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Research Article

Marriage in Russia. A reconstruction

Sergei Scherbov

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Research Article

Marriage in Russia: A reconstruction

Sergei Scherbov¹

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Abstract

The micro census 1994 of the Russian Federation collected detailed marital histories for all respondents. This information made it possible to construct multistate marital tables for both male and female cohorts born since 1910 for the first time. Continuity and change in marital patterns over a most turbulent of Russian history could be analyzed. Divorce rose monotonously from a quite low level for the cohort of 1910 to the high incidence that is characteristic for modern Russia. The typical Eastern European marriage pattern of early and almost universal marriage was remarkably stable. The major crisis, the Second World War, led to a postponement of marriage, but even in the female cohorts confronted with an extreme unbalanced marriage market the proportion never married was remarkably low.

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1. Introduction

In his seminal article 'European marriage patterns in perspective' Hajnal distinguished an Eastern European pattern that was completely different from the Western European pattern. East from a line that stretched roughly from St. Petersburg to Trieste marriage was very frequent and early. In contrast to the West where the marriage pattern underwent profound changes in Russia early and almost universal marriage have remained typical. According to the latest 1994 micro census only 6 percent of men and 5 percent of women were never married at age 50. The proportion of people getting married at very young ages even has been growing recently. In the 1917 cohort 29 percent of women married before age 20 and 24 percent of men married before age 23. In the cohort 1960 these proportions were 32 percent and 44 percent respectively. This persistence of two of the characteristics of marriage should not make one lose sight of the fact that in Russia as elsewhere marriage is a complex phenomenon in a constant state of flux (Avdeev and Monnier, 1999, 635).

In the twentieth century Russian society made a major transition. At the beginning of the century Russia was still predominantly traditional and rural, but during the century it shifted to an industrialized, urbanized modern highly educated society. This transition did not develop continuously, but was accompanied by severe shocks that completely upset the life of the citizen and had profound effects upon the primary institution of the family. Especially the huge male deficits in the cohorts that were most affected by the Second World War led to substantial adjustments in the patterns of marriage, divorce, widowhood and remarriage. The very small sizes of the cohorts born during the war years and the preference for brides that are at average about two years younger than their grooms should have had sizable effects upon nuptiality in the 1960's when these cohorts entered the marriage market. Moreover the state tried to intervene decisively into the process of family formation and procreation (for an overview see Avdeev and Monnier 1999, annex 1).

In their recent analysis of various aspects of marriage in Russia, Avdeev and Monnier had to limit themselves essentially to the period since around 1960. After the 1926 census the population registration system in the former Soviet Union collapsed and it is only since 1959 that reliable population figures from censuses and registration are available. Part of the demographic history of Russia in the intervening period was reconstructed recently, using archive materials and demographic estimation (Andreev, Darsky and Kharkova, 1998). Detailed information from official statistics is unavailable but thanks to the possibilities of a retrospective investigation of data collected during the five-percent micro census of 1994 at least some questions can be answered.

In the 1994 micro census some 5 percent, 7.35 million persons, of the total population of the Russian Federation was interviewed. The Statistical Office of the

Russian Federation published the principal results in aggregate tabular form in 8 volumes (Goskomstat1995). Volkov (1999) discussed the representativeness of the micro census. The detailed nature of the individual data permits for a reconstruction of part of the life course of separate subpopulations and for the calculation of a number of demographic statistics from the past. In two earlier articles we analyzed cohort fertility and female nuptiality (Scherbov and Van Vianen 1999, 2001). A third article reconstructed period fertility since 1930, using a modeling approach (Scherbov and Van Vianen, 2002). In this paper both male and female nuptiality will be analyzed more completely.

With respect to marriage the micro census included a number of questions on marital careers: date of first marriage, date and cause of first marriage termination (divorce, death of spouse), date of second marriage, and total number of marriages. This feature of knowing the date of certain events on an individual basis allows for the construction of multistate marital tables (Willekens 1987, Darsky and Scherbov 1995). The micro census contains all necessary information on first marriages. For men and women widowed or divorced from first marriage we know the date of dissolution and the date of an eventual remarriage. Finally we know the current status, though not the date or cause of subsequent events, but using acceptable hypotheses we can calculate transition probabilities and construct the multistate marital tables. The methodological approach is essentially the same as set out in the paper by Darsky and Scherbov (1995, 35-38), except that in our cohort study we do not have to make the additional assumption of a stationary population, which is necessary in order to apply period rates to a hypothetical cohort.

A multistate marital table depicts the marital career of a birth cohort from age 16 until some final age, which in our study we fix at age 50: the end of the reproductive period for women. It states the probabilities of being never married, married, widowed or divorced at any age for a person being single at age 16. The main advantage of these tables over conventional marital tables is that they consider not only first marriages, divorces and loss of spouses by death, but also remarriages of widowed and divorced men and women. Using the tables we can evaluate conditional probabilities for a person of being in a certain marital state at a certain age given his marital state at an earlier age. We can also decompose the life span between 16 and 50 by the number of years spent in various states. In this way we get a complete picture of marital state changes during the life of a cohort. The table describes the 'pure' marital process, i.e. the table excludes the exit processes of death and out migration. However, death of a spouse is explicitly taken into account and effects the widowhood process. Because the data used in constructing the tables are retrospective a selection bias will be present, especially for the oldest cohorts: we can only calculate the various transition probabilities from the

marital histories of those members of the original birth cohort that were still alive at the date of census taking.

In our analysis we study the marital histories of successive birth cohorts. In an earlier article we underlined the importance of taking a cohort perspective when studying demographic change. Whereas period measures are shaped by conjunctural effects and may behave irregularly because of many factors affecting marital decisions, cohort measures more truly reflect underlying lifetime motivations (Scherbov and Van Vianen 1999). Moreover our data are most applicable for a cohort approach. They of course allow for the calculation of certain age specific period indicators, but information on the size and the age distribution of the population is missing for most of the period between 1926 and 1959 and therefore many period indicators on the population level are unobtainable. We can for instance calculate age specific first marriage rates in a certain year, but in order to obtain the total number of marriages or the crude marriage rate in that year we need the absolute age composition for that year.

Another aspect of our retrospective data set is that all people were born after a certain year. In 1994 there are only few survivors of the oldest generations and their information will certainly not be representative for the cohort experience. In practice this means that for women we can go back until 1900, there being more than 1000 respondents from that year onwards, a number that goes up to 16,000 respondents born in 1910: all succeeding cohorts are larger. Starting from 1900 this implies that for instance for 1935 we only have information for women up to 35 years of age in that year. Consequently our information on a period measure up to age 50 is censored before the year 1950; only from that year onward our period measures would be complete.

Due to the imbalance of the Russian age distribution we only have 180 males born in 1900 in our sample and 4000 born in 1910. Only starting from the cohort of 1922 we have more than 10,000 male respondents in each succeeding cohort. We made the pragmatic decision to limit our study of both male and female nuptiality to cohorts born since 1910.

In the 1994 micro census a distinction was made between married and living in a consensual union and between divorced and separated. Since for most of the cohorts to which our analysis applies cohabitation and separation was infrequent we do not retain these distinctions but combine married and living in consensual union and divorced and separated. An additional problem in this respect is that family and marriage legislature changed several times between 1917 and 1967. For instance in 1944 recognition of cohabitation was withdrawn which triggered off a wave of marriages ‘of regularization’ (Avdeev and Monnier 1999, 637). Moreover all data in the micro census are ‘self reported’ and respondents may have given a ‘socially correct’ answer for their marital state.

In the next section we will first show multistate marital tables for some selected cohorts. Multistate marital tables for males are quite unique; we could not find other examples. To a lesser extent this applies to male nuptiality as a whole. In the third section a number of indicators, derived from the multistate tables will be presented for both sexes and for all cohorts for which they can be calculated. In the last section we will draw some conclusions about the changes in Russian nuptiality that can be derived from our analysis.

