Demographic Trends and the Methods of their Regulation in the Republic of Kazakhstan

Nailya K. Nurlanova*, Marziya K. Meldakhanova**

Abstract

The aim of this work is to study the specifics of demographic processes in the Republic of Kazakhstan and to justify proposals concerning improvement of tendencies and methods of realizations of demographic policy in the country. The following methods have been used in this study: the principles of system approach; methods of statistical and comparative economic analysis, sociological analysis; method of expert evaluations; generalization and system analysis. Statistical method is based on the accountability of statistics office of the Ministry of National Economy of the Republic of Kazakhstan (RK) and on the results of sociological studies. The official statistic information, materials of the population census of the RK, materials of the Ministry of Health and Social Development of RK, data from author's studies, carried out in the Institute of Economy of science committee of Ministry of Education and Science of the Republic of Kazakhstan were used in this study. The conclusion about positive tendencies in demographic processes and about necessity of improvement of demographic policy was made. A number of proposals and recommendations concerning creation of favorable social and economic conditions for improvement of demographic situation, enhancement of institutional basis of demographic policy, forms and methods of its realization considering priorities of future development of Kazakhstan were justified.

Keywords: Population reproduction, Fertility, Innovative economy, Demographic policy, Kazakhstan.

JEL Classification Codes: A14, E03, E24.

1. Introduction

The aim of this work is to study the specifics of demographic processes in the Republic of Kazakhstan and to justify proposals concerning improvement of tendencies and methods of realizations of demographic policy in the country. To attain the aim the existent demographic theories have been examined; global demographic tendencies have been studied; the factors that influence demographic development of Kazakhstan have been determined; the analysis have been carried out and demographic processes in the republic under present-day conditions have been particularized; proposals concerning the improvement of demographic situation have been worked out.

The need for this study is caused by the characteristic demographic imbalance in the modern period in many countries worldwide, which is one of the global challenges of the early 21st century. Besides, growing demographic problems form new migratory waves and reinforce social tension all over the world. As it is known, the source of innovative development of national economics is high-quality labor potential, the scale of which highly depends on the improvement of demographic situation in the country. At the same time, it should be noted that the essence of demographic problems in certain regions and countries of the world differs greatly. Demographic imbalance, which is characterized by low birth rate in many Western countries, aging and depopulation inevitably, provokes problems at the labor market and the lack of labor resources. Maintenance of the current demographic tendencies can result in that the number of people older than 60 will exceed over people under 15 years of age in these countries. On the other hand, uncontrolled demographic processes in developing countries can lead to overpopulation and difficulties connected with it (low living standard, lack of workplaces, unemployment, problems with food supply, insufficient health service etc.). Therefore, in the present conditions researchers are paying great attention to study of the demographic processes in many countries. That is such scholars, as Bruk S., Kapitsa S.P., Klupt M.A., Kohler H.P., Billari F., Ortega J. and others.

Overcoming of demographic imbalances can give new possibilities for economic rise of the country and its social and economic modernization. Due to this, demographic situation in the country should be regarded as one of the most important fac-

---

* First Author and Corresponding Author, Institute of Economics of the Ministry of Education and Science of the Republic of Kazakhstan. [29 Kurmangazy Street, Almaty 050010, Republic of Kazakhstan. E-mail: n.k.nurlanova@gmail.com]

** Chief Researcher, Institute of Economics of the Ministry Education and Science of Republic of Kazakhstan. [29 Kurmangazy Street, Almaty 050010, Republic of Kazakhstan. E-mail: Marziya_institut@mail.ru]

tors determining quantitative and qualitative parameters of re-production of population and labor potential. Demographic processes is Kazakhstan have its specific character. Kazakhstan belongs to the group of countries where the natural population increase is gradually approaching zero index. In order to find right ways of overcoming of demographic problems, it is necessary to understand their reasons, reveal new opportunities, systematize all factors that influence demographic situation in the country in general and particularly birth rate, natural population increase, life span and aging of the population. Therefore, there is necessity to study this problem and work out the ways of its solution.

Novelty and originality of the research is in the study of peculiarities of demographic changes and development of scientifically grounded practical recommendations for improvement of demographic policy considering priorities of future development of the Republic of Kazakhstan. Hypothesis of the research is in evaluation of social demographic dynamics and modern situation in the country on the basis of the analysis and primary treatment of information for argumentation of proposals according to areas, forms and methods of demographic policy considering different factors.

Methodology. The following methods have been used in this study: methods of statistical and comparative economic analysis, sociological analysis of the authors; method of expert evaluations; generalization and system analysis. Statistical method is based on the accountability of statistics office of the Ministry of National Economy of the Republic of Kazakhstan (RK) and results of sociological studies. Works concerning the topic of the paper by foreign and home authors, published in periodicals, in the Internet; official statistic information, materials of the population census of the RK, materials of the Ministry of Health and Social Development of RK, data from author's studies, carried out in the Institute of Economy of science committee of Ministry of Education and Science of the Republic of Kazakhstan were used in this study.

