International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 7 Issue 3, May-June 2023 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Analysis of Fertility Indicators in the Republic of Uzbekistan

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ABSTRACT

This article contains the results of a statistical study of the dynamics of the population's birth rate in the Republic of Uzbekistan over the years of independence. Also statistically analyzed and estimated fertility rates and total fertility rates.

KEYWORDS: *Retrospective analysis, population dynamics, birth rate, total fertility rate, statistics, demographic situation, trend*

How to cite this paper: Abdurakhmanov Abduazim Djalalitdinovich "Analysis of Fertility Indicators in the Republic of Uzbekistan" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-7 | Issue-3, June 2023, pp.782-787, URL: www.ijtsrd.com/papers/ijtsrd57449.pdf

IJTSRD57449

INTRODUCTION

It is known that complete and accurate information about the population is used as a basis for planning economic, social and cultural development. The demographic factor, in terms of importance, is one of the political factors of social and economic development. It is impossible to correctly plan the socio-economic development of independent Uzbekistan and some of its regions without a deep and comprehensive study of them. Therefore, it is important to study the real demographic processes and their principles observed in the whole world and in its various regions in order to assess the demographic situation of the population and understand its laws.

In this regard, President Shavkat Mirziyoyev touched upon the importance of demographic growth in his speech at the meeting of the Movement of Entrepreneurs and Cooperators - Liberal Democratic Party of Uzbekistan. "Today, the population of our country has reached 35 million, and it is expected to increase to 38 million by 2026," said Sh. Mirziyoyev. 55% of our population is made up of young people, and at least 600,000 young people enter the labor market every year. This demographic growth is both an opportunity and a huge responsibility for us" [1].

Accordingly, in determining current and future measures of socio-economic development in our republic, comprehensive consideration of demographic processes, formation of economic development programs from the perspective of the impact of these processes and their consistent implementation are required.

Analysis of literature on the topic

Demographic trends and their impact on the labor market were determined by Professor Q. Kh. Abdurahmonov. Also, the continuous increase of the population, the problem of aging of the population and its socio-economic consequences, relations between age groups and demographic trends in Uzbekistan have been studied [2].

In another textbook, the formation of demography as a science, the sources of studying demographic processes, the demographic essence of birth, death, marriage and divorce, the quantitative and qualitative characteristics of the population, the laws of reproduction, gender, age, marriage and family structure , socio-economic situation, population migration, issues of demographic forecasting researched by K. H. Abdurahmanov and others [3].

The scientific theoretical foundations of demography, information about the population, indicators of population dynamics, population composition and methods of its study, the demographic essence of birth, death, marriage and divorce, quantitative and qualitative characteristics of the population, reproduction laws, family composition, socio-economic status, population migration, demographic forecasting issues were studied by foreign scientist Borisov V. A. [4].

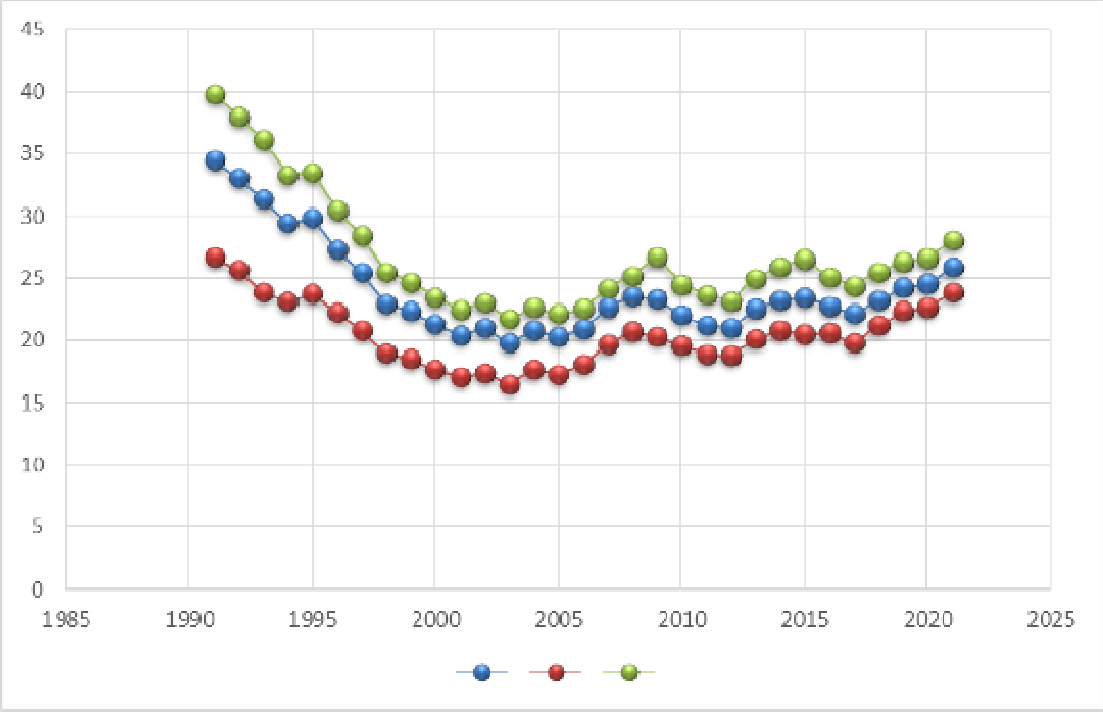
In the textbook created by V. M. Medkov, the formation of demography as a science, sources of information about the population, general measures and dynamics of the population size and structure, birth, death, marriage, divorce, population renewal, coefficients and probabilities and demographic forecasting, demographic policy issues are covered in depth [5].

