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Research Article

Ukraine: On the border between old and new in uncertain times

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Ukraine: On the border between old and new in uncertain times

Brienna Perelli-Harris [1]

Abstract

This chapter provides an overview of the demographic situation in Ukraine, including explanations for the decline to very low fertility and changes in family policy. Drawing on official statistics, survey data, and focus group interviews, the analysis shows that the country's decline to lowest-low fertility is primarily due to the postponement of or the reduction in second births, as opposed to the postponement of first births. The chapter includes a discussion on the link between low fertility and changing marriage patterns, contraceptive prevalence, and abortion. The author then reviews the evidence for the leading explanations of fertility decline in Ukraine, including economic uncertainty, social anomie, the Second Demographic Transition, and unequal gender relations. In addition, the author proposes unexplored factors that may lead to fertility limitation, such as the increasing difficulty of combining work and childrearing, insufficient housing, changes in intergenerational support, and the deterioration of health lifestyles and marital relations.

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1. Introduction

Ukraine, which means "border" in Russian and Ukrainian, is wedged between Europe and Russia – geographically, politically, ideationally, and demographically. The country is physically located on the western border of the former Soviet Union, and with the addition of Poland, Slovakia, and Hungary to the European Union, Ukraine now abuts the E.U. Politically, the alliance of the country swings between democracy of the West and dependence on Russia. Its people alternate between embracing new, individualistic, Western-oriented values and maintaining conventional, Soviet-dominated ideology. Economically, Ukraine vacillates between capitalist reform and socialist standards, teetering between the brink of crisis and the threshold of recovery. Demographically, Ukraine is adopting new types of family formation, while still adhering to conservative gender roles and traditional childbearing norms, such as early childbearing.

This chapter discusses demographic developments in Ukraine as it balances between old and new, East and West. Using official data and the Ukrainian Longitudinal Monitoring Survey (ULMS), I first present an in-depth analysis of change in fertility over time and then explain the extent to which Ukraine differs from other very low fertility countries, especially in regard to the timing of first births and the postponement of or reduction in second births. There follows an analysis of changes in the proximate determinants of childbearing, including increases in non-marital births and cohabitation, and changes in contraceptive use and abortion. Next, I outline common explanations of very low fertility in this region and discuss supporting evidence. This is followed by an explanation of the expansion of family policy over the past two decades as well as the faults in the system. Finally, I suggest alternative explanations for the decline in fertility, including changes in the relationship between female labor-force participation and childbearing, the lack of affordable housing, changes in intergenerational support flows, and increases in household disruption.

The data for this chapter come from a number of sources. The aggregate data are from annual yearbooks published by the Ukrainian Committee for Statistics. Much of this official data, however, does not include births by parity and mother's age. Therefore, I also rely on retrospective birth histories and other measures from the ULMS, a nationally representative survey of the working-age population of Ukraine. The analysis draws on the first round of the survey, conducted in 2003. The primary purpose of the ULMS is to describe the population's economic activity by collecting retrospective work histories and information about work in the past week. The individual survey includes birth and marital histories, detailed questions about education and training, and some broad political and health questions. The ULMS conducted interviews with 8641 individuals in 4056 households and produced a

response rate of 66% (KIIS 2003). I also refer to focus group research, which I with the help of assistants conducted in the summers of 2002, 2003, and 2006. Each focus group interviewed eight to ten individuals; fifteen interviews were conducted with women and seven were held with men. The groups were prompted to discuss family life, children, and marital and childbearing decisions. Participants were recruited by handing out flyers and approaching pedestrians in front of metro stations. The respondents varied in income, education, and region. While their responses are not representative of the country as a whole, they provide insights into attitudes toward the quantity and timing of fertility and yield background information used to generate hypotheses and guide the interpretation of quantitative analyses.

2. Demographic analysis

2.1 The population of Ukraine

The territory of Ukraine spans an area larger than France, and its population is one of the largest in Europe. The population is rapidly shrinking, however, resulting in what many have called a demographic crisis (Steshenko 2001, Chuiko 2001). Since Ukraine gained independence in 1991, death rates in the country have been higher than birth rates, causing a loss in population of up to 373,000 people per year. Within 13 years, its population declined by 5.3 million, from a high of 52.2 million in 1993 to 46.9 million in 2006 (Derzhkomstat 2006). Although emigration played a role – approximately 1.2 million people left Ukraine during this period, a figure that represents 23% of the total decline (Derzhkomstat 2006) – the largest decline was due to low fertility.