Results. On the basis of analysis, comparison and generalization general methodological approaches to the study of the processes of reproduction of population were defined; specifics of demographic processes in republic were revealed; the main factors that influence demographic processes in different regions were estimated; proposals for improvement of demographic policy in Kazakhstan were worked out.

This article has methodological meaning, because it presents a choice of metrics, which is the most easy-to-use in the assessment of demographic processes. Applied relevance of the research is that results can be applied in realization of new demographic policy of Kazakhstan, implementation of strategically important state objectives, set in "Kazakhstan - 2050" Strategy and other policy documents of the country. The article consists of the following parts: Introduction, Theoretical aspects, Data and methods, Analysis, Conclusions and Reference.

2. Theoretical Aspects of Demographic Development of the Country

2.1. Generalities of Demographic Theory

National employment policy of every country is inseparably connected with specifics of social and demographic development of the country. The condition of labor market, demand and supply of the labor force depend on demographic tendencies and social development of the country. If replenishment of labor force at the expense of natural population increase is impossible in the country, there appears necessity in involvement of labor force from the outside. As the world experience shows, demographic picture is no static, it undergoes different dynamic changes. That is why it is important for the country to accomplish goal-directed activity in the sphere of regulation of reproduction of population by means of demographic policy. Demographic policy can be directed at preserving or changing the tendency in population number and structure.

In modern conditions of innovative economics, when new high-technology branches and factories, and new workplaces are created; the latest achievements of scientific and technical advance are applied, forms and meanings of labor activity are greatly improved. New technologies and methods of production and management are created, intellectualization of labor is intensifies, and working, social and demographic activity of the people is highly grows. It results in the increase of the requirements to the demographic factors of development of human resources, its qualitative and quantitative characteristics. On the other hand, innovative development is accompanied by qualitative changes in vital activity of humans, the standard of life increases, environmental conditions improve, as a result positive dynamics of demographic activity is observed.

The key basic indicator of demographic situation in the country and security of employment is population size and pace of its growth. Population size is, to some extent, connected with vitality of the country, safety of the territorial integrity, geopolitical position in the world. For example, in neighboring Russia, where negative tendencies of demographic processes are observed, the question of demographic policy is given great consideration, according to the message of the president of Russian Federation to the Federal Assembly: "For Russia to be sovereign and strong there must be more of us..." Otherwise, it will "turn into poor country,...not able to keep its independence and its territory" (Putin, 2012).

This statement is topical for Kazakhstan, where population size and density of settlement is much lower than in Russia. The level of population density influences economic development and progress of certain regions of the country. Therefore, the aim of major importance for Kazakhstan is support of extended reproduction of population. Demographic processes play crucial role in social development, have great influence on the change of pace and proportion of economic and social development. Regarding economy population is at the same time producer and consumer of material goods. This two-way dependence

causes difficulties of ties between population and economy. Population cannot exist outside economy, and economy –without population. These are two parts of one socially determined and interdependent process. On the other hand, demographic situation in the country is also influenced by a number of factors. Among them: radical changes of economic environment, living conditions, economic welfare of population, which leads to deliberate birth rate regulation; the level of health care; specifics of age structure of population; legal base concerning marriage; cultural traditions and mentality of population, which establish standards of demographic behavior; uncontrolled migration volumes etc. The above mentioned factors influence volume and pace of reproduction of population as the process of continuous renewal of generations of people. Reproduction of population in the country is performed according to sex and age, social groups, i.e. social and economic belonging of people, nationality, marital status, territory settlement and place of living (city or village), education, professional indication and other parameters (PCD, 1994).

This report examines the various forms of population movement, connected with changes of qualitative and quantitative features, transition of groups of people from one condition into another: natural and social (Bruk, 1996). Special attention is paid to the natural population movement, which is connected with birth rate and life span. Birth and death rates in the country are constantly changing and has direct relation to the earlier established demographic situations, which have natural biological basis but are dependent on social and economic conditions. At the same time, birth rate is influenced by sex ratio, age structure, proportion of women of childbearing age in general population level, marriage and divorce rate, mean age of the people entering into marriage, duration of being out of wedlock etc. Migration of population, level of material security, housing conditions, health status of population, level of development of healthcare system and provision with medical staff, medical institutions and other healthcare institutions and many other social economic factors are also of crucial importance.

Speaking generally about demographic development, its tendencies in the country substantially change the model of reproduction of population. The model which presupposes high birth rate, high death rate and reproduction of population on this basis is replaced by another model: low birth rate, extension of life span, and low death rate. The further demographic development of the country depends on interconnection of these three factors.

