RESEARCH ARTICLE

# Marriage in Ingushetia: intergenerational changes and their possible causes

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#### Abstract

The article deals with marriage of women of different birth cohorts in Ingushetia in the post-Soviet period. The results of the quantitative survey of women aged 16–44 years in the Republic of Ingushetia in 2019 are analyzed. The analysis is based on proportional risk models, as well as logistic regressions for the probability to enter first marriage for a woman at different ages. The analysis showed that among women in Ingushetia whose marriageable and reproductive age was during 1990s–2010s the probability of marriage (both during the entire reproductive period and by specific ages) is higher for younger generations. This trend is not consistent with the all-Russian pattern. Various explanations of the dynamics of marriage in Ingushetia are presented. The author argues that the rise of marriage rates in this republic followed the stabilization of the political and social situation after the armed confrontation in the neighboring Republic of Chechnya was put to the end.

#### Keywords

marriage, age of marriage, Second Demographic Transition.

JEL Codes: J10, J12

## Introduction

Shifts in marriage patterns in post-Soviet Russia were largely consistent with those observed in many countries of Central and Eastern Europe at the same time or somewhat earlier. One of the principal shifts is the increase in the age at marriage and the growth of proportion of unregistered partnership instead of registered marriage (Zakharov 2018). As noted by Vishnevsky (2006: 96–136), changes in the sphere of marriage in the post-Soviet period are particularly noteworthy because they followed almost a century of stability: during most of the 20th century, despite serious social upheavals, such characteristics of marriage as low aver-

Copyright Kazenin K.I. This is an open access article distributed under the terms of the Creative Commons Attribution License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. age age of women at first marriage and a small proportion of women who have never been married throughout the reproductive period, remained almost unchangeable in Russia.

There could be different explanations of the reasons of changes in marriage characteristics in the post-Soviet period. Some researchers see them as a consequence of the economic depression that forced young people to postpone the formation of a family (Perelli-Harris and Gerber 2011). Another approach puts shift in values in focus, namely, weakening of gender contrasts, which were typical for the Soviet "conservative modernization" (Vishnevsky 1998), the rejection of the notion of marriage and having a child by a certain age being "mandatory" for a woman, etc. This point of view converges the trends in Russia with the Second Demographic Transition, the deep demographic transformation which the European countries experienced between 1960 and 1990 and which was characterized by a downfall in fertility, growth of unregistered partnerships and non-marital births, increase in the age at marriage and firstborn for women. These demographic changes are usually explained by the shift in values that began in the 1960s in Western European societies, and later spread to Southern, Central, and then Eastern Europe (Sobotka 2008; Lesthaeghe 2010).

To assess different approaches to explaining the changes in marriage in post-Soviet Russia, it is interesting to study the regions where the recent "liberalization" of the family area was not so clearly expressed. For example, these are the republics of the North-Eastern Caucasus (Dagestan, Ingushetia, Chechnya). The social setup in the region at that time was not static at all. Mass migration to urban areas, outflow of population to other regions of the country, long confrontation between security bodies and illegal armed forces were followed my noticeable changes in family practices, distribution of gender roles, relations between older and younger generations, etc. (Karpov and Kapustin 2011; Starodubrovskaya 2019). In general, it can be said that the traditional requirements of subjection of the younger generation to elders, the dependent position of women in the family, etc. were weakening in the North-Eastern Caucasus during the post-Soviet period. And yet, compared to most other regions of Russia, this part of the country still has more stringent family norms which young people have to reckon with when making key life decisions, including marriage, parenthood, etc. This results in specificity of life trajectories of the North Caucasian youth, making them different from the all-Russian trends (Mitrofanova 2019). We can say that the shifts in family values, which are essential in the Second Demographic Transition, are much less expressed in the North Caucasus compared to Russia in whole.

In this context it is reasonable to analyze changes in such parameters of marriage in the North-Eastern Caucasus, as the average age of a woman at marriage and the percentage of women who have ever been married by a certain age. If we suppose that in the country as a whole erosion in family values and corresponding changes in family lifestyle were the main factor in increasing women's age at marriage, in the North-Eastern Caucasus changes in marriage behavior would hardly correspond to the all-Russian ones. On the other hand, if we suppose that the delay in marriage is resulting from socio-economic difficulties, this part of the country is likely to experience a marked increase in the age at marriage for women, since in the 1990s and 2000s Dagestan, Ingushetia and Chechnya faced not only decline in living standards, but also significant (although not the same in different regions and different years) security problems due to the war and terrorist activity, with noticeable weakening of State institutions perceptible for every person. Under these circumstances, young people would delay marriage until more stable living conditions were established.

Unfortunately, official statistics do not provide the necessary precision to answer the question of how the marriage behavior of the population of the North-Eastern Caucasus

changed during the post-Soviet years. This is due to the poor processing of data on marriage collected by the current statistics (which is a common problem for the country), and questionable reliability of official population registration data in the North Caucasus (Andreev 2012). Therefore, the only possibility to study the dynamics of marriage in the republics of the North-Eastern Caucasus are selective quantitative surveys. The study presented in this article is based on such a survey: 860 women aged 16 to 45 living in the Republic of Ingushetia were questioned in 2019.

