## Union Formation in Russia, 1985-2001

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Since the beginning of the 1990s Russia has experienced a number of well-publicized demographic crises. Mortality has increased precipitously, especially among males, whose life expectancy fell from about 65 years in mid-1980s to 57 in 1994. Fertility rates, which had declined slowly since the 1950s but recovered in the 1980s, dropped sharply: by 2000, the total fertility rate was 1.2. The combination of these trends helped produce a net population loss of 3 million people from 1992 to 2000, despite substantial net in-migration. These patterns are probably related to the collapse of the Soviet Union in late 1991 and the ensuing economic, political, and social turmoil.

We examine an aspect of demographic change in contemporary Russia that has received less attention from scholars: union formation. Decisions to marry and cohabit are affected by a variety of economic, political, and socio-cultural factors. Because the collapse of the Soviet Union has brought about dramatic changes in each of these dimensions, we would expect corresponding changes in rates of marriage and cohabitation. In fact, the rapid and sweeping nature of Russia's economic and social transformations make Russia an especially suitable case for the study of how patterns of union formation change in response to economic and social crises. In turn, nuptiality clearly affects fertility and probably also affects morbidity and mortality, as well as host of other economic and social outcomes. Thus, by analyzing union formation in Russia, we can gain insight into other demographic and social processes that have attracted more attention.

Based on official data, we do know that Russia's crude marriage rate has declined steadily since 1990. But the crude marriage rate is an unreliable measure of actual trends, because it takes no account of the size of the risk set, which can vary independently of population size. Anecdotal evidence points to an increase in the rate of cohabitation, but reliable data are hard to come by, and we cannot tell whether the increase in cohabitation has offset the putative decrease in marriage. Moreover, previously available data offer no insight into what factors are driving the putative trends in marriage and cohabitation. If marriage rates are declining and cohabitation rates increasing, it could be largely due to changing population composition with respect to age, education, employment status, and marital status.

In order to determine the actual trends in union formation in Russia and consider possible explanations for them, we analyze marital histories spanning 1985-2001 from the Survey on Stratification and Migration Dynamics in Russia. This new survey was conducted on a multistage, stratified probability sample of 7,176 Russian adults in three waves from September 2001 through January 2002. The lead author designed a special battery of questions for the survey that elicit the respondent's marital status in December 1984 and the timing (month and year) and nature of each change in marital status from that time through the month of the survey. Based on this information, we construct complete marital histories for all respondents. The special battery also includes questions

the permit us to construct employment and residential mobility histories covering the same period, as well as a range of demographic measures. We have extensively cleaned the histories and transformed the observation file into a spell file. We also merged annual data on regional economic characteristics from official sources with the spell file, using the migration histories to identify the region where the respondent lived at any point in time. We capitalize on the unusual richness of these data by estimating event history models of individual-level union formation events that incorporate time-varying measures of individual and contextual factors that potentially influence these events.

Our analyses address four broad questions:

- 1. What are the trends in the raw (gross) and adjusted (net of covariates) rates of first marriage, remarriage, any marriage, and cohabitation in Russia from 1985-2001, *among those at risk* for these outcomes?
- 2. How do marital status, age, gender, education, employment status, city size, and regional economic conditions affect union formation in contemporary Russia?
- 3. Do the effects of other covariates, particularly age, vary by gender?
- 4. Have the effects of some covariates, particularly age, education, and employment status, changed following the collapse of the Soviet Union at the end of 1991?

Our analytic approach involves the estimation of continuous-time event history models for the four outcomes of interest, where the time metric is calendar time (in months). Because marriage is rare for Russians over 50, we restrict our analyses to spells where respondents are aged 16-50. We initially parameterize change over time in the baseline hazard using dummy variables for each year subsequent to 1985. We plot the coefficients on these dummy variables and test alternative smoothing functions. We then add the individual and contextual variables of interest to the model in order to determine their effects and to assess the "adjusted" temporal trends. We estimate separate models for male and female respondents to examine variations in effects by gender. Finally, we estimate separate models for pre-transition and post-transition periods (using December 1991 as the cutoff point) in order to see if the effects of covariates changed as a result of the collapse of the USSR.

Thus far, we have estimated some preliminary models for any marriage (not distinguishing between first marriage and re-marriage) and for cohabitation. The attached tables show some of these results. Our main preliminary findings are as follows:

- 1) In Russia, marriage rates have declined across the board since 1985.
- 2) The decline does not stem from changing population composition: the raw and adjusted trends are nearly identical.

