# Unraveling the Eurasian Nuptiality Conundrum: Ethnicity and Entry into First Union in Kyrgyzstan\*

Victor Agadjanian<sup>1</sup>

## Lesia Nedoluzhko<sup>2</sup>

### PremChand Dommaraju<sup>3</sup>

March 2007

Copyrights are held by the authors. This paper may not be cited or quoted without permission.

\* The support of the National Council for Eurasian and East European Research (NCEEER) is gratefully acknowledged.

<sup>1</sup> Corresponding author, School of Social and Family Dynamics, Arizona State University, Tempe Arizona 85287-3701, USA, email: vag@asu.edu; <sup>2</sup> Max Planck Institute for Demographic Research, Rostock, Germany; <sup>3</sup> Arizona State University.

### Unraveling the Eurasian Nuptiality Conundrum: Ethnicity and Entry into First Union in Kyrgyzstan

#### Abstract

Demographers have long been intrigued by ethnic and regional variations in family formation in Eurasia. We use data from a recent survey of young adults in northern Kyrgyzstan to examine ethnic differences in the dynamics of entry into first union — formal marriage or informal cohabitation. We move beyond the traditional contrast between the European-origin minority and the Kyrgyz majority by subdividing the latter into two subgroups based on the degree of European cultural influence (Russification). The results of the multinomial discrete-time logit model show that Europeans, in general, are less likely to marry and more likely to cohabit than less-Russified Kyrgyz. More-Russified Kyrgyz are generally closer to Europeans than to their less-Russified coethnics and in fact consistently show the lowest probability of entry into official marriage. The analysis also reveals variations in ethnic patterns of union formation by gender and area of residence. We interpret these results in light of enduring cultural and demographic distinctions as well as more recent politically-driven differences between main ethnic groups.

#### Introduction

Inspired by Hajnal's (1965) seminal writings on distinct marriage patterns in Europe and Asia, demographers have long strived to understand regional and temporal nuances of union formation. Family formation dynamics in the part of the world that during the Cold War was known as the "Soviet block," where early and nearly universal marriage coexisted with low and rapidly declining fertility, seemed particularly puzzling. As the politically inspired misnomers were gradually jettisoned from demographers' lexicon, the peculiar patterns of family formation in that part of the world began to be reevaluated in terms of more enduring socioeconomic and cultural traits. The term "Eurasia"—not only as a vast and vague territorial entity but also as a venue where various European- and Asian-origin traditions have met and intertwined into a dazzling sociocultural kaleidoscope —has gained currency as a new (or rediscovered) point of reference for a variety of social assessments, including those dealing with marriage and reproductive regimes. The unique political history of the region—from the Russian imperial expansion, to the secluded, centrally commanded regime of the communist period, to swift, drastic, and painful reforms in the wake of the collapse of communism—have added complexity to its family patterns.

Perhaps nowhere else Europe and Asia have had a more forceful (and often forced) cultural and demographic encounter than in Central Asia. Our study looks at Kyrgyzstan, a landlocked mountainous Central Asian nation whose population of some five million has been formed through a combination of a mainly Turkic ethnocultural stock, both nomadic and agriculturalist (both considered "native" due to the timing of their settlement in the area) and European-origin populations, settlers who for decades, if not centuries, were trickling into Central Asia, willingly or not, from the European part of the Russian-Soviet empire. Despite a long history of uneasy

coexistence, the two subgroups of populations, Natives (primarily Kyrgyz and Uzbek) and Europeans (mainly ethnic Russians) developed and preserved distinct demographic characteristics, of which the best known is the higher fertility of the natives. At the same time, both groups were characterized by remarkably early marriage (a common feature in the former Soviet Union). Meanwhile, premarital cohabitation (i.e., sharing residence without official registration) was uncommon— due both to cultural barriers and to a dire shortage of housing. The demise of the Soviet system, the independence that Kyrgyzstan, like the other Central Asian Soviet republics, reluctantly embraced in 1991, and the post-independence period have seen a continuing tumbling of fertility, retreat from marriage, and rise in cohabitation. Yet, the demographic evidence from Central Asia, scarce and questionable as it is, points to a remarkable persistence of European-Asian differentials in marriage, entry into and progression through childbearing, and fertility control (e.g., Agadjanian 1999; Agadjanian 2002; Agadjanian and Qian 1997).

The complexity and even paradoxality of family formation patterns in Eurasia, especially in the years preceding and following the collapse of the Soviet empire, has attracted considerable attention (Agadjanian 1999; Agadjanian and Makarova 2003; Avdeev and Monnier 1999; Barbieri et al. 1996; Bondarskaya and Ilyina 1979; Perelli-Harris 2005). Specifically, studies have noted distinct ethnic patterns of entry into union (Agadjanian 1999; Agadjanian and Makarova 2003). Most of this research, however, has dealt with official marriage. The formation of cohabitation unions (known popularly in Russian as *grazhdanskiy brak*, or literally "citizen marriage") has received much less attention due to both the scarcity of adequate data and the elusiveness of the concept in the Soviet and post-Soviet cultural context. Indeed there are little data allowing for adequate examination of trends and forms of cohabitation. It has been argued that shortage of housing has remained a major reason for low levels of unregistered marital cohabitation (Avdeed and Monnier 1999), but legal barriers, such as residential registration

regulations, as well as cultural norms discouraging cohabitation, especially among non-European groups, should not be discounted either. Yet, anecdotal evidence suggests that the post-Soviet period has led, along with retreat from official marriage, to a rise in cohabitation. The unique data from Kyrgyzstan that we use in this study allows us not only to compare entry into official marriage with entry into cohabitation but also to examine ethnic differences in transition to these two types of marital union.

