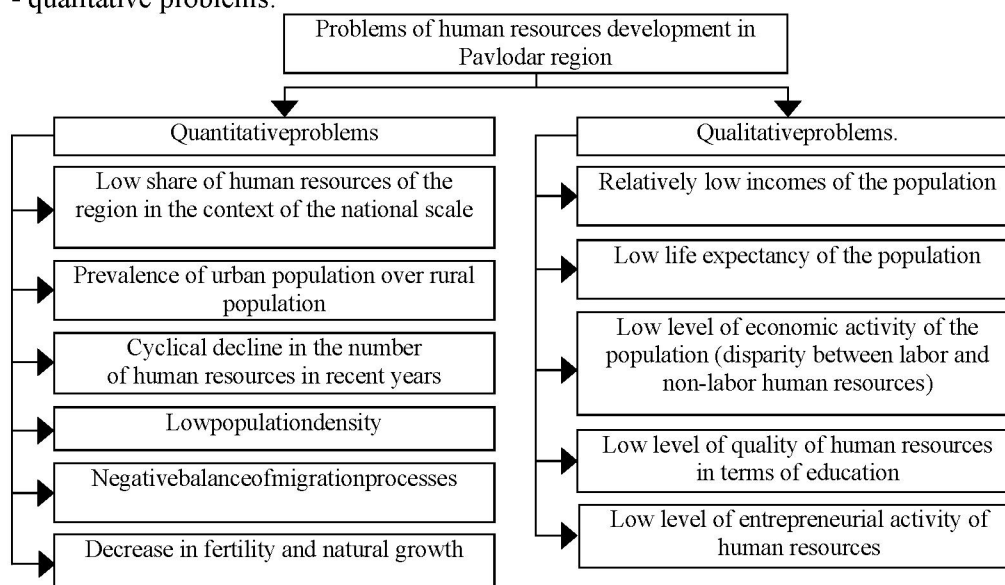
In a complex, researches and the analysis of tendencies of formation and development of human resources in system of functioning of the Pavlodar region show that the region has good personnel potential for dynamic intensive and innovative development of economy. Nevertheless, not all human resources are used to the maximum extent in the intensification of economic processes, as evidenced by the low level of economic activity of the population. A specific aspect is the employment of the population, while the leading factor of influence is the industrial specifics of the region, the largest share of human resources is employed in the sphere of industrial production.

In the trends of human resources development, there are significant reserves for abolishing their reduction, as well as improving the quality of education in hierarchical positions.

#### Research results.

The main problems of human resources development in the Pavlodar region can be systematized in two directions, according to Figure 5:

- quantitative problems;
- qualitative problems.



Note–Compiled by the authors

Figure 5–Problems of human resources development in Pavlodar region

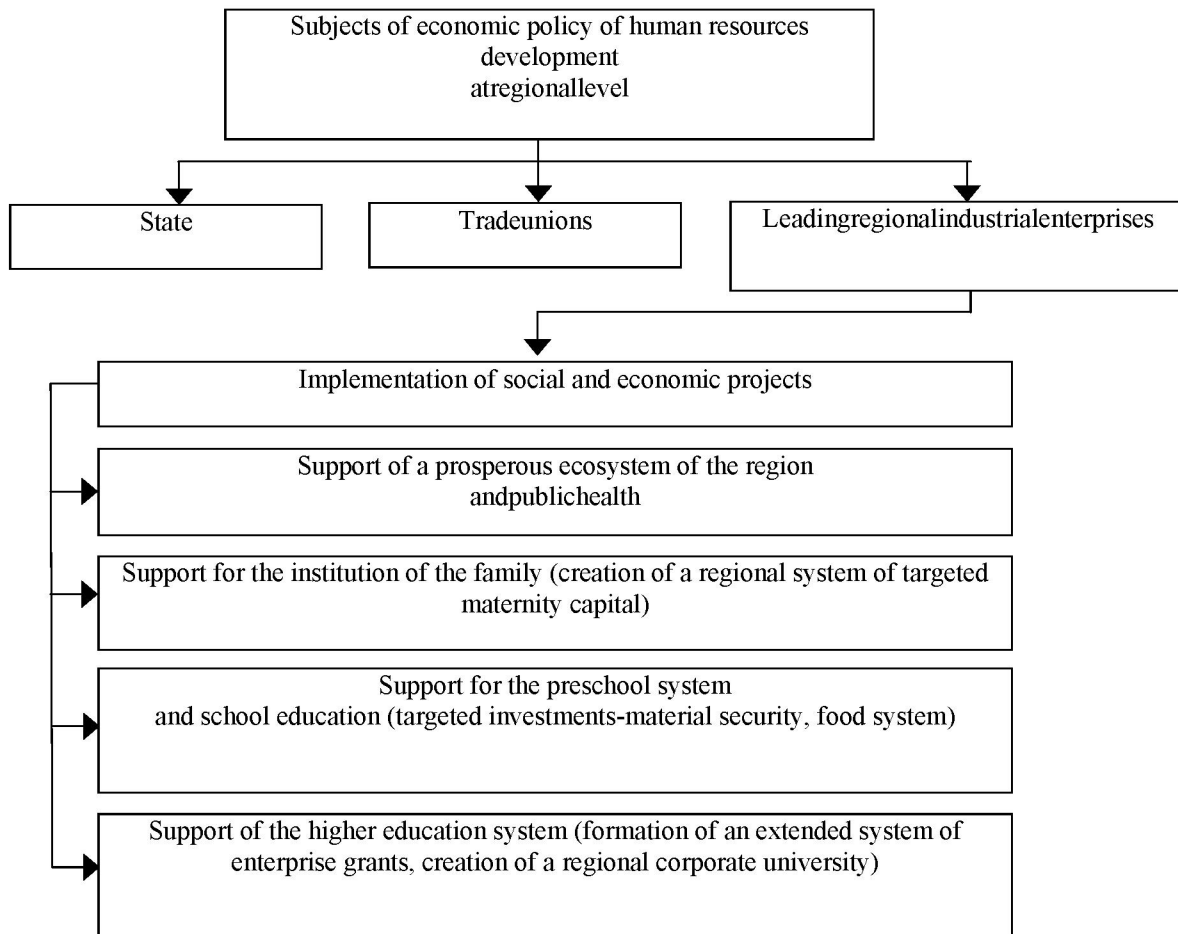
Priority directions of intensification of economic policy of development of human resources in the Pavlodar region, can serve as:

- implementation of measures to enhance the role of industrial production in the development of human resources through social responsibility tools, allocation of grants for training and retraining;
- establishment of a regional corporate university;
- intensification of investments in increasing the level of demographic attraction of the region.

The role of regional industrial enterprises in the design of economic policy of human resources development at the present stage remains very mediocre. Studies have shown that the main subjects of the economic policy of human resources management are the state and trade unions.

Nevertheless, the principles and laws of the market economy indicate that the main subjects of designing economic policy of human resources development, taking into account international experience, should be the leading subjects of business entrepreneurship, large industrial enterprises, through mechanisms of social and economic responsibility.

The role of industrial production in the development of human resources can be achieved through the implementation of design solutions, in accordance with figure 6.

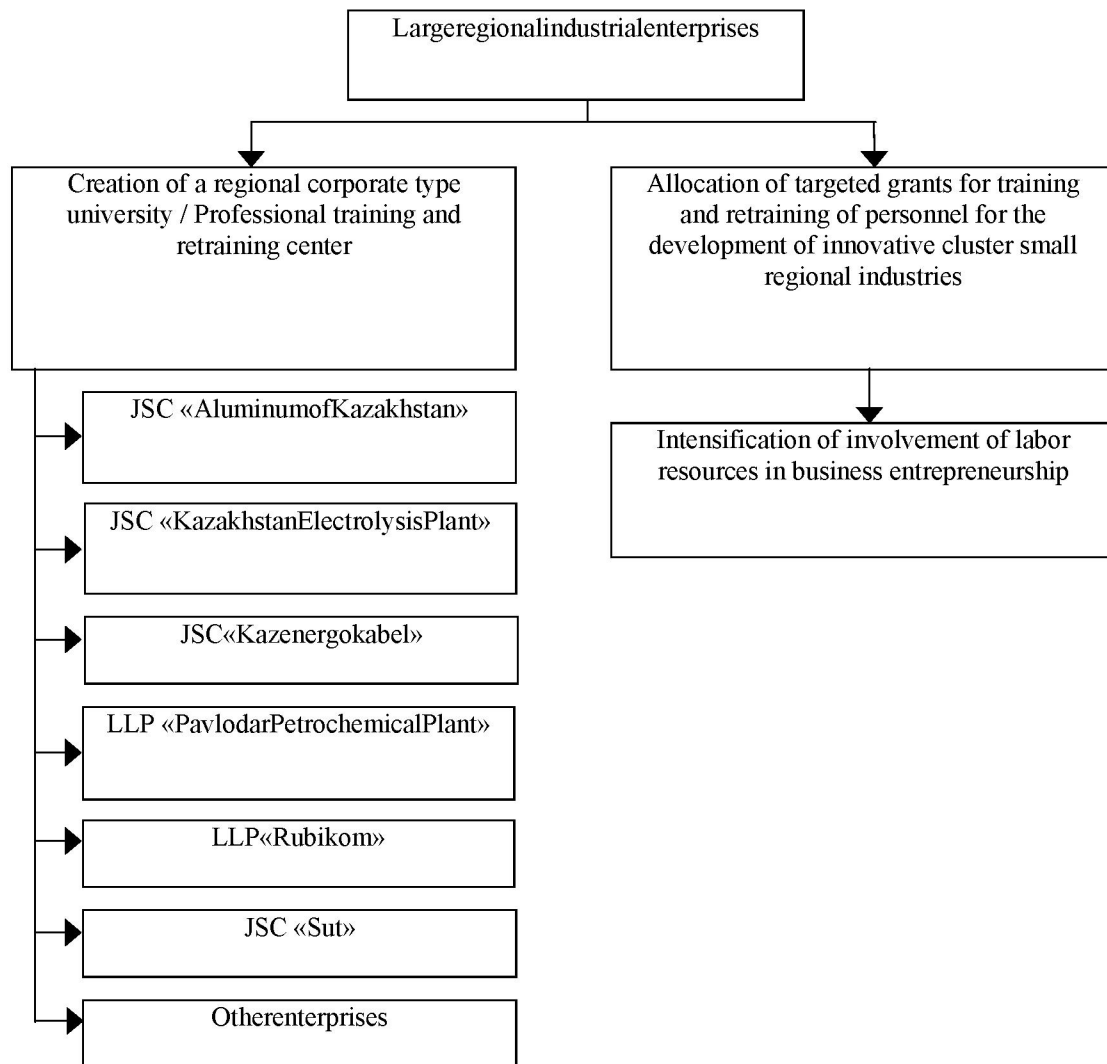


Note—Compiled by the authors

Figure 6 - Proposed design solutions to enhance the role of industrial production in the intensification of economic policy on human resources development in the Pavlodar region

An important factor in the development of human resources in the region should be the mechanisms of point participation of large regional industrial enterprises in the development of higher and postgraduate education. The approximate mechanism of the role function of industrial enterprises in this aspect is presented in accordance with figure 7.





Note–Compiled by the authors

Figure 7 – Approximate mechanism of the role function of regional industrial enterprises in the implementation of economic policy on human resources development

Corporate University is a form of personnel training, in which the system of personnel training is designed by leading enterprises, firms, companies [8].