- 3) The age profile for marriage rates in Russia is typical and typically differs for men and women.
- 4) The gender-specific age profiles are fairly stable over time. This, as well as year-to-year stability in the age at first marriage within our sample, suggests that Russian has experienced a genuine decline in marriage, not delayed marriage.
- 5) Marital status, education, and employment status all significantly affect marriage rates in Russia:
  - a. Cohabiters and divorcees have lower rates
  - b. Graduates of universities and technical secondary schools have higher rates
  - c. Students and the unemployed have lower rates
- 6) Cohabitation rates have increased for men and women.
- 7) The increase in cohabitation also cannot be attributed to population composition, but reflects a secular trend.
- 8) Prior marriage and self-employment increase hazard of cohabitation

Our full paper will refine the analyses on which these preliminary findings are based (in particular, by incorporating variables measuring regional economic conditions), conduct the equivalent analyses of first marriage and re-marriage, and discuss the broader theoretical implications of the key results.

TABLE 1 Annual Cross-sectional Marital Status, SMDR Respondents 16-50 Years Old at the Start of Each Year

	never			separated/			
	married	married	cohabiting	divorced	widowed	$\mathbf{N}$	Mean age
1985	29.1%	62.3%	2.2%	4.8%	1.6%	4,280	31.5
1986	28.2%	62.0%	2.4%	5.8%	1.6%	4,211	31.6
1987	29.1%	61.1%	2.2%	5.8%	1.8%	4,209	31.4
1988	29.3%	60.9%	2.3%	5.9%	1.5%	4,181	31.2
1989	29.8%	60.1%	2.4%	6.4%	1.4%	4,164	31.0
1990	29.1%	59.9%	3.1%	6.5%	1.5%	4,181	31.1
1991	29.1%	59.8%	2.9%	6.8%	1.4%	4,164	30.9
1992	30.4%	58.3%	3.0%	6.9%	1.5%	4,161	30.7
1993	30.0%	57.6%	3.3%	7.8%	1.4%	4,212	30.8
1994	28.6%	57.7%	3.4%	8.7%	1.6%	4,347	31.0
1995	28.4%	56.9%	3.8%	9.1%	1.9%	4,418	31.4
1996	27.9%	56.1%	4.1%	9.8%	2.1%	4,460	31.9
1997	28.1%	54.9%	4.9%	9.9%	2.3%	4,521	31.9
1998	27.9%	53.7%	5.4%	10.6%	2.3%	4,539	32.1
1999	29.9%	51.5%	5.5%	11.0%	2.2%	4,605	31.8
2000	29.4%	50.8%	6.6%	11.3%	2.0%	4,530	31.9
2001	28.9%	49.9%	7.5%	11.6%	2.2%	4,424	32.2

TABLE 2:Full Additive Models for Marriage, SMDR Respondents at Risk Aged 16-50

Men and Women Men Women Women

_	Men and Women		Men		Women	
_	b	se	b	se	b	se
Current Marital Status (	Never Marrie	d)				
Cohabiting	523 **	.112	650 **	.186	491 **	.141
Divorced/Separated	567 **	.096	492 **	.163	563 **	.118
Widowed	-1.540 **	.311	382	.589	-1.645 **	.386
Woman	.159 **	.051				
Age group (39 to 50)						
16 to 17	.167	.251	-1.580 **	.554	.774 **	.316
18 to 20	1.740 **	.143	.603 **	.243	2.279 **	.186
21 to 23	2.197 **	.133	1.613 **	.207	2.505 **	.177
24 to 26	2.023 **	.135	1.508 **	.207	2.272 **	.182
27 to 29	1.657 **	.144	1.169 **	.220	1.907 **	.194
30 to 32	1.376 **	.155	1.271 **	.223	1.321 **	.219
33 to 35	.720 **	.185	.695 **	.269	.668 **	.258
36 to 38	.459 **	.199	.439	.284	.398	.282
<b>Highest Degree Attained</b>	(General Seco	ondary)				
University	.359 **	.083	.293 **	.128	.473 **	.110
Some College	020	.098	.040	.179	015	.120
<b>Specialized Secondary</b>	.262 **	.072	.281 **	.111	.293 **	.095
<b>Lower Vocational</b>	.178 **	.078	.051	.111	.336 **	.110
Less than Secondary	178	.156	323	.230	086	.213
Main Activity (Employed	l)					
Studying at university	433 **	.086	546 **	.153	375 **	.106
Studying, other school	447 **	.089	566 **	.182	380 **	.103
Self-employed	.047	.204	.202	.235	327	.387
Unemployed	322 **	.158	394 *	.224	304	.224
NLF	.047	.147	246	.275	.158	.181
<b>Maternity Leave</b>	.568 **	.157	.868	1.383	.646 **	.161
Military Service	-1.183 **	.194	940 **	.204	-8.632 **	1.027
Retired/Disabled	-1.195 **	.448	-1.148 *	.615	-1.312 **	.633
Other	119	.322	120	.348	364	.723
Unobserved	-7.883 **	.616	-10.200 **	.754	-7.368 **	.696
Family in locality	002	.077	184	.117	.127	.103
Locality type (small or m	edium city)					
Rural village	024	.070	212 *	.113	.110	.089
Large city (>1 mil)	105	.065	146	.105	072	.083
Moscow	159 **	.072	215 *	.113	103	.093
City missing	216 **	.089	343 **	.144	124	.112
Family missing	076	.136	340	.224	.132	.169