2. Marriage in Russia: an analysis

Multistate marital tables can be constructed for all cohorts present in the micro census. But, as explained before we only started from 1910, because the number of surviving males in older cohorts is very low. All cohorts born since 1944 were not yet aged 50 or over on 14 February 1994 and therefore they are censored by the date of the micro census. We limit our analysis to cohorts born before 1961. Those born in 1960 reached the age of 33 before the date of the micro census and because Russians marry young a marital table censored at age 33 can, when interpreted cautiously, still give useful information. When applicable, results for cohorts up to 1970 will be shown

2.1. Marriage in Russia: histories

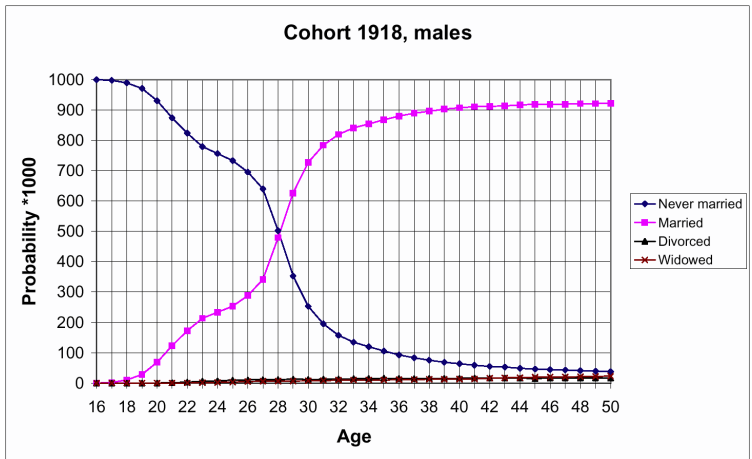


Figure 1a

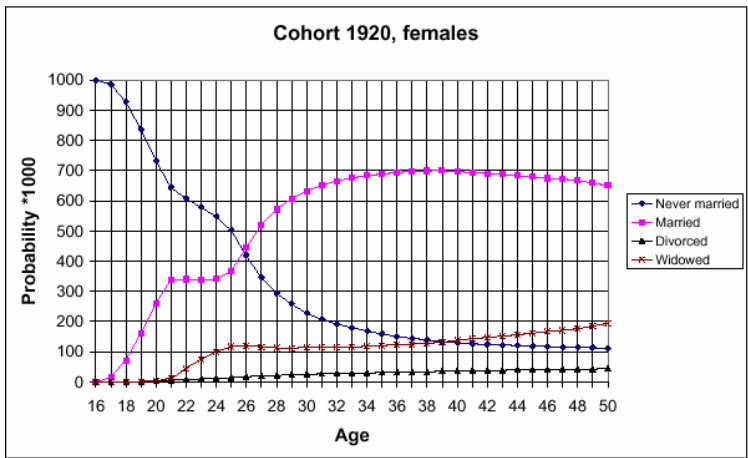


Figure 1b

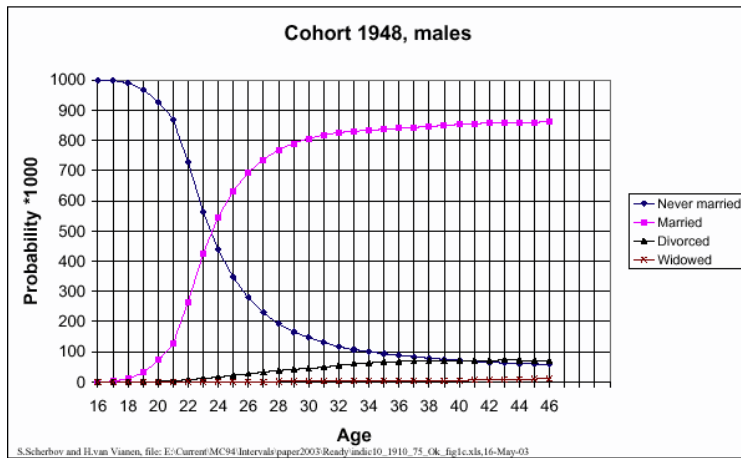


Figure 1c

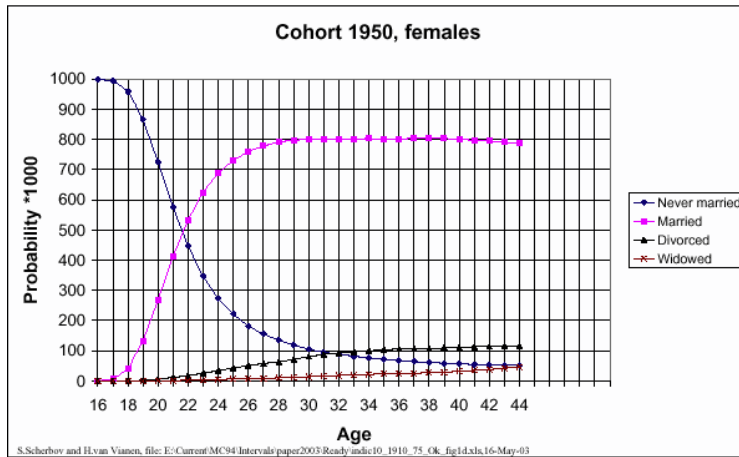


Figure 1d

Figure 1: Multistate marital tables for some selected cohorts

In figure 1a to 1d we present multistate marital tables for some selected cohorts. In order to get some insight into the different histories of men and women we will compare the history of a male cohort with the experience of the female cohort that is two years younger. The difference of mean age at marriage is around 2 years for most cohorts, but of course men from a certain cohort can marry women from all cohorts on the marriage market. First we will discuss figure 1a: the male cohort of 1918. At age 23, before the German invasion and the start of the Great Patriotic War nearly 20 percent of men were married. Between age 23 and 27, during the war years, the proportion married rose only slowly, but after 1945 it increased very rapidly till 80 percent at age 31. The proportions widowed and divorced were always very low in this cohort and ultimately only around 4 percent of males was never married at age 50.

Figure 1b: the female cohort of 1920 tells a quite different story. The proportion married rises very rapidly, until at age 21 around 35 percent of women is married. During the war new marriages only compensated for early widowhood and the proportion married in this cohort never is above 70 percent. At age 50 more than 10 percent is never married but 20 percent is widowed, indicating that most women who were widowed at a young age did not remarry.

In figure 1c the male cohort 1948 is shown. It is censored at age 46. At age 23 more than 40 percent is married. There is no delay and at age 31 more than 80 percent is married, a proportion growing slowly afterwards. Only 7 percent is never married at age 46. Widowhood does not amount to anything for this generation, but the proportion divorced at age 46 is higher than the proportion never married.

The females of 1950 (figure 1d) have a different history. At age 21 around 40 percent is married, the same proportion as in the 1948 male cohort, a proportion rising to around 80 percent at age 29. But widowhood and to a larger extent divorce play a role and the proportion married is constant after age 29 till the age of censoring. At age 44 around 5 percent is never married, about the same proportion is widowed. The major factor of this difference with the male cohort of 1948 is of course the high differential between female and male mortality, another characteristic of Russian demography. Compared with the male experience a substantial higher proportion of women is divorced.

2.2. Marriage in Russia: statistics

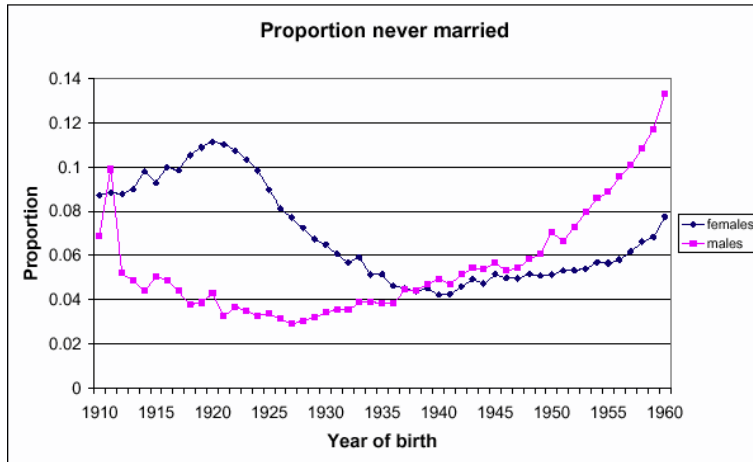


Figure 2: *Proportion women and men never married at age 50*

In figure 2 we present the proportion women and men never married at age 50 or by the age at censoring by census date for all cohorts born between 1910 and 1960. Note that only the cohorts born before 1944 reached this final age of 50 before the date of the micro census. For women the proportion never married increases from around 6 percent in the oldest cohorts to more than 10 percent in the cohorts most heavily affected by the Second World War. It monotonously declines to around 4 percent in the (very small) cohorts born during the war. Afterwards it slowly increases again, but remains very low until the last cohorts, a first indication of a change in marriage pattern with a decline in the rate of first marriages.

For males the pattern is different. Up to the cohort of 1940 it is always under 5 percent, between 1936 until around 1950 it is about the same as for women but afterwards it increases more steeply. For the youngest cohorts the increase is partly due to censoring.