The rich literature on ethnic and racial differences in union formation in western settings guides our analysis. Thus studies have documented differences in patterns of union formation between whites and blacks and other minorities in the U.S. (Bennett, Bloom, and Craig 1989; Kelly Raley, Durden, and Wildsmith 2004; Lichter et al. 1992; Schoen and Kluegel 1988) and the U.K. (Berrington 1994). These differences are rooted in culturally bound attitudes toward marriage and cohabitation (Katz 2001; Mitchell 2001; Oropesa 1996). The literature, however, also invites us to look at ethno-racial differences in transitions to marriage and cohabitation in conjunction with other factors that shape these transitions such as gender, area of residence, regional characteristics, education, and employment (Brown and Snyder 2006; Clarkberg, Stolzenberg, and Waite 1995; Hoem 1986; Jamieson et al. 2002; Smock 2000; Snyder, Brown, and Condo 2004).

The noted ethnoracial differences in types and timing of union formation and the attitudes and preferences that underpin them are often shaped and constrained by the sociopolitical position of ethnoracial minorities in society. The minority group status hypothesis (Goldscheider and Uhlenberg 1969; Bean and Marcum 1978; Kennedy 1973) offers an appealing heuristic framework for the analysis of these dynamics. In the context of Central Asia, this framework would imply that ethnic differences in transition to marriage or cohabitation should be seen through the prism of the ethnic groups' different positioning in society. However, when

examining ethnoracial differences through that prism, we should not lose sight of long-term ethnic-specific demographic and cultural legacies that are intertwined with groups political and socioeconomic fortunes but nonetheless operate independently of each group's specific sociopolitical predicaments.

#### Conceptualization

We focus on ethnocultural differences in entry into first union in Kyrgyzstan. While the literature typically employs standard ethnicity (or natsional'nost, nationality, in Soviet and post-Soviet parlance) markers, such as "Kyrgyz" or "Russian," we use a more refined classification that takes account of the Eurasian fusion that have occurred over decades of interethnic interaction. This interaction, often sponsored and controlled by the imperial and then Soviet governments, has not resulted in much genetic intermixing but has certainly led to considerable cultural interpenetration. Yet, this interpenetration, like most colonial cultural encounters, was grossly asymmetrical: the Kyrgyz were forced to embrace Russian culture and language, two pillars of the colonial modernizationist project, while Russian and other European-origin residents (hereafter also referred to as Europeans) tended to view the Kyrgyz and other native cultures and languages as relics of the backward past soon to vanish in the all-transforming onslaught of modernity. Despite the inglorious burial of the Soviet modernizationist scheme, the ensuing massive out-migration of native Russian speakers, and the fifteen years of attempts at boosting the prominence of local languages and cultures, the Russian language (and presumably, the entire ethnocultural complex that it has shaped and cemented) remains widely used by natives in Kyrgyzstan and other Central Asian societies.

With this ethnocultural reality in mind, in our analysis we distinguish between more and less "Russified" Kyrgyz,<sup>1</sup> assuming that the former should be closer than the latter to Russians and other Europeans in demographic behavior, including union formation patterns. Specifically, greater Europeanness should be associated with greater "modernity" and therefore greater inclination toward cohabitation and to postponement of formal marriage. A similar approach employed in our previous research in Kazakhstan, Kyrgyzstan's neighbor to the north, has proven very informative in studying both marriage and reproduction (Agadjanian 1999; Agadjanian. 2002; Agadjanian and Qian 1997).

We should note, however, that in Kyrgyzstan, as in other parts of Central Asia, the demographic choices and behavior of Europeans is not a mechanical product of their greater "modernity." The independence of Central Asian countries dramatically reversed the political fortunes of its European-origin inhabitants by transforming them from a numeric minority that enjoyed considerable cultural privileges under the Soviet system into a political minority that feels besieged by the nativist sloganry and deeds of the indigenous-controlled governments.

We set out to analyze the differences in probabilities of entry into union among the three ethnocultural groups thus defined—less Russified Kyrgyz, more Russified Kyrgyz, and Europeans. At the same time, we want to relate these differences to constraints imposed by gender ideology and the nature of community environment (rural, town, city). We look at probabilities of entry into first union—either formally registered marriage or cohabitation, which we treat as competing. We therefore are not considering here transition from cohabitation to registered marriage, even though, following the western literature (Smock 2000), we assume

<sup>&</sup>lt;sup>1</sup> In the setting of northern Kyrgyzstan, from which our data come, other ethnic groups native to Central Asia, such Kazakhs, Uyghurs, and Uzbeks, are not numerous, and in this paper, the "Kyrgyz" also include a few representatives of those groups captured in the survey sample.

that in Kyrgyzstan cohabitation is not a lifetime alternative to marriage but rather transitional phase between singlehood and registered marriage.