Table 2 (cont.)
Full Additive Models for Marriage, SMDR Respondents at Risk Aged 16-50

Men and Women Men

Tun Additive Mo	ucis ioi	Men and Wo	_	Men	Ageu 10-	Women		
	=	b	se	b	se	b	se	
<b>Year</b> (1985)	_							
	1986	190	.119	431 **	.190	032	.154	
	1987	178	.119	082	.173	256	.166	
	1988	369 **	.128	706 **	.214	151	.163	
	1989	172	.119	536 **	.203	.063	.150	
	1990	161	.119	280	.186	061	.157	
	1991	303 **	.124	386 **	.190	221	.166	
	1992	548 **	.133	691 **	.203	428 **	.176	
	1993	370 **	.125	615 **	.202	184	.161	
	1994	487 **	.129	539 **	.196	430 **	.172	
	1995	368 **	.122	668 **	.200	151	.157	
	1996	540 **	.130	695 **	.201	396 **	.172	
	1997	638 **	.131	862 **	.210	456 **	.169	
	1998	618 **	.128	658 **	.194	563 **	.171	
	1999	678 **	.129	817 **	.200	548 **	.170	
	2000	697 **	.129	-1.148 **	.220	406 **	.162	
	2001	-1.031 **	.149	-1.106 **	.224	962 **	.201	
Constant		-6.101 **	.178	-5.067 **	.259	-6.650 **	.235	
Subjects		3920		1509		2411		
Log-likelihood		-2849.6		-1125.4		-1634.4		
<b>Events</b>		1790		702		1088		
Time at risk		334878		132101		202777		

TABLE 3  $\begin{array}{l} \textbf{Preferred Gender Interaction Models for Marriage, by Period, SMDR Respondents at Risk } \\ \textbf{Aged 16-50} \end{array}$ 

_	All years		1985-1991		1992-2001	
=	b	se	b	se	b	se
Current Marital Status (	Never Marrie	<u>d)</u>				
Cohabiting	552 **	.111	375 **	.167	668 **	.150
Divorced/Separated	518 **	.094	588 **	.141	456 **	.123
Woman*Widowed	-1.633 **	.385	-1.416 **	.500	-1.863 **	.586
Woman	810 **	.135	693 **	.191	929 **	.185
Age group (39 to 50)						
16 to 17	-1.897 **	.478	-1.173 **	.560	-2.952 **	1.020
18 to 20	.605 **	.188	.623 **	.285	.614 **	.248
21 to 23	1.659 **	.158	1.635 **	.239	1.694 **	.207
24 to 26	1.550 **	.161	1.694 **	.237	1.403 **	.224
27 to 29	1.203 **	.183	1.360 **	.273	1.076 **	.248
30 to 32	1.333 **	.156	1.323 **	.232	1.337 **	.211
33 to 35	.715 **	.186	.784 **	.271	.624 **	.265
36 to 38	.454 **	.200	.586 *	.300	.319	.284
Woman interacted with						
16 to 17	2.645 **	.487	1.952 **	.571	3.762 **	1.034
18 to 20	1.737 **	.181	1.598 **	.264	1.870 **	.244
21 to 23	.897 **	.158	.707 **	.227	1.065 **	.216
24 to 26	.771 **	.170	.475 **	.236	1.055 **	.245
27 to 29	.746 **	.207	.379	.299	1.078 **	.287
<b>Highest Degree Attained</b>	(General Seco	ondary, So	ome College, Le	ss than Se	econdary)	
University	.424 **	.074	.378 **	.110	.485 **	.099
<b>Specialized Secondary</b>	.296 **	.065	.387 **	.097	.248 **	.089
<b>Lower Vocational</b>	.213 **	.072	.203 *	.104	.260 **	.100
Main Activity (Employed	*	nployed, (	Other)			
Studying at university	435 **	.084	282 **	.122	553 **	.117
Studying, other school	438 **	.087	647 **	.143	327 **	.113
Unemployed	343 **	.157	-1.030 **	.396	189	.168
<b>Maternity Leave</b>	.640 **	.156	.683 **	.225	.574 **	.226
Military Service	879 **	.197	876 **	.249	902 **	.298
Retired/Disabled	-1.244 **	.441	-1.508 **	.645	985 *	.574
Unobserved	-9.549 **	.696			-9.857 **	.724

Table 3 (cont.)