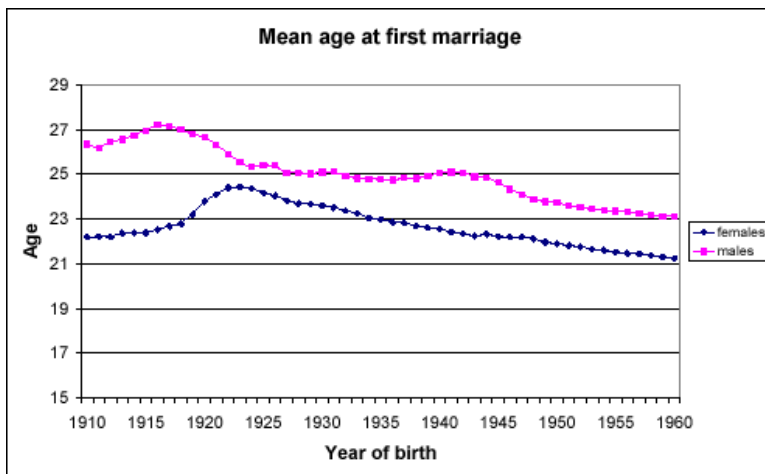


Figure 3: Mean age at first marriage

Figure 3 shows the distribution of the mean age at first marriage for both females and males. For women it goes up from around 22 years in the oldest generations to a maximum of 24.5 years for the generations born in 1922 and 1923. Afterwards it falls off almost linearly. Again this feature is genuine. Due to the very young age at first marriage censoring does not play any role. When combining this result with the foregoing figure we see that there is a decline in the mean age at marriage simultaneous with a decline in the proportions marrying (Avdeev and Monnier 1999, 637-638)

For males the developments are not the same. In the older cohorts the difference in age at first marriage is around 4 years, whereas in the younger generations it is around 2 years. In the oldest cohorts these differences in age at marriage may reflect imbalances caused by the period of the Civil War. The cohorts born between 1920 and 1925 were most heavily afflicted by the Second World War, which not only caused a major imbalance in the sex ratio at marriageable ages but marriage was nearly impossible during the war with most marriageable males in the armed forces, a situation lengthened by the problems of demobilization and reconstruction after the war. In the younger generations we also observe the decline of the age at first marriage. An interesting effect is the increase of the age at first marriage for the male generations born around 1940. This is an indication of a squeeze in the marriage market when young men of the quite large birth cohorts of around 1940 with a preference for brides about 2 years younger entered the marriage market and were confronted with the extremely small female generations of 1943 and 1944. A similar effect for the larger female generations

of 1945-1946 when confronted with the small male cohorts born in 1943 and 1945 does not appear. This asymmetry has to do with the different pattern of age at marriage. For females it is very peaked around the modal age of 20, whereas for males the spread around 23 years is much larger, which implies that for a female there would be more eligible candidates on the marriage market.



Figure 4: *Lexis surface of proportions of women first marrying by year of birth, per thousand*

A much more instructive picture emerges if we do not confine our study to a central measure like mean age at marriage but include the distribution of age at first marriage. In figure 4 we present a Lexis surface of proportions of women first marrying by year of birth and single year of age, because these are just rates we present them up to the

cohort 1970. The concentration of marriages around the modal age is distorted by the events of around 1932 and 1933, the Famine. A more normal pattern appears afterwards but another, deeper, trough is caused by the Second World War. In the female births cohorts most heavily affected, those born in 1916-1922, the distribution of age at first marriage becomes bimodal. The shortfall of marriages is made up after the war, but the concentration of marriages, although at a somewhat higher modal age reappears only in the generations born after 1934. In the following generations there is a slight decrease in the age and the distribution becomes more peaked around the modal age. Although the official age at which a woman can marry is 18 years, an appreciable number of marriages before this age are reported.

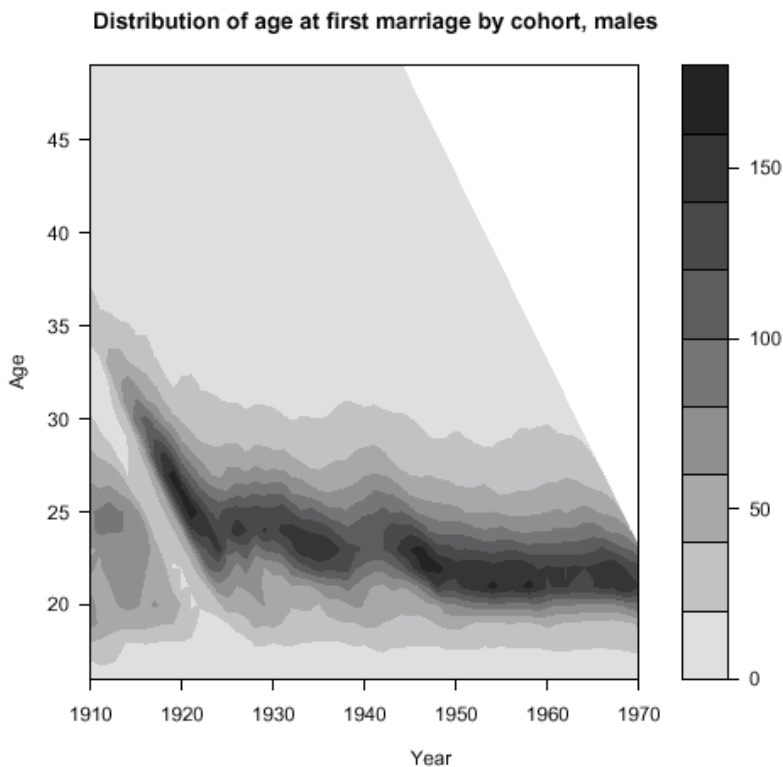


Figure 5: *Lexis surface of proportions of men first marrying by year of birth, per thousand*

The same distribution for males is presented in figure 5. Males marry at a higher age and the age at marriage has a wider range. In particular for the oldest cohorts the spread of age at marriage for males is much larger as compared with females, which explains the larger difference of mean age at marriage from figure 2. For males the effects of the war are even more outspoken than for females. For all generations from 1910 until 1922 the distribution is bimodal and the concentration of marriages immediately after the war for the generations 1918-1922 is evident. These generations really had to postpone marriage and were small when entering a marriage market with a large imbalanced sex ratio.

Although the distribution of age at marriage was severely distorted by the societal upheavals of famine and war the proportion of women never married shows only relatively minor effects. This is more remarkable because the female cohorts born between 1923 and 1926 were already larger than the corresponding male cohorts of 1919-1922 due to the effects of the Civil War. The Second World War made these imbalances even worse. These findings are consistent with an earlier analysis of the effects of the First World War on nuptiality of French women by Louis Henry (1966). The radically depleted size of certain male cohorts was compensated for by a shift in marital preferences, resulting in only modest changes in the proportion women never marrying. The long-term trend shows that the institution of marriage retained most of its traditional features during this period.

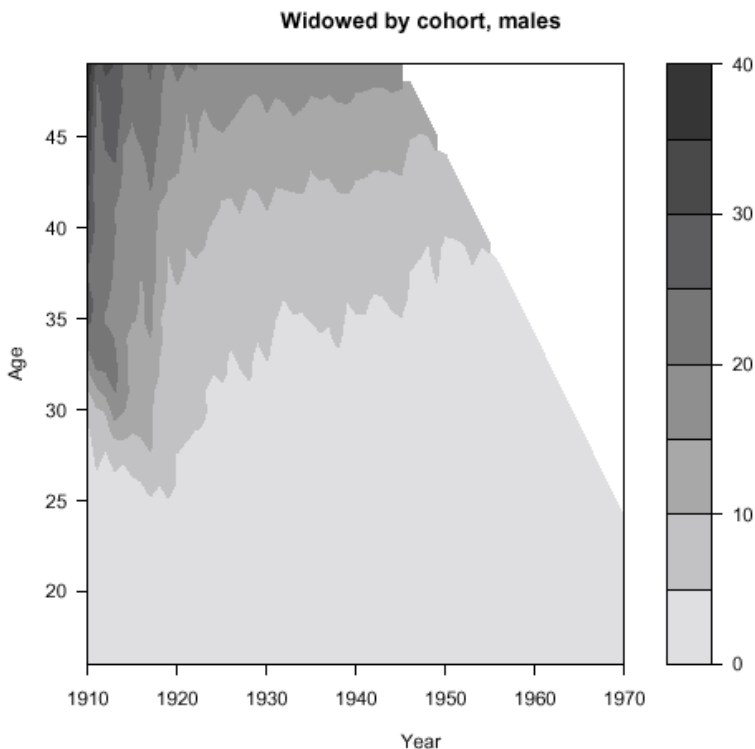


Figure 6: *Lexis surface of the proportions living in a widowed state by age and cohort for males, per thousand*

A different picture arises if we have a closer look at the marital status during the life span between age 18 and age 50 instead. In figures 6 and figure 7 we show a Lexis surface of the proportions living in a widowed state by age and cohort for males and females respectively.

For males this proportion is extremely low for all cohorts. It only reaches around 4 percent in the oldest cohorts at around age 50. At age 30 it is more than 1 percent in the cohorts 1912-1918 only. For younger cohorts the proportion of 1 percent is only reached above age 40.