#### Hypotheses

Our hypotheses are grounded in the minority-status group and adapted to the specifics of post-Soviet Kyrgyzstan and the cross-cultural literature on marriage and cohabitation, can be summarized as follows:

1. The probability of entry into cohabitation increases, while the probability of entry into marriage decreases as one moves from the indigenous to the European end of the proposed ethnocultural continuum. Thus Europeans, who are demographically most advanced and whose self-perceived group status and future prospects are most precarious, will be most likely to opt for cohabitation, rather than marriage. Less Russified Kyrgyz, demographically least advanced and politically most comfortable, will be on the other extreme, with the highest likelihood of entry into registered marriage and the lowest likelihood of entry into in cohabitation. Accordingly, more Russified Kazakhs, sharing traits of both extreme groups, will find themselves somewhere between them. However, because more Russified Kyrgyz, while differing from their less Russified brethren in terms of demographic baggage, are similar to them in terms of political invulnerability, which starkly contrasts them with Europeans. We therefore expect that more Russified Kyrgyz will be closer to less Russified Kyrgyz than to Europeans in the patterns of entry into marriage vs. cohabitation.

2. The ethnocultural differences in entry into marriage and cohabitation, and especially the patterns expected from Europeans, are more pronounced in rural than in urban areas. While rural residents may be in general more traditional than urban dwellers, the urban-rural cultural and demographic divide is wider among the Kyrgyz than among Europeans. In addition, rural Europeans, who have witnessed a particularly large exodus of their co-ethnics in the post-Soviet

years, may be even less comfortable and optimistic politically than urban Europeans, which should further magnify ethnic differences in rural areas.

3. Ethnocultural differences in probability of entry into cohabitation are more pronounced among men than among women, whereas ethnocultural differences in probability of entry into marriage are, on the contrary, more pronounced among women than among men. These twin hypotheses stem from our view of ethnically constrained gender systems in Kyrgyzstan. Thus we assume that European men are most inclined to and capable of marital "innovations" such as cohabitation, whereas less russified Kyrgyz women are demographically and socially most traditional and therefore more likely to opt (or have their parents opt) for official marriage. At the same time, we assume that the expected differences are further amplified by the socio-political environment favoring ethnic-selective migration and consequent distortion of ethnic marriage markets. Although hard data are lacking, we assume that European men are most migration prone and therefore less likely to commit to formal marriage. At the same, European men's disproportionate unavailability for marriage, due to their physical absence or reluctance to compromise their migrability by taking marriage vows, decreases European women's ability to get married.

#### **Data and Methods**

Our analysis uses data from a survey of young people conducted in 2005 in northern Kyrgyzstan, where the Kyrgyz are an absolute majority but Russians and other Europeans still constitute a sizeable minority. The survey sample consisted of 1535 men and women aged 1829 divided equally among Bishkek, Kyrgyzstan's capital, and two northern oblasts (provinces). A three-stage cluster sample was used in each of the three domains: a village (urban cluster) was first selected with a probability proportional to size, then households were randomly selected in each village, and finally, individuals of target age were randomly selected

within each household. This procedure generally assured an equal representation of genders. In clusters where it yielded a gender imbalance (usually due to unavailability of men), the underrepresented gender was oversampled. In each oblast, rural and urban areas were sampled separately. To allow for sound ethnic comparisons, in rural areas, where the Kyrgyz greatly predominate, the non-Kyrgyz population was oversampled by making the probability of a village selection inversely proportional to the share of its Kyrgyz population as recorded in the 1999 national population census. The survey instrument included the following modules: household characteristics, respondents' demographic, economic, and cultural characteristics, marital history and spouse characteristics, health and reproduction, migration history and intentions, social networks, community characteristics, political involvement and attitudes, and gender attitudes.

The main predictor, ethnocultural group (also termed ethnicity, for short), is a set of dummy variables: European-origin, more Russified Kyrgyz, and less Russified Kyrgyz. The two latter groups are distinguished on the basis on reported language use outside the home: more Russified Kyrgyz are those who reported using mainly Russian or both Russian and Kyrgyz, whereas less Russified Kyrgyz are those who reported speaking Kyrgyz outside the home. Other predictors are: age, gender, area of residence (city, town, rural), pregnancy (whether female respondent or male respondent's partner was pregnant beyond the first month of pregnancy—or not), childbearing (had at least one child or not), current employment status (working or not), current education status (studying or not), mother's education (incomplete general secondary or less; specialized secondary (*tekhnikum* in Russian), complete or incomplete higher, and religiosity (atheist/not religious vs. somewhat/very religious), and migration experience (ever migrated or not). All predictors but ethnocultural identity, gender, and religiosity are time-varying. We assume that the language use patterns and general levels of religiosity are firmly established by early adulthood.