Preferred Gender Interaction Models for Marriage, by Period, SMDR Respondents at Risk Aged 16-50

		All years		1985-199	1985-1991		)1
		b	se	b	se	b	se
Locality type (sm	all or m	edium city)					
Rural village		178 *	.105	192	.152	166	.147
Woman*rural		.248 *	.128	.224	.186	.289 *	.175
<b>Big City</b>		101	.065	085	.096	100	.089
Moscow		154 **	.071	123	.099	174 *	.100
City missing		211 **	.088	155	.134	231 **	.116
Year							
	1985						
	1986	196	.119	194	.119		
	1987	178	.120	175	.120		
	1988	366 **	.128	365 **	.128		
	1989	164	.119	167	.119		
	1990	156	.119	160	.119		
	1991	296 **	.124	296 **	.124		
	1992	547 **	.132			171	.145
	1993	370 **	.125				
	1994	486 **	.129			113	.140
	1995	364 **	.122			.013	.136
	1996	529 **	.130			149	.142
	1997	628 **	.131			248 *	.143
	1998	608 **	.128			229	.141
	1999	670 **	.128			294 **	.143
	2000	696 **	.128			322 **	.141
	2001	-1.032 **	.149			664 **	.161
Constant		-5.576 **	.171	-5.605 **	.241	-5.968 **	.220
Subjects		3920		2389		3109	
Log-likelihood		-2782		-1816		-951	
<b>Events</b>		1790		855		935	
Time at risk		334878		118382		216496	

TABLE 4
Mean Age at First Marriage, By Sex (SMDR Data and Official Data)

V	Vomen, Official Data*	Women, Si	MDR Data	Men, SM	DR Data
	Mean Age at	Mean Age at		Mean Age at	
	First	First	N of	First	N of
Year	Marriage	Marriage	marriages	Marriage	marriages
19	085	22.4	79	24.3	67
19	986	23.0	61	26.1	40
19	<b>987</b>	22.2	56	23.9	51
19	988	22.5	56	25.7	29
19	<b>)89</b>	23.3	67	24.5	32
19	990	22.2	57	25.2	44
19	91	21.8	53	24.1	40
19	<b>992</b> 21.7	22.1	45	23.3	31
19	<b>993</b> 21.7	21.7	58	23.9	29
19	<b>21.8</b>	21.8	44	23.3	33
19	<b>995</b> 22.0	21.4	58	24.1	33
19	<b>996</b> 22.2	22.9	46	26.1	31
19	97	22.8	51	24.9	29
19	98	21.5	41	24.8	35
19	<b>199</b>	22.9	49	24.1	33
20	000	22.3	49	24.5	22
20	001	21.6	26	22.9	23

<sup>\*</sup>Cited in Zakharov (1999)

TABLE 5: Full Additive Models for Entering Cohabitation, At Risk Respondents 16-50

Men and Women Men Women Women

_	Men and Women		Men		Women	
_	b	se	b	se	b	se
Current Marital Status (	Never Marrie	<b>d</b> )				
Divorced/Separated	.765 **	.136	1.222 **	.197	.451 **	.173
Widowed	.441 *	.251	437	1.070	.545 **	.265
Woman	018	.106				
Age group (42 to 50)						
16 to 17						
18 to 20	1.470 **	.207	.762 **	.249	2.055 **	.255
21 to 23	1.558 **	.194	1.171 **	.227	2.028 **	.246
24 to 26	1.739 **	.192	.770 **	.249	2.041 **	.254
27 to 29	1.532 **	.199	.730 **	.258	1.983 **	.259
30 to 32	1.183 **	.213			1.428 **	.291
33 to 35	.563 **	.247			1.038 **	.307
36 to 38	.651 **	.234			.876 **	.319
39 to 41	.559 **	.247			.620 *	.348
<b>Highest Degree Attained</b>	(General Seco	ondary)				
University	.197	.171	.200	.281	.135	.215
Some College	.328	.202	.616 **	.310	.128	.255
<b>Specialized Secondary</b>	.364 **	.147	.503 **	.234	.259	.192
<b>Lower Vocational</b>	.370 **	.158	.585 **	.233	.177	.222
Less than Secondary	.810 **	.190	.449	.319	.948 **	.244
Main Activity (Employed	<b>l</b> )					
Studying at university	664 **	.224	549	.352	706 **	.273
Studying, other school	601 **	.183	-1.085 **	.390	419 **	.213
Self-employed	.782 **	.274	.692 *	.374	.823 **	.394
Unemployed	.379 **	.182	.324	.274	.420 *	.245
NLF	.075	.210	518	.443	.290	.245
<b>Maternity Leave</b>	.269	.333	-11.004 **	1.035	.365	.337
Military Service	-2.148 **	.714	-1.553 **	.713	-11.173 **	1.072
Retired/Disabled	721	.503	341	.564	-1.469	1.028
Other	406	.664	.007	.596	-12.618 **	.346
Unobserved	2.040 **	.817	.670	1.107	3.304 **	.785
Family in locality	298 **	.143	158	.228	341 *	.184
Locality type (small or m	edium city)					
Rural village	040	.146	.037	.220	089	.199
Large city (>1 mil)	.203	.135	.086	.225	.252	.172
Moscow	.076	.138	259	.242	.226	.172
City missing	046	.165	357	.305	.127	.201
Family missing	067	.230	.171	.346	095	.307