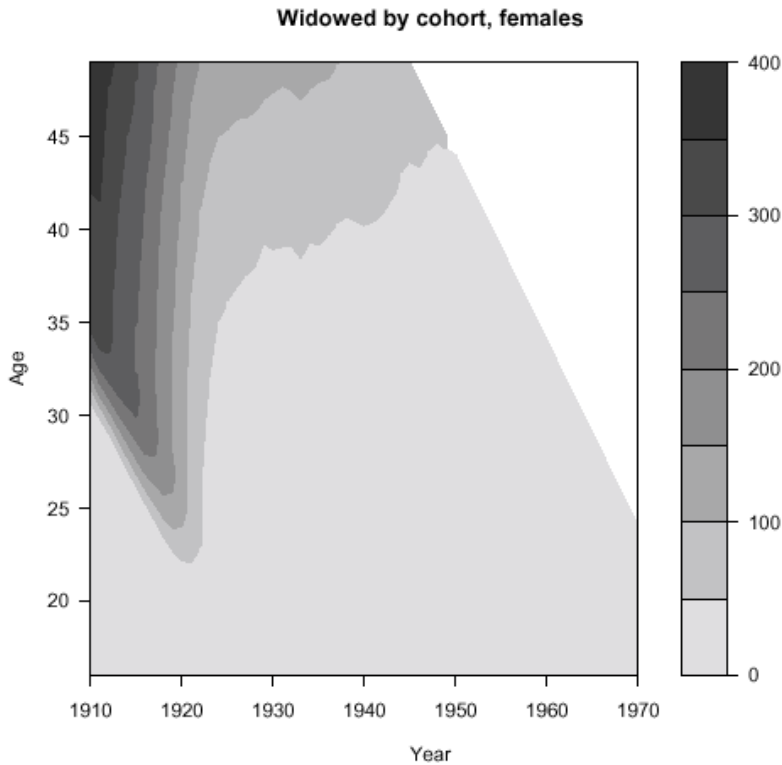


Figure 7: *Lexis surface of the proportions living in a widowed state by age and cohort for females, per thousand*

For women the situation is much more dramatic. First note the difference in scale in figure 7. In the oldest cohorts widowhood reaches proportions above 40 percent. In the cohort 1921 more than 5 percent of women are already widowed at age 22. In the younger cohorts, born since 1927, it is only above age 40 that the proportion widowed is more than 5 percent. These high proportions of widowed females when compared with widowed males not only reflect the immediate consequences of male mortality during the war. Other factors are the difference in age at marriage, the ‘normal’ mortality, which for males is substantially higher and the imbalance of the sex ratio, which made remarriage much easier for a widowed male.

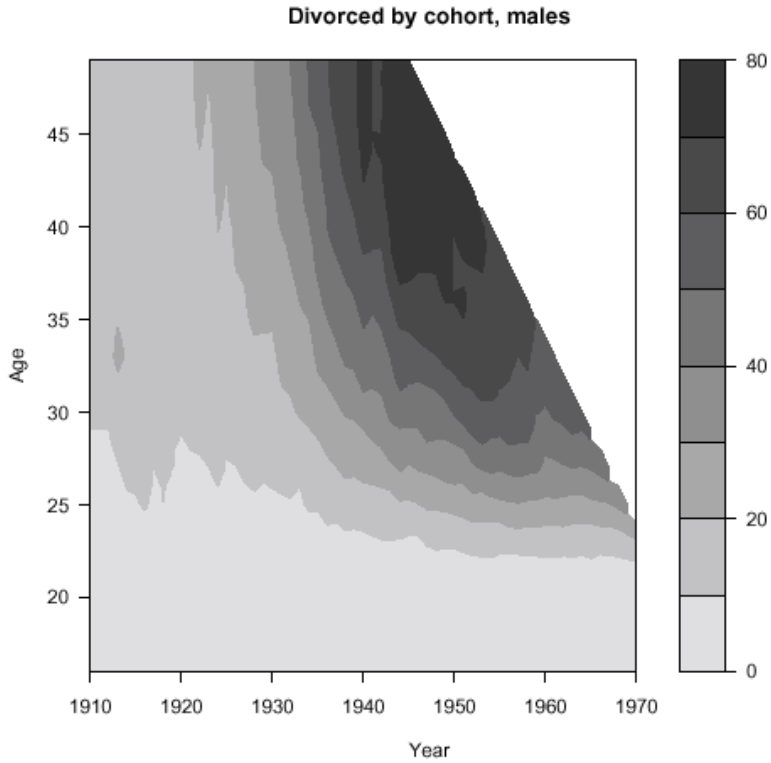


Figure 8: *Lexis surface of the proportions living in a divorced state by age and cohort for males, per thousand*

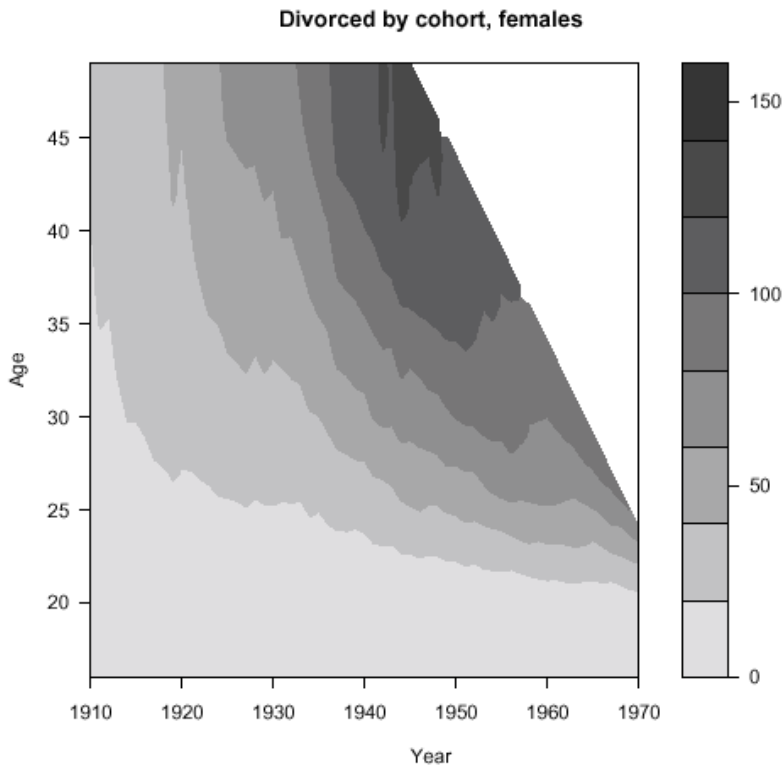


Figure 9: *Lexis surface of the proportions living in a divorced state by age and cohort for females, per thousand*

The same, although to a lesser degree, applies for the divorced state during the marital life span, which is presented in figures 8 and 9. Generally at any age and for any cohort there are about twice as many women in the divorced state. For both sexes the increase in divorce is evident. For the cohorts born before 1920 it was always below 2 percent for males and below 4 percent for females.

2.3. Marriage in Russia, multistate marital tables

The major purpose of this paper is to give a comparative analysis of marital status change for males and females from the Russian birth cohorts between 1910 and 1960. It

is impossible to present the detailed transition probabilities of all the multistate marital tables over such a long period and therefore we limit ourselves to the presentation of a number of indicators from our marital tables for both sexes and for all cohorts. In estimating marital tables we could use data on date of first marriage, date and cause of end of first marriage and date of second marriage for each individual in the micro census. So we could directly estimate the age specific probabilities of first marriage, dissolution of first marriage by divorce, dissolution of first marriage by widowhood, probabilities of second marriage from divorce and probabilities of second marriage from widowhood. Because there are no detailed data on dissolution of remarriages they were modeled as follows: a person who is divorced or widowed can remarry with remarriage probabilities estimated from our data. When remarrying he reenters the state of married and the probabilities of divorce and widowhood are the same as those estimated from the data on first marriages (Darsky and Scherbov 1995, 36,37).

In our cohort analysis we have only complete information from those cohorts that were aged 50 or over at the date of the micro census: the cohorts born before 1944. All later cohorts are censored. The latest cohort in our analysis, the cohort of 1960 was 33 years in 1994. In order to construct multistate tables for these censored cohorts we could impute the last transition probabilities that were observed for the missing probabilities. The transition probabilities at age 49 from the 1943 cohort, those at age 48 from the 1944 cohort etc. This procedure would imply that the completed tables are a mixture of a cohort table up to the age at the micro census and a period table for higher ages. However, transition probabilities at a certain age are dependent upon the foregoing marital history of the cohort and this implies that an *uncontrollable* bias is introduced by a marital history after the censored age that is a mixture of the marital histories of older cohorts, but that does not describe the history of any 'real' cohort. Ultimately, for the cohorts born after 1977 we would end up with a pure period marital table.

We adopted another approach for completing the life table. After the censored age no transition is possible and the distribution over the marital states (never married, married, divorced and widowed) is stationary. In this procedure only observed transitions are taken into account, but a *systematic* bias of exclusion of transitions at ages after censoring is introduced. This bias will be increase monotonically over the censored cohorts.

