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# Assessing the Impact of Migration from Central Asian Countries to Birth Rate in Russia



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Abstract. The current demographic crisis in Russia poses a challenge to the country's socio-economic well-being. To handle the crisis, the government implements various demographic policy measures; some of them focus on migration as a way to maintain population stability. The largest share in Russia's migration gain belongs to citizens from CIS countries. Most of them come from Central Asia, whose countries have a high birth rate. These trends suggest that newcomers start families in the Russian Federation, and migration contributes to the birth rate of the host country, which is estimated in the article. The contribution of migration from Central Asian countries to Russia's birth rate is analyzed as an indicator reflecting the proportion of the number of births by women from Kyrgyzstan, Uzbekistan, Tajikistan, and Kazakhstan in the total number of births in Russia. The empirical base for the research includes three sources of statistical data reflecting an integrated approach to determining migration status: data on place of birth, citizenship and ethnicity. We find that 1.5% of children born in 2011-2023in Russia are descendants of citizens of Central Asian countries; 0.5% of children born in Russia as of the critical moment of the 2020 census are descendants of Kyrgyz, Uzbeks and Tajiks; 11.1% of children have foreign-born parents (born outside the territory of the Russian Federation). Birth rate in foreign-born persons in Russia is also differentiated by federal districts. Subsequent research on this subject can focus on the dynamics of fertility in mixed families, and include statistics on RF constituent entities.

Key words: citizenship, ethnicity, foreign origin, migrant birth rate.

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#### Introduction

For at least several decades the demographic situation in Russia has been defined as critical<sup>1</sup>, which is primarily reflected in birth rate decline<sup>2</sup>. Since 1967, birth rate in the country has been below the level required for simple population reproduction, and since 1992 Russia has experienced natural population decline. During this period natural growth was recorded only in 2013–2015 (the number of births exceeded the number of deaths by 24, 30.3, and 32 thousand people, respectively). At the same time, birth rate decreased significantly: there were 13.3 births per 1,000 people in 2015<sup>3</sup>.

This trend is reflected by the dynamics of the total fertility rate (TFR). This indicator in the post-Soviet period reached its minimum value of 1.195 children per woman in 2000, and its maximum value was 1.777 in 2015, which is still 15% lower than required for simple population reproduction (2.1). Since 2016 the TFR has begun to gradually decrease again; in 2022 it amounted to 1,406. Since 2012 the TFR has decreased in all Russian regions, except for Moscow, where the figure has increased from 1.32 to 1.4 children per woman. In 2022 the TFR exceeded the figure required for simple population reproduction in only two regions: the Chechen Republic (2.63) and the Republic of Altai (2.42)<sup>4</sup>.

The demographic crisis is also a challenge for the Russian economy. Since economic growth requires an increase in labor productivity and an increase in the number of workers, a decrease in the share of able-bodied residents of Russia by 4.6% in 2010–2023 may lead to an increase in the burden on them, and cause a decrease in GDP<sup>5</sup>. With an increase in the share of working-age population by 1%, the growth rate of real GDP per capita, on the contrary, increases by 0.27% (Kazbekova, 2018).

Consequently, the decisive role in the economic growth and well-being of the state is played by the population, whose qualitative and quantitative characteristics the state seeks to influence. Thus, in a situation of demographic crisis, financial measures of demographic policy are a way to influence it. These include maternity capital, monthly and one-time allowances<sup>6</sup>, as well as regional benefits and subsidies (for example, free parking in Saint Petersburg<sup>7</sup> or compensation for joint parent-child holidays for large families in the Ulyanovsk Region<sup>8</sup>, etc.).

Since the dynamics of the total population depends not only on natural growth, but also on migration gain, primarily from outside Russia, the government also seeks to influence it, which is reflected in regulatory legal acts. For example,

<sup>&</sup>lt;sup>1</sup> Demographic crisis in Russia: who is to blame and what to do? Available at: https://www.demoscope.ru/ weekly/2005/0225/analit06.php

<sup>&</sup>lt;sup>2</sup> Rybakovsky L.L. (Ed.). (2003). Conceptual Dictionary of Demography. Moscow: TsSP. Pp. 142–143.

<sup>&</sup>lt;sup>3</sup> Fertility, mortality, and natural increase. Demography. Federal State Statistics Service. Available at: https://rosstat. gov.ru/folder/12781

<sup>&</sup>lt;sup>4</sup> Total fertility rate. Demography. Federal State Statistics Service. Available at: https://fedstat.ru/indicator/31517

<sup>&</sup>lt;sup>5</sup> Distribution of population by age group. Demography. Federal State Statistics Service. Available at: https://rosstat. gov.ru/folder/12781

<sup>&</sup>lt;sup>6</sup> Child benefits in 2024: Who is entitled to them, in what amount and how to receive them? Available at: https://www.garant.ru/article/1677828/?ysclid=lxg9tox2vz472712370

<sup>&</sup>lt;sup>7</sup> On the creation and use on a paid basis of parking lots (parking spaces) located on public roads of regional significance in Saint Petersburg (Vasileostrovsky District): Resolution of the Saint Petersburg Transport Committee 353r, dated August 18, 2023 Available at: http://publication.pravo. gov.ru/document/7801202308240014

<sup>&</sup>lt;sup>8</sup> On measures of social support for large families in the Ulyanovsk Region: Law of the Ulyanovsk Region 154-ZO. Available at: https://docs.cntd.ru/document/918008034

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according to the Presidential Decree "On the concept for the state migration policy of the Russian Federation for 2019–2025", one of the goals of migration policy is to "create a migration situation that contributes to solving problems in the field of demographic development of the country"... Migration policy is an auxiliary tool for addressing demographic and related economic issues"<sup>9</sup>. In the context of positive migration dynamics, the issues of interethnic harmony remain relevant, which are reflected in the Strategy for the State National Policy of the Russian Federation, the objectives of which are to harmonize interethnic relations, prevent conflicts on interethnic grounds, and ensure interethnic peace<sup>10</sup>. With the regressive gender and age structure of the Russian population there is a threat of demographic expansion associated with a possible transformation of the ethnic structure of the population and a low level of assimilation of migrants (Zolotareva, 2020). One of the statistical characteristics of demographic expansion is the ratio of birth rates of the indigenous and non-indigenous population (Balatsky, Ekimova, 2023).

Migration has an impact on the numerical and age-sex composition of the population. Although the number of migrants varies from country to country, there are certain patterns in the ages of migrants. The most active migrants are young people under the age of 25, who move for the purpose of studying, starting work and starting a family (Rogers, Castro, 1981). Thus, migration "rejuvenates" the population structure of the host country, which is a matter of national security in modern Russia due to population aging (Imideeva et al., 2023).

The migration situation in post-Soviet Russia, in turn, is characterized by different rates, scales and

vectors of migration movement. Migration gain at the expense of foreign countries has been observed in the Russian Federation since 1992. The maximum value of the absolute migration gain was noted in 1994, when it amounted to 978 thousand people; the minimum – in 2022, 34.9 thousand people. From 2009 to 2019 the overall population growth of Russia remained positive, since migration gain offset natural decline, and from 2020 the overall increase has been replaced by the overall decline<sup>11</sup>.

In the 1990s migrants from the republics of the former USSR accounted for the largest share of the Russian Federation's migration gain, and one third of them received the status of internally displaced persons (Peshkova, 2022). Since the late 1990s and early 2000s, migration to the Russian Federation has acquired the character of labor migration, which was accompanied by naturalization procedures. In 1997–2022, arrivals from CIS countries accounted for an average of 90.08% of all arrivals to the territory of the Russian Federation, and migration growth with them averaged 57.05% of the total migration gain in the Russian Federation. Among those who arrived from CIS countries, on average for the above period, the majority were citizens of Ukraine (15.95%), Kazakhstan (13.33%), Uzbekistan (9.55%), Tajikistan (7.65%), Armenia (5.83%), Kyrgyzstan (5.01%), Azerbaijan (3.69%), Moldova (3.35%), Belarus (2.25%) and Turkmenistan (1.32%). At the same time, the share of migrants from different countries has changed over time: in 1997 the largest number of migrants came from Kazakhstan (43.10%) and Ukraine (25.25%), while in 2022 – from Tajikistan (34.08%), Ukraine (27.19%), Kazakhstan (11.76%) and Kyrgyzstan (11.39%).