Table 5 (cont.)
Full Additive Models for Entering Cohabitation, SMDR Respondents at Risk Aged 16-50

Man and Woman

Woman

	_	Men and Women		Men		Women	
	_	b	se	b	se	b	se
<b>Year</b> (1985)	_						
	1986	942 **	.415	696	.707	-1.072 **	.516
	1987	306	.338	.001	.575	462	.422
	1988	-1.059 **	.438	685	.709	-1.251 **	.566
	1989	.029	.309	.124	.556	.002	.373
	1990	.192	.297	.607	.499	045	.383
	1991	037	.310	.418	.507	318	.408
	1992	.011	.306	.022	.557	.017	.367
	1993	103	.309	039	.559	117	.373
	1994	.106	.291	.008	.541	.172	.347
	1995	.438	.272	.544	.491	.418	.330
	1996	.372	.268	.263	.505	.463	.317
	1997	.275	.270	.598	.480	.122	.333
	1998	.187	.276	.421	.487	.111	.338
	1999	.475 *	.262	.637	.475	.440	.316
	2000	.679 **	.253	1.112 **	.448	.454	.314
	2001	.483 *	.266	.951 **	.465	.235	.335
Constant		-7.881 **	.324	-7.645 **	.534	-8.041 **	.372
Subjects		3867		1483		2384	
Log-likelihood		-1194		-422		-725	
<b>Events</b>		489		192		297	
Time at risk		305750		120487		185263	

TABLE 6
Preferred Gender Interaction Models for Entering Cohabitation, by Period, SMDR Respondents at Risk Aged 16-50

_	All years		1985-1991		1992-2001	
<del>-</del>	b	se	b	se	b	se
Current Marital Status (	Never Marrie	<b>d</b> )				
Divorced/Separated	.784 **	.127	.566 **	.255	.843 **	.145
Woman*Widowed	.701 **	.260	.363	.620	.793 **	.284
Woman	-1.246 **	.223	-1.959 **	.484	-1.064 **	.248
Age group (33 to 50)						
16 to 17						
18 to 20						
21 to 23	.577 **	.220	.036	.451	.737 **	.254
24 to 26	1.028 **	.205	.776 *	.404	1.117 **	.238
27 to 29	.709 **	.241	-1.140	1.032	1.017 **	.256
30 to 32	.724 **	.257	.957 **	.465	.630 **	.318
Woman interacted with						
18 to 20	2.250 **	.240	2.631 **	.484	2.220 **	.275
21 to 23	1.553 **	.313	2.659 **	.648	1.284 **	.359
24 to 26	1.061 **	.311	1.694 **	.653	.920 **	.352
27 to 29	1.258 **	.339	3.847 **	1.143	.762 **	.380
30 to 32	.635 *	.379	.368	.825	.718	.439
33 to 35	.968 **	.296	1.318 *	.709	.884 **	.325
36 to 38	.767 **	.309	1.262 *	.675	.647 *	.345
39 to 41	.498	.338	.870	.900	.409	.363
<b>Highest Degree Attained</b>	(General Seco	ondary, So			econdary)	
Some college	.455 *	.263	1.285 **	.598	.330	.288
Some*woman	352	.321	864	.691	348	.369
Specialized Secondary	.350 **	.127	.134	.255	.412 **	.144
<b>Lower Vocational</b>	.276 **	.134	.023	.274	.357 **	.150
Less*woman	1.029 **	.193	1.225 **	.392	1.043 **	.218
Main Activity (Employed	l, NLF, Self-ei	nployed, (	Other)			
Studying at university	648 **	.220	-1.151 **	.498	517 **	.251
Studying, other school	570 **	.168	330	.320	683 **	.197
Self-employed	.794 **	.275	2.137 *	.463	.612 **	.311
Unemployed	.364 **	.181	.423	.619	.359 **	.187
Military Service	-1.651 **	.709	-13.186 **	.241	-1.177 *	.709
Unobserved	1.707 **	.812			1.772 **	.834
Family in locality	259 **	.119	.107	.266	380 **	.132

Table 6 (cont.)
Preferred Gender Interaction Models for Entering Cohabitation, by Period, SMDR
Respondents at Risk Aged 16-50