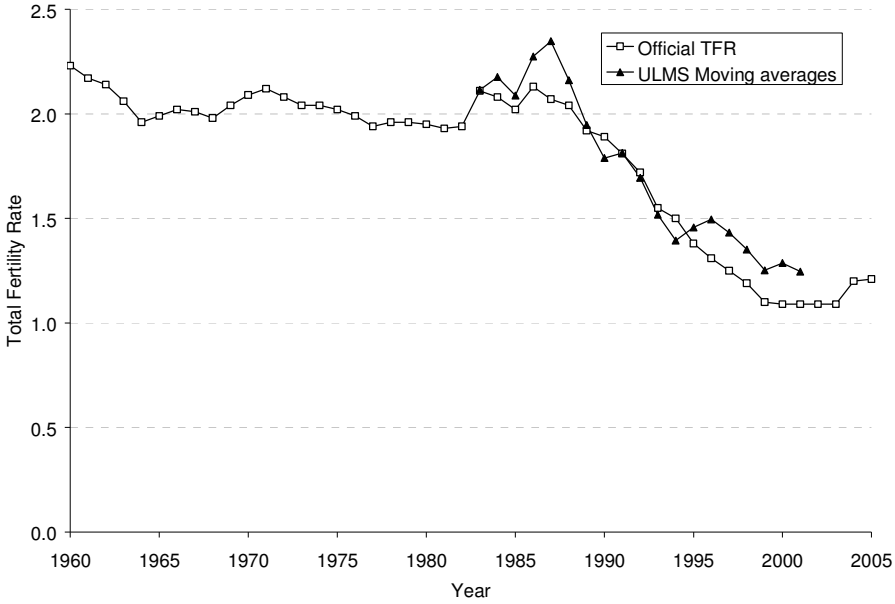
2.2 Period total fertility rates and the decline to 'lowest-low fertility'

Ukraine experienced the first demographic transition well after most countries in Western Europe; its fertility did not begin to decline until the 20th century, and then it fell from a total fertility rate (TFR) of 5.2 in the 1920s to 1.99 in 1988-89 (Steshenko 2001). The majority of the decline during this period was due to a limitation of higher parity births; the young age pattern and the universality of childbearing changed very little. From the 1960s through the 1980s, the TFR remained stable around 2.0.

The TFR has been declining dramatically since the country gained independence, from a high of 1.8 to its current low level of 1.2, as shown in Figure 1. Ukraine reached the lowest period TFR – 1.1 in 2000 – and is still considered a 'lowest-low' fertility

country, with a TFR under 1.3. While recent data suggests that some recovery has occurred, the Ukrainian TFR was still only 1.2 in 2005.