2.2. Demographic Discussions

Let us examine the existent demographic concepts, which are spread in the second half of 20th century. Particularly, basic provisions of demographic theory by S.P. Kapitsa, who examined the evolution of global demographic processes from mathematic perspective (Zakamskaya, 2011). Sergei Kapitsa studied quantitative changes of the planet population as dynamic system, where growth of the number of population was under the influence of economic, social and cultural activity of humanity. The main variable quantity here –is general population size of the world, and the derivatives - are indicators which reflect its racial, ethnical, and sex-age structure, geographical distribution of population, population density, urban saturation.

In the context of this theory, humanity in modern world experiences demographic transition from one form to another. This unique process is characterized by ceasing of explosive growth of population size, which was observed in 20th century, and its destabilization in the last years. Demographic transition from explosive growth to the slowdown is caused by decrease of birth rate, development of the society of knowledge, life-span growth.

However, this research remains mathematical measurement of actual state, but not the theory, able to predict demographic trends. Therefore, this theory is underproductive, and is not applicable to certain countries, because it cannot define prospects of demographic development in swept country (Kapitsa, 2000, 2008). Thereby, theories of demographic transitions explain only one side of demographic situation – decrease of death rate and/or birth rate in one or another country. At the same time it does not sufficiently examines the reasons of birth rate decrease, lowering or growth of life span and other demographic phenomena. Thus, if in the latest decades of the past century many demographic processes were explained by the theories of demographic transition, connected with the concept of modernization of economy and society (Kapitsa, 2008), but in the 21st century methodology of demographic studies has been changed. Demographic processes in modern world are examined from the perspective of regional studies and institutional analysis (Klupt, 2005).

Comparing two theoretical views on global demographic development, - theory of demographic transition and institutional analysis, - the number of distinctive features can be singled out (Table 1).

<Table 1> Distinctive Features of Demographic Theories

Demographic Transition Theory	Institutional Analysis, Regional Studies
Domination of global population trends, which determine local tendencies on the level of certain territory.	Equitable explanation of demographic processes the same on global level and on the scale of a country or certain territory.
Quantitative measurement of actual state of demographic processes.	Not only quantitative but also qualitative characteristics of population movement.
Clearly established list of factors, which determine population movement in time and space.	Variation of factors which determine demographic processes in dependence on period of time and special placement.
Methodology, determining influence of economic factors on reproduction of population is not used.	Usage of synergy methodology, institutional analysis, and regional studies for explanation of birth rate change, life-span, natural or mechanical growth/decrease of population size.

Influence of moral and cultural factors, such as mentality of population, family traditions, religious canons etc, are not considered.	Influence of moral and cultural factors is studied.

Accordingly, for alternative theories, for which we relate the theory of institutional analysis and regional studies to, regulations more flexible for modern world, which adequately explain demographic processes the same globally and on the scope of one country or certain territory are typical. These theories are more advanced, as they are more adapted to the conditions of the country, for periods of time, considering real social and economy, moral, natural, technological, ethnical, cultural, ethical and other factors of local character. Institutional theories enable to study the influence and interaction of economic and demographic changes. Foreign studies on birth rate problem, performed within the framework of institutional theory should also be mentioned (Klupt, 2002).

Summarizing the main points of demographic theories, we can conclude, that there are no universal concepts; theoretical provisions can be changed depending on time and should be adapted to national specifics and consider specific factors for certain country and certain time period.

2.3. Demographic Processes in Modern Post-industrial World

In developed countries of Western world there are three main types of reproduction of population, connected with the birth rate. The first type is close to extended reproduction of population with high birth rate, and is typical for the USA. The second type, the so-called modern or rational type, is close to simple reproduction and is observed in the countries of Western Europe. It is characterized by relatively low birthrate, high average lifetime, high death rate because of the liberal share of elderly people and, as a result, low natural population growth. At the same time in Southern European countries birth rate has greatly decreased last years as a result of specifics of demographic policy. These tendencies have brightly shown in Italy and Spain. The third, the so-called traditional or patriarchal type, is peculiar for the most of developing countries. Its distinctive features are high birth rate and families having many children, medial life-span, and high death rate because of insufficient healthcare level and guarding of motherhood and childhood.

However, in the early 21st century modern demographic tendencies in these countries have started to change: they are typical of death rate decrease while preserving high birth rate, which naturally leads to the high population growth, which predetermines average pace of the growth of population of the world. Scientific researchers showed that divergences in types and tendencies of demographic processes are highly dependent on the level of control over childbirth and institutional conditions (formal and informal) of the carried out demographic policy.