•	_	All years		1985-199	1985-1991		1992-2001	
	_	b	se	b	se	b	se	
Year	_							
	1985							
	1986	947 **	.415	955 **	.414			
	1987	297	.337	303	.339			
	1988	-1.051 **	.438	-1.065 **	.440			
	1989	.028	.310	.022	.311			
	1990	.194	.297	.149	.301			
	1991	039	.311	089	.308			
	1992	.005	.307					
	1993	107	.310			103	.305	
	1994	.104	.292			.114	.287	
	1995	.436	.273			.447 *	.268	
	1996	.369	.268			.375	.270	
	1997	.267	.271			.278	.267	
	1998	.185	.276			.195	.275	
	1999	.471 *	.262			.479 *	.259	
	2000	.668 **	.253			.677 **	.245	
	2001	.472 *	.266			.486 *	.262	
Constant		-6.998 **	.267	-6.890 **	.388	-7.045 **	.283	
Subjects		3867				3045		
Log-likelihood		-1172				-705		
<b>Events</b>		489				372		
Time at risk		305750				195289		

FIGURE 1. Cross-Sectional Marital Status, January 1, 1985-2001, SMDR Respondents Aged 16 50

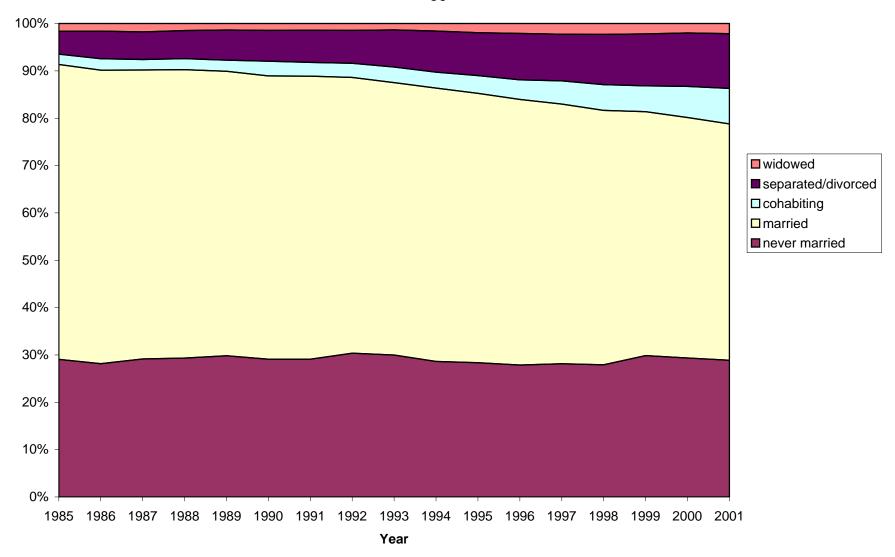


FIGURE 2. Union Events By Age in Russia, 1985-2001, SMDR Data

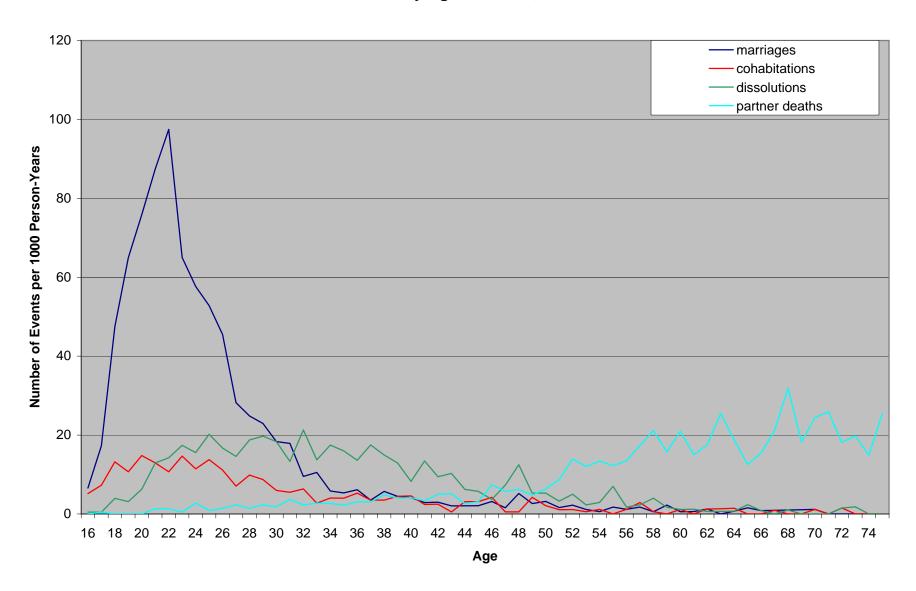


FIGURE 3. Logged Baseline Hazards, At Risk 16- to 50-Year-Olds, Simple Piecewise Constant By Year