Because our outcome can take three unordered values, we use multinomial logistic regression (Borooah 2001). To account for time-dependent exposure to risks of marriage and cohabitation we employ discreet-time approach (Allison 1982). This approach has been successfully employed for analysis of marriage and cohabitation (e.g., Berrington and Diamond 2000; Brown and Snyder 2006). In our model, each respondent's exposure to risk of marriage or cohabitation is measured in months starting from his/her 15th birthday until the time of entry into partnership or the time of interview, when the cases are censored. The competing outcomes are entry into cohabitation and entry into registered marriage (without prior cohabitation). The model therefore estimates the monthly probability of each event relative to remaining unmarried and not cohabiting (we also replicate our tests using continuous-time specifications to ensure the robustness of our results).

Before we present and discuss the results of our analysis, some cautionary notes on the limitation of our data and statistical model are in order. First, there is a possibility of misreporting the type of marital union—official vs. cohabitation. It is also possible that our data do not fully capture cohabitations that preceded the formalization of union. Although "citizen marriage" is a well familiar concept in Kyrgyzstan, it is a much less standardized marital arrangement than registered marriage and therefore different individuals may construe it somewhat differently. Specifically, permanent sexual partnerships could be confounded with "citizen marriages" (despite the explicit provisions in the survey instruments and instructions to interviewers). Because of a relatively vagueness of the notion of "citizen marriage," the reporting of the timing (year and, especially, month) of entry into cohabitation may also be less accurate than that of the timing of official marriage. While the issues listed above are of concern, we have no reason to believe that any misreporting varied systematically across the three ethnocultural groups. Another important qualification pertaining to the nature of marriage and cohabitation is that we

treat entry into both states as matters of choice (made by respondents and/or by their relatives). In reality, this, of course, may not be true in the case for cohabitation as some people may settle into that option because formal marriage is implausible or impossible for various reasons.

With respect to the statistical model, one important caveat is that, like most studies modeling risks of transition to marriage vs. to cohabitation, we presume that the two risks are noninformative, i.e., that risks of entry into formal marriage are completely independent of risks of entry into cohabitation. This presumption cannot be tested and strictly speaking may not be plausible, but we assume that whatever bias that possible informativeness of marriage and cohabitation may introduce is not large and, most importantly, is not ethnic-specific.

#### Results

Table 1 present a breakdown of types of first union by ethnicity, residence, and gender. The ethnic groups align in the predicted order with respect to cohabitation, with Europeans displaying the highest rate and less Russified Kyrgyz the lowest. The ethnic ordering with respect to marriage, however, is not as clear: while less Russified Kyrgyz exhibit by far the strongest preference for marriage, more Russified Kyrgyz have, on the contrary, a rate of entry into marriage that is even lower than that of Europeans.

#### Table 1 about here

Figures 1a and 1b depict ethnic-specific survival probabilities for marriage and cohabitation, respectively. The marriage graph shows a clear divergence of ethnic-specific trends starting from around age 17. In congruence with our hypothesis, less Russified Kyrgyz display a consistently higher probability of marriage than the other two groups. Interestingly, defying our expectations, the probability of entry into registered marriage is generally lowest among more

Russified Kyrgyz. However, when compared to the less Russified Kyrgyz, the curves of survival to marriage among Europeans and motr Russified Kyrgyz are close to each other, converging around the age of 26 and crossing over toward the end of the observation span.

#### Figures 1a and 1b about here

Figure 1b illustrates the overall low prevalence of cohabitation in Kyrgyzstan (note the difference in the scale from the previous graph). Yet it also makes clear that the probability of entry into "citizen marriage" is higher among Europeans. The differences between the two Kyrgyz groups expected by our theory are present only between ages 23-27 (we do not present survival probabilities beyond 150 months since 15<sup>th</sup> birthday, when the number of individuals still at risk drops and the data noise increases).

The results from the discrete-time multinomial models for the entire sample, summarized in Table 2, partially confirm our hypotheses about ethnocultural differences in the transition to first union. As we expected, the probability of entry into cohabitation is significantly higher among Europeans than among less Russified Kyrgyz, while the opposite is true for probability of entry into marriage. The more Russified Kyrgyz displayed a similar pattern, although the difference from less Russified Kyrgyz in probability of entry into cohabitation is only marginally significant. On the other hand, however, the gap between the two Kyrgyz groups in probabilities of entry into marriage is even larger than between less Russified Kyrgyz and Europeans.

#### Table 2 about here

We now fit the same models separately by area of residence—city, town, and countryside. The results of these tests are presented in Table 3. As Table 3 suggests, the ethnic patterns

detected in the earlier test emerge somewhat more convincingly in rural areas than in the capital city. The probabilities for town residents, however, do not fit the expected continuum, especially with respect to probabilities of entry into cohabitation in which no statistically significant differences among the ethnocultural groups could be observed.