Thus, for example, in the USA, as opposed to the west European countries, conservative models of demographic behavior are widespread. These models are characterized by saving traditional family, negative attitude towards extramarital affairs and unisexual marriages. As a result total birth rate, which present the average number of children, born by a single woman through the whole life, for white women of the USA was higher (1.9) than the same indicator for the European women. Of course, the growth of birth rate in the USA was achieved not only due to preservation of traditional family values. Demographic growth of the USA was also influenced by such positive factors as salary growth of women and corresponding increase of female self-sufficiency and financial independence; heavy growth of child-care services; receiving of state subsidy from federal funds for these services payment; extension of the possibilities for women to work part-time. In many ways birth rate growth was achieved due to the amplification of Latin Americans, who have higher total birth rate – 3.1, as compared to white Americans (WHMC, 2002).

At the end of the 20th century contradictory tendencies were also observed in European countries. For example, total birth rate was relatively stable nearly 1.6-1.7 in Western European countries, but at the same time increased the number of the children who were born out of wedlock. Demographic tendencies in South European countries were different. For example, total birth rate has suddenly decreased – to 1,2 in Spain and Italy, which is not peculiar for the mentality of these people (Dalla & Zuanna, 2001; FFS, 2000; Kohler et al., 2002; Rosina, 2001). Nevertheless, in these countries close-knit family traditions remain strong and childbirth out of wedlock did not become a standard.

As for the post-Soviet countries and Eastern Europe, the crisis in the economy and social sphere were observed in the last decade of the 20th century, which was caused by changes in the social system, market-oriented reforms in the economy. This resulted in decrease of life-span and standard of life, birth rate reduction, and growth of inner and outer migration which are negative demographic processes that in many cases can lead to depopulation. Nevertheless, last years, due to the economic expansion and rise in standard of leaving of people in post-Soviet countries and Eastern Europe demographic situation has started to improve greatly and the life-span has grown (HDR, 1999). But in Russia and Ukraine positive shifts in demography are not firm till present time. As it is known, the most populated countries of the world are India and China. However demographic policy of these countries differs greatly, that is why demographic trends of these countries have been formed differently. In China total birth rate decreased from 4,8 in 1979 to 1,7 in modern period. In India this indicator remains high enough nowadays, having decreased from 5,4 to 3,1 during the same time period (WPP, 2012).

Summarizing world tendencies of demographic development following conclusions can be made.

Firstly, weakening of the necessity in several children and motivation for traditional family takes place in many developed Western countries (joint living and economy management). The

attitude to the marriage registration, having several children also changes; aspirations for higher living standard and achievement of financial and career goals increase. In modern society ideology of post-modernism is prevails, where family and children do not only play important role, but also hamper it. The value of marriage registration lowers. These changes are especially significant among young people. The shift from the ruling "normal"model of two-child family to the ideal one-child family (without marriage registration) model has begun.

Secondly, there is no general ruling tendency for all countries of the world. It is necessary to admit that with the increase of general standard of well-being of the population, economic and social stability in the country, medicine progress, development of civilized social and psychological relationship, growth of spiritual and cultural level one and the same country can move whether to the decrease of birth rate on the background of higher standard of life, or to its increase.

Therefore, throughout different periods of social and demographic development formation of the priority system and system of mechanisms that ensure their achievement presupposes use of different means for different economic and demographic conditions.

3. Data and Methods

Methodological basis of this study were systematic approaches to the estimation of demographic condition of the republic, studies of the leading foreign and Kazakh economists that reveal new tendencies of demographic development of population of the country. The following methods were used in this study: statistic and comparative economic analysis, method of expert evaluations. Statistical method was based on the accountability of statistics office of the Republic of Kazakhstan (RK) and results of sociological studies. For generalization of statistic data and visual image of results of the research tabular procedure was applied.

To analyze demographic situation indicators which most adequately characterize demographic processes in one country were chosen: dynamics of population size, birth rate, life-span, sex-age structure of population. The following terminology was used:

Reproduction of population is the process of alternation of generations as a result of births and deaths. It consists of two demographic processes: birth rate and death rate. It is estimated by indicators of the mode of population reproduction.

Birth rate is ratio of the total number of children born alive, to the total population size throughout concerned period in per mile on 1000 people, ‰.

Cumulative birth rate (CBR) is an average number of births for one woman in hypothetical generation through whole of her life.

The number of women in childbearing age (from 20 to 40

years) was also considered as one of the important indicators of demographic potential of the population.

Methodology of birth rate analysis presupposes usage of "breeding potential"notion. Breeding potential is potential possibilities of birth in the existing demographic structure of population.

Demographic aging is increase of the number of elderly and old people in total population size. It is estimated by the coefficients: ratio of the number of people in the age 60 years and older (or 65 and older) to the total population size, presented in percent.

Life expectancy at birth is the most important overall index, which characterizes possibility of long and healthy life of population of the country. It describes average time of the forthcoming life of a person starting from zero age.

4. Analysis of the Demographic Processes in Kazakhstan

Modern demography situation in republic is successful enough. Starting from 2000-s it is characterized by stable positive dynamics of growth of population size mainly due to stable natural increase.