#### Purpose of the study, data and method

The survey was focused not on absolute values of marriage parameters, but rather their trends in Ingushetia in the post-Soviet period. The research was driven by the following questions:

- what are the differences between the generations of reproductive-age women in terms of marriage status and age at marriage?
- what socio-economic and socio-cultural factors are relevant to propensity for a woman to get married and the age at marriage in these generations?

As can be seen from the questions, marriage was analyzed in the context of real birth cohorts of women. This approach is justified primarily by the socio-political instability in Ingushetia in recent decades (see section "Discussion of results"). This instability has resulted in significant differences between generations in the conditions in which they entered adulthood and in which they had to make decisions on marriage. From our point of view, this makes intergenerational, not inter-period comparisons in terms of marriage and factors influencing it most reasonable.

However, the official statistics was not sufficient to compare generations by proportion of women with different marital states in different ages. The only relevant official data source was the results of the 2002 and 2010 All-Russian Population Censuses, which contain information on the marital status of women by age groups only at the time of the census. That is why a sample survey was the only source of data for a valid intergenerational comparison.

The telephone survey was conducted in May 2019. It covered women aged 16–45 at the time of the survey. Initially, the age limits for respondents were set to 15–44 years (i.e. from the 15–19 age group to the 40–44 age group). However, girls aged 15 years were almost in-accessible for telephone interviews. At the same time, as a result of mistakes of interviewers, 11 interviews of women 45 years of age were made, and it was decided to include these in the final sample.

A total of 836 women were interviewed as a result of the survey (the total number of interview denials by women of this age and unfinished interviews was 3,052). When analyzing the survey data, we compared generations by year of birth with the following breakdown into "five-year periods": 1973–1977, 1978–1982, 1983–1987, 1988–1992, 1993–1997, 1998– 2002. The choice of five-year periods is explained by the fact that this variant provided the smallest differences in the number of respondents between cohorts.

During the interview, women were asked several blocks of questions:

1. Questions about the life path of the woman. These included date and place of birth, time and place of education, migration history, marital status, age at first marriage, number of children, sex and date of birth of each child, occupation, financial situation, etc.

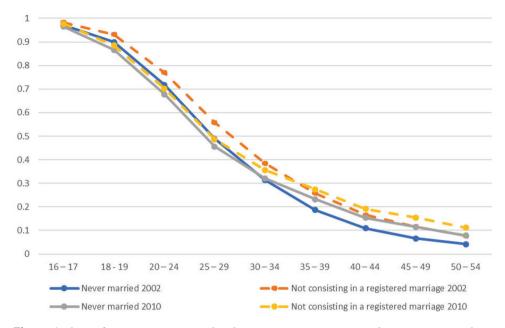
- 2. Issues relating to the intergenerational and gender relations in a woman's family. The choice of such questions was mainly based on the concept of "patriarchal" family structure (Gruber and Szołtysek 2012; Lerch 2013). Questions were asked, inter alia, whether the woman's decision about marriage was independent or her marriage was initiated by her elder relatives; whether she worked and studied after marriage, whether she can make life decisions (major purchases, new job, migration to another region, etc.) without the approval of her elder relatives, etc. The inclusion of such questions in the questionnaire was due to the fact that for a number of post-Soviet nations in the previous studies a close connection of marital and reproductive behavior to generational and gender hierarchies in a woman's family was reported (Dommaraju and Agadjanian 2008).
- 3. Questions about a woman's personal religiosity. Questions related to a woman's obligatory daily five-fold prayer (namaz), following the Muslim fasting (uraza), and whether the woman considered it important to give religious education to her children. The inclusion of these questions was due to the fact that in a number of countries and regions, especially those dominated by Muslim population, there is a close connection between women's personal religiosity and different parameters of her marital and reproductive behavior (Kazenin and Kozlov 2017a).

## Marriage in post-Soviet Ingushetia: a brief overview of official data

The 2002 and 2010 All-Russian Censuses data allow to calculate the share of women with different marital status by age at the time of the census. Fig. 1 shows the share of unmarried women and also (dashed lines) the share of women not married officially by age group for the two censuses. The number of women who were not married officially was calculated as the sum of women who stated in the census that they were never married and those who stated that their union was not registered officially. We therefore assume that for all women who were in unregistered marriages at the time of the census, that marriage was the first (and if it was the second, the first marriage had not been registered). Census data do not allow this assumption to be verified. However, given the low prevalence of second marriages in Ingushetia, as indicated by our field observations (cf. also the low divorce rate according to our survey — see section "Survey results"), our assumption will hardly lead to significant distortions.

The graphs show that both censuses indicate a rather late age model of marriage: the proportion of ever married reaches 50 percent only in the age of 25–29. At the ages under 30, the share of unmarried women was slightly lower in 2010 than in 2002, and in older ages, on the contrary, the share of unmarried women was higher than in 2002. In addition, in 2002 the gap between the shares of never married women and women not in a registered marriage was greater than in 2010. Taking into account that unregistered marriages in Ingushetia are mostly marriages held only by Muslim law, the differences can be interpreted as an increasing trend of state registration of religious marriages between 2002 and 2010.