#### Table 3 about here

Table 4 presents the same models fitted separately for each gender. Our expectations for the interaction of ethnocultural identity with gender are generally confirmed with regard to entry into cohabitation: indeed, ethnocultural differences in probabilities of cohabitation were much more pronounced among men, and the three ethnocultural groups generally aligned themselves in the expected pattern along the less Russified Kyrgyz—European continuum. With regard to entry into marriage, our expectation is confirmed only for the difference between Europeans and less russified Kyrgyz which is statistically present only among women. The statistically significant gap between the two Kyrgyz groups is nearly identical among men and women. It should be noted, that regardless of ethnicity, women are more likely to enter both marriage and cohabitation than men (see Table 2), which is likely due to gender differences in the age of union formation.

#### Table 4 around here

To ensure robustness of the findings we also fit continuous-time proportional hazards models. The results are indeed very similar (we do not show them here but they are available from the first author upon request).

#### Conclusions

Our analyses show considerable ethnic differences in transition to first union. These differences can be related to ethnically distinct demographic backgrounds, to cultural traditions of sexuality, partnership, and nuptiality, as well as to divergent political stakes of the ethnocultural groups under study. Our most conspicuous finding is Europeans' greater retreat from marriage and higher proclivity toward cohabitation, relative to less Russified Kyrgyz. This finding conforms to our first hypothesis and indirectly validates the assumption behind it. These trends may be linked to both Europeans' greater liberalism in sexual and marital matters and the continuing precariousness of their political positions. The massive emigration of Europeans from Kyrgyzstan in the wake of the country's independence has not exhausted the migration potential of that group; recent evidence shows that young Europeans are still significantly more likely to contemplate emigration than are young ethnic Kyrgyz, regardless of other characteristics (Agadjanian, Kumskov, and Nedoluzhko 2006). Europeans' proclivity to emigrate reflects to a large extent their disproportionate political and sociocultural discomfort in today's Kyrgyzstan. The excessive retreat from marriage in favor of cohabitation may also result from that discomfort.

Whereas the difference between the two extremes of the ethnocultural continuum is reassuring of these assumptions underlying our main hypothesis, the results for what we construed as a socio-cultural and demographic middle-ground, the more Russified Kyrgyz, are less straightforward. This group does indeed fall between the two extremes with respect to the probability of entering cohabitation; with respect to marriage, however, they seem to be even more distant from their lessRussified brethren than are Europeans.

With respect to area of residence, we did find some support for our expectation that ethnic differences would be most pronounced in rural settings. However, the differences between rural

areas and the city are not large and town dwellers did not fit well on the expected continuum. Once again, in all three types of settings, more Russified Kyrgyz showed the lowest odds of entering registered marriage.

With respect to gender, we did find some support for our hypothesis that the expected ethnic differences would be more salient in entry into cohabitation among men then among women. Also as we expected, ethnic differences in entry into marriage were more salient among women. However, even among women we did not find a clear ethnic "ranking" of marriage probabilities, as these probabilities were nearly identical among Europeans and more Russified Kyrgyz. Among men, on the hand, the most salient—and surprising—deviation from the expected general ethnic pattern was the lack of any differences between Europeans and less Russified Kyrgyz.

The more Russified Kyrgyz's avoidance to registered marriage, especially among men, is puzzling and requires further investigation. Although in most tests the difference in the probability of marriage between more Russified Kyrgyz and Europeans was not statistically significant, the pattern goes against our expectation that, ceteris paribus, more Russified Kyrgyz will be closer to less Russified Kyrgyz than to Europeans. In any case, it is important to keep in mind that the two subgroups of Kyrgyz defined in this study are not separate ethnic groups in a conventional sense of the term but rather are two ideal types defined on the basis of external cultural influence. The dichotomous dissection of Kyrgyzstan's titular ethnic group that we used in this study could not, of course, capture all the shades and degrees of that influence.

Our analysis has focused on the young generation of Kyrgyzstan's population. Unlike their parents, this generation has come of age in the independent era, when Soviet-time norms and aspirations have increasingly become obsolete. For this generation, official marriage is no

longer the only way to assuring regular sex life or to securing housing, as it largely was for the generation of their parents. While marriage remains a sine qua non for complete social self-realization among most members of this generation as well, nuptiality scenarios become negotiable as they increasingly include postponement of marriage and transition to formal marriage through informal cohabitation. Against this general background, however, the ethnic differences within this segment of Kyrgyzstan's population stand remarkably prominent. We argued that these differences are rooted both in the long-term culturally-conditioned ethnic-specific demographic legacies and in differential positions of ethnic groups in the contemporary political and socioeconomic setup in Kyrgyzstan. Our data do not allow us to make any firm conclusions about the relative importance of these two types of factors underlying marital choice of young people in Kyrgyzstan. If the alignment of three ethnocultural groups, and especially the peculiar position of more-russified Kyrgyz, is any indication, we can speculate that demographic baggage is of greater importance than are ethnopolitical vicissitudes, especially for entry into formal marriage. Whatever the combination and hierarchy of causes of the observed patterns, these patterns are conspicuous and are likely to persist at least in the foreseeable future.