4.1. Birth Rate Analysis and Estimation of Its Influence on Population Reproduction in Kazakhstan.

According to natural and economic potential Kazakhstan is characterized as agrarian-industrial country. Agrarian sphere of the country is concentrated mainly in rural area and for its steady development is needed domiciled population capable of farming. The part of population size of rural area was nearly 60% in 1960 in Kazakhstan, total birth rate was 41.7. Birth rate of city population was 31.6. In 2013 the part of rural population decreased to 45.1 %, birth rate – to 32.0. Birth rate of urban population also decreased – to 22.4. This data shows that birth rate decreased during last half of a century in Kazakhstan, mainly in rural area which is determined by the following factors: low living standards in the rural area where the most part of the population is not provided with steady job; bad supply with institutions for children; poor supply with healthcare and educational institutions; underdevelopment of the whole social infrastructure etc.

Analysis of the structure of urban and rural population according to the age groups has shown that in rural area part of children aged 0-14 years is bigger than in the city. In the structure of urban population prevails group of people in the age capable of working – 15-64 years, which is the result of increase of migration flow from the village in search of steady working place and/or professional growth (Table 2).

<Table 2> Structure of Urban and Rural Population of Kazakhstan according to Age Groups from 1999 to 2013, %

Age Groups	1999	2006	2010	2011	2013
Urban population, total	100.0	100.0	100.0	100.0	100.0
Including in the age of:					
0-14 years	25.33	21.74	21.43	21.88	22.41
15-49 years	55.10	57.27	57.58	56.73	55.88
50-64 years	12.04	12.57	13.68	14.32	14.68
65 years and more	7.53	8.43	7.31	7.07	7.03
Rural population, total	100	100	100	100	100
Including in the age of:					
0-14 years	33.09	27.44	27.54	27.68	27.94
15-49 years	51.10	55.06	53.96	53.38	52.73
50-64 years	10.11	10.43	12.22	12.86	13.32
65 years and more	5.71	7.07	6.28	6.08	6.01

Note: the table composed and calculated according by the data (DYK, 2013).

<Table 3> Reasons of Birth Control in Kazakhstan

Economic:	Moral, Psychological and Social:
Lack of finance: low money income, absence of steady income	Unsteady marital status, broken family or civil marriage
Absence of work, unsteady employment, self-employment	Career interests of women: desire for career growth, raise of educational and professional level
Forced pre-term return of recently confined woman to work	Difficulties with arranging of children into preschool institutions
Uncertainty in the following day	Unsatisfactory work of preschool institutions
Housing problems	Dissatisfaction with work of healthcare institutions on maternity and childhood protection
Other reasons	Insufficient level of development of childcare services
	Poor health of women and/or children
	High workload of women with household duties
	Other reasons

Rural population continues to play certain role in the preservation of demographic growth of population. In general, birth rate in rural area remains mostly high. It can be explained by the moral traditions, according to which big number of children in the family is approved. Changes that happened and still happen in the economy and society of Kazakhstan during the last two decades have influenced the change of birth rate. Great influence on these changes was made by the worldwide tendencies of demographic processes, change of the family model. However, national specifics of the current processes are still preserved in Kazakhstan. For Kazakhstan population reproductive behavior, based on such factors as need in children and estimation of certain social and economic situation of the family is typical. It can be supposed that economic motives play an important role for Kazakhstan people, where more than half of which are characterized by low living standard (Table 3).

Analysis showed that economic motives dominate when deciding to have children and are usually contradictory to moral and psychological and social motives. That is why it is necessary to make conclusion that in conditions of unsteady economic growth in Kazakhstan reproductive potential cannot be fully realized. In order to avoid possible birth rate reduction in the nearest future it is necessary to use stimulus for positive effect on the birth rate in demographic policy. Most of the scientists and practical men (economists, demographers, sociologists) who study the problems of population and demographic policy consider arrangements of financial birth rate stimulation (different kinds of aids for families and children, its enlarging) cannot solve the problem of low birth rate. The experience of a number of countries indicates that financial aid for families with children leads only to insignificant and short-term effect. However, it is undoubtedly that quality and living standard have great influence on the tendencies of changing birth rate level.

One of the important reasons of birth rate decrease in Kazakhstan is housing problem. Low level of income does not enable most part of the population to buy or build housing, which has negative influence on the birth rate. Young families, as a rule, cannot get access to the housing market without financial aid. That is why one of the most important directions of housing policy in Kazakhstan is support of young families with improvement of living conditions. Solution of housing problem for most of young families, to my mind, is more effective and

high-speed action for birth rate stimulation, rather than financial aid to the families with children.