The late age model of marriage also is indicated by the values of the singulate mean age at marriage (SMAM) (Hajnal 1953). SMAM for women was 26.06 years for 2002 and 25.10 years for 2010 data. Decline by one year of age in less than a decade may be seen as evidence of rapid rejuvenation of marriage; however, both in 2010 and in 2002 SMAM for women in Ingushetia was more than two years higher than the national one.



**Figure 1.** Share of women never married and never consisting in registered marriage in Ingushetia, 2002 and 2010. *Source*: calculated by the author according to the data of the 2002 and 2010 All-Russian Censuses.

It should be emphasized that these data have to be taken with caution because of the problems mentioned above with official population statistics in the North Caucasus. In particular, we cannot evaluate the impact of over-estimation of the population of Ingushetia during censuses on the marriage indicators discussed in this section. This impact could have been significant if women "added" to the census in excess of those actually interviewed were mostly identified as unmarried. However, we cannot verify this, and therefore it is impossible to determine to what extent the late age model of marriage recorded in the censuses corresponds to reality and to what extent it is an artifact of statistics.

#### Survey results: descriptive characteristics of marriage

59.3% of respondents were married at the time of the survey, 33.1% were never married, 5.1% were divorced, 2.5% were widows. For 93.3% of married women it was their first marriage. The survey showed that births out of marriage in post-Soviet Ingushetia, if any, is minimal. Among interviewed women with children, there was no one who had never been married.

At the same time, state registration of marriage (unlike its registration according to the norms of Islam and in correspondence to local wedding customs) was not done by all respondents. For 15.9% of all women married at the time of the survey, the marriage was not registered with the civil registry office. Simultaneously with the wedding, 13.4% registered their marriage, 31.7% registered it at the birth of the first child, and 54.9% at other times. The proportion of women who indicated their first child's date of birth earlier than the date

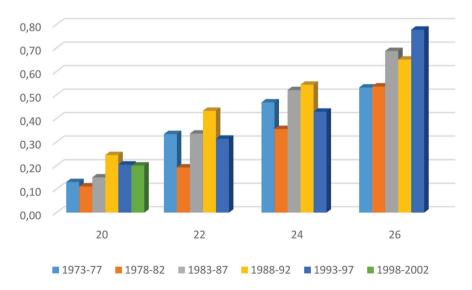
of first marriage or less than 7 months later than the date of first marriage, was 6.0% of all respondents. For this group, it can be assumed that when answering the question about the time of the first marriage, the woman mistakenly named the date of the second marriage (which the respondents were not asked of separately). Also, a date of birth of the first child earlier than the time of marriage could be due to the fact that, when answering the question about the time of marriage, the woman indicated the date of registration of marriage instead of the actual date of marriage, although the date of registration of marriage was asked separately along with the date of wedding. Given the possibility of such errors, we did not take into account women who stated the date of birth of their first child prior to the date of the first marriage or was less than 7 months later than the date of the first marriage.

Fig. 2 shows the proportion of women married at different age points by year of birth, and Table 1 shows the distribution of marital statuses across birth cohorts. The graph shows that there was no decline in marriage from older to younger generations. On the contrary,

Years of birth	Unmarried and never married, %	Married, %	Divorced, %	Widowed, %	Number of respondents
1973-1977	14.1	72.9	5.9	7.1	85
1978-1982	7.6	76.6	9.0	6.9	145
1983-1987	15.9	74.1	8.8	1.2	170
1988-1992	24.6	69.6	4.7	1.2	171
1993-1997	47.4	49.4	3.2	0.0	154
1998-2002	84.6	12.8	2.6	0.0	117

Table 1. Distribution of respondents by marital status and by year of birth.

Source: The survey data.



**Figure 2.** Proportions of ever married women before 20, 22, 24 and 26 years of age, by generation. Source: The survey data

among women born in 1983-1992 the proportion of ever married by one age or another was repeatedly higher than that of older generations. Only the lower shares of ever married by the age of 22 and 24 for women born in 1993-1997 compared to previous generations (the age of 26 was reached at the time of the interview only by a small proportion of these women) can be considered as an indication of a decrease in marriage activity for younger generations.

#### Statistical analysis

The following methods were used for statistical analysis. First, models of proportional risks for a woman's first marriage were built. They allowed comparison of the overall level of matrimonial "activity" between generations and identification of factors that increase or decrease the chances of marriage between the ages of 15 and the time of the survey (since first marriage is a one-time event, rightward censoring took place in the analysis). Secondly, using logistic regressions the chances of entering into the first marriage by certain ages - 20, 22, 24 and 26 years - were studied. The choice of these age "points" was justified by the above observations on intergenerational differences in the proportion of women ever married by the particular ages, and also enabled checking the results of the proportional risk model analysis on factors affecting the chances of marriage. In comparison with proportional risk models, the analysis by age "points" was more limited in generalizations, since it dealt with the chances of marriage only before a certain age. However, such models enable revealing intergenerational differences in age characteristics of marriage.