2.3.1. Time spent in marital states

Table 1: *Number of years spent in different marital states during the reproductive period (16-50 years) by sex and year of birth (1910-1960), Russia.*

Year	Females				Year	Males			
	Never Married	Married	Divorced	Widowed		Never Married	Married	Divorced	Widowed
1910	9.07	18.16	0.46	6.30	1910	12.43	20.64	0.35	0.58
1911	9.12	17.71	0.55	6.62	1911	13.00	20.16	0.36	0.47
1912	9.09	17.94	0.55	6.42	1912	12.15	20.99	0.36	0.50
1913	9.30	17.78	0.60	6.32	1913	12.18	20.93	0.39	0.50
1914	9.55	17.53	0.69	6.23	1914	12.25	20.91	0.41	0.42
1915	9.41	17.81	0.69	6.09	1915	12.60	20.60	0.41	0.39
1916	9.71	17.72	0.71	5.85	1916	12.80	20.44	0.38	0.38
1917	9.81	17.95	0.84	5.40	1917	12.62	20.62	0.33	0.43
1918	10.10	18.16	0.85	4.89	1918	12.35	20.93	0.39	0.33
1919	10.57	18.08	0.92	4.43	1919	12.19	21.17	0.35	0.29
1920	11.14	18.29	0.86	3.72	1920	12.13	21.21	0.37	0.29
1921	11.40	18.61	0.93	3.07	1921	11.59	21.79	0.36	0.27
1922	11.60	18.94	1.01	2.45	1922	11.26	22.04	0.43	0.27
1923	11.52	19.36	1.07	2.05	1923	10.89	22.50	0.38	0.23
1924	11.34	19.79	1.10	1.77	1924	10.62	22.65	0.49	0.24
1925	10.95	20.29	1.19	1.57	1925	10.74	22.58	0.45	0.23
1926	10.62	20.67	1.23	1.48	1926	10.65	22.64	0.50	0.22
1927	10.29	21.00	1.26	1.44	1927	10.27	22.97	0.53	0.23
1928	10.07	21.31	1.23	1.40	1928	10.32	22.92	0.56	0.20
1929	9.91	21.51	1.29	1.30	1929	10.32	22.88	0.60	0.20
1930	9.78	21.64	1.28	1.31	1930	10.43	22.75	0.60	0.21
1931	9.58	21.80	1.36	1.26	1931	10.49	22.63	0.68	0.19
1932	9.36	22.03	1.37	1.24	1932	10.28	22.80	0.72	0.19
1933	9.30	21.96	1.45	1.30	1933	10.29	22.70	0.80	0.21
1934	8.90	22.30	1.58	1.23	1934	10.27	22.66	0.88	0.20
1935	8.85	22.26	1.65	1.24	1935	10.22	22.63	0.96	0.19
1936	8.59	22.47	1.74	1.19	1936	10.20	22.53	1.08	0.19
1937	8.54	22.33	1.98	1.15	1937	10.43	22.23	1.14	0.19
1938	8.36	22.50	2.03	1.12	1938	10.41	22.18	1.21	0.20
1939	8.32	22.50	2.07	1.10	1939	10.58	21.97	1.26	0.19
1940	8.19	22.56	2.16	1.08	1940	10.78	21.65	1.38	0.19
1941	8.07	22.60	2.26	1.07	1941	10.76	21.71	1.34	0.19
1942	8.08	22.52	2.36	1.04	1942	10.82	21.63	1.37	0.18
1943	8.07	22.59	2.36	0.98	1943	10.73	21.57	1.53	0.17
1944	8.10	22.41	2.57	0.92	1944	10.68	21.55	1.59	0.18
1945	8.12	22.46	2.52	0.90	1945	10.55	21.70	1.57	0.18
1946	8.05	22.51	2.53	0.91	1946	10.17	22.14	1.54	0.15
1947	8.04	22.58	2.54	0.84	1947	9.99	22.31	1.56	0.15
1948	8.03	22.61	2.58	0.79	1948	9.87	22.44	1.56	0.14
1949	7.85	22.77	2.59	0.79	1949	9.84	22.42	1.60	0.15
1950	7.82	22.88	2.58	0.72	1950	10.07	22.22	1.59	0.12
1951	7.78	22.93	2.61	0.68	1951	9.84	22.41	1.64	0.11
1952	7.73	23.03	2.58	0.66	1952	9.92	22.33	1.64	0.11
1953	7.65	23.20	2.56	0.60	1953	10.01	22.23	1.65	0.11
1954	7.70	23.08	2.62	0.60	1954	10.15	22.12	1.63	0.10
1955	7.60	23.34	2.52	0.54	1955	10.17	22.14	1.59	0.10
1956	7.60	23.35	2.54	0.51	1956	10.32	22.03	1.57	0.08
1957	7.67	23.39	2.48	0.46	1957	10.41	21.98	1.54	0.07
1958	7.73	23.43	2.42	0.42	1958	10.54	21.85	1.54	0.07
1959	7.73	23.42	2.45	0.40	1959	10.71	21.77	1.44	0.07
1960	7.93	23.29	2.42	0.36	1960	11.14	21.43	1.38	0.05

Only by using the multistate approach it is possible to describe the marital career of a cohort in detail. Table 1 describes how the period of marital life between the ages 16 and 50 is distributed among different marital statuses, conditional that a person survives until age 50. Note that the marital state can be entered more than once by remarriage.

For women the number of years spent in the never married state goes up from 9.1 in the oldest cohorts to 11.6 years in the cohort around 1922 that had to postpone marriage or did not marry at all due to the Second World War. Afterwards it decreases monotonically until around 1955. Note that the decline after 1944 is underestimated in our figures, because women who were not married at the age of censoring stayed in the state of never married. In the oldest cohorts women spent on average more than 6 years of their reproductive period being widowed. This goes down to less than 1 year in the 1943 cohort. Afterwards it declines further but more and more of this decline is due to censoring bias. The number of years spent in a divorced state increases steadily, except for the (biased) youngest generations.

For men differences between the oldest cohorts may be due to the small cohort sizes before 1922. The number of years in the never married state is always higher than for the corresponding female cohorts except for the generations around 1922. The monotonous decline after the war generations that we noted for females is not observed for males. Note the slight increase for the generations 1939-1942, which contrasts with the decrease in the female generations 1940-1943. Years spent in the widowed state are negligible when compared with women and the years spent in a divorced state are systematically less than for women of adjacent generations. Typically men and women of all cohorts spent about the same number of years in the married state: men marry later, but men that are divorced or widowed more often or more quickly remarried. Only in the oldest generations this balancing mechanism did not work due to the large number of females that could not marry or that were widowed during the war and the distorted sex ratio on their marriage market.

2.3.2. Number of transitions between marital states

Table 2: *Number of transitions between different marital states during the reproductive period (16-50 years) by sex and year of birth (1910-1960), Russia.*

Year	Females					
	All marriages	First marriages	Remarried after		Number of times	
			Divorced	Widowed	Divorced	Widowed
1910	0.99	0.91	0.02	0.05	0.04	0.45
1911	0.99	0.91	0.02	0.06	0.05	0.45
1912	1.00	0.91	0.02	0.07	0.05	0.43
1913	1.00	0.91	0.02	0.07	0.05	0.42
1914	1.00	0.90	0.02	0.08	0.06	0.40
1915	1.01	0.91	0.02	0.08	0.06	0.39
1916	1.02	0.90	0.03	0.09	0.06	0.38
1917	1.02	0.90	0.03	0.09	0.07	0.36
1918	1.02	0.89	0.03	0.10	0.07	0.33
1919	1.01	0.89	0.03	0.09	0.07	0.31
1920	1.00	0.89	0.03	0.08	0.07	0.27
1921	0.99	0.89	0.03	0.07	0.08	0.24
1922	0.98	0.89	0.03	0.05	0.09	0.21
1923	0.97	0.90	0.04	0.04	0.09	0.19
1924	0.98	0.90	0.04	0.03	0.10	0.18
1925	0.98	0.91	0.04	0.03	0.11	0.16
1926	0.99	0.92	0.05	0.03	0.11	0.16
1927	1.00	0.92	0.05	0.03	0.12	0.16
1928	1.00	0.93	0.05	0.03	0.12	0.15
1929	1.01	0.93	0.05	0.03	0.12	0.15
1930	1.01	0.94	0.05	0.03	0.13	0.15
1931	1.02	0.94	0.05	0.03	0.13	0.15
1932	1.03	0.94	0.06	0.03	0.14	0.15
1933	1.03	0.94	0.06	0.03	0.14	0.15
1934	1.05	0.95	0.07	0.03	0.16	0.15
1935	1.06	0.95	0.07	0.03	0.17	0.15
1936	1.07	0.95	0.08	0.03	0.18	0.15
1937	1.07	0.95	0.09	0.03	0.20	0.14
1938	1.09	0.96	0.09	0.04	0.21	0.14
1939	1.09	0.95	0.10	0.04	0.21	0.13
1940	1.10	0.96	0.10	0.04	0.22	0.13
1941	1.10	0.96	0.11	0.04	0.23	0.13
1942	1.10	0.95	0.11	0.04	0.23	0.13
1943	1.11	0.95	0.12	0.04	0.24	0.13
1944	1.12	0.95	0.13	0.04	0.26	0.12
1945	1.11	0.95	0.13	0.03	0.25	0.11
1946	1.11	0.95	0.13	0.03	0.25	0.10
1947	1.11	0.95	0.13	0.03	0.25	0.09
1948	1.10	0.95	0.13	0.03	0.25	0.08
1949	1.11	0.95	0.13	0.03	0.25	0.08
1950	1.11	0.95	0.13	0.03	0.25	0.07
1951	1.10	0.95	0.13	0.02	0.25	0.07
1952	1.10	0.95	0.13	0.03	0.24	0.06
1953	1.10	0.95	0.13	0.02	0.24	0.05
1954	1.10	0.94	0.13	0.02	0.24	0.05
1955	1.10	0.94	0.13	0.02	0.24	0.05
1956	1.09	0.94	0.13	0.02	0.23	0.04
1957	1.08	0.94	0.13	0.02	0.23	0.04
1958	1.07	0.93	0.12	0.02	0.22	0.03
1959	1.06	0.93	0.12	0.01	0.22	0.03
1960	1.04	0.92	0.11	0.01	0.21	0.03