The share of arrivals from Central Asian countries in the total number of migrants from CIS countries increased in 1997–2022: by 709.27% for Tajikistan, by 353.46% for Kyrgyzstan, and by

 $<sup>^9</sup>$  On the concept for the state migration policy of the Russian Federation for 2019–2025: Presidential Decree 622, dated October 31, 2018. Available at: https://base.garant.ru/72092260/

<sup>&</sup>lt;sup>10</sup> On the strategy for the state national policy of the Russian Federation for the period through to 2025: Presidential Decree 1666, dated December 19, 2012 (amended and supplemented). Available at: https://base.garant.ru/70284810/

<sup>&</sup>lt;sup>11</sup> Overall population growth. EMISS. Available at: https://fedstat.ru/indicator/31272

36.38% for Uzbekistan<sup>12</sup>. The Central Asian countries are characterized by high fertility (TFR in 2022 was 3.3 children per woman in Uzbekistan; 2.8 in Kyrgyzstan; 3.5 in Tajikistan; 3.05 in Kazakhstan)<sup>13</sup>.

Thus, migration processes have an impact on the overall population growth in the Russian Federation. Nevertheless, in addition to replacing the natural population decline with migration growth, external migration at a certain stage can also contribute to the birth rate of the host country (Topilin, 2018). Earlier attempts were made to assess the contribution of the migration component to demographic dynamics, for example, the coefficient of social substitution (1951), the coefficients of reproduction of the population at different ages (1991), as well as the coefficient of reproduction under various scenarios of net migration (1997), but these indicators did not take migration into account as a constant or proposed hypothetical scenarios (Poveda, Ortega, 2010).

Taking into consideration these factors, as well as trends in the feminization of migration, the growing number of children born to incoming women, and the assumption that newcomers are starting families in the Russian Federation, the question arises: what contribution do these migrants make to the Russian birth rate? In this work, contribution is understood as the scale of the migrant birth rate, their share in the total number of births in Russia. To answer this question, the trends in the birth rate of migrants from Central Asian countries (Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan)<sup>14</sup> in the Russian Federation will

be considered due to their abundance, as well as belonging to countries with high fertility (TFR in these countries exceeds the Russian one by more than two times).

## Theoretical and methodological part of the work

There are few Russian social studies on the impact of external migration, including from Central Asian countries, on the birth rate in the Russian Federation. There are several reasons for this. First, active international migration to the Russian Federation has been going on for only about 20 years. Second, large-scale and comparative studies are limited by the specifics of methodological accounting of migration. The fact is that migration statistics are generated from at least six sources of information: Rosstat - on the arrival and departure of international migrants; Federal Migration Service (FMS) – on the presence of foreign citizens on the territory of the Russian Federation, on the naturalization of foreign citizens and on foreign citizens legally working in the Russian Federation (until 2016); the Main Directorate for Migration of the Ministry of Internal Affairs, to which the powers of the FMS were transferred after its abolition; the Border Service of the FSB of Russia; as well as the Central Bank of the Russian Federation on personal money transfers between residents of the Russian Federation and other countries. The departmental approach complicates the data collection procedure, which provokes significant differences in them. Moreover, the rules for registering migrants have changed significantly. For example, in 2000 it became necessary for migrants from CIS countries to obtain a residence permit before registering at their place of residence, which led to an underestimation of the arrival of migrants. Since 2007, on the contrary, those who had a temporary residence permit have been also considered as migrants; since 2011 those who have registered at their place of residence for a period of 9 months or more have been considered as migrants as well. Russian citizens do not have to be de-registered when traveling abroad; and since 2012 temporary

<sup>&</sup>lt;sup>12</sup> Migration gain by gender, age and migration flow. Demography. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/12781 (accessed: June 5, 2024).

<sup>&</sup>lt;sup>13</sup> Monitoring of indicators of the quality of life of the population in the countries of the Commonwealth of Independent States 2019–2022. Interstate Statistical Committee of the CIS. Moscow, 2023. P. 55.

<sup>&</sup>lt;sup>14</sup> Besides Kyrgyzstan, Tajikistan, Uzbekistan and Kazakhstan, countries of Central Asia include Turkmenistan. However, due to the migration policy of this country and the lack of necessary statistical information, Turkmenistan will not be considered in the study.

labor migrants whose contract has expired have been counted among those leaving, which has also caused slightly overestimated numbers of emigrants (Lifshits, 2016).

External migration not only affects the population of the host country "from the outside", but also contributes to a change in the birth rate of the host country (that is, it transforms the demographic situation "from the inside"). For example, in Switzerland 23% of children are born to foreigners, and in the UK – more than 15% (Karachurina, 2007).

Russian social studies present different ways to assess the contribution of migration to the birth rate of the host country.

One way is to assess the correlation between the dynamics of fertility indicators; most often these include the TFR and migration gain. This approach is used by A.V. Topilin, who estimates the contribution of migration to the birth rate based on an analysis of migration growth from countries with different birth rates: high (this group includes Central Asian countries), medium and low (Topilin, 2018). Dividing the regions of the Russian Federation into four groups according to the level of migration growth over six years, he concludes that only in the group with the most migrationattractive regions does the TFR show positive dynamics. In other groups of regions there is no correlation between migration growth and the TFR, or it is negative. Thus, the age structure of migration gain (as a rule, it is people of working age who migrate) can have a prolonged effect on the dynamics of birth rate in the future; but for the period considered by A.V. Topilin (2010–2016) the positive dynamics of the TFR was observed only in 19 regions, and only in seven of them the TFR increased more significantly than the average for the Russian Federation.

However, the use of the TFR to assess birth rate (including migrants) in dynamics has some difficulties: the indicator adequately reflects the birth rate of only real generations (born in the same time period) of women, since it does not take into account changes in the birth calendar, i.e. postponement of childbirth to a later time; therefore, its growth does not always mean a break in the trends, as well as the contribution of migration to fertility (Volant et al., 2020). Moreover, the TFR does not take into account the distribution of women by the number of children born, and also depends on the ages of births. In addition to the abovementioned disadvantages of migration statistics in Russia, there is also a time factor: migration to a country in a certain year does not guarantee the birth of a child in the same year, but it does not negate the likelihood of its birth in the future.

A correlative approach to assessing the contribution of migration to birth rate is used by A.Yu. Denisov, who ranked 876 European cities by general fertility rate, estimated the proportion of migrants from outside the European Union in them and concluded that, despite the high birth rates in some EU countries (for example, France, UK), the contribution of migrants from non-European countries to it is insignificant (Denisov, 2017).

However, the disadvantage of the general fertility rate is its dependence on the number of women; and the existing statistics of external migration in Russia do not allow us to identify the proportion of migrants in the country by country of origin; therefore, in this article we will not use a correlation method to assess the contribution of migration to birth rate.

Differences in migrant fertility rates compared to the indigenous population are also due to low rates before relocation due to migration planning and postponement of childbearing (Carlsson, 2023) and increases immediately after relocation due to marital migration and arrival at childbearing age (Alderotti et al., 2022).

The second way to assess the contribution of migration to the birth rate of the host country is analysis of the number of births by ethnicity of parents.

For example, Yu.A. Prokhorova, having analyzed data from the Department of Population and Health Statistics on the number of births by ethnicity of mother and father in 2011, 2012, 2013, notes that, despite the low contribution of migrant families to the Russian birth rate (about 2%) in 2011–2013, the average fertility growth in mixed types of urban families (where at least one parent has citizenship of another country) account for 15%, rural -20%, which significantly exceeds fertility growth in families of citizens of the Russian Federation (1 and 0.5%, respectively). Mono-ethnic families have the highest birth rates, at 24% and 45%, respectively (Prokhorova, 2015). The author's aim was to consider the differences in fertility in mixed and mono-ethnic families in the Russian Federation, which is not the aim of our study. However, data on the number of births by ethnicity of parents is appropriate, so we will use it as a methodological basis.