The following parameters were included as independent in the models:

- urban or rural residence;
- education a dichotomic parameter that distinguishes women with higher (tertiary) or incomplete higher education, on the one hand, and women with lower (secondary or below) education, on the other;
- the woman being employed at the time of the interview;
- residence of the woman in the given settlement since birth (this parameter was introduced as a reference parameter due to numerous examples of the impact of migration on marriage, known from studies of the population in the post-Soviet countries (Nedoluzhko and Agadjanian 2011).

It should be noted that due to the characteristics of proportional risk models, all independent parameters included in them must either have the same value for all time intervals of a woman's life course (in our case, months) included in the analysis, or specified separately for each interval. Work and level of education are characteristics acquired during the lifespan and, strictly speaking, it is incorrect to consider them as a constant characteristic for the entire period from 15 years of age to the time of the survey or entering into the first marriage. However, given that over 90 per cent of the respondents who continued their education after graduation from a secondary school started receiving it under the age of 19, it can be adopted that post-secondary education is a parameter that characterizes almost the entire reproductive period of a woman, except for its very initial part. It is also important to note that educational plans in the near future are likely to affect women's matrimonial behavior at the earliest reproductive age, reducing the probability of marriage at that age. As for employment beyond the household, it was not possible to determine its presence/absence at different ages in the survey: a pilot survey showed that respondents find it difficult to restore their "labor biography" even with an annual step value. Thus, the parameter of employment of a woman could be determined only for the time of the interview.

From a block of parameters reflecting gender and generational relationships in a woman's family, the models could include only parameters that are defined for women who have never been married. These included only parameters that showed whether a woman needed the approval of older relatives when making decisions in life. In the models below only those parameters of this block are shown which had a significant relation to marriage in at least one of the models.

From the block of parameters characterizing personal religiosity of a woman, only the parameter that indicates whether a woman performs daily prayer turned meaningful in some models. Therefore, below models with only this religiosity parameter are shown.

Parameters were entered in different combinations in the models. The Annex tables show models in which, in addition to reference parameters, parameters of one or two of the blocks are included.

Table 2 shows the generational distribution of the parameters included in the models.

	1052	1050	1002	1000	1002	1000	
Parameters	1973– 1977	1978– 1982	1983– 1987	1988- 1992	1993– 1997	1998- 2002	Total
Living in the city, %	53.7	49.6	48.1	45.1	49.7	43.1	47.9
Has higher or incomplete higher education, %	37.8	43.8	54.7	60.06	59.7	23.7	48.7
Has a job at the time of the survey, %	54.9	56.9	38.5	45.8	37.5	16.2	41.2
Has lived in this settlement since birth,%	50.0	36.6	52.2	56.8	73.1	76.7	57.7
Elder relatives' approval required to enter new job or quit, %	45.1	35.1	51.6	53.9	62.1	85.3	55.5
Elder relatives' approval required to make a major purchase	46.8	48.9	51.6	56.6	61.5	87.1	58.7
Performs a five-time daily prayer mandatory for Muslims	96.3	98.5	97.5	97.4	96.5	99.1	97.6

**Table 2.** Generational distribution of parameters included in the model.

The analysis confirmed differences between women of different generations in the aspect of marriage, revealed by descriptive methods. Models of proportional risks (Table. P1.1 in Annex 1) showed that the generations of 1988–1992 and 1993–1997 had significantly higher chances of entering into a first marriage than women of the oldest generation 1973–1977. Women born in 1993–1997 had an incidence rates ratio (IRR) higher than that of women born in 1988–1992. In generations born in 1983–1987 and 1998–2002, the chances of entering into a first marriage are also regularly higher than that of the oldest generation, but this excess is not significant in all models (in the generation of 1998–2002 the lack of significance may be due to the small number of months included in the analysis). In general, proportional risk models indicate an increase in marriage chances from older generations to younger generations.

Logistic models (Tables P1.2-P1.5 in Annex 1) gave more details to this picture. Only in the generation of 1988–1992 the chances of marriage were significantly higher than in women born in 1973–1977, for all age "points". For women born in 1993–1997, a significant increase of the chances of entering into a first marriage compared to the oldest generation was observed only at the age of 20 and 26 (for 26 years the difference is only at a 90 per cent level of significance: note that the proportion of women in this cohort, who were 26 years old at the time of the survey, was low). For women born in 1983–1987, a significant increase in the chances of marriage compared to women born in 1973–1977 was only observed by the age of 26. Finally, logistic regressions found another significant difference: women born in 1978–1982 are less likely to enter into a first marriage by the age of 22 than that of the previous generation. It should be noted that this is the only identified case of a significant decrease in the chances of getting married in comparison with the oldest generation of respondents.