A.G. Vishnevsky studied population regeneration and migration characteristics along with scientific and theoretical aspects, indicators of generational change at different stages of history [6].

Also, among foreign authors, scientists such as S. Billingsley, M. Barbieri conducted research on demographic trends in Central Asia.

In addition, in the researches of another group of foreign scientists, the formation of demography as a science, sources of studying demographic processes, indicators of population dynamics, population composition and methods of its study, the demographic essence of birth, death, marriage and divorce, quantitative and qualitative characteristics of the population, reproduction patterns, gender, age, marriage and family structure, socio-economic status issues were studied [7].

It is known that in the years of independence, sudden changes occurred in the birth process of the population of the Republic of Uzbekistan. That is, the dynamics of birth rates started to decrease. This situation is reflected in the dynamics of all birth indicators.



Picture 1. Dynamics of the birth rate in Uzbekistan in 1991-2021 (ppm)

Source: author's development based on the data of the Statistical Agency under the President of the Republic of Uzbekistan.

If in 1991 the total birth rate in the Republic was 34.5‰, in 2021 this indicator was 25.9‰.

Table 1 Dynamics of birth in the Republic of Uzbekistan in 1991-2021

Years	Total number of births (thousand people)			Total number of births per thousand people		
	Total population	including		Total population	including	
		City population	Rural population		City population	Rural population
1991	723,4	224,7	498,7	34,5	26,7	39,8
1992	710,4	218,7	491,6	33,1	25,7	38,0
1993	692,3	205,5	486,7	31,4	23,9	36,1

1994	657,7	201,6	456,0	29,4	23,2	33,3
1995	677,9	208,9	469,1	29,8	23,8	33,5
1996	634,8	197,6	437,2	27,3	22,2	30,5
1997	602,6	187,1	415,6	25,5	20,8	28,4
1998	553,7	173,2	380,5	23,0	19,0	25,5
1999	544,7	169,6	375,1	22,3	18,5	24,7
2000	527,5	163,8	363,7	21,3	17,7	23,5
2001	512,9	159,4	353,4	20,4	17,1	22,4
2002	532,5	163,3	369,2	21,0	17,4	23,1
2003	508,4	155,8	352,6	19,8	16,5	21,7
2004	540,4	168,0	372,4	20,8	17,7	22,6
2005	533,5	164,7	368,8	20,3	17,3	22,1
2006	555,9	173,5	382,4	20,9	18,1	22,5
2007	608,9	191,4	417,5	22,6	19,7	24,2
2008	646,1	203,1	443,0	23,6	20,7	25,2
2009	651,3	192,2	459,1	23,4	20,3	26,7
2010	634,8	214,0	282,4	22,0	19,6	24,5
2011	622,8	206,1	273,4	21,2	18,9	23,7
2012	625,1	207,3	271,8	21,0	18,8	23,2
2013	679,5	231,0	302,8	22,5	20,1	25,0
2014	718,0	244,2	324,0	23,3	20,8	25,9
2015	734,1	325,6	408,4	23,5	20,5	26,5
2016	726,1	332,0	394,1	22,8	20,6	25,1
2017	715,5	325,1	390,3	22,1	19,8	24,4
2018	768,5	353,2	415,2	23,3	21,2	25,5
2019	814,9	378,6	436,3	24,3	22,3	26,3
2020	841,8	393,0	448,8	24,6	22,7	26,6
2021	905,2	-	-	25,9	23,9	28,0

Source: The tables are compiled based on the data of the Statistical Agency under the President of the Republic of Uzbekistan.