E.P. Sigareva and S.Yu. Sivoplyasova used comparative analysis of data on the number of births by ethnicity of parents. In 2020, the citizenship of the parents was determined for 87.2% of the children born (for the remaining children it is either not specified or absent altogether). Among them, 95.4% of births are accounted for by Russian parents, 1.5% by foreign parents, and 3.1% by births in mixed couples with foreign citizens. The proportion of Russian parents prevails in all federal districts, ranging from 92.8% in the Northwestern Federal District to 98.5% in the North Caucasus Federal District. At the same time, almost 2/5 of all children born in Russia whose parents are foreign citizens were born in the Central Federal District: 39.2% of all children with both foreign parents and 36.2% with one foreign parent. This is due to the economic and migration attractiveness of the Central Federal District, relatively inexpensive living conditions and, consequently, a significant proportion of migrants in the district. In general, 45.8% of mothers and 54.2% of fathers in mixed couples have foreign citizenship (Sigareva, Sivoplyasova, 2022).

Thus, the main contribution to birth rate and marriage in Russia is made by citizens of the Russian Federation. The proportion of marriages where at least one of the spouses is a foreigner is 7.5% of the total number of marriages, and the proportion of births where at least one of the parents is a foreigner is 5% of the total number of births. Moreover, the possible impact of migration on fertility processes in Russia is significantly differentiated in the context of federal districts.

In the framework of this study we will conduct a comparative analysis of data on the number of births by parental origin, as it is the most statistically relevant for assessing the contribution of migration to the birth rate in the host country.

In addition to assessing the statistical contribution of migration to the birth rate of the host country, it is necessary to study the social and behavioral components of fertility, namely reproductive attitudes and behavior<sup>15</sup>. This aspect is important in the framework of the study, as it highlights the differences between the reproductive behavior of the host country – the Russian Federation and the Central Asian countries – migration donors.

Family sociology understands reproductive behavior as "a system of actions and relationships that mediate the birth of a certain number of children in a family (as well as out of wedlock)"<sup>16</sup>. The following types or components of reproductive behavior can be distinguished: "reproductive behavior itself, aimed at procreation; abortive behavior, and contraceptive behavior, whose task is to regulate the timing and number of births (or their absence)"<sup>17</sup>. Human reproductive behavior is based on two components: reproductive attitudes and childbearing attitudes<sup>18</sup>.

<sup>&</sup>lt;sup>15</sup> Rybakovsky L.L. (Ed.). (2003). Conceptual Dictionary of Demography. Moscow: TsSP. P. 258; Yadov V.A. (Ed.). (1998). Sociology in Russia. Moscow: Publishing House of RAS Institute of Sociology.

<sup>&</sup>lt;sup>16</sup> Antonov A.I., Medkov V.M. (1996). Family Sociology. Moscow: Publishing House of Moscow University. P. 201.

<sup>&</sup>lt;sup>17</sup> Rybakovsky L.L. (Ed.). (2003). Conceptual Dictionary of Demography. Moscow: TsSP. P. 251.

<sup>&</sup>lt;sup>18</sup> Ibidem. P. 334.

By its structure, reproductive behavior is similar to any human behavior and contains values, motivations, attitudes, and decisions that lead to specific results and actions. External migration is one of the factors influencing the reproductive attitudes and behavior of migrants, which, in turn, contribute to the birth rate of the host country. Summarizing modern approaches, K.I. Kazenin identified four types of migrants' reproductive behavior (Kazenin, 2017). The first type is adaptation, when, after rooting, migrants learn the reproductive and marriage behavior typical for residents of a new country, and migrants' reproductive activity decreases if the country they move to has a lower birth rate than their historical homeland. Factors that influence the rate of assimilation of the reproductive behavior of the host society include age of migrants, their education, socio-economic status (Afulani, Asunka, 2015), duration of staying in the country (Milewski, 2010), generation of migration (Adserà et al., 2012). The reproductive behavior of those who migrated in childhood is closer to the reproductive behavior of the host society compared to those who migrated at a more mature age.

In the logic of the second type, or socialization, migrants maintain the reproductive behavior typical for the citizens of their homeland in the new country, even after long-term residence, because, despite the fact that over time migrants gradually transition to reproductive behavior characteristic of the host society, an important role in the formation of reproductive behavior is played by cultural, religious, ethnic and family contexts (Jennings et al., 2012).

The third type is a gap, when significant changes in the reproductive behavior of migrants occur in the first post-migration period. Fertility can decrease or increase due to the impact of migration. Economic difficulties force some migrants to postpone childbirth, which leads to a decrease in the birth rate (Goldstein, Tirasawat, 1977). There is evidence of a surge in the birth rate among migrants in the first years after relocation (Andersson, 2004; Milewski, 2011). This is due to the desire of migrants to secure their status in a new country, and also to the fact that for some migrants moving is associated with marriage, and finally, to the fact that in developed countries childcare benefits can meet the material needs of the whole family.

Migration of people with certain characteristics, such as high socio-economic status and educational level, is most likely. This is due to the relatively small number of children in the family. In other words, potential migrants are characterized by a decrease in reproductive intentions and a greater career orientation before moving, which forms selective reproductive behavior (Hendershot, 1971).

A.B. Sinelnikov, using the results of the analysis of data obtained in the framework of the 30th round of the sociological research of the Russian Longitudinal Monitoring Survey – Higher School of Economics (RLMS-HSE), notes that the average number of children per woman and per man among newcomers (both in early and late ages) is higher than among the indigenous population, and the proportion of the childless among locals is higher than among newcomers, with the exception of women over 60 years of age, whose fertility does not depend on their migration history (Sinelnikov, 2023).

However, the sociological approach does not allow us to consider the scale of the migrant birth rate, although it provides the necessary basis for studying reproductive attitudes. Since the aim of our work is to assess the contribution of migration to the birth rate in Russia, the data from sociological research will not be used.

Thus, approaches to assessing the contribution of migration to the birth rate of the host country vary depending on the objectives of the study. Within the framework of the sociological approach, the basis is the analysis of migrants' reproductive attitudes throughout all stages of the migration process; the demographic approach involves studying the dynamics of demographic indicators (TFR, general fertility rate, proportion and series of dynamics of the absolute number of children born to foreigners). To assess the contribution of migrants to the birth rate of the host country, the analysis of the dynamics of the number of births by ethnicity of parents is the most comprehensive one due to the wide representation of the empirical object in the database.

Differences in the reproductive behavior of migrants and local residents attract the attention of researchers due to the socio-economic differences between the donor and recipient countries. The second demographic transition in European countries occurred simultaneously with the development of the economy (including the service sector) and the level of education of the population, urbanization, industrialization, which provoked a massive entry of women into the labor market, as well as with the development of the social sphere and medicine, which led to a decrease in child mortality. The countries of Central Asia are considered to have not yet completed the second demographic transition, that is, they are considered as countries with a birth rate higher than necessary for simple reproduction of the population and a poorly developed economy (this is a motive for moving to the Russian Federation). Thus, there is a question of preserving the reproductive behavior of their citizens in migration, which may be a "demographic dividend" for the host country and an economic one for the country of origin.

Despite the urgency of this problem, there are no comprehensive comparative studies of the impact of migration from Central Asian countries on the birth rate of the host country (Russia) in the longterm retrospective dynamics.

## **Research methods**

Due to the lack of information on the absolute number of migrants from Central Asian countries (as well as their children) residing in Russia, the issue of determining the migration status of an individual remains relevant. Our method of assessing the contribution of migration from Central Asian countries to the birth rate in Russia consists in summarizing three types of statistical data reflecting an integrated approach to determining migration status: data on place of birth (relevant for analyzing the birth rate of migrants who have already obtained Russian citizenship), citizenship (relevant for migrants who have not passed the naturalization procedure) and ethnicity (obtained according to the principle of self-determination in the framework of a population census and independent of citizenship), which can lead to different results due to the methodological features of their obtaining.