Training at corporate universities differs favorably from both academic education and the use of external training providers in that it has a very practical, targeted focus. They train employees in exactly what is necessary for their work and for the implementation of the strategic goals of the organization, instead of going through general theoretical or generalized practical training without taking into account the specifics of the organization, if it relates to the activities of the organization or the current situation in which it is located. This is the main advantage of such staff training [8].

Among the objectives of corporate universities are the development of necessary competences, implementation of organizational changes, maintenance of the company's competitiveness, recruitment and retention of valuable employees, development of corporate culture and translation of the company's values to the personnel, work on creation of a favorable psychological climate within the organization [8].

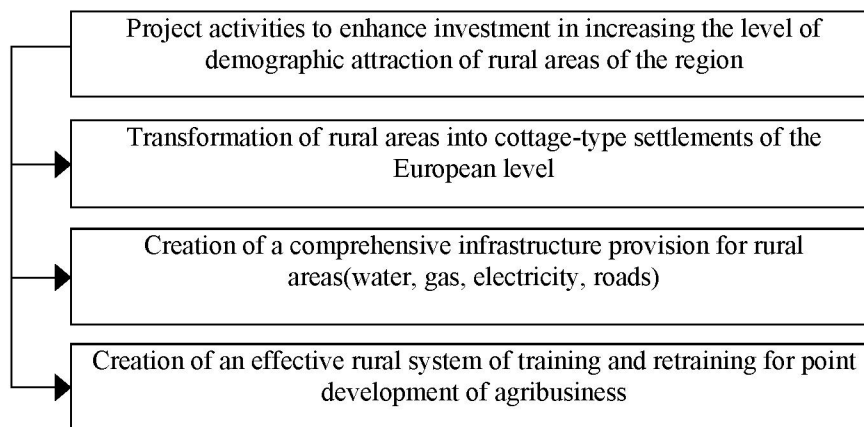
Also, for the development of human resources, in the regional aspect, industrial enterprises can create a system of grant financing of personnel training, which should imply:

- point training for specific types of production in accordance with the project set of knowledge, skills and competencies;

- development of a network of small innovative productions within an industrial zone of the region taking into account orientation to a high level of technological repartitions, cluster systems.

Studies have shown that in Pavlodar region there is a dominance of human resources within urban areas and there is stagnation of the population in rural areas.

In order to develop human resources in rural areas, it is necessary to implement organizational and economic measures to increase the level of their demographic attraction. In this case, the project activities presented in accordance with figure 8 can be implemented.