Analysis of the world experience of demographic policy, particularly in France, has shown that today this country preserves one of the leading positions in Europe in birth rate level. The main principle of French family policy is the guarantee of living standard, sufficient for all families, regardless of the size and social class. For today, France presents its family support policy as a policy of war against poverty. Adopted in France family code contains laws concerning protection of motherhood, according to which were brought in social premium for all parents having many children, maternity leaves etc. (PPFM, 2006). Nowadays in France exists state "Big family"program meant for families with many children. The program proposes financing and tax remission for these families. Every following child decreases taxable base; families with four children practically do not pay taxes at all. The benefit spreads over all the people regardless of family income.

State support of families with children is one of important constituents of family policy of any European country. Analysis of successful experience of European countries is very important for Kazakhstan, especially now – on its way of the search for the best system of family support. From experience of foreign countries in Kazakhstan the "Fund of generations"program is accepted. Within the framework of this program, for example, in 2012 the Center of extra corporal fertilization (CEF) was opened in Petropavlovsk, which has greatly extended opportunities of birth rate growth on the region – to 5-6 % (Kuanganov, 2012). According to the economists, costs of the state on economic stimuli of the "Fund of Generations" program do not exceed 600 million USD on every additional million of people of population growth (Kuanganov, 2012). Transitional type of reproduction of population was typical for Kazakhstan, and it has shown lower death rates as compared to birth rate, unstable birth rate indicators, increasing migration mobility, transition from families with many children to families with one child.

As a result of taken by the state steps, starting from 2001 population of the republic entered the regime of extended reproduction, which is characterized by the increase of every generation entering life as compared to the number of passing generations. There progressive type of sex-age structure has been established and its absolute number grows. Yearly indicators of population growth rate are unstable, from 1.1 to 2.6 %. They are presented in the following Table 4.

<Table 4> Population Growth Rate in Republic of Kazakhstan Years 2005-2013, %

Years	2005	2006	2007	2008	2009	2010	2012	2013
Indicators of growth	100.95	101.16	101.13	102.63	101.39	101.50	101.42	101.42

Note: the table composed and calculated according by the data (DYK, 2013).

In general, this tendency can be called positive, as there is observed steady natural population growth.

4.2. Life Span and Aging of the Population

According to the experts'evaluation, population is aging, when the number of elderly people older than 65 years exceeds 7.5% of the total number of population. According to statistics, in Kazakhstan in early 1999 the number of people in the age of 65 years and older was 6.7% of total population number; in 2008 –7.8%. At the same time, due to the increase of the standard of well-being the number of children in the age incapable of working increased from 25.8% in 2008 to 26.8% in 2013. Accordingly, the number of people older than 65 years began to decrease in 2013 – 6.6% (Table 5).

<Table 5> Distribution of Population of Kazakhstan according to Age Groups at the Beginning of the Years 2008-2013, in %

Categories of people	2008	2009	2010	2011	2012	2013
All population	100.0	100.0	100.0	100.0	100.0	100.0
Including people at the age:						
Younger than able-bodied	25.8	25.9	25.9	26.1	26.3	26.8
Able-bodied	64.0	64.3	64.2	64.0	63.6	63.0
Older than able-bodied	10.2	9.8	9.9	9.9	10.0	10.1
Older than 65 years	7.8	7.1	6.8	6.6	6.5	6.6

Note: the table composed and calculated according by the data (YBS, 2014, p. 19)

According to the estimation of demographers, there is a tendency of the aging of population of the country in Kazakhstan. From the Table 3 it can be seen that there is a big part of able-bodied population, which preserves due to high birth rate in 1950-1970. However the part of the able-body population will pass into the group of people older than 65 years in twenty years. These are the leading features of the aging process in the future. Demographers predict that the part of the people older than 65 years can reach 11.5% in 2013 in Kazakhstan.

Reasons of aging of Kazakhstan population were: decrease of birth rate in 1990-sas a result of economic crisis; high death rate, especially among able-bodied men; insignificant but steady growing life span in the last decade of the 21st century. This factor experts more pressure on items of expense of national budget and economic load on able-bodied population. Decrease of the amount of able-bodied population from the perspective of state revenue means decrease of tax receipt into the budget. At the same time, the number of children and retired people who get social aid from the state will increase. These tendencies will develop concurrently for a long time. In this situation the state will be forced to increase taxes and to rise retirement age for men and women. Thus, according to the forecasting, the part of able-bodied citizens of RK in the age group from 25 to 64

years can decrease from 51% in 2013 to 42% in 2030 (Suvorov, 2013).

Nowadays every able-bodied person in Kazakhstan ensures necessary standard of living of one incapable of working (child or retired). By 2030 this ratio can increase and will be 1 to 1.5. This will mean that the load on the able-bodied population will be 50% more than today. At the same time it is necessary to note that the aging process is not only negative phenomenon, as it greatly explains increase of life span. Life span of population grows under the influence of improvement of social and economic conditions, increasing of quality of life, and positive dynamics of health of the people. One of the main features of welfare of the people is life expectancy at birth. Evidently, the higher life span of the person is the bigger contribution one can make into the development of the society (Table 6).