The empirical part of the work is based on two sources of statistical data. First, these are the results of the All-Russian Population Census in 2002, 2010 and 2020 (the criticism of the ARPC-2020 by experts and the public has been taken into account<sup>19</sup>), which contain data on the number of children born to women of the most numerous ethnicities in dynamics (2002-2020). On the one hand, there is a limitation - the database also includes citizens of the Russian Federation who have indicated a different ethnicity based on the principle of selfdetermination; at the same time, they could have obtained Russian citizenship not long ago, which does not contradict their migrant status. According to the previously discussed socialization type of reproductive behavior, migrants can maintain the reproductive behavior of their country of origin after moving. On the other hand, the positive aspects of this source of information include the availability of data; the possibility of obtaining information about second- and subsequent-generation migrants, as well as confirmation that the migrant has cultural constructive ties with the country of origin (based on the principle of national self-determination).

<sup>&</sup>lt;sup>19</sup> The population census was called the worst in the country's history. Available at: https://octagon.media/politika/perepis\_naseleniya\_nazvali\_xudshej\_v\_istorii\_strany.html?ys clid=lwpht9qppo389397090

The second source is data from the Department of Population and Health Statistics (received from the registry offices), which provide complete information on the number of children born by ethnicity of the mother and father; this allows building the series of dynamics of the number of births by ethnicity of parents, as well as analyzing the growth rate of the number of births among citizens of different countries for the period from 2011 to 2023. The limitations of this method include inability to obtain information on the number of children born to one woman, as well as a significant proportion of those who gave birth to children and did not indicate ethnicity (0.9% annually on average for the abovementioned period). On the other hand, statistical data are an actual reflection of migrants' birth rate, which makes it possible to compare the birth rate by ethnicity with the results of the ARPC on the birth rate by ethnicity indicated by the principle of self-determination. The Department of Population and Health Statistics also collects data on the number of children according to their parents' place of birth. In this case the limitation is the lack of information about the specific countries of origin of the parents (there is information only about their birth on the territory of the Russian Federation or outside the Russian Federation). Nevertheless, this database makes it possible to differentiate persons of foreign origin who have given birth to children in the Russian Federation in the context of federal districts, as well as compare the statistics of births by parents of foreign origin with the migration increase in dynamics from 2015 to 2023. Moreover, the data presented demonstrate the birth rate among people of foreign origin (who could have obtained Russian citizenship), as well as migrants of the second and subsequent generations.

Comparative analysis, synthesis, analogy, generalization are used as general scientific methods in the work; descriptive statistics, analysis of dynamics series are used as statistical methods of analysis. Thus, as part of the analysis of the results of the ARPCs of 2002, 2010, and 2020, as well as statistical data from the Department of Population and Health Statistics, dynamics series of the average number of children per 1,000 women of the corresponding ethnicity, as well as the proportion of births of citizens of Central Asian countries in the territory of the Russian Federation were built. The proportion of women by ethnicity and the number of children born was analyzed in order to obtain information on the contribution of representatives of each ethnicity to birth rate.

Using the MS Excel software, the relative weight indicators, as well as the basic and chain growth rates of the abovementioned indicators, were calculated to consider the contribution of migration from Central Asian countries to the birth rate in Russia.

The three databases have advantages and disadvantages, while using them together makes it possible to eliminate statistical inaccuracies and estimate the birth rate of migrants in Russia over a twelve-year retrospective period, since each of them represents the results of continuous statistical observation. To assess the contribution of migrants from Central Asian countries to the birth rate in Russia, the proportion of the number of children born to representatives of different ethnicities (according to the ARPC-2020 data), citizens of different countries (according to the social services office) and foreign origin (social services office) in the total number of children born in Russia was analyzed. While there may be inaccuracies in the absolute statistical data, the relative proportion is structurally reliable, reflecting the contribution of migration from Central Asian countries to the birth rate in Russia.

The study has elements of novelty in methodological and substantive terms due to the use of three sources of information (reflecting migration status from three sides) and their comparison in order to assess the contribution of migration from Central Asian countries to the birth rate in the Russian Federation (in%).

## Results

The analysis of the ARPC data allows us to draw conclusions about the dynamics of the average number of children per 1,000 women of the most numerous ethnicities (*Tab. 1*), including in comparison with other ethnicities. According to the methodological explanations to the ARPC, the most numerous ethnicities of the Russian Federation include those whose population exceeds 30 thousand people<sup>20</sup>.

The average number of children per 1,000 women of the corresponding ethnicity decreased from 2002 to 2010 among Russians, Tatars, Azerbaijanis, Georgians, and Tajiks (see Tab. 1). The average growth rate among all ethnicities was -1.3%. The average growth rate over two decades is 12.1%. In 2020, compared to 2010, this indicator decreased for all the ethnicities under consideration (with the exception of Russians and Kyrgyz), compared to 2002 – with the exception of Kyrgyz. The assessment of the contribution of representatives of different ethnicities to the birth rate based on the analysis of the indicator "Number of women who indicated the number of children born" is shown in *Table 2*.

Since data on the absolute number of children born by ethnicity are available only for the most numerous ethnicities, in 2002 there are no data on the ethnicities of Central Asia. Therefore, taking into account the fact that these ethnicities were few in the Russian Federation in 2002 (the share of Uzbeks was 0.09%, Tajiks – 0.08%, Kyrgyz – 0.02%), we assess the contribution of their representatives to the birth rate of the Russian Federation as insignificant, since even with the preservation of reproductive behavior typical for the population of the country of origin, their contribution to the birth rate of the RF could not exceed 0.1%.

According to the results of the ARPC-2010, from 76.5 to 93.6% of women who gave birth to children and indicated their ethnicity are Russians. As the number of children increases, the proportion of Russian women who have contributed to the

	Proportion of ethnic representatives in all persons who indicated their ethnicity, %				in the prope presentativ	Average number of children per 1,000 women of the corresponding ethnicity			Increase in the average number of children per 1,000 women of the corresponding ethnicity, %			
Ethnicity				•	who indicat ethnicity, %							
	2002	2010	2020	2010 to 2002	2020 to 2010	2020 to 2002	2002	2010	2020	2010 to 2002	2020 to 2010	2020 to 2002
Russians	80.64	80.9	80.85	0.32	-0.06	0.26	1446	1405	1442	-2.80	2.60	-0.30
Tatars	3.87	3.87	3.61	0.00	-6.72	-6.72	1711	1623	1622	-5.10	-0.10	-5.20
Armenians	0.79	0.86	0.72	8.86	-16.28	-8.86	1680	1699	1139	1.10	-33.00	-32.20
Ukrainians	2.05	1.4	0.68	-31.71	-51.43	-66.83	1726	1749	1693	1.30	-3.20	-1.90
Azerbaijanis	0.43	0.44	0.36	2.33	-18.18	-16.28	1830	1696	1447	-7.30	-14.70	-20.90
Jews	0.16	0.11	0.06	-31.25	-45.45	-62.50	1264	1264	1166	0.00	-7.80	-7.80
Georgians	0.14	0.11	0.09	-21.43	-18.18	-35.71	1480	1381	1263	-6.70	-8.50	-14.70
Belarusians	0.56	0.38	0.16	-32.14	-57.89	-71.43	1765	1777	1316	0.70	-25.90	-25.40
Chechens	0.95	1.04	1.28	9.47	23.08	34.74	2163	2196	1623	1.50	-26.10	-25.00
Kyrgyz	0.02	0.08	0.11	300.00	37.50	450.00	1537	1568	1667	2.00	6.30	8.50
Uzbeks	0.09	0.21	0.25	133.33	19.05	177.78	1652	1666	1458	0.80	-12.50	-11.70
Tajiks	0.08	0.15	0.27	87.50	80.00	237.50	1774	1747	1622	-1.50	-7.20	-8.60

Table 1. Dynamics of the shares of representatives of various ethnicities in the total number of persons who indicated their ethnicity and the average number of children per 1,000 women of the corresponding ethnicity, increase in indicators

<sup>&</sup>lt;sup>20</sup> Methodological explanations to the All-Russian Population Census. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/Tom5\_met\_VPN-2020.pdf