From the data of Table 1, it is shown that during the studied period, while the total number of births in the republic decreased by 25.1%, during this period, the number of births in the urban population increased by 74.9%, and in the rural population by 10%. decreased by .0%. Of course, it is logically wrong to conclude from these indicators that the birth rate among the urban population has increased significantly. Because in the last 30 years, the population has increased to almost 13.9 million. increased per person. According to the data of the State Statistics Committee, the permanent population of the Republic of Uzbekistan in 1991 was 20.6 million people, and as of January 1, 2021, the permanent population of the republic was 34.5 million people. It is known that the number of people born and died in different time intervals is not the same, the longer the time interval, the greater their number. So let's look at birth rates.

In the period under review, the total birth rate in the republic decreased by 32.4 points, 22.4 in urban population, and 34.9 points in rural population. When studying the statistical data of the studied period into periods, it was shown that the birth rates were not at the same standard. For example, in 1991-1995, the total number of births in the republic decreased by 6.3%, in 1995-2000 by 22.2%, on the contrary, in 2000-2014, this indicator increased by 7.7%. The number of births in urban areas decreased by 17.3% in 1991-1995 and by 21.6% in 1995-2000, and on the contrary increased by 49.0% in 2000-2014. These indicators are higher in rural population than in urban population and decreased by 6% in 1991-1995 and by 22.4% in 1995-2000. On the contrary, it decreased by 10.9% in 2000-2014. In 2014-2020, we can see that it increased by 38 percent.

At the same time, changes were observed in the total birth rate in the republic and its territories during the period under review. In particular, the total birth rate in the republic decreased by 4.7 points in 1991-1995, by 8.5 points in 1995-2000, and increased by 1.3 points in 2000-2007. In 2007-2014, it increased by 3.0 points. When we study the birth rates in 2 periods, we can see the following trends. That is, in general, a general downward trend was observed in our Republic during the years of independence. In particular, from 1991 to 2005, we can see a sharp decline. During this period, the birth rate in the republic decreased by 14.7 points, it was observed that it

decreased by 9.4 points in the urban population and 17.7 points in the rural population. In 1991, the average annual decrease was 1.33 points. In other words, compared to 1991, until 2005, the birth rate decreased by an average of 1.33 ppm per year. After 2005, the trend in birth rates began to change slightly to the positive side. That is, from 2005 to 2021, birth rates began to grow, albeit slightly. For example, in 2005, the birth rate was 20.9 ppm, and in 2021 it was 25.9 ppm. During this period, the average annual increase was 0.3 ppm. From the above figures, we can only identify general trends in birth rates. We can know if it has increased or decreased. But we will have to evaluate how big or small these figures are. Therefore, we will be able to use the birth rate scale proposed by B. S. Urlanis to estimate birth rates. According to this scale, if the birth rate is up to 15, the birth rate is very low, if it is up to 16-20, it is low, if it is 21-25, the birth rate is average, in the range of 26-30 is above average, 31-40 is high, 41-50 is very high, if it is more than 50, it is at the physiological maximum level [8].

The analysis of the table data on the above scale shows that the birth rate in the Republic of Uzbekistan was high from 1991 to 1993. From 1999 until now, it was at an average level. The analysis of these coefficients by regions shows that they are not the same in all regions. In particular, according to this scale, the birth rate of the city of Tashkent was low during the period under study, and in 2000-2005 it even reached the extremely low level of the scale. Currently, the birth rate in all other regions shows that the birth rate is average.

As we mentioned, the fertility rate is one of the widely used and important indicators for evaluating the fertility level, but it cannot be considered as an indicator that accurately expresses the fertility level. Because the age-sex composition of the population directly affects the birth rate. Also, the general structure of the population includes children who have just been born and women who have passed the reproductive age. Therefore, the cumulative birth rate is used to more accurately estimate the birth rate. That is, this coefficient represents the number of births for every 1000 women aged 15 to 49 years.