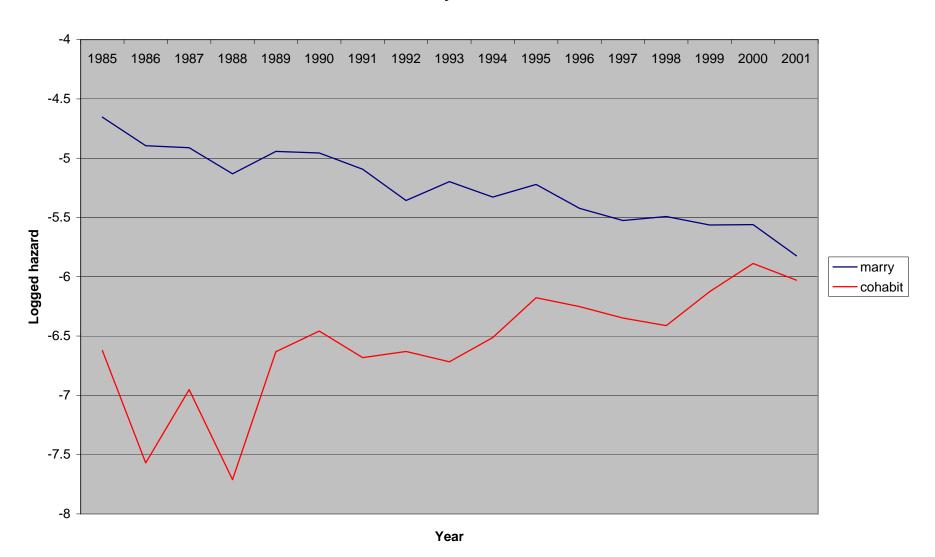


FIGURE 4. Gender, Age, and Logged Baseline Hazards of Marriage (Full Additive Models, Overall and by Gender)

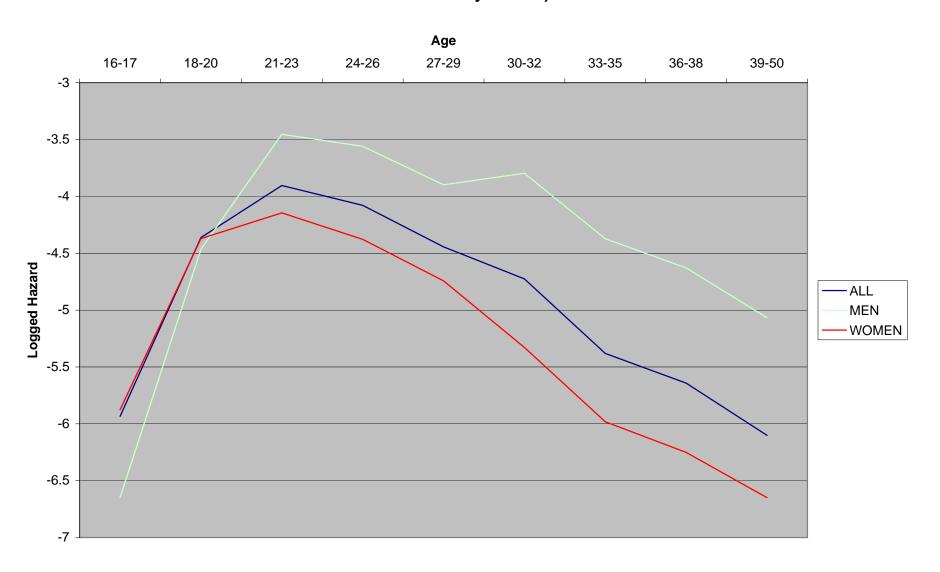


FIGURE 5. Gender, Year, and Logged Baseline Hazards of Marriage (Ajdusted Estimates from Full Additive Models, Overall and by Gender)