Note–Compiled by the authors

Figure 8– Project activities to enhance investment in increasing the level of demographic attraction of rural areas of the region

Table 9-Assessment of the economic effect aimed at improving the economic policy on human resources management in the economy of Pavlodar region

Name of organizational and economic measures	Baselineindicativeindicator	The projected target indicator / Economic effect
Support of the region's prosperous ecosystem and public health	The average life expectancy of the population in Pavlodar region is 72.1 years	Increasing the life of the population in Pavlodar region for 10 years and bringing it to the standard figure-80-81 years
Support for the family institution (creation of a regional system of target maternity capital)	Naturalpopulation growth-4 748 people	Increase in natural population growth by at least 5000 people. Bringing the level of natural growth to 9 000 – 10 000 man
Support of the higher education system (formation of an extended system of enterprise grants, creation of a regional corporate university)	The number of human resources in the region (as part of the labor force) - 130,100 people, which is less than 50% of the total number of labor resources 416,300 people	Bringing the level of labor force with higher education up to 80 - 85%. Ensuring the growth of labor resources with higher education by at least 200,000 people
	The number of labour resources in the composition of entrepreneurs is less than 20%	Bringing the share of entrepreneurs in the labor force to at least 35 - 40%. Entry of the region into the republican rating as a territory with a high level of entrepreneurial activity
Project activities to enhance investment in increasing the level of demographic attraction of rural areas of the region	The total number of working populations in rural areas is 117,100 people (less than 30% of the total labor force)	Bringing the share of labor resources in rural areas of the region to the level of-50-55%
	Total migration balance of the population, including rural areas – (-6 908) people	Reduction of the negative migration balance by at least 2 times. Reaching a positivebalancewithin 5 years

Note–Compiled by the authors

Demographic attraction can be considered as a composite resultant indicator of social policy [9].

The economic effect oriented to the improvement of economic policy on human resources management in the system of economy of the Pavlodar region, assumes a qualitative absolute dynamic of change of indicative indicators, characterizing both quantitative and qualitative aspects inherent in human resources.

Taking into account the above proposed project activities, it is important to compare them with the quantitative and qualitative aspects of improving the situation of human resources in the region, which can be achieved according to forecast estimates. This comparison is presented in accordance with table 9.

### Conclusion

In the complex, it should be noted that the reserves of human resources development in the Pavlodar region can be fully realized both in the medium and strategic periods - from 3 to 5 years. The region has sufficient social and investment and economic potential, focused on significant improvement of both quantitative and qualitative indicators of the level of human resources development in the region.

Development of human resources in the region will allow in the nearest years to reach stage-by-stage significant improved indicators in the field of business entrepreneurship, innovativeness and competitiveness of the regional economic system.

### REFERENCES

- [1] Economics: Principles, Problems, & Policies (McGraw-Hill Series in Economics) - Standalone book 20th Edition.
- [2] Human resources: definition, management, features. Human resource management in the organization. Electronic resource: <https://businessman.ru/new-chelovecheskie-resursy-opredelenie-upravlenie-osobennosti-upravlenie-chelovecheskimi-resursami-v-organizacii.html>
- [3] Human resources as a concept. Electronic resource: <http://upravlenam.ru/page106/page153/index.html>
- [4] Human resource management system of the region. Electronic resource: <https://works.doklad.ru/view/nF6ZJqeofkA.html>
- [5] Demographic Yearbook of Pavlodar region. Statistical collection in Kazakh and Russian languages. Pavlodar. 2018.
- [6] Duysen G. M., Aitzhanova D. A. Problems and features of the development of migration processes in kazakhstan and Central Asia. News of the national academy of sciences of the Republic of Kazakhstan. Series of social and human sciences. Volume 6, Number 322 (2018), 124 – 133. <https://doi.org/10.32014/2018.2224-5294.44>
- [7] Employment and wages in Pavlodar region. Statistical collection in Kazakh and Russian languages. Pavlodar. 2018.
- [8] Duhnich Y. Corporate University: conditions and stages of development. Electronic resource: [https://www.cfin.ru/management/people/dev\\_val/cu.shtml](https://www.cfin.ru/management/people/dev_val/cu.shtml)
- [9] Nurymbetov T. Ya., Abishova A. U., Urazbaeva G. Zh., Kydyrova Z. Sh., Baineeva P. T., Abishov N. U. Priorities of social support of the population of Republic of Kazakhstan in the conditions of modernization. News of the national academy of sciences of the Republic of Kazakhstan. Series of social and human sciences. Volume 6, Number 322 (2018), 224 – 232. <https://doi.org/10.32014/2018.2224-5294.58>

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