#### References

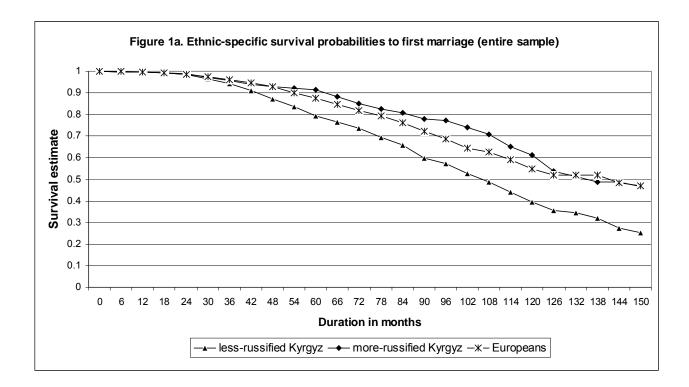
- Agadjanian, Victor. 1999. "Post-Soviet demographic paradoxes: Ethnic differences in marriage and fertility in Kazakhstan." *Sociological Forum* 14 (3): 425-46.
- Agadjanian, Victor. 2002. "Is 'abortion culture' fading in the former Soviet Union? Views about abortion and contraception in Kazakhstan" *Studies in Family Planning* 33 (3): 237-48
- Agadjanian, Victor, Gennady Kumskov, and Lesia Nedoluzhko. 2006. *Marriage, Fertility, and Migration in Kyrgyzstan*. United Nations Fund for Population Activities: Bishkek, Kyrgyzstan (in Russian).
- Agadjanian, Victor and Ekaterina Makarova. 2003. "From Soviet modernization to post-Soviet transformation: Understanding marriage and fertility dynamics in Uzbekistan" *Development and Change* 34(3): 447-473
- Agadjanian, Victor and Zhenchao Qian. 1997. "Ethnocultural identity and induced abortion in Kazakstan" *Studies in Family Planning*, 28 (4): 317-329.
- Allison, P. 1982. "Discrete-time methods for the analysis of event histories" In *Sociological Methodology*, edited by S. Leihardt, pp. 61-98. San Francisco: Jossey-Bass.
- Avdeev, Alexandre and Alain Monnier. "La nuptialité russe: Une complexité méconnue." *Population* 54(4/5): 635-676
- Barbieri, M., A.Blum, E.Dolkigh, and A.Ergashev (1996) 'Nuptiality, fertility, use of contraception, and family policies in Uzbekistan' Population Studies 50 (1): 69-88.

Bean, F.D. and J.P. Marcum. 1978. "Differential Fertility and the Minority Group Status

- Hypothesis: An Assessment and Review." Pp. 189-212 in The Demography of Racial and Ethnic Groups, edited by F.D. Bean and W.P. Frisbie. New York: Academic Press.
- Berrington, A. 1994. "Marriage and family formation among the white and ethnic-minority populations In Britain." *Ethnic and Racial Studies* 17 (3):517-546.

- Berrington, A., and I. Diamond. 2000. "Marriage or cohabitation: a competing risks analysis of first-partnership formation among the 1958 British birth cohort." *Journal of the Royal Statistical Society Series A-Statistics in Society* 163:127-151.
- Bennett, N. G., D. E. Bloom, and P. H. Craig. 1989. "The divergence of Black and White marriage patterns." *American Journal of Sociology* 95 (3):692-722.
- Bondarskaya, G.A. and I.P. Ilyina (1979) 'Ethnic differentiation in female nuptiality in the U.S.S.R.: The demographic aspect ' in A.G. Volkov (ed.) *Demographic Development of the Family*. Moscow: Statistika. (in Russian)
- Borooah, V.K. 2001. Logit and Probit: Ordered and Multinomial Models. Sage University Paper Series on Quantitative Applications in Social Sciences, 07-138. Thousand Oaks, CA: Sage.
- Brown, S. L., and A. R. Snyder. 2006. "Residential differences in cohabitors' union transitions." *Rural Sociology* 71:311-334.
- Clarkberg, M., R. M. Stolzenberg, and L. J. Waite. 1995. "Attitudes, values, and entrance into cohabitational versus marital unions." *Social Forces* 74 (2):609-632.
- Goldscheider, C. and P.H. Uhlenberg. 1969. "Minority-Group Status and Fertility." *American Journal of Sociology* 74:361-72.
- Hajnal, J. 1965. "European marriage pattern in perspective" In *Population in History*, edited by D.V. Glass and D. Eversley, pp. 101-143. London: Edward Arnold
- Hoem, J.M. 1986. "The impact of education on modern family-union initiation." *European Journal of Population* 2 (2) 113-133.
- Jamieson, Lynn, Michael Anderson, David McCrone, Frank Bechhofer, Robert Stewart, and Yaojun Li. 2002. "Cohabitation and commitment: partnership plans of young men and women." *The Sociological Review* 50 (3):356-377.
- Katz, R. 2001. "Effects of migration, ethnicity, and religiosity on cohabitation." *Journal of Comparative Family Studies* 32 (4): 587-599.