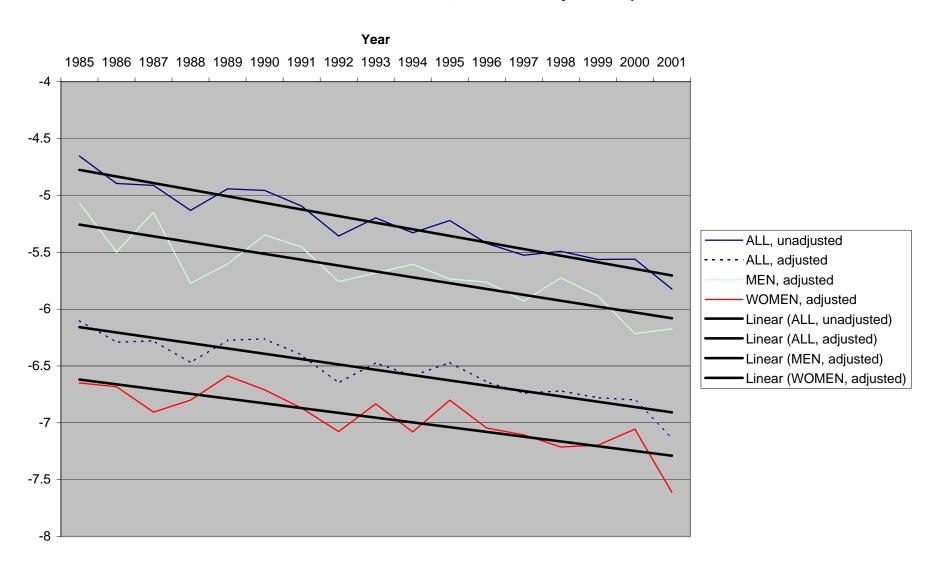


FIGURE 6. Age, Gender, Period, and Logged Baseline Hazards of Marriage, (Separate Models for Soviet and Post-Soviet Periods)



FIGURE 7. Gender, Age, and Logged Baseline Hazards of Entering Cohabitation (Full Additive Models, Overall and by Gender)

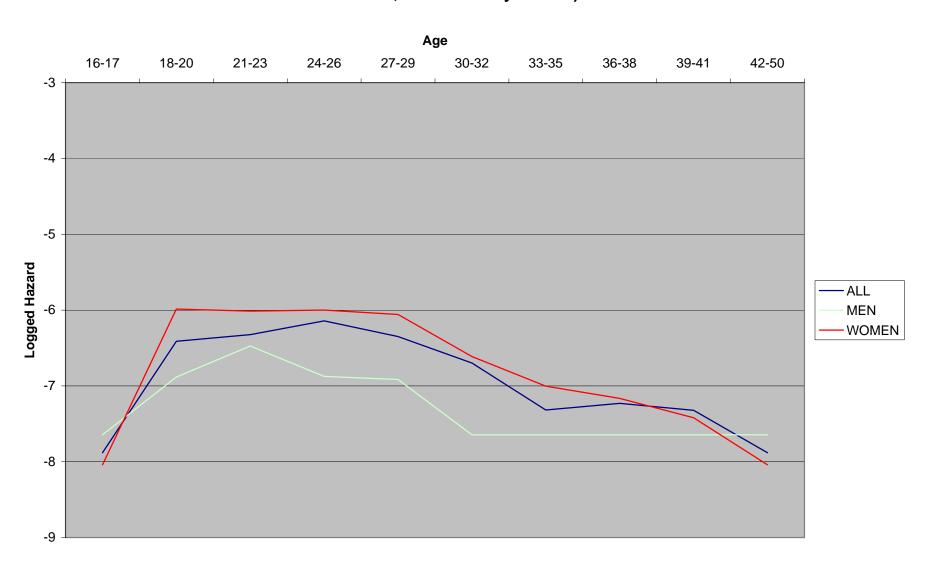


FIGURE 8. Gender, Year, and Logged Baseline Hazards of Marriage (Ajdusted Estimates from Full Additive Models, Overall and by Gender)

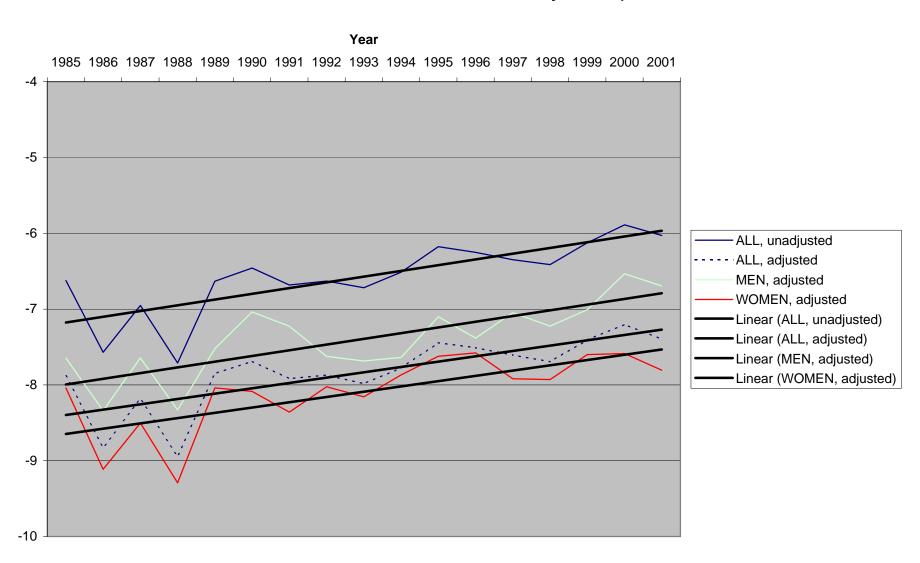


FIGURE 9. Age, Gender, Period, and Logged Baseline Hazards of Entering Cohabitation, (Separate Models for Soviet and Post-Soviet Periods)