Ethnicity	1 child		2 children		3 children		4 children		5 children		6 children		7 and more children	
	2010	2020	2010	2020	2010	2020	2010	2020	2010	2020	2010	2020	2010	2020
Russians	91.10	94.18	90.89	91.71	86.14	86.58	80.30	78.70	77.08	74.92	75.75	74.41	76.55	74.78
Tatars	4.71	3.38	4.48	4.91	6.26	6.46	7.35	6.16	10.47	8.15	10.26	6.80	9.32	6.19
Armenians	0.94	0.45	0.79	0.73	1.46	1.30	1.54	1.21	1.05	0.78	0.92	0.64	0.71	0.41
Ukrainians	0.89	0.92	2.25	1.22	2.52	1.25	2.56	1.22	2.52	1.22	2.39	1.19	2.32	1.40
Azerbaijanis	0.41	0.16	0.29	0.28	0.66	0.73	0.84	0.89	0.69	0.71	0.75	0.66	0.81	0.68
Georgians	0.12	0.06	0.08	0.07	0.11	0.09	0.12	0.09	0.09	0.08	0.07	0.07	0.06	0.05
Belarusians	0.22	0.22	0.65	0.30	0.69	0.29	0.72	0.28	0.74	0.30	0.70	0.28	0.66	0.33
Chechens	1.30	0.42	0.37	0.51	1.68	2.40	5.73	9.35	6.73	11.85	8.58	14.09	9.16	14.64
Kyrgyz	0.09	0.04	0.04	0.05	0.11	0.18	0.20	0.43	0.14	0.37	0.13	0.28	0.07	0.15
Uzbeks	0.15	0.10	0.10	0.12	0.24	0.34	0.40	0.65	0.28	0.61	0.24	0.46	0.16	0.39
Tajiks	0.08	0.08	0.04	0.10	0.13	0.39	0.25	1.02	0.20	1.01	0.22	1.13	0.18	0.97
Compiled acc	Compiled according to: ARPC-2010, 2020.													

Table 2. Proportion of women of the corresponding ethnicity in the total number of women who indicated the number of children born, by number of children in 2010 and 2020, %

birth rate begins to decrease, but the proportion of representatives of other ethnicities individually remains insignificant. Birth rate is the highest in Tatars (on average, they determine the Russian birth rate by 7.3%), Chechens (4.7%) and Ukrainians (2.3%). The contribution of representatives of other ethnicities is individually estimated at less than 1%, primarily due to the small number of parents, despite exceeding the average number of children per 1,000 women of the corresponding ethnicity. At the same time, the reproductive behavior of migrants from Central Asian countries is more likely to be of a socialization type (due to its convergence with birth rate indicators of the indigenous population).

According to 2020 data, from 74.8 to 94.2% of women (which is practically the same as in 2010) who gave birth to children and indicated their ethnicity are Russian. As the number of children increases, the proportion of Russian women who have contributed to the birth rate begins to decrease, but the proportion of representatives of other ethnicities individually remains insignificant. Tatars have the highest rates (on average, their contribution to the Russian birth rate is 6%), Chechens (7.6%) and Ukrainians (1.2%). The contribution of representatives of other ethnicities is individually estimated at less than 1%. Thus, in 2020, compared with 2010, the contribution of Chechens, Kyrgyz, Uzbeks and Tajiks to the birth rate in the Russian Federation increased (by 3, 0.1, 0.2 and 0.3%, respectively), however, the contribution of representatives of Central Asia remains small and averages less than 1%. At the same time, the contribution becomes noticeable when representatives of this ethnicity have their third and fourth child.

Thus, despite the fact that, on average, representatives of various ethnicities belonging to Central Asia give birth to more children than Russians (although over the past 20 years the figure has decreased for all except Kyrgyz), their contribution to the Russian birth rate remains insignificant and amounts to about 1% in total. If the current population growth rates of these ethnicities in the Russian population structure continue for 20 years, it is possible for the share of Kyrgyz to increase to 0.19%, Uzbeks to 0.34%, and Tajiks to 0.7%, while the share of Russians decreases to 80.75%.

*Table 3* shows the result of an analysis of data from the Department of Population and Health Statistics of the Russian Federation regarding children born in the territory of the Russian Federation by ethnicity of their parents (mothers and fathers). During 2011–2023 the largest share of children was born to citizens of the Russian Federation (on average, 96.3% of mothers and 85.8% of fathers during the period); while the share of children born to Russian citizens in the total number of births was decreasing annually, with the exception of 2021 and 2023. The overall decline rate for the above period was -3.1%.

Despite the fact that in 2014–2016, as well as in 2021 and 2023, there was an increase in the share of fathers who are citizens of the Russian Federation,

the overall decline in their share in the total number of births was -2.1%. Despite the increase in the share of children born to foreign citizens (the base growth rate was 141.3% for mothers and 157% for fathers), their share remains quite low (the share of foreign mothers averaged 2.7%; the share of fathers was 2.5%). A dramatic decline in the share of foreign births in 2018 is explained by an increase in the proportion of parents who did not specify their citizenship.