The results of the analysis with the help of logistic regressions are summarized in Table 3. It shows the five-year periods during which cohorts reached the ages by which the chances of first marriage were analyzed. The periods when the generation passed the age point at which the chances of entering into the first marriage for this generation were significantly higher than that of the generation born in 1973–1977 are marked in green. The periods when the generation passed the age point, prior to which the chances of marriage were significantly behind the generation born in 1973–1977 are marked in red. It can be noted that a statistically significant increase in chances of first marriage by a certain age, compared to the cohort born in 1973–1977, was observed in cohorts reaching this age no earlier than 2008. This year can be considered the beginning of the marriage rate growth in the region.

Periods		Α	ge	
Periods	20	22	24	26
1973-1977	1993–1997	1995–1999	1997–2001	1999–2003
1978-1982	1998-2002	2000-2004	2002-2006	2004-2008
1983-1987	2003-2007	2005-2009	2007-2011	2009-2013
1988-1992	2008-2012	2010-2014	2012-2016	2014-2018
1993-1997	2013-2017	2015-2019	2017-2019	2019

Table 3. Years of reaching "age points" by the studied cohort.

In all models the chances of marriage were significant and almost one and a half times lower for women with higher or incomplete higher education. On the contrary, employment of a woman outside her household at the time of the survey was not significant anywhere. The distinction between rural and urban women was also insignificant. Women who had moved from one locality to another during their biography had a higher chance of getting married than women who had lived in the same locality since birth (for getting married by a certain age this distinction, however, was not significant). Parameters by which we assessed the dependence of a woman on relatives of the older generation unexpectedly had a significant downward impact on the chances of marriage (in logistic regressions only one of these parameters could retain value). Finally, in the proportional risk model and logistic regression for marriage by the age of 22 the chances of getting married were significantly higher for women who reported to perform daily Muslim prayer. However, given that the proportion of such women in all generations exceeded 95% (see Table 2), the latter result should be treated with caution.

#### **Discussion of results**

The rise in marriage rate recorded by our models for women born in 1983–1997 compared to previous generations is inconsistent with the assumption that changes in marriage in post-Soviet Ingushetia fit into the concept of the Second Demographic Transition. At the same time, we argue that there can be at least two explanations for the this rise in marriage.

One explanation is that in our sample for women born before 1983, the onset of the reproductive period coincided with the most difficult social and political situation in the Republic of Ingushetia. As part of this explanation, the rise of marriage rate in subsequent generations is to be linked to the subsequent improvement of the situation in the region, the weakening of the factors that contributed to delayed marriages. As we noted above, the year 2008 was the start for raising marital activity in the region. This year can hardly be considered a year of radical improvement of the situation in Ingushetia. We can just mention that, according to the "Memorial" Human Rights Center, 61 terrorist attacks were carried out in the republic that year. At least 20 civilians were killed in terrorist attacks, 46 were injured. More than 70 law enforcement officers were killed as a result of terrorist attacks. However, we can say that the factors of maximum instability observed in the region in the first half of the 2000s were not so pronounced by 2008. First of all, this was due to the end of the active phase of the armed confrontation in the neighboring Republic of Chechnya. In the first half of the 2000s the war in Chechnya resulted in flows of internally displaced persons for Ingushetia, whose total number was comparable to the permanent population of the republic and significantly complicated the social situation in the region. In addition, there were high risks of incursions into the territory of Ingushetia of combatants from Chechnya, the most large-scale and bloody of which occurred in June 2004. The terrorist attack in North Ossetian Beslan in September 2004 also contributed to the increase in political tension in Ingushetia. The fact that the extremely difficult situation in the region in the first half of the 2000s could lead to the postponement of marriages is also confirmed by the sharp decline in chances of getting married by the age of 22 for women born in 1978-1988 compared to the older age group. Table 3 shows that these women reached the age of 22 just between 2000 and 2004. It should also be noted that the postponement of marriages in the context of armed confrontation is a phenomenon known in other parts of the post-Soviet space. For example, in the work of D. Clifford and co-authors (2010) it is shown that it occurred during the civil war in Tajikistan, where the marriage rate increased after the conflict was resolved.

Here we can add that since the mid-2000s in Ingushetia not only the political situation was improving, but the social infrastructure also was gradually changing. Construction of numerous social facilities, building of appartments, large-scale road construction has started. However, in order to discuss whether these social improvements recorded in official statistics could have influenced marriage and reproductive behavior, it is necessary to determine the extent to which they have affected the assessment by the republic's population of their living conditions. We do not have any survey data on this subject. Judging by the fact that large-sca-

le protests in Ingushetia in the autumn of 2018 and spring of 2019 were anti-corruption in nature, but their participants criticized the regional leadership on many items (Starodubrovs-kaya and Kazenin 2019), we can assume that the effectiveness of the socio-economic policy carried out in the republic was not highly appreciated by all its residents.

The dynamics of the main economic indicators for Ingushetia is also unlikely to be a reliable characteristic of the changes taking place in the region, owing to the large share of economic activity that is not reflected in official statistics (which is a common problem for the North Caucasus, see Zubarevich 2011). For the same reason, it is difficult to estimate the proportion of women participating in the labor force in the region.