- Kelly Raley, R., T. Elizabeth Durden, and Elizabeth Wildsmith. 2004. "Understanding Mexican American marriage patterns using a life-course approach." *Social Science Quarterly* 85 (4):872-890.
- Kennedy, R.E. Jr. 1973. "Minority Group Status and Fertility: The Irish." *American Sociological Review* 38:85-96
- Lichter, D. T., G. Kephart, D. K. McLaughlin, and D. J. Landry. 1992. "Race and the retreat from marriage - A shortage of marriageable men." *American Sociological Review* 57 (6):781-799.
- Mitchell, B. A. 2001. "Ethnocultural reproduction and attitudes towards cohabiting relationships. *Canadian Review of Sociology and Anthropology* 38 (4):391-413.
- Oropesa, R. S. 1996. "Normative beliefs about marriage and cohabitation: A comparison of non-Latino Whites, Mexican Americans, and Puerto Ricans." *Journal of Marriage and the Family* 58 (1): 49-62.
- Perelli-Harris, Brienna. 2005. "The path to lowest-low fertility in Ukraine. *Population Studies* 59(1):55-70.
- Schoen, R., and J. R. Kluegel. 1988. "The widening gap in Black and White marriage rates: The impact of population composition and differential marriage propensities." *American Sociological Review* 53 (6):895-907.
- Smock, P. J. 2000. "Cohabitation in the United States: An appraisal of research themes, findings, and implications." *Annual Review of Sociology* 26 (1):1-20.
- Snyder, A. R., S. L. Brown, and E. P. Condo. 2004. "Residential differences in family formation: The significance of cohabitation." *Rural Sociology* 69 (2):235-260.



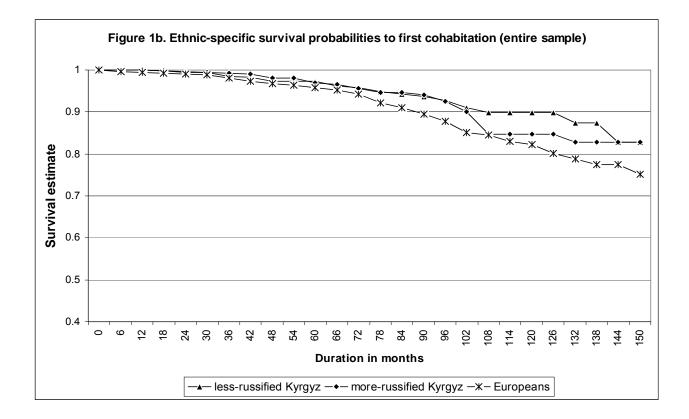


Table 1. First union as marriage or cohabitation by ethnicity, gender and area of residence (percent)

			Cohabitation	Marriage
Europeans More Russified Kyrgyz	Sex	Male	6.9	20.0
	Sex	Female	12.2	34.7
Furoneans	Area of	Big city	7.0	27.6
Luiopeans	residence <sup>1</sup>	Town	8.6	29.9
		Village	11.7	24.5
	All		9.4	26.9
More Russified	Sex	Male	7.3	11.8
	COX	Female	8.6	32.6
	Area of residence <sup>1</sup>	Big city	6.2	20.6
		Town	7.7	30.8
		Village	12.2	22.4
	All		8.0	23.6
	Sex	Male	3.5	23.6
	COA	Female	7.2	54.5
	Area of	Big city	4.8	52.4
	residence <sup>1</sup>	Town	6.0	31.3
		Village	5.3	38.5
	All		5.4	39.1

Note: <sup>1</sup> Area of residence: Respondent's residence at the time of marriage/cohabitation

Table 2: Discrete-time multinominomial logistic regression of entry into marriage vs. cohabitation (parameter estimates) for the entire sample.

Ethnicity	C Cohabitatio	Dutco on	mes Marriage		
European	0.6343	**	-0.6026	**	
More russified Kyrgyz	0.4886	+	-0.7513	**	
(Less russified Kyrgyz)			—		
Residence					
Town	0.3037	+			
Village	0.444		-0.0501		
(City) Migrapt	_		_		
Migrant Yes	0.5265	*	0 1634		
(No)	0.5205		0.1054		
Sex					
Female	0.7069	**	0.9997	**	
(Male)	_		_		
School enrollment					
Enrolled	-1.3204	**	-0.9643	**	
(Not enrolled)			—		
Work status					
Not working	-0.0434		-0.157		
(Working)					
Current age	0.00784	**	0.0104	**	
Mother's education					
Incomplete higher or	0.239		0.0205		
above Secondary or below	0.239	*		*	
Secondary or below (secondary special)	0.5257		-0.2422		
Religiosity			—		
Atheist/don't know	0.1968		-0 0321		
Not religious	-0.0205				
(Very or Somewhat)					
Pregnant					
Yes	2.2856	**	3.0461	**	
(No)			—		
Premarital birth					
Yes	2.1496	**	1.9322	**	
(No)	—				
–2 Log-Likelihood	E	6933.		Marriage -0.6026 ** -0.7513 ** 0.1114 -0.0501 0.1634 -0.9997 ** -0.9643 ** -0.9643 ** -0.9643 ** -0.157 0.0104 ** -0.0295 -0.2422 * -0.0321 -0.1448 -0.0321 -0.1448 -	
Person-months		1179	139		