citizens in the total birth rate father 86.14 85.83 86.41 86.65 87.02 86.91 86.07 86.01 84.89 85.31 83.85 84.30   Share of foreign citizens in the total birth rate mother 1.67 1.99 2.58 2.78 2.79 3.03 2.48 2.01 2.88 2.5 3.69 4.03   Share of foreign citizens in the total birth rate number 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.00 0.											,			
citizens in the total birth rate father 66.14 86.83 86.41 86.65 87.02 86.91 86.07 86.01 84.89 85.31 83.85 84.30   Share of foreign citizens in the total birth rate 1.67 1.99 2.58 2.78 2.79 3.03 2.48 2.01 2.88 2.5 3.69 4.03   Share of Stateless persons in the total birth rate nother 0.01 0.02 0.01 0.01 0.01 0.00 0.0			2011	2012	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
birth rate father 86.14 85.83 86.41 86.66 87.02 86.91 86.01 84.90 85.31 83.85 84.30   Share of foreign citizens in the total mother 1.67 1.99 2.58 2.78 2.79 3.03 2.48 2.01 2.88 3.63 3.83   Share of stateless persons in the total mother 0.01 0.02 0.01 0.01 0.01 0.00 0	Share of Russian	mother	98.01	97.57	97.15	96.96	96.95	96.71	96	95.97	95.11	95.86	94.57	94.96
citizens in the total birth rate father 1.49 1.74 2.33 2.62 2.67 2.89 2.42 1.98 2.77 2.56 3.33 3.83   Share of stateless persons in the total birth rate mother 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.00		father	86.14	85.83	86.41	86.65	87.02	86.91	86.07	86.01	84.89	85.31	83.85	84.30
birth rate father 1.49 1.74 2.33 2.62 2.67 2.89 2.42 1.98 2.77 2.56 3.33 3.83   Share of statless persons in the total birth rate mother 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.01 0.00	Share of foreign	mother	1.67	1.99	2.58	2.78	2.79	3.03	2.48	2.01	2.88	2.5	3.69	4.03
persons in the total birth rate father 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.00		father	1.49	1.74	2.33	2.62	2.67	2.89	2.42	1.98	2.77	2.56	3.33	3.83
birth rate father 0.01 0.02 0.01 0.01 0.01 0.00	Share of stateless	mother	0.01	0.02	0.01	0.01	0.01	0.01	0	0	0	0	0	0
with unspecified ethnicity in the total birth rate nume <	persons in the total birth rate	father	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
ethnicity in the total birth rate father 12.36 12.41 11.25 10.73 10.30 10.19 11.51 12.01 12.34 12.13 12.82 11.87   Share of citizens of Cis countries in the foreign birth rate mother 93.64 93.6 94.85 95.37 95.14 95.29 95.06 93.60 94.57 95.53 96.59 96.69   Cis countries in the foreign birth rate mother 20.23 18.41 12.92 10.67 10.91 10.71 11.53 12.50 10.10 7.89 6.96 5.72   Azerbaijan mother 13.89 13.54 12.29 11.64 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   Atter 5.75 5.71 4.10 1.70 1.48 4.41 4.75 5.48 3.33	Share of persons	mother	0.3	0.41	0.27	0.26	0.25	0.26	1.52	2.02	2	1.64	1.74	1.01
CLS countries in the foreign birth rate father 84.56 85.32 87.55 88.33 88.35 88.70 88.34 86.61 88.91 90.02 92.72 93.26   Azerbaijan mother 20.23 18.41 12.92 10.67 10.91 10.71 11.53 12.50 10.10 7.89 6.96 5.72   father 15.67 14.88 11.72 10.10 11.23 11.36 11.91 13.19 10.37 9.12 7.76 6.51   Armenia mother 13.89 13.54 12.29 11.64 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   father 5.75 5.47 4.59 4.33 4.78 4.98 4.39 2.61 3.31 3.15 1.99 2.19   Kazakhsta	with unspecified ethnicity in the total birth rate	father	12.36	12.41	11.25	10.73	10.30	10.19	11.51	12.01	12.34	12.13	12.82	11.87
foreign birth rate father 84.56 85.32 87.55 88.33 88.75 88.34 86.61 88.91 90.02 92.72 93.26   Azerbaijan mother 20.23 18.41 12.92 10.67 10.91 10.71 11.53 12.50 10.10 7.89 6.96 5.72   father 15.67 14.88 11.72 10.10 11.23 11.36 11.91 13.19 10.37 9.12 7.76 6.51   Armenia mother 13.89 13.54 12.29 11.64 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.87 0.83 8.37 8.39 2.61 3.31 3.15 1.99 2.19   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41	Share of citizens of	mother	93.64	93.6	94.85	95.37	95.14	95.29	95.06	93.60	94.57	95.53	96.59	96.76
father 15.67 14.88 11.72 10.10 11.23 11.36 11.91 13.19 10.37 9.12 7.76 6.51   Armenia mother 13.89 13.54 12.29 11.64 11.70 11.29 10.59 4.75 6.34 5.61 3.32 3.70   father 11.40 11.87 11.65 11.41 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   father 5.75 5.47 4.59 4.33 4.78 4.98 4.39 2.61 3.31 3.15 1.99 2.19   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   Kyrgyzstan mother 12.74 12.09	CIS countries in the foreign birth rate	father	84.56	85.32	87.55	88.33	88.35	88.70	88.34	86.61	88.91	90.02	92.72	93.26
Armenia mother 13.89 13.54 12.29 11.64 11.70 11.29 10.59 4.75 6.34 5.61 3.32 3.70   father 11.40 11.87 11.65 11.41 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   father 5.75 5.47 4.59 4.33 4.78 4.98 4.39 2.61 3.31 3.15 1.99 2.19   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   Kyrgyzstan mother <t< td=""><td>Azerbaijan</td><td>mother</td><td>20.23</td><td>18.41</td><td>12.92</td><td>10.67</td><td>10.91</td><td>10.71</td><td>11.53</td><td>12.50</td><td>10.10</td><td>7.89</td><td>6.96</td><td>5.72</td></t<>	Azerbaijan	mother	20.23	18.41	12.92	10.67	10.91	10.71	11.53	12.50	10.10	7.89	6.96	5.72
father 11.40 11.87 11.65 11.41 11.70 11.48 10.61 4.92 6.75 6.26 4.39 5.16   Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   Moldova mother 5.84 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.66   father 7.92 7.68<		father	15.67	14.88	11.72	10.10	11.23	11.36	11.91	13.19	10.37	9.12	7.76	6.51
Belarus mother 2.41 2.73 2.92 2.79 3.04 3.13 2.99 1.93 1.97 1.63 0.87 0.96   father 5.75 5.47 4.59 4.33 4.78 4.98 4.39 2.61 3.31 3.15 1.99 2.19   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   Kyrgyzstan mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92	Armenia	mother	13.89	13.54	12.29	11.64	11.70	11.29	10.59	4.75	6.34	5.61	3.32	3.70
father 5.75 5.47 4.59 4.33 4.78 4.98 4.39 2.61 3.31 3.15 1.99 2.19   Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   father 3.53 4.89 5.23 5.08 5.67 5.45 5.90 5.50 5.25 5.27 4.01 3.69   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18		father	11.40	11.87	11.65	11.41	11.70	11.48	10.61	4.92	6.75	6.26	4.39	5.16
Kazakhstan mother 2.37 3.54 4.38 4.16 4.49 4.41 4.75 4.48 3.73 3.70 2.40 1.92   father 3.53 4.89 5.23 5.08 5.67 5.45 5.90 5.50 5.25 5.27 4.01 3.69   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   father 8.24 7.21 7.61 7.64 9.39 11.48 7.87 5.85 13.36 14.12 12.35 18.95   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 <td>Belarus</td> <td>mother</td> <td>2.41</td> <td>2.73</td> <td>2.92</td> <td>2.79</td> <td>3.04</td> <td>3.13</td> <td>2.99</td> <td>1.93</td> <td>1.97</td> <td>1.63</td> <td>0.87</td> <td>0.96</td>	Belarus	mother	2.41	2.73	2.92	2.79	3.04	3.13	2.99	1.93	1.97	1.63	0.87	0.96
father 3.53 4.89 5.23 5.08 5.67 5.45 5.90 5.50 5.25 5.27 4.01 3.69   Kyrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   father 8.24 7.21 7.61 7.64 9.39 11.48 7.87 5.85 13.36 14.12 12.35 18.95   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   Turkmenistan mother 16.00		father	5.75	5.47	4.59	4.33	4.78	4.98	4.39	2.61	3.31	3.15	1.99	2.19
Myrgyzstan mother 12.74 12.09 12.54 12.22 14.37 16.89 10.86 8.29 16.92 18.45 14.12 20.68   father 8.24 7.21 7.61 7.64 9.39 11.48 7.87 5.85 13.36 14.12 12.35 18.95   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   Turkmenistan mother 16.00 17.13 15.79 14.56 15.41 17.09 20.26 23.86 26.21 28.85 38.92 39.10   Turkmenistan	Kazakhstan	mother	2.37	3.54	4.38	4.16	4.49	4.41	4.75	4.48	3.73	3.70	2.40	1.92
father 8.24 7.21 7.61 7.64 9.39 11.48 7.87 5.85 13.36 14.12 12.35 18.95   Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   father 16.00 17.13 15.79 14.56 15.41 17.09 20.26 23.86 26.21 28.85 38.92 39.10   Turkmenistan mother 0.37 0.41 0.38 0.37 0.37 0.35 0.21 0.45 0.53 0.47 0.88   Uzbekistan mother 10.99 12.11		father	3.53	4.89	5.23	5.08	5.67	5.45	5.90	5.50	5.25	5.27	4.01	3.69
Moldova mother 5.89 5.54 5.87 5.33 4.94 4.17 3.47 4.29 2.63 2.03 1.19 1.06   father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   Turkmenistan mother 0.37 0.41 0.38 0.37 0.36 0.33 0.27 0.38 0.51 0.45 0.80   Uzbekistan mother 0.36 0.39 0.38 0.48 0.37 0.35 0.21 0.45 0.53 0.47 0.88   Uzbekistan mother 10.99 <td>Kyrgyzstan</td> <td>mother</td> <td>12.74</td> <td>12.09</td> <td>12.54</td> <td>12.22</td> <td>14.37</td> <td>16.89</td> <td>10.86</td> <td>8.29</td> <td>16.92</td> <td>18.45</td> <td>14.12</td> <td>20.68</td>	Kyrgyzstan	mother	12.74	12.09	12.54	12.22	14.37	16.89	10.86	8.29	16.92	18.45	14.12	20.68
father 7.92 7.68 8.00 7.48 6.71 5.99 5.02 6.04 4.03 3.33 1.94 1.53   Tajikistan mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   father 16.00 17.13 15.79 14.56 15.41 17.09 20.26 23.86 26.21 28.85 38.92 39.10   Turkmenistan mother 0.37 0.41 0.38 0.37 0.37 0.36 0.33 0.27 0.38 0.51 0.45 0.80   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78 13.78 14.40		father	8.24	7.21	7.61	7.64	9.39	11.48	7.87	5.85	13.36	14.12	12.35	18.95
mother 18.00 19.18 17.61 15.61 16.53 18.47 22.90 27.73 30.75 32.42 45.21 44.90   father 16.00 17.13 15.79 14.56 15.41 17.09 20.26 23.86 26.21 28.85 38.92 39.10   Turkmenistan mother 0.37 0.41 0.38 0.37 0.37 0.36 0.33 0.27 0.38 0.51 0.45 0.80   Jubekistan mother 0.36 0.39 0.38 0.38 0.48 0.37 0.35 0.21 0.45 0.53 0.47 0.88   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   Uzbekistan mother 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18 1.47 14.40	Moldova	mother	5.89	5.54	5.87	5.33	4.94	4.17	3.47	4.29	2.63	2.03	1.19	1.06
father 16.00 17.13 15.79 14.56 15.41 17.09 20.26 23.86 26.21 28.85 38.92 39.10   Turkmenistan mother 0.37 0.41 0.38 0.37 0.37 0.36 0.33 0.27 0.38 0.51 0.45 0.80   father 0.36 0.39 0.38 0.38 0.48 0.37 0.35 0.21 0.45 0.53 0.47 0.88   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   Uzbekistan mother 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18   Ukraine mother 13.10 12.45 19.02 26.47 22.38 19.32 19.26 20.29 9.12 6.74 5.96 1.47   Ukraine 1		father	7.92	7.68	8.00	7.48	6.71	5.99	5.02	6.04	4.03	3.33	1.94	1.53
mother 0.37 0.41 0.38 0.37 0.36 0.33 0.27 0.38 0.51 0.45 0.80   father 0.36 0.39 0.38 0.38 0.48 0.37 0.35 0.21 0.45 0.45 0.80   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   father 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18   Ukraine mother 13.10 12.45 19.02 26.47 22.38 19.32 19.26 20.29 9.12 6.74 5.96 1.47   ukraine 17.76 16.42 20.79 26.42 21.46 18.93 19.28 21.04 10.98 8.54 7.18 2.81	Tajikistan	mother	18.00	19.18	17.61	15.61	16.53	18.47	22.90	27.73	30.75	32.42	45.21	44.90
father 0.36 0.39 0.38 0.38 0.48 0.37 0.35 0.21 0.45 0.53 0.47 0.88   Uzbekistan mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   father 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18   Ukraine mother 13.10 12.45 19.02 26.47 22.38 19.32 19.26 20.29 9.12 6.74 5.96 1.47   traine mother 17.76 16.42 20.79 26.42 21.46 18.93 19.28 21.04 10.98 8.54 7.18 2.81		father	16.00	17.13	15.79	14.56	15.41	17.09	20.26	23.86	26.21	28.85	38.92	39.10
Mother 10.99 12.11 12.07 10.75 11.28 11.26 13.33 15.47 18.07 21.01 19.52 18.78   father 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18   Ukraine mother 13.10 12.45 19.02 26.47 22.38 19.32 19.26 20.29 9.12 6.74 5.96 1.47   father 17.76 16.42 20.79 26.42 21.46 18.93 19.28 21.04 10.98 8.54 7.18 2.81	Turkmenistan	mother	0.37	0.41	0.38	0.37	0.37	0.36	0.33	0.27	0.38	0.51	0.45	0.80
father 13.37 14.06 14.25 12.60 13.16 12.87 14.40 16.78 19.30 20.84 20.98 19.18   Ukraine mother 13.10 12.45 19.02 26.47 22.38 19.32 19.26 20.29 9.12 6.74 5.96 1.47   father 17.76 16.42 20.79 26.42 21.46 18.93 19.28 21.04 10.98 8.54 7.18 2.81		father	0.36	0.39	0.38	0.38	0.48	0.37	0.35	0.21	0.45	0.53	0.47	0.88
Image: Warding with the second seco	Uzbekistan	mother	10.99	12.11	12.07	10.75	11.28	11.26	13.33	15.47	18.07	21.01	19.52	18.78
Ukraine father 17.76 16.42 20.79 26.42 21.46 18.93 19.28 21.04 10.98 8.54 7.18 2.81		father	13.37	14.06	14.25	12.60	13.16	12.87	14.40	16.78	19.30	20.84	20.98	19.18
father   17.76   16.42   20.79   26.42   21.46   18.93   19.28   21.04   10.98   8.54   7.18   2.81	Likraine													
Compiled according to: Department of Population and Health Statistics (on request).		father   17.76   16.42   20.79   26.42   21.46   18.93   19.28   21.04   10.98   8.54   7.18   2.81										2.81		
	Compiled according to	: Departm	ent of Po	pulation	and Heal	th Statist	ics (on r	equest).						