Another possible explanation for the differences in the cohort's chances to get married is the increase in the marriage rate after the start of payments of "maternal capital" in 2007. In Ingushetia, where extramarital fertility is close to zero, the impact of this measure on marriage could have been more pronounced than in the country as a whole. However, there are several arguments against considering maternal capital as the main factor in turning marriage "upward" in the region.

First, if the increase in marriage was related to the desire to start a family sooner in order to obtain maternal capital at the birth of a second child, one would expect that the chances of marriage were significantly higher among women with low levels of financial well-being and therefore expected to have the highest "demand" for maternal capital. Our analysis, however, does not confirm this expectation. Thus, the introduction in the models of parameters reflecting women's assessment of their family well-being (the models are not shown here) did not reveal their significance for the chances of marriage. It seems that this result should be treated with caution, given the usual probability that respondents may distort data about their financial situation in surveys. However, the absence of a significant relation between the chances of marriage and the woman's permanent employment (Table P1.1-P1.5 of Annex 1), one of the most "objective" indicators of the financial stability of the family, also argues against a significant impact of maternal capital payments on marriage.

Secondly, if the growth of marriage rate was rooted in economic factors, namely the demand for maternal capital, the asymmetries between the cohorts which we have observed would also be expected in other regions close to Ingushetia in terms of socio-economic indicators. Such an expectation would be all the more justified in regions where, as in Ingushetia, the rate of extramarital births is low. Karachay-Cherkessia, in particular, can be considered as an example of such a region. However, an analysis of data from a similar survey of women of the same age in Republic of Karachay-Cherkessia showed that there was a systematic decline in marriage rate from older to younger generations in the post-Soviet time (Kazenin 2019).

Moreover, the analysis of the intergenerational asymmetries in the chances of marriage in Ingushetia, based on the factor of maternal capital, does not account for the reduction of these chances by 22 years of age in women born in 1978–1982. The assumption of postponement of marriages due to the situation in the region explains this asymmetry among others found in the analysis.

Thus, from the two proposed explanations for the rise of marriage rate to the younger generations, the one that sees in this growth an analogue of the post-war "recovery" appears to be more affluent. This, of course, does not mean that the introduction of maternal capital has not contributed to the growth of marriage in the region.

Let's briefly comment on the modelling results for the parameters that were introduced in the model along with the cohort membership variable. The lack of significance of urban/rural residence is interesting because in Russia as a whole the current characteristics of marriage, including the age of marriage of a woman, quite noticeably differ for urban and rural areas (Zakharov 2018). However, the absence of such differences in Ingushetia is not surprising, given that the social gap between urban and rural areas in the region is weaker than in most other regions of the Russian Federation, including the North Caucasus. Although this topic is still awaiting a separate investigation, our field study shapes a number of factors that reduce contrasts between cities and rural areas in Ingushetia. First, there is a similarity between urban and rural settlements, since over half of the urban areas is occupied by individual housing units, which are much similar to rural ones. Secondly, many informal institutions of social self-organization, typical for villages, in particular, tribal self-organization, remain largely in cities. The decline in the role of tribes/ clans, which is the trend in today's Ingushetia, is not a process related exclusively or even predominantly to urbanization (Starodubrovskaya and Kazenin 2019).

The negative relationship between education and marriage is linked to expected postponement of marriage while getting higher education. The absence of a link between the chances of marriage and woman's employment at the time of the interview may confirm that the current position of women in the labor market is poorly related to it at the time of marriage. Models that found a positive relationship between the chances of marriage and the fact of migration of a woman (her residence at the time of the survey in a place other than that in which she was born) call for special attention to possible reversed causality, since it was likely that most of the women who migrated had changed their place of residence precisely because of marriage. Meaningful negative relationship between the chances of marriage and the parameters of a woman's dependence on older relatives in various decisions is a complicated issue. The positive relationship between a woman's religiosity and the chances of marriage is consistent with results of similar surveys in other regions of the North Caucasus, according to which personal religiosity of a woman contributes to "earlier" age models of marriage and reproductive behavior (Kazenin and Kozlov 2017a). However, as it was mentioned above, the proportion of respondents who said they did not perform daily prayer (the indicator of religiosity which was found significant in the models) was less than 5%. Maybe our survey managed to record the presence of a certain non-religious "minority" in the region, which is clearly different from the rest of the population, also in terms of marriage. However, a qualitative or larger quantitative study is required to verify this assumption.

The issues for further study can be divided into those relating to demographic processes within Ingushetia and those that place these processes in the context of demographic change observed in other parts of the post-Soviet space.

The essential "intraregional" question is whether the differences in the chances of marriage between cohorts result in differences in the share of never-married women in these cohorts. Since all the women surveyed were under the age of 50, the survey does not demonstrate differences between cohorts in the resulting share of never-married women. The age composition of the sample also did not allow to obtain any statistically significant results on the chances of marriage at ages after which the first marriage is unlikely (for example, to 40 years). Research on this issue requires a survey that includes older women.