In 1996, the third and subsequent children in the family accounted for 35.3 percent of the total number of births, and in 2007, this figure was 32.4 percent. During this period, the weight of the first children increased from 32.9% to 38.7%. As mentioned above, one of the most accurate indicators of fertility is its cumulative coefficient.

Table 2 Total fertility rate in Uzbekistan

Йиллар	Жами аҳоли	Шаҳар аҳолиси
1991	4,199	3,130
1992	4,004	3,001
1993	3,800	2,793
1994	3,537	2,693
1995	3,597	2,803
1996	3,309	2,623
1997	3,083	2,453
1998	2,815	2,259
1999	2,720	2,189
2000	2,585	2,095
2001	2,469	2,021
2002	2,518	2,049
2003	2,357	1,934
2004	2,46	2,06
2005	2,36	1,99
2006	2,39	2,06
2007	2,55	2,22
2008	2,64	1,58
2009	2,53	2,19
2010	2,342	2,081
2011	2,236	1,991
2012	2,193	1,982
2013	2,350	2,130
2015	2,491	2,230

2016	2,455	2,264
2017	2,419	2,212
2018	2,604	2,410
2019	2,785	2,593
2020	2,904	2,706
2021	3,173	2,946

Source: The table was compiled based on the data of the statistical agency in the presence of the President of the Republic of Uzbekistan.

It refers to the average number of children born to each woman of a given generation during her childbearing age (on average, 15-49 years). If this coefficient is higher than 4.15 in any area, the population in that area is increasing rapidly, the population has a high proportion of children (0-14 years old), and the elderly (60 years old and older) will be underweight. If the total fertility rate is less than 2.15, the population grows very slowly, the proportion of the elderly in the population is high compared to children, and the demographic aging process of the population occurs. If this indicator is 2.15-4.15, the birth rate increases to a normal too high or too low level, which causes a number of socio-economic problems.

It should be noted that, according to the total fertility rate, until the 1990s, Uzbekistan was one of the countries with the highest birth rate in the world. In 1985-1989, the total fertility rate in Uzbekistan was 4.70. This indicator has been decreasing since 1990-1991, and in the current period (2021) it is 3,173. According to this coefficient, Uzbekistan currently ranks among countries with an average birth rate..

The total fertility rate decreased from 3.13 to 2.94 in the urban population of the republic, and from 4.99 to 3.40 in the rural population. It is worth noting that the cumulative coefficient of birth is decreasing almost uniformly in its cities and villages.

Since 1991, the formation of a new economic environment in Uzbekistan, that is, the introduction of market relations in all areas of the economy, has caused a certain change in the socio-economic conditions of the country. At the initial stage of the republic's independent development, some economic changes took place in the lifestyle of the population.

While the population is socially protected by the state, changes in production relations in the country, the wide spread of some contraceptives and their concepts among the masses, including in rural areas, the population's reproductive inclination (attitude to the number of children in the family) had a dramatic effect.

According to demographic studies, the process of birth control began to spread widely in the republic, including among rural women. During the period under review, the birth of the fourth, fifth, sixth, seventh and subsequent children in the family in Uzbekistan has sharply decreased. This situation is reflected in the dynamics of all indicators representing birth in Uzbekistan and its regions.

Conclusions and suggestions

In conclusion, it can be said that during the last 30 years, the fertility trends have changed drastically, from 1991 to 2003, the fertility rates have decreased sharply, and the tendency to increase slightly between 2005 and 2021 observed. The birth rate among the representatives of the current generation is almost 2 times lower than that of the elderly and middle generation. This situation is caused by socio-economic factors.

In our opinion, it is necessary to maintain today's positive trends as optimally as possible so that demographic problems do not arise in Uzbekistan, as in the developed countries of the world. Also, in order to ensure the conditions for re-establishing the demographic development of the country with a higher quality population - to further improve the population health care system, to pay special attention to the health of mothers and children, to form a healthy lifestyle among the population, and to increase the population's medical literacy. We believe that it is necessary to develop strategic programs. The implementation of such strategic programs creates a basis for the formation of a high demographic potential that regenerates the population in the republic and its effective use..

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