<Table 6> Life Expectancy at Birth in Kazakhstan, 2006-2013

Indicators	2006	2008	2009	2010	2011	2012	2013
All population	66.1	67.1	68.4	68.5	69.0	69.6	70.5
Particularly:							
men	60.5	61.9	63.5	63.6	64.2	64.8	65.8
women	72.0	72.4	73.2	73.4	73.8	74.3	75.1

Note: the table composed and calculated according by the data to the source (YBS, 2014, p. 17)

The average healthy life expectancy is an integral index which is influenced by the level and the structure of death rate and level and structure of sick rate. On the current stage elderly population plays an important role in social and economic life of population of Kazakhstan. The growth of life expectancy at birth and increase of the part of elderly people require changing pension policy of the country, particularly in April 2013 the state government approved a bill on raise of retirement age for women to 63 years. These proposals were made because life expectancy at birth for women in future will exceed life expectancy at birth for men (Table 7).

<Table 7> Predictable Life Expectancy at Birth for Men and Women in Kazakhstan, Years

Indicators	1950	1980	2000	2010	2020	2040
Men	50.2	60.4	59.1	63.6	65.3	69.7
Women	60.6	70.9	70.4	73.4	74.8	77.7

Note: the table composed and calculated according by the data to the source (WPP, 2012).

From the data in Table 5 it is seen that life expectancy over the last more than 60 years has been increased both for men and women for more than 10 years. Nevertheless, gender difference in this indicator shows more than 10 years in women's favor. According to the predictable calculations of the UNO, dynamics of the survival years for people older than 65 years in Kazakhstan has a tendency to increase, though, it considerably

yields to European and American indexes (Table 8) (WPP, 2012).

<Table 8> Predictable Dynamics of Survival Rates for People Older than 65 Years, Years

Indicators	2005	2010	2020	2040
Kazakhstan	12,9	13,8	14,6	16,0
Great Britain	17,1	19,3	20,1	21,6
USA	18,1	19,3	20,1	21,7
Japan	20,7	22,0	22,8	24,3

Note: the table composed and calculated according by the data to the source (WPP, 2012).

Analysis enables to single out the following specifics of demographic development:
- Intensity and nature of demographic phenomena are not changeable directly after the changing of economic conditions. It takes some time, during which the standards of demographic behavior are formed;
- The growth of financial welfare of population and other results of economic reforms lead to deliberate birth rate regulation;
- Demographic development of the country is influenced by specifics of age structure of population or changing of the interval between births. These are the indexes of birth rate intensity, average life span, irrational, undesirable, uncontrolled migration volumes, statistic of marriages and divorces.

The research enables to single out the following demographic problems of Kazakhstan considering its industrial and innovative development:
- The high infant mortality is preserved on the background of increasing birth rate;
- High death rate among able-bodied men which three times prevails over the death rate of women of the same age category is observed;
- Is achieved slightly increasing life expectancy at birth, much shorter in men than in women;
- High demographic load is formed, that is the number of people in the below and above able-bodied age for one thousand of able-bodied people;
- The low housing and employment of rural migrants is preserved in the cities.

To improve demographic situation in Kazakhstan and to solve the existing problems it is necessary to enhance demographic policy. Its main objectives have to be stimulation of reproductive activity of population; stimulation of optimum birth rate; death rate decrease; increase of life span; aid for women with children; healthcare reinforcement and protection; regulation of inner and outer migration.

The courses of demographic policy should be reconciled with other spheres of social policy: income and emoluments sphere, education, house building, healthcare, employment, culture,

youth, family and social protection of people.

5. Conclusions

New course of economic policy of Kazakhstan is oriented to industrial and innovative development in conditions of global challenges and demographic trends demand improvement of demographic policy capable of supplying the development of national economy with skilled workforce. For Kazakhstan, where the density of population is low the objective of state importance is achievement of expanded reproduction of population. To avoid demographic crisis it is necessary nowadays not only to preserve the established level of reproduction of population but also to take measures to improve it. Active demographic policy, oriented to families with many children, is needed for the basis of demographic growth.

Guidelines for improvement of demographic policy of Kazakhstan are given considering the priorities of national policy development. The following is proposed by the authors as directions and necessary actions of demographic policy:

1) For the improvement of institutional basis of demographic policy it is necessary to:
- work out the concept of demographic policy of Kazakhstan till 2025;
- work out and adopt the state program of demographic development;
- work out and adopt the law of the land on "Guarantee of family and children support". According to this law there must be established the guarantee system on: financial aids; paid leaves; tax remissions; housing benefits (aid, loans); benefits for retired people; free and qualitative healthcare services for mothers and children; guarantee of availability of nursery pre-school institutions; benefits for educational and healthcare services for families with children, etc. Such like system will make life more predictable and will let the most part of the young families to take more free and responsible decisions concerning childbirth.