Table 2 (continued)

Year	Males					
	All marriages	First marriages	Remarried after		Number of times	
			Divorced	Widowed	Divorced	Widowed
1910	1.01	0.93	0.04	0.04	0.05	0.08
1911	0.99	0.90	0.04	0.04	0.05	0.07
1912	1.03	0.95	0.04	0.04	0.06	0.07
1913	1.04	0.95	0.05	0.04	0.06	0.07
1914	1.04	0.96	0.05	0.03	0.07	0.06
1915	1.03	0.95	0.05	0.03	0.07	0.05
1916	1.03	0.95	0.05	0.03	0.07	0.05
1917	1.03	0.96	0.04	0.03	0.06	0.05
1918	1.04	0.96	0.05	0.03	0.07	0.05
1919	1.03	0.96	0.05	0.02	0.06	0.04
1920	1.02	0.96	0.04	0.02	0.06	0.04
1921	1.04	0.97	0.05	0.02	0.07	0.04
1922	1.04	0.96	0.05	0.02	0.07	0.04
1923	1.03	0.97	0.05	0.02	0.07	0.04
1924	1.04	0.97	0.06	0.02	0.08	0.04
1925	1.04	0.97	0.05	0.02	0.08	0.04
1926	1.04	0.97	0.06	0.02	0.08	0.04
1927	1.05	0.97	0.06	0.02	0.09	0.04
1928	1.05	0.97	0.06	0.02	0.09	0.04
1929	1.05	0.97	0.06	0.02	0.10	0.04
1930	1.04	0.97	0.06	0.02	0.10	0.04
1931	1.05	0.96	0.07	0.02	0.11	0.04
1932	1.05	0.96	0.07	0.02	0.11	0.04
1933	1.05	0.96	0.08	0.01	0.12	0.04
1934	1.06	0.96	0.08	0.02	0.13	0.04
1935	1.06	0.96	0.09	0.02	0.14	0.04
1936	1.07	0.96	0.09	0.02	0.15	0.04
1937	1.07	0.96	0.10	0.02	0.16	0.03
1938	1.08	0.96	0.11	0.01	0.17	0.03
1939	1.08	0.95	0.11	0.02	0.18	0.04
1940	1.08	0.95	0.12	0.01	0.19	0.03
1941	1.09	0.95	0.12	0.01	0.19	0.03
1942	1.09	0.95	0.13	0.01	0.19	0.03
1943	1.09	0.95	0.13	0.01	0.21	0.03
1944	1.10	0.95	0.14	0.01	0.21	0.03
1945	1.09	0.94	0.14	0.01	0.21	0.03
1946	1.09	0.95	0.13	0.01	0.20	0.02
1947	1.09	0.95	0.13	0.01	0.20	0.02
1948	1.08	0.94	0.13	0.01	0.20	0.02
1949	1.07	0.94	0.13	0.01	0.20	0.02
1950	1.06	0.93	0.13	0.01	0.19	0.02
1951	1.06	0.93	0.12	0.01	0.19	0.01
1952	1.06	0.93	0.12	0.01	0.19	0.01
1953	1.04	0.92	0.12	0.01	0.19	0.01
1954	1.03	0.91	0.11	0.00	0.18	0.01
1955	1.03	0.91	0.11	0.01	0.18	0.01
1956	1.02	0.90	0.11	0.00	0.17	0.01
1957	1.01	0.90	0.11	0.00	0.17	0.01
1958	0.99	0.89	0.10	0.00	0.16	0.01
1959	0.98	0.88	0.09	0.00	0.15	0.01
1960	0.95	0.87	0.08	0.00	0.14	0.01

Note that the number of marriages can be larger than one because of remarriages from divorced or widowed. The way our tables are completed for the censored cohorts guarantees that the number of events in the table is the same as the observed number of events. The tables depict the average number of events per person in a cohort, but an individual person may experience a certain event more than once.

Around 90 percent of women in the oldest cohorts married for the first time, a figure that does not change appreciably for the war cohorts around 1922. After 1926 it goes up to around 95 percent and remains at that high level (except for the youngest generations, but here the number of events is underestimated due to censoring). In the oldest cohorts more than 40 percent experience the event of becoming widowed (it would be more precise to say that 100 women experienced the event of becoming widowed 40 times, because a woman can experience an event more than once between age 16 and age 50), only a fraction remarriages and most women remain widowed. Combining table 1 and 2 we can get an impression of the impact of the war on women's lives. In the 1914 cohort a woman was widowed on average 0.40 times and, according to table 1, every woman in this generation lived on average for 6.2 years in the widowed state, so that the event of becoming widowed implied on average 15.5 years in the widowed state. The average number of divorces per woman goes up from .04 in 1910 to 0.24 in 1943; afterwards remains at that level. In the youngest generations we only have the number of times divorced up to the age at censoring and the lifetime figure certainly will be higher.

The number of first marriages for males is even higher than for females. Only in the youngest cohorts there is a decline but that may be accounted for by censoring due to the higher age at marriage of males. The number of times males are widowed is always very low. The number of times divorced is systematically lower for males than for females, reflecting the difference in age at marriage, which may lead to more male divorces above age 50 or age at censoring. This effect is particularly clear when we compare the youngest cohorts. Moreover more male divorcees remarry, which corresponds with the finding in table 1 that males spent fewer years in the divorced state than females.

2.3.3. Age at transition between marital states

Table 3: *Mean age at transitions between different marital states during the reproductive period (16-50 years) by sex and year of birth (1910-1960), Russia.*

Year	Females				
	First marriages	Divorced	Remarried after Widowed	Divorced	Age when Widowed
1910	22.2	29.9	35.6	29.5	33.7
1911	22.2	30.7	35.4	29.8	32.9
1912	22.2	30.8	35.0	30.4	32.3
1913	22.4	32.0	34.5	30.1	31.8
1914	22.4	31.9	34.2	29.9	31.2
1915	22.4	32.0	33.6	30.1	30.6
1916	22.5	32.0	33.1	30.2	30.0
1917	22.7	31.9	32.6	29.8	29.9
1918	22.8	32.3	31.8	29.8	29.5
1919	23.2	32.5	31.5	30.4	29.7
1920	23.8	32.8	30.9	31.0	30.5
1921	24.1	33.3	31.4	31.3	31.8
1922	24.4	33.6	31.6	31.8	33.3
1923	24.4	33.9	33.1	32.1	35.2
1924	24.4	33.8	34.7	32.1	36.7
1925	24.2	34.1	36.3	32.3	37.6
1926	24.0	34.1	36.4	32.3	38.0
1927	23.8	34.2	36.8	32.4	38.1
1928	23.7	34.0	37.2	32.6	38.3
1929	23.7	34.3	37.3	32.9	38.6
1930	23.6	34.4	38.0	33.1	38.8
1931	23.5	34.5	38.2	33.3	39.1
1932	23.4	34.4	38.2	33.1	39.2
1933	23.2	34.7	38.5	33.2	39.0
1934	23.0	34.7	37.9	33.1	38.7
1935	23.0	34.6	38.2	33.2	38.6
1936	22.9	34.8	38.1	33.1	38.7
1937	22.8	34.8	37.9	33.0	38.5
1938	22.7	34.9	38.0	33.0	38.4
1939	22.6	34.8	38.4	32.9	38.4
1940	22.6	34.9	38.5	32.9	38.3
1941	22.4	34.8	38.1	32.5	38.4
1942	22.3	35.1	38.2	32.4	38.3
1943	22.2	34.8	38.3	32.1	38.5
1944	22.3	34.5	37.4	32.0	37.8
1945	22.2	34.0	36.9	31.6	37.1
1946	22.2	33.6	36.2	31.2	36.4
1947	22.2	33.5	35.6	31.0	35.9
1948	22.1	32.9	35.1	30.7	35.2
1949	21.9	32.5	34.1	30.2	34.4
1950	21.9	32.2	33.6	29.9	33.7
1951	21.8	31.7	32.9	29.4	33.0
1952	21.8	31.3	32.1	29.2	31.8
1953	21.6	30.7	31.7	28.6	31.4
1954	21.6	30.1	31.0	28.3	30.8
1955	21.5	29.8	30.3	27.9	30.2
1956	21.5	29.3	29.9	27.4	29.4
1957	21.4	28.8	29.3	27.1	28.9
1958	21.4	28.2	28.9	26.6	28.3
1959	21.3	27.8	28.2	26.3	27.8
1960	21.2	27.2	27.5	25.9	27.3

Table 3 (continued)