Table 3. Proportion of mothers and fathers of the corresponding ethnicity in the total number of mothers and fathers whose children were born in 2011–2023, %

CIS citizens have the largest share in the total foreign birth rate: on average, 95% of mothers and 88% of fathers among foreign citizens who have given birth to children in the Russian Federation are CIS citizens.

The shares of citizens of various CIS countries in the total birth rate of CIS citizens in the Russian Federation have been changing over the period under consideration. Thus, from 2011 to 2023, the proportion of mothers who are citizens of all the countries under consideration decreased, with the exception of Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The base growth rate of the representatives of these countries was 62.2, 149.4, 115.9% and 70.8%, respectively. The situation is similar for fathers: the base growth rate was 129.9, 144.3, 143, 43.4%, respectively; the base growth rate of the proportion of Kazakh citizens among fathers of children born in the territory of the Russian Federation (4.71%) also turned out to be positive.

The absolute number of births in the Russian Federation began to decline in 2016 (average decline rate for 2016–2023 was -5.18%); while the absolute number of children born to CIS citizens in the Russian Federation increased 1.75-fold, with an increase in the number of children born to mothers who are citizens of Kazakhstan (by 58.1%), Kyrgyzstan (by 84%), Tajikistan (by 236.6%), Turkmenistan (by 177.9%) and Uzbekistan (by 99.1%). The absolute number of births from fathers who are citizens of CIS countries increased 1.8-fold with an increase in the number of cases when the father is a citizen of Kazakhstan (by 8.6%), Kyrgyzstan (by 258.1%), Tajikistan (by 286.8%), Turkmenistan (by 284.2%), Uzbekistan (by 85.8%).

The number of children born on the territory of the Russian Federation to citizens of the countries under consideration was characterized by a change in the annual dynamics, either upward or downward, which indicates the absence of a single stable trend. The absolute number of births in the Russian Federation in 2023 was 1.9-fold less than in 2011. The average annual growth rate of the absolute number of children in the Russian Federation for 2011–2023 was -5.2% (in mothers from Kyrgyzstan – 21.8%; Tajikistan – 17.7%; Turkmenistan – 19.5%; Uzbekistan – 12.7%); in fathers: 28.8; 17.7; 29.8%; 12.1%, respectively. Thus, the increase in the number of children whose parents are citizens of Kyrgyzstan and Tajikistan has become the most stable. Nevertheless, their contribution to the total birth rate in the Russian Federation averaged 0.39% and 0.74%, respectively.

Thus, the dynamics of growth in both the absolute number of children born to citizens of Central Asian countries on the territory of the Russian Federation and the proportion of parents who are citizens of these countries are positive. However, their contribution to the total birth rate of the Russian Federation remains insignificant – at the level of no more than 2%, which confirms the conclusions of the studies reviewed earlier. If we take into account that the increase in the birth rate of foreigners occurs against the background of a decrease in the birth rate of Russians, then the hypothesis about the possibility of a significant contribution of Central Asian citizens to the birth rate of the Russian Federation is exaggerated. Consequently, concerns about the possible replacement of the indigenous population by migrants remain erroneous<sup>21</sup>.

If we rank Russia's federal districts by growth rate of the share of parents (mothers and fathers) from Kyrgyzstan, Tajikistan, and Uzbekistan in the total number of births to citizens of CIS countries, then we see that the highest average annual growth rate is recorded in the Central Federal District (the share of parents from Central Asian countries in the total number of births to citizens of CIS countries increased annually by 30.10%).