The law should also provide for step-by step cost increase on family and maternity aid (1.5% till 2020 year and 2.5% till 2025 year).

2) It is necessary to implement healthy way of life (according to the experience of foreign countries the scale of the influence is 15-25 years of the growth of life expectancy), improvement of quality of healthcare service, increasing of its availability, especially in rural area, reinforcement healthcare protection. It will enable to ensure the following death rate decrease; life span increase, especially men, whose working and mental potential is the basis of innovative activity of population.

3) The measures on active life span increase and containment of physical aging are proposed. Particularly: development of biomedical knowledge and innovative technologies, oriented towards containment and reversion of the aging; creation of research institutes, which will study the mechanisms of aging and development of anti-aging technologies; creation of specialized commercial companies for forestalling development of anti-aging technologies; development of the "Road map of the aging studies" creation of the centers working on the problems of aging prevention.

4) Measures on stimulation of the optimum berth rate and help for women with children are needed. These measures include: stimulating measures on family consolidation; increase of availability and quality of healthcare for women and children; development of maternal certificate problem; increase of financing of infertility treatment, including usage of extra corporal fertilization technologies; modernization of nursery clinics and hospitals, kindergartens and nurseries.

5) Measures directed at the change of value orientations of the youth and increase of their reproductive activity, strengthening of family relationships.

References

Brooke, S. I. (1996): *The population of the world.* Moscow (in Russian): Ethno Demographic Directory.

Dalla, Z. G. (2001). The banquet of Aeolus: A Eamilistic Interpretation of Italy's Lowest Low Fertility. *Demographic Research.* 4(5). Available from: http://www.demographic-research.org (in Italian)

DYK (2013). Demographic Yearbook of Kazakhstan. Ed. Smailov A. A., Agency on Statistics of the Republic of Kazakhstan. Available from: http:// www.stat.gov.kz (in Russian)

FFS (2000). Fertility and Family Surveys in Countries of the ECE Region. Standard Country Report. Available from: http://www.unece.org

HDR (1999). Human Development Report for Central and Eastern Europe and the CIS. Available from: http:// www.undp.org/rbec/pubs/hdr99/chapterl.pdf

Kapitsa, S. P.(2008). Demographic Revolution and Russia. *Age of Globalization* (in Russian), 1(1), 128-143.

Kapitsa, S. P. (2000). The Model of the world population growth and economic development of the humanity. *Problems of Economics* (in Russian). 12, 11-14.

Klupt, M. A. (2005). The theory of the demographic development: an Institutional Perspective. *Social studies and the Present* (in Russian), 2, 139-149.

Klupt, M. A. (2002). The scientific views changes of the world and the development of the theory of the demographic population. *Russian Demographic Journal* (in Russian), 1(6), 34-39.

Kohler, H.-P., Billari, F., & Ortega, J. (2002). The Emergence of Lowes - Low Fertility in Europe during the 1990s. *Population and Development Review,* 8(4), 641-680.

Kuanganov, N. (2012). Demographic basis of the progress. *Kazakhstan Truth,* 75(6), 3-5.

PCD (1994). *Population.* Moscow (in Russian): Collegiate Dictionary.

PPFM (2006). Projections de population pour la France métro-

politaine à l'horizon 2050. Insee Première n. 1089, juillet. Available from: http://www.insee.fr/fr/ffc/ip-web/ip1089/ip1089.pdf (in French)

Putin, V. V. (2012). Address of the President of the Russian Federation to the Federal Assembly. Available from http://base.consultant.ru/cons/cgi/online.cgi?base=LAW;n=138990;req=doc (in Russian)

Rosina, A. (2001). Questa unioneinformale non s'ha da fare. Matrimonio e famiglia: un binomio indissolubile in Italia? Workshop "La bassa fecondita italiana tra costrizioni economiche e cambio di valori. Firenze. (in Italian). Available from: http://www.ds.unifi.it/ricerca/interessi/demografia/bassaecondita/workshop/paper/rosina_unioni_informali.doc

Suvorov, A. (2013). Cheerless forecasts. *Arguments and Facts* (in Russian), 14, 21-25.

WHMC (2002). Women are Having More Children. New Report Shows Teen Births Continue to Decline. Available from: http://www.cdc.gov/nchc/releases/02news/womanbirth.htm.

WPP (2012). World Population Prospects. UN forecasts. Available from: http://www.un.org

YBS (2014). Year Book Statistics. Kazakhstan in 2013. Ed. Smailov A. A. Republic of Kazakhstan. Agency on Statistics. Available from: http:// www.stat.gov.kz (in Russian)

Zakamskaya, E. A. (2011). The Demographic model by Sergei Kapitsa. Science: yesterday, today, tomorrow? *In the World of Science* (in Russian), 8, 6-11.