Year	Males				
	First marriages	Remarried after		Age when	
		Divorced	Widowed	Divorced	Widowed
1910	26.3	36.2	37.7	32.6	36.2
1911	26.2	37.1	37.2	33.2	35.6
1912	26.5	36.0	37.6	33.1	35.9
1913	26.6	35.9	36.6	32.3	35.0
1914	26.8	35.3	36.8	32.4	35.0
1915	27.0	35.5	37.2	32.3	35.2
1916	27.2	34.6	37.4	32.2	35.8
1917	27.1	34.5	36.2	32.4	34.8
1918	27.0	34.9	38.0	32.8	36.7
1919	26.8	35.1	36.7	33.2	35.8
1920	26.6	35.6	37.9	33.6	37.6
1921	26.3	35.6	37.4	34.2	37.4
1922	25.9	36.3	37.5	34.4	37.3
1923	25.5	35.4	38.3	34.0	37.6
1924	25.3	35.6	38.1	33.9	38.0
1925	25.4	35.6	39.1	34.6	38.6
1926	25.4	36.1	38.5	34.6	38.6
1927	25.1	36.1	38.4	34.5	38.1
1928	25.1	35.9	39.0	34.3	38.9
1929	25.0	36.3	38.7	34.8	38.9
1930	25.1	36.3	38.9	34.9	39.2
1931	25.1	36.4	38.9	34.9	39.5
1932	24.9	36.6	39.6	34.8	39.9
1933	24.8	36.7	39.0	34.9	39.6
1934	24.8	36.5	39.3	35.0	39.2
1935	24.8	36.6	39.3	34.7	39.4
1936	24.7	36.9	39.8	34.7	39.7
1937	24.8	36.9	39.5	34.8	39.2
1938	24.8	36.9	39.9	34.5	39.4
1939	24.9	36.9	39.7	34.5	39.9
1940	25.1	37.2	39.6	34.6	39.7
1941	25.1	36.9	40.1	34.4	39.9
1942	25.1	36.6	39.5	34.2	39.8
1943	24.9	36.6	40.1	34.0	40.1
1944	24.9	36.5	39.0	33.5	39.4
1945	24.6	35.9	38.9	33.2	38.7
1946	24.3	35.4	37.6	32.8	37.8
1947	24.1	34.8	36.8	32.3	37.0
1948	23.9	34.5	36.2	31.9	36.4
1949	23.8	33.9	36.2	31.5	35.9
1950	23.7	33.5	34.9	31.0	35.2
1951	23.6	32.8	34.2	30.6	34.1
1952	23.5	32.4	33.8	30.2	33.8
1953	23.4	31.9	33.2	29.7	33.0
1954	23.4	31.3	32.1	29.3	31.7
1955	23.3	30.8	31.7	29.0	31.3
1956	23.3	30.3	30.7	28.5	30.5
1957	23.3	29.9	30.2	28.2	30.0
1958	23.2	29.3	29.9	27.8	29.3
1959	23.1	28.7	29.3	27.3	28.8
1960	23.1	28.2	29.1	27.0	28.2

Note that mean age at the event of divorce or widowhood may be higher than mean age at remarriage because only part of the divorced or widowed will remarry before age 50 and those remarrying will in general be younger. The mean age at transition will be more and more biased downwards in the cohorts after 1943 due to censoring. For first marriages the bias will be small because Russians marry young, but for the youngest cohort all mean ages will be below 33 due to the method we adopted for completing a censored table.

The mean age at first marriage for women declined from around 22.2 years in the oldest cohorts, which compared with West European patterns is very young, to just above 21 years in the youngest generation. We note the low age when widowed for all cohorts up to 1925. For most cohorts age when widowed is higher than age at remarriage after being widowed. This implies that, taking into account the low remarriage probabilities for widowed women, only women widowed at a young age remarried. The difference between age at first marriage and age when divorced is typically around 10 years in the complete tables. Given the very narrow distribution of age at marriage for women, this can be interpreted as the mean duration of marriage at divorce.

Men are on average around 2 years older at first marriage than women from the same generation. This age difference also applies for divorces and remarriages after divorced, which is remarkable, because divorced males not necessarily remarry with divorced females. Surprisingly the age when widowed for males is only slightly higher for males than for females, except, for obvious reasons, in the cohorts most affected by the war. Given the higher age at marriage for males and the higher male mortality we expect a larger difference. According to table 2 the experience of being widowed was very rare for males but when widowed this occurred at a rather early age, this could point to maternal mortality.

2.3.4. Conditional probabilities

The foregoing tables do not exhaust the analytical possibilities of the multistate approach. Limits of space and time oblige us to give only one more interesting application. In the following graphs we depict the conditional probabilities of being in a marital state at a certain age, given the marital status at an earlier age. Again these results are given for both sexes and for all cohorts for which a probability can be defined.

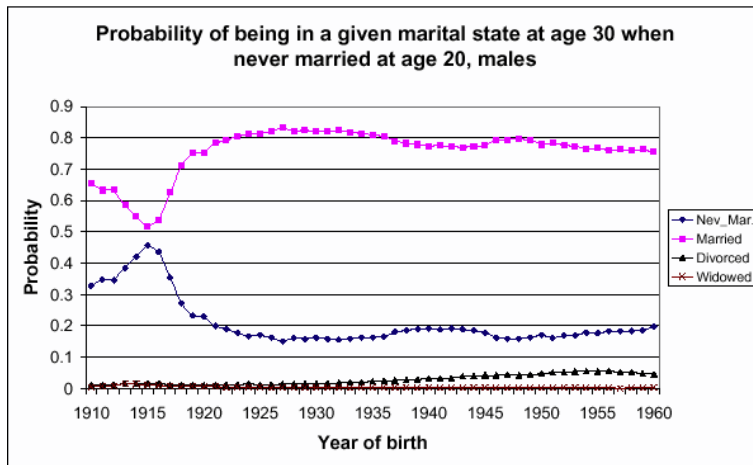


Figure 10: *Conditional probabilities for the marital state at age 30 for males that are never married at age 20*

In figure 10 we show the (conditional) probabilities for the marital state at age 30 for males that are never married at age 20. Remember that at age 20 less than 10 percent of males have married. Except for the war cohorts, where postponement is evident the marriage pattern is quite stable. At age 30 around 20 percent is still never married and nearly 80 percent is married. Widowhood does not play any role in this age range, but the probability of being divorced, although small for all cohorts shows a continuous rise to around 5 percent in the youngest cohort.

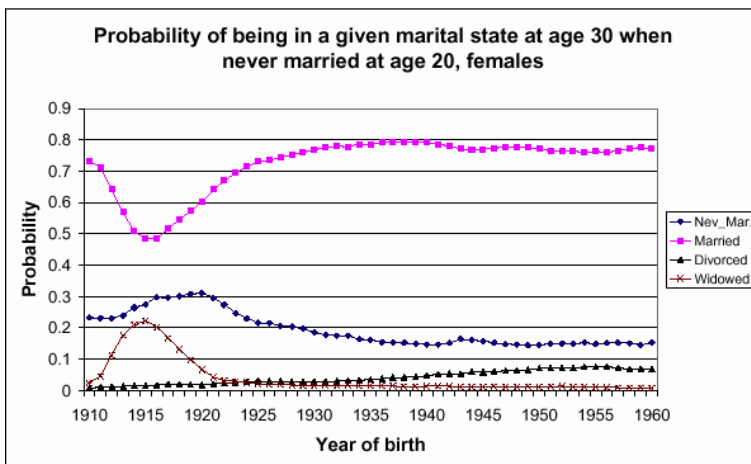


Figure 11: Conditional probabilities for the marital state at age 30 for females that are never married at age 20

In figure 11 the same probabilities are shown for females never married at age 20. The most striking difference with the male histories we see for the generations from 1912 to 1921: most affected by the Second World War between their 20th and 30th birthday. Women born in 1915, who were never married in 1935, had a probability of more than 20 percent of being widowed at age 30 in 1945.

For cohorts born after 1935 the probability of being married at age 30 is about the same for males and females. The probability of being divorced at age 30 is definitely higher for females than in the corresponding male cohorts, which reflects both the difference in age at marriage and the higher propensity to remarry for divorced males, that was noted in a foregoing section.

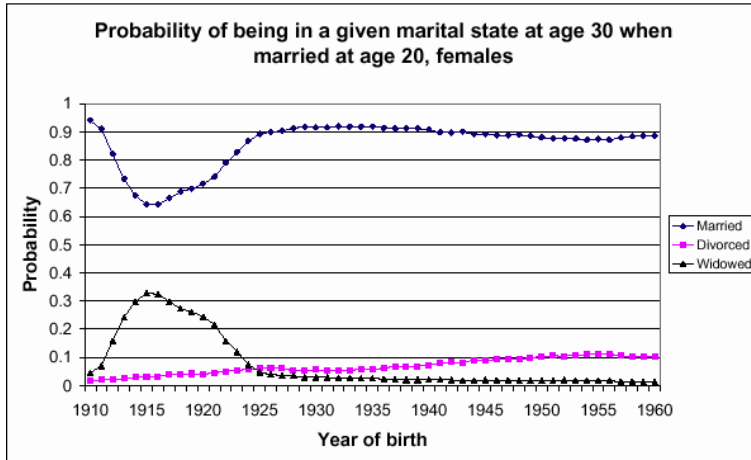


Figure 12: *Conditional probabilities for the marital state at age 30 for females that are married at age 20*

Because more than 30 percent of females marry before age 20 we show in figure 12 the conditional probabilities at age 30 for women married at age 20. In the generations 1915 and 1916 more than 30 percent of these women were widowed at age 30. Again the secular increase of divorce is to be noted.