<sup>&</sup>lt;sup>21</sup> Migrants in schools – a new challenge for Russia. Available at: https://topwar.ru/219053-migranty-v-shkolahnovyj-vyzov-dlja-rossii.html

Parents from the Southern (26.27%) and North Caucasus federal districts (20.19%) rank second and third. The lowest figure is observed in the Ural Federal District (4.74%), which is due to an annual decrease in the proportion of fathers from Uzbekistan by 0.76%.

The share of parents from Kyrgyzstan in the total number of parents who are citizens of CIS countries increased most significantly in the Central Federal District (the share of mothers was growing annually by an average of 67.14%; the share of fathers – by 79.68%). A significant annual increase in the proportion of Kyrgyz mothers was also noted in the Southern Federal District: the growth rate was 84.23%, but the proportion of fathers increased annually by only 25.80%. The smallest increase in the proportion of parents from Kyrgyzstan was observed in the Far Eastern Federal District: the increase in the proportion of mothers was 3.66%, fathers – 6.50%.

The largest increase in the proportion of mothers and fathers from Tajikistan was noted in the North Caucasus Federal District: 27.66 and 16.81% annually, respectively; the smallest - in the Far Eastern Federal District: the proportion of mothers increased by 5.68% annually and the proportion of fathers by 3.52%.

The largest growth rates in the share of parents from Uzbekistan were recorded in the North Caucasus Federal District: the share of mothers grew annually by 14.85%, fathers – by 13.82%. The lowest rates were observed in the Ural Federal District: the share of mothers grew by 0.93% annually, while the share of fathers decreased by 0.76%.

Since birth rate statistics by parental origin are the most accurate reflection of migration status (due to the likelihood that a foreign citizen will undergo the naturalization process), the database, differentiated by the place of birth of parents, helps to additionally assess the contribution of migration to the birth rate in the Russian Federation, as it contains information on the number of births in federal districts, which is comparable to migration gain in them. According to the data on the number of births by origin (place of birth) of parents for 2015-2023, the average annual growth rate in the number of births in the Russian Federation as a whole was -2.1% for mothers with foreign origin and -2.2% for fathers with foreign origin. It is important to note that in the Central Federal District the average annual growth rate turned out to be positive, amounting to 6.1% for mothers and 5.8% for fathers. For both parents the chain growth rate was negative twice: in 2017 (-8.9 and -7.7%) and 2023 (-17.6 and -18.9%). The highest average annual growth rate for the above period was recorded in the Central Federal District in 2019 (42.3% for mothers and 37.9% for fathers).

The birth rate in persons of foreign origin is differentiated within the Central Federal District: the largest shares are in Moscow and the Moscow Region. So, for 2015–2023 the average share of mothers of foreign origin who gave birth to children in the Moscow Region in the total number of mothers of foreign origin in the Central Federal District was 31.7%; fathers - 31.8%. Moscow (where statistics by parental origin have been available since 2017) accounted for an average of 48.8% of mothers and 41% of fathers of foreign origin (from all parents of foreign origin in the Central Federal District). Consequently, positive growth in the Central Federal District is mainly due to the contribution of Moscow and the Moscow Region to the total birth rate in the Central Federal District.

In other federal districts the situation differs significantly from the capital region, which forms an all-Russian trend: the absolute number of children born to persons of foreign origin is decreasing. The highest average annual decline rate was observed in the North Caucasus Federal District, which was -6.8% for mothers and -6.5% for fathers. In the Northwestern and Southern federal districts the average annual decline rates were -1.4, -1.9; -1.2, -0.9%, respectively; in the Volga, Ural and Siberian federal districts: -4.3, -3.3; -2.6, -2.1%; and -2.7, -1.9%. There was a slight decrease in the Far Eastern Federal District, which is similar in dynamics to the Central Federal District, since negative growth was recorded in 2017 and 2023, as well as insignificant one in 2021, and the largest increase occurred in 2019. Nevertheless, the increase in other years was not enough to compensate for the loss in 2023, so the average annual decline rate was -0.4% for mothers and -0.7% for fathers.

The presented dynamics correlate with migration growth in the federal districts; the birth rate of persons of foreign origin is determined by migration growth by 75%. This gives grounds to assume that the dynamics of the number of births depends on "new" migrants, which is the basis for further research.

Thus, the contribution of migrants from Central Asian countries (Kyrgyzstan, Uzbekistan, Tajikistan, Kazakhstan) to the birth rate in Russia was calculated using analyzed data from three sources reflecting approaches to migration status (ARPC-2020, Department of Population and Health Statistics on Citizenship and Origin of Parents) (*Tab. 4*). The contribution was analyzed as the share (%) of the number of children born to women from Central Asian countries in the total number of births in Russia for 2011–2023. The largest contribution to the Russian birth rate was made by women from Tajikistan (0.6%), the least – from Kazakhstan (0.1%).

#### Conclusion

The demographic crisis in the Russian Federation, triggered by natural population decline, is getting worse every year, causing socio-economic and demographic problems such as population aging, decrease in the number of able-bodied people, and as a result, a decrease in GDP and labor productivity. Due to the current situation, the quantitative characteristics of Russian population depend on migration gain, which until 2019 compensated for the general population decline.

Thus, to assess the contribution of migrants from Central Asian countries to the birth rate in the Russian Federation, we used data from three sources reflecting approaches to migration status: proportion of children born to women by ethnicity and citizenship, as well as by origin in the total number of births in the Russian Federation. Thus, for 2011–2023, 1.5% of children born in the Russian Federation are descendants of citizens of Central Asian countries; as of the critical moment of the 2020 census 0.5% of children born in the Russian Federation are descendants of Kyrgyz, Uzbeks and Tajiks. Also, during the above period 11.1% of children have parents of foreign origin (born outside the territory of the Russian Federation).

Based on the data obtained, representatives of ethnicities belonging to Central Asian countries have more children than Russians, with an average of 3.2 children per woman (although this figure has decreased over the past 20 years for all the countries except Kyrgyz). The contribution of representatives

Country	All-Russian population census (ethnicity of the mother)	Social services office (citizenship of the mother)	Social services office (origin of the mother)						
Kyrgyzstan	0.1	0.4							
Uzbekistan	0.2	0.4	11.1 (among all citizens of foreign						
Tajikistan	0.2	0.6	origin without the possibility of						
Kazakhstan	Cannot be assessed due to the small number of Kazakhs in the territory of the Russian Federation	0.1	differentiation by country since 2015)						
Russian Federation									
Other / not stated	ther / not stated 9.5 2.1 5.4 (origin is not stated)								
Compiled according to: ARPC-2020, Department of Population and Health Statistics (on request).									

Table 4. Contribution of the birth rate by women from the respective countries to the total birth rate in Russia in 2011–2023, %

of other ethnicities (besides Russians) to the Russian birth rate is individually estimated at less than 1%, but it becomes more noticeable when they give birth to their third and subsequent child. Data on births by ethnicity of parents show a similar trend: despite the increase in the number of births to foreign citizens in the territory of the Russian Federation, they determine the birth rate in the host country by 2%. The birth rate in people of foreign origin in the Russian Federation is differentiated by federal districts: since 2015 it has increased only in the Central Federal District (the share of Moscow and the Moscow Region in the total birth rate of the Central Federal District was 73.6% annually on average over the period under consideration), which is due to its leadership in total migration gain; the number of children born to persons of foreign origin is determined by the amount of migration

growth in the federal district by 75%; thus, we can assume that "new" migrants make a significant contribution to the birth rate in the territory of the Russian Federation.

Despite the serious attention paid to migrant births, they still make an insignificant contribution to the total birth rate in the Russian Federation; this does not compensate for the decrease in the birth rate in the indigenous population due to the excess of birth rate decline in the local population over the birth rate growth in migrants, as well as the possible transformation of reproductive attitudes of migrants over time in a new country. The recommendation for migration policy is regular monitoring of the proportion of births and the increase in the birth rate in migrants and local residents, as well as adaptation and integration policies to eliminate the likelihood of demographic expansion.

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