To understand demographic dynamics of Ingushetia it is also important to find out whether the growth of marriage among younger cohorts has particular reasons not related to the weakening of the factors which were limiting marriage rate at earlier ages. If the relatively low marriage rate of older cohorts is associated with the difficult political situation in the region, the increase in the chances of marriage in the younger generations can be considered as "technical" return to previous levels of marriage, but can also be caused by different style of life, values, etc. of younger cohorts. However, choosing one of these alternatives as the only right explanation is hardly possible. It is essential to assess whether the younger generations of our respondents repeat the age characteristics of marriage that were observed in generations of Ingush women who entered the reproductive age in the late Soviet period. This will show to what extent the current rejuvenation of marriage can be explained by the return to its earlier characteristics. The answer to this question also requires an extended examination of the older cohorts, including those beyond the reproductive period.

Finally, an important question for understanding intraregional demographic processes is how and under what factors the matrimonial behavior of the 1993–1997 generation is changing in comparison to older generations. By chances of getting married by the age of 22 and 24 the 1993–1997 generation does not show a significant increase over the generation of 1973–1977, in contrast to the 1988–1992 generation. Does this mean that the tendency to delay marriage is again manifested after its post-war rejuvenation, and thus Ingushetia follows the all-Russian trend? In order to answer this question, the survey should be continued in the coming years.

In case we evaluate our observations in the general "post-Soviet" context, Ingushetia is of interest as one of the regions that do not fit into the trend of increasing women's age at marriage, which dominates today in Russia (Zakharov 2018) and a number of other post-Soviet countries. In fact, our inter-cohort comparison showed the opposite dynamics, as the chances of getting married by certain ages in the younger cohort increased. Preliminary conclusions show that Ingushetia is not unique in this regard. Kazenin and Kozlov (2017b) argue that no raising age at first marriage is observed for post-Soviet Dagestan. Agadjanian and co-authors (2013) discuss reduction in the woman's age at a number of demographic events, first of all, at the birth of the first child for some ethnic groups of Central Asia. A similar conclusion is made for indigenous ethnic groups of Kyrgyzstan in Kazenin and Kozlov's paper (2019) based on the analysis of representative surveys of the 2010s. (Demography and Health Survey, Multiple Indicators Cluster Survey). Are these facts a reflection of a single trend "resisting" the shift of marriages and births to older ages, and is it accidental that such facts in the post-Soviet space are fixed almost exclusively among the Muslim population? Answers to these questions require analysis of a much broader data.

#### Conclusions

The article analyzed the results of the survey of women of reproductive age conducted in 2019 in the Republic of Ingushetia. The analysis was focused on age characteristics of marriage. We have seen that in this region, unlike the country as a whole, in the post-Soviet period there was no shift of women's age at first marriage towards older ages. Changes in marriage behavior in post-Soviet Ingushetia definitely do not fit in the concept of the Second Demographic Transition, debatable for marriage in Russia as a whole.

We have put forward a number of arguments for the fact that the rise of the marriage rate in this republic began with the gradual improvement of the political and social situation in it after the armed confrontation in the neighboring Republic of Chechnya was put to the end. This explanation, however, in itself raises a number of further questions that still need to be studied.

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# Annex 1

Parameters	(1)	(2)	(3)	(4)	(5)	(6)
Year of birth						
1973-1977	1	1	1	1	1	1
1978-1982	1.119	1.043	1.010	1.117	1.009	0.960
1983–1987	1,293*	1,287*	1.225	1,317*	1.268	1.259
1988-1992	1,452**	1,463**	1,454**	1,478**	1,481**	1,490**
1993-1997	1,510**	1,593**	1,650***	1,559**	1,694**	1,758***
1998-2002	1.356	1.454	1,734*	1.360	1,734*	1,828**
Born in the city	1.056	1.038	1.152	1.042	1.039	1.113
Has higher or incomplete higher education, %	0,620***	0,610***	0,606***	0,612***	0,597***	0,590***
Is employed at the time of survey	0,795**	0,793**	0,815**	0,805**	0,819**	0,820**
Has not lived in this settlement since birth, %		1,317***				1,217**
Elder relatives' approval required to enter new job or quit			0,645***		0,641***	0,649***
Elder relatives' approval required to make a major purchase			0,750***		0,754***	0,762**
Performs a five- time daily prayer mandatory for Muslims				1,907*	1,892*	1,989**
Ν	778	777	766	777	766	765
-2 likelihood Log	6043.235	6042.557	5929.500	6041.873	5932.954	5928.820
Chi-square of the model	48,729***	57,377***	93,401***	52,875***	97,231***	101,476***

 Table P1.1. Proportional risk models for first marriage.