When describing the marital careers between age 30 and age 50 we should distinguish four initial states: never married, married, divorced and widowed. Only the conditional probabilities for married men and women will be shown. Only cohorts born before 1944 had already reached age 50 at the time of the micro census.

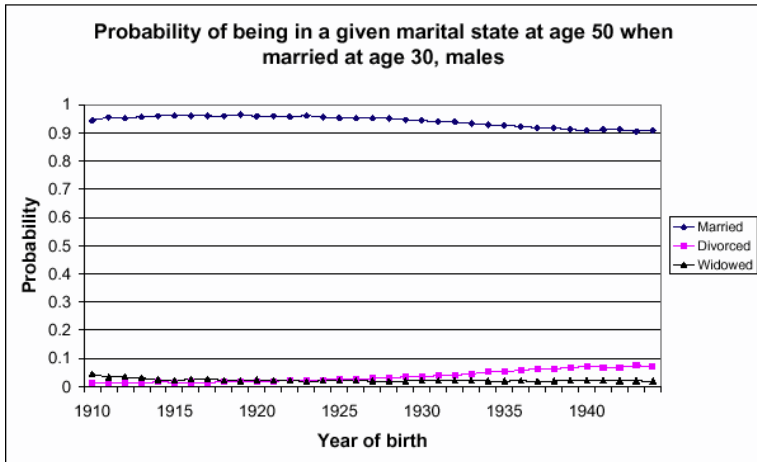


Figure 13: *Conditional probabilities for the marital state at age 50 for males that are married at age 30*

In figure 13, the history of males married at age 30 (and still alive at the date of the micro census) looks extremely stable. The probability of being married at age 50 is more than 90 percent. Note that this is not necessarily the same marriage than at age 30. There may have been dissolution(s) and remarriage(s) in the intervening period. Again the probability of being divorced shows a continuous increase.

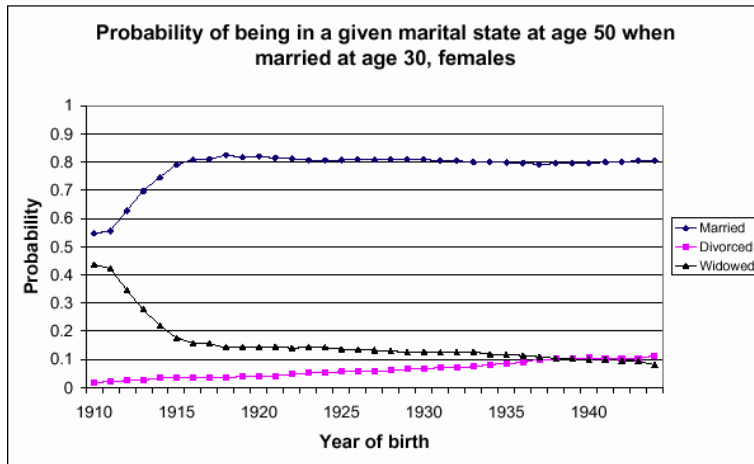


Figure 14: *Conditional probabilities for the marital state at age 50 for females that are married at age 30*

Again women tell a different story as can be seen from figure 14. In the oldest generations nearly 45 percent is widowed at age 50, but in all cohorts widowhood is significant. A decline of widowhood over the generations is offset by the already noted increase of divorce. In all generations since 1916 around 80 percent of those married at age 30 is married at age 50.

3. Conclusions

Data on the individual life history of 7 million people were collected in the 1994 micro census of the Russian Federation. The large size and the representativeness of the sample guarantees that every age group up to around age 90 years for females and age 80 for males is represented with enough respondents to permit the reconstruction of part of the demographic history, in particular with respect to marital behavior. Given the paucity of reliable demographic data on the U.S.S.R. and Russia during most of the period between 1926 and 1959 the micro census offers the last opportunity to question people who lived through a large part of the most turbulent part of the history of the Soviet empire.

We can analyze continuity and change in demographic behavior for a large number of generations in numeric detail, but our data give no information as to changing social,

economic or emotional aspects of marriage, divorce and widowhood. There was a tremendous change in education, a growing number of young people got longer schooling in succeeding generations, but the age at first marriage of women, which was already low in the oldest generations went down. From around 1936 to 1966 divorce was very difficult to obtain and the relatively low incidence of divorce in the older cohorts that reached age 50 before or around 1966 therefore cannot be interpreted as an indicator of the stability of the institution of marriage.

These reservations notwithstanding we could assemble the data on individual marital events in multistate marital tables for all cohorts born since 1910. Given the limitations of retrospective data, which only apply for those members of a birth cohort that are still alive at the date of the micro census, our tables offer the most complete description of marriage in Russia during most of the 20th century. As far as we know multistate marital tables for males were not presented before.

The first conclusion that can be drawn is that some aspects of marital behavior were extremely stable over the cohorts we could study. The traditional pattern of early and almost universal marriage did not change. The mean age of marriage even declined from an already very low level. The Second World War led to a postponement of first marriage and to a remarkably slight increase of the proportion of women never marrying in the cohorts most affected.

Divorce became ever more important: in the oldest cohort of 1910 the number of divorces per woman was only 0.04 and for men 0.05, but it increased nearly linearly to 0.24 for women and 0.21 for men in the cohort 1943. In all later cohorts that could not be followed up to age 50 we see an increase of divorce: in every succeeding cohort the number of divorced males or females at a given age increases. Only in the youngest cohorts there is some stabilization or a small decline (figure 8, 9).

Widowhood is of importance for females only, especially and understandingly for the women born before 1923 due to the heavy losses during the Second World War. For the generations born since 1923 the number of times widowed per woman declines constantly, which of course is an immediate effect of the decline of mortality in Russia, especially since around 1950.

The collapse of the socialist regimes in the U.S.S.R. and Eastern Europe since 1989 and the transition from a planned to a market society, which is still going on, led to a total change of life, which also will affect demographic behavior. In our data there is some indication of changes taking place with respect to marriage and divorce, but the date of the micro census is too early to decide whether this implies a postponement or genuine structural change. Recent data could imply the latter possibility (Avdeev and Monnier 1999, Philipov 2001).

Notes

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2. All computer programs to extract data from the micro census and to perform multistate marital table analysis were developed by S. Scherbov.
3. One of the authors (H.v.V) thanks the Vienna Institute of Demography (IfD) for its hospitality.
4. A preliminary poster version of this paper was presented at the 2000 Annual Meeting of the Population Association of America in Los Angeles.

References

- Andreev, E.L., L. Darsky and T. Kharkova (1998): Demographic history of Russia. Moscow, Informatika [in Russian].
- Avdeev, A. and A. Monnier (1999): La nuptialité russe, une complexité méconnue, *Population*, **54**(4-5), 635-676. English translation: Marriage in Russia, a complex phenomenon poorly understood, *Population: an English selection*, **12**, (2000), 7-50.
- Darsky, L. and S. Scherbov (1995): Marital status behavior of women in the former Soviet Republics. *European Journal of Population* **11**(1), 31-62.
- Goskomstat (1995): Goskomstat of Russia, 1994 Microcensus of Russia, topical results (8 volumes). Goskomstat, Moscow [in Russian].
- Hajnal, J. (1965): European marriage patterns in perspective, in: D.V. Glass and D.E.D. Eversley (ed), *Population in history: essays in historical demography*. London, U.K., Arnold, 101-143.
- Philipov, D. (2001): Low fertility in Central and Eastern Europe: culture or economy? Paper presented at the IUSSP seminar on 'International perspectives on low fertility: trends, theories and policies', Tokyo, March 21-23, 2001.
- Scherbov, S. and H.A.W. van Vianen (1999): Marital and fertility careers of Russian women born between 1910 and 1935. *Population and Development Review*, **25**(1), 129-143.
- Scherbov, S. and H.A.W. van Vianen (2001): Marriage and fertility in Russia of women born between 1900 and 1960: a cohort analysis. *European Journal of Population*, **17**(3), 281-294.
- Scherbov, S. and H.A.W. van Vianen (2002): Period fertility in Russia since 1930: an application of the Coale-Trussell fertility model. *Demographic Research*, **6**(16), 454-468.
- Volkov, A.G. (1999): Methodology and organization of the 1994 microcensus in Russia. Groningen, Population Research Centre Working Papers 99-5.
- Willekens, F. (1987): The marital status life table, in: J. Bongaarts, T.K. Burch and K.W. Wachter (ed), *Family demography and their applications*. Oxford, U.K., Clarendon Press, 125-149.