Notes: ( ) reference category; significance level: +p $\leq$ .10; \*p $\leq$ .05, \*\*p $\leq$ .01

Table 3: Discrete-time multinominomial logistic regression of entry into marriage vs. cohabitation (parameter estimates) by area of residence

	Capita	l City	Тс	own		Village			
	Cohabitation	Marriage	Cohabitation	Marriage	(	Cohabitatio	n	Marriage	;
Ethnicity									
Europeans	1.0751 +	-0.5621 *	0.317	-0.411	+	0.7968	*	-0.7081	**
More russified Kyrgyz	0.5696	-0.7997 **	0.1615	-0.575	*	0.7178	+	-0.8957	**
(Less russified Kyrgyz)	_	_	_	_		_		_	
Migrant									
Yes	0.9996 *	0.09	-0.1448	-0.117		0.7095	*	0.6956	**
(No)	—	—	_			_		_	
Sex									
Female	-0.3342	0.6636 **	0.929	* 1.3268	**	1.292	**	1.1372	**
(Male)	—	_	_	—		_		_	
School enrollment									
Enrolled	-0.8803 *	-0.9565 **	-2.0018	** -0.9857	**	-1.3495	**	-0.952	**
(Not enrolled)	—	_	_	—		_		_	
Work status									
Not working	0.1714	-0.3176	0.5372	-0.1147		-0.5009		0.0365	
(Working)	—	_	_	—		_		_	
Current age	0.0148 **	0.0104 **	0.0106	+ 0.0136	**	0.00393		0.0087	**
Mother's education Incomplete higher or									
above	0.6325	-0.0261	0.4847	-0.2		-0.4826		0.00654	
Secondary or below	0.5394	-0.2957	0.4543	-0.5923	**	0.7385	*	-0.0123	
(secondary special)	_	_	_	_		_		_	
Religiosity									
Atheist/don't know	-0.4034	-0.1503	-0.2548	0.1626		0.7574	+	0.0406	
Not religious	-0.1011	-0.7329 +	-0.2982	-0.4589		0.3432		0.3928	
(Very or Somewhat)	—	_	_	—		_		_	
Pregnant									
Yes	2.7405 **	3.0557 **	2.3091	** 3.0917	**	1.9628	**	2.9632	**
(No)	—	_	_	—		_		_	
Premarital birth									
Yes	-9.9659	1.7182 **	2.5344	* 3.3151	**	2.635	**	1.819	**
(No)	—	—	—	—		_		_	
–2 Log-Likelihood	212	21.61**	1	878.73**		2	2854.90	**	
Person-months	3	8236		32643			47060	I	

*Notes*: ( ) reference category; significance level: +p≤.10; \*p≤.05, \*\*p≤.01

Table 4: Discrete-time multinominomial logistic regression of entry into marriage vs. cohabitation (parameter estimates) by sex

, <u>,</u>	Men				Women				
	Cohabitatio	on	Marriage		Cohabitatio	n	Marriage		
Ethnicity									
European	0.9724	*	-0.2069		0.5641	+	-0.7502	**	
More russified Kyrgyz	0.8215	+	-0.7224	**	0.414		-0.7454	**	
(Less russified Kyrgyz)	_				_				
Residence									
Town	-0.2291		-0.2557		0.6532	+	0.2262		
Village	-0.239		-0.2871		0.8843	**	0.0376		
(City)	_		_		_		_		
Migrant									
Yes	0.9296	**	0.2565		0.4357		0.2098		
(No)	_				_				
School enrollment									
Enrolled	-1.2274	**	-1.0217	**	-1.3649	**	-1.023	**	
(Not enrolled)	_				_				
Work status									
Not working	-0.3506		-0.6213	**	0.1327		0.1759		
(Working)	_				_				
Current age	0.0147	**	0.0163	**	0.0051		0.00797	**	
Mother's education									
Incomplete higher or above	0.7159	+	-0.0546		-0.1477		-0.0238		
Secondary or below	0.4177		-0.2548		0.6426	*	-0.2434	+	
(secondary special)	_				_				
Religiosity									
Atheist/dont know	0.0998		0.00296		0.286		-0.0509		
Not religious	-0.3898		-0.3369		0.2408		-0.0388		
(Very or Somewhat)	_				_				
Pregnant									
Yes	2.9448	**	4.1871	**	2.1018	**	2.8142	**	
(No)	_								
Premarital birth									
Yes	2.417	**	1.6253	*	2.2162	**	2.0289	**	
(No)	_								
–2 Log-Likelihood		2394.	05**			4447.6	67**		
Person-months	63492				54447				
Notes: ( ) reference category; s	ignificance leve	el: +p≤.	10; *p≤.05, **p:	≤.01					