Parameters	(1)	(2)	(3)	(4)	(5)	(6)
Year of birth						
1973-1977	1	1	1	1	1	1
1978-1982	0.858	0.867	0.782	0.846	0.771	0.782
1983–1987	1.197	1.197	1.143	1.194	1.130	1.135
1988-1992	2,477**	2,456**	2,527**	2,455**	2,514**	2,497**
1993-1997	2,287**	2,257**	2,425**	2,299**	2,485**	2,396**
1998-2002	2.143	2.152	2,602*	2.085	2,532*	2,585*
Born in the city	1.120	1.124	1.123	1.099	1.191	1.195
Has higher or incomplete higher education, %	0,336***	0,338***	0,336***	0,335***	0,335***	0,338***
Is employed at the time of survey	1.041	1.050	1.038	1.050	1.035	1.047
Has not lived in this settlement since birth, %		0.972				0.922
Elder relatives' approval required to enter new job or quit			0,638**		0,600**	0,598**
Elder relatives' approval required to make a major purchase			0.835		0.837	0.828
Performs a five- time daily prayer mandatory for Muslims				3.790	4.041	3.947
Constant	0.182	0.200	0.223	0.051	0.060	0.068
Ν	696	695	685	695	685	684
-2 likelihood Log	609.270	608.878	591.997	606.545	589.400	588.808

Table P1.2. Logistic regressions for first marriage by 20 years.

U									
Parameters	(1)	(2)	(3)	(4)	(5)	(6)			
Year of birth									
1973-1977	1	1	1	1	1	1			
1978-1982	0,498**	0,498**	0,432**	0,487**	0,422**	0,423**			
1983-1987	1.148	1.448	1.149	1.130	1.121	1.121			
1988-1992	2,068**	2,068**	2,110**	2,051**	2,091**	2,087**			
1993-1997	1.481	1.481	1.627	1.500	1.642	1.635			
Born in the city	0.944	0.944	1.044	0.916	1.004	1.005			
Has higher or incomplete higher education, %	0,294***	0,294***	0,284***	0,292***	0,281***	0,282***			
Is employed at the time of survey	0.925	0.925	0.930	0.934	0.925	0.926			
Has not lived in this settlement since birth, %		0.998				0.980			
Elder relatives' approval required to enter new job or quit			0,441**		0,432**	0,432**			
Elder relatives' approval required to make a major purchase			0.943		0.946	0.945			
Performs a five- time daily prayer mandatory for Muslims				4,400*	4,947**	4,915**			
Constant	0.850	0.852	1.126	0.210	0.256	0.265			
Ν	642	642	631	641	631	631			
-2 likelihood Log	747.983	747.983	718.103	742.451	712.442	712.430			

Table P1.3. Logistic regressions for first marriage by the age of 22.

8	0		0 / 0			
Parameters	(1)	(2)	(3)	(4)	(5)	(6)
Year of birth						
1973-1977	1	1	1	1	1	1
1978-1982	0.712	0.688	0.619	0.703	0.611	0.594
1983–1987	1.366	1.377	1.377	1.362	1.372	1.377
1988-1992	1,751*	1,801*	1,750*	1,744*	1,737*	1,773*
1993-1997	1.347	1.456	1.554	1.424	1.572	1.641
Born in the city	1.054	1.034	1.153	1.048	1.138	1.119
Has higher or incomplete higher education, %	0,377***	0,370***	0,356***	0,375***	0,353***	0,348***
Is employed at the time of survey	0.804	0.798	0.821	0.808	0.820	0.815
Has not lived in this settlement since birth, %		1.290				1.219
Elder relatives' approval required to enter new job or quit			0,484***		0,483***	0,486***
Elder relatives' approval required to make a major purchase			0.781		0.784	0.815
Performs a five- time daily prayer mandatory for Muslims				1.597	1.559	1.642
Constant	1.288	1.290	1.884	0.826	1.255	0.911
Ν	587	587	575	586	575	575
-2 likelihood Log	766.389	764.316	731.221	764.711	730.794	729.423

**Table P1.4.** Logistic regressions for first marriage by the age of 24.

Parameters	(1)	(2)	(3)	(4)	(5)	(6)		
Year of birth								
1973-1977	1	1	1	1	1	1		
1978-1982	1.044	0.992	0.985	1.029	0.973	0.935		
1983-1987	2,213***	2,232***	2,350***	2,206***	2,346***	2,361***		
1988-1992	2,083**	2,168**	2,213**	2,073**	2,201**	2,271**		
1993-1997	4,318*	4,812*	3.700	4,255*	3.657	3.984		
Born in the city	1.029	0.998	1.111	1.022	1.104	1.077		
Has higher or incomplete higher education, %	0,392***	0,377***	0,372***	0,388***	0,370***	0,358***		
Is employed at the time of survey	0.775	0.767	0.791	0.774	0.790	0.785		
Has not lived in this settlement since birth, %		1,464*				1.359		
Elder relatives' approval required to enter new job or quit			0.700		0.703	0.706		
Elder relatives' approval required to make a major purchase			0,505***		0,506***	0,514***		
Performs a five- time daily prayer mandatory for Muslims				1.636	1.464	1.458		
Constant	1.813	1.096	2.798	1.146	1.958	1.296		
Ν	502	502	494	502	494	494		
-2 likelihood Log	630.021	626.227	602.366	629.436	602.025	599.705		

Table P1.5. Logistic regressions for first marriage by 26 years.