Figure 1: Period total fertility rates, 1960–2005

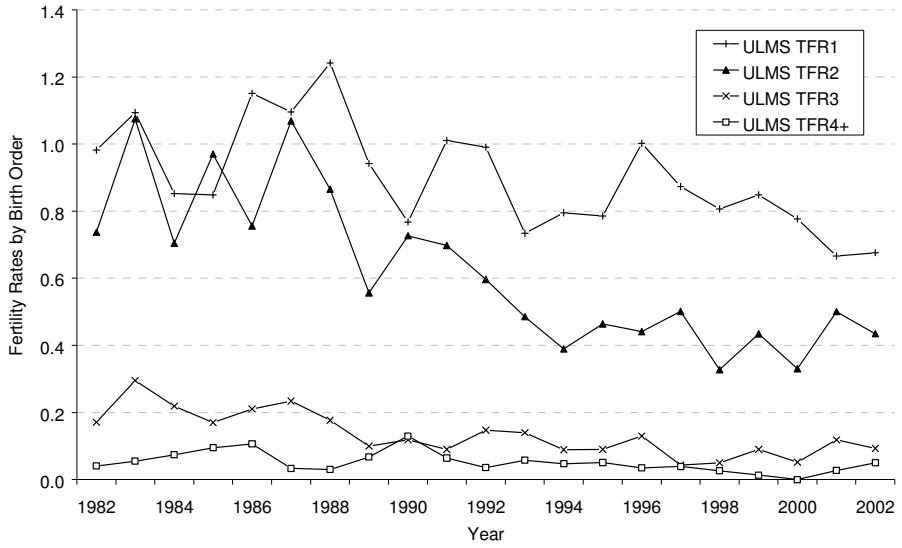


Source: Ukrainian Statistical Agency, 2006. The Ukrainian Longitudinal Monitoring Survey, 2003.

The path to lowest-low fertility in Ukraine has differed from that followed in Southern and Central Europe (Perelli-Harris 2005), with the majority of the decline in the country driven by the postponement of or reduction in second births rather than the postponement of first births. Most of Western and Central Europe experienced a rapid increase in the mean age at first birth (MAFB), which led to tempo distortions in the TFR (Kohler, Billari, Ortega 2002). In Ukraine, however, the relatively young age pattern and the universality of childbearing hardly changed as the TFR declined to lowest-low. From 1985 to 1999, the MAFB fluctuated between 21 and 22 (Perelli-Harris 2005), with lowest-low fertility (1.3) achieved in 1997 primarily through the decline of second births.

Figure 2 and Table 1 show a crude approximation of fertility rates by parity, based on the ULMS. According to Figure 2, first birth rates oscillated between 1.0 and 0.8 births per woman until 1997 and then started to decline. This indicates that very little postponement or reduction in first births occurred until the late 1990s, but was a significant contributor to lowest-low fertility thereafter. Second birth rates started to decline much earlier, even before Ukraine gained independence. Figure 2 shows that they were slightly higher than 1 birth per woman in 1987, but then declined rapidly in the early 1990s and fluctuated between 0.4 and 0.5 throughout the rest of the decade. Third and higher fertility rates remained very low throughout the entire period, rarely reaching 0.3 births and with a moving average between 0.1 and 0.2 in the 1990s. The figure provides evidence that the postponement of or the reduction in second births was the primary cause of the initial decline to lowest-low fertility in Ukraine, and that the postponement of or the reduction in first births was a contributing factor to lowest-low fertility in the late 1990s and early 2000s.

Figure 2: Parity-specific fertility rates, 1982–2002



Source: Ukrainian Longitudinal Monitoring Survey, 2003.

Table 1: Total fertility rates by parity and three year moving averages, 1982–2002

	TFR1	TFR2	TFR3	TFR4+	MA1	MA2	MA3	MA4+
1982	0.98	0.74	0.17	0.05				
1983	1.09	1.08	0.30	0.06	0.98	0.84	0.23	0.07
1984	0.85	0.70	0.22	0.11	0.93	0.92	0.23	0.10
1985	0.85	0.97	0.17	0.14	0.95	0.81	0.20	0.13
1986	1.15	0.76	0.21	0.14	1.03	0.93	0.20	0.11
1987	1.10	1.07	0.23	0.04	1.16	0.90	0.21	0.08
1988	1.24	0.87	0.18	0.06	1.09	0.83	0.17	0.07
1989	0.94	0.56	0.10	0.10	0.98	0.72	0.13	0.11
1990	0.77	0.73	0.12	0.18	0.91	0.66	0.10	0.12
1991	1.01	0.70	0.09	0.07	0.92	0.67	0.12	0.10
1992	0.99	0.60	0.15	0.04	0.91	0.59	0.13	0.06
1993	0.73	0.49	0.14	0.08	0.84	0.49	0.13	0.06
1994	0.80	0.39	0.09	0.07	0.77	0.45	0.11	0.07
1995	0.79	0.46	0.09	0.06	0.86	0.43	0.10	0.06
1996	1.00	0.44	0.13	0.05	0.89	0.47	0.09	0.05
1997	0.87	0.50	0.04	0.04	0.89	0.42	0.07	0.04
1998	0.81	0.33	0.05	0.03	0.84	0.42	0.06	0.03
1999	0.85	0.43	0.09	0.01	0.81	0.36	0.06	0.01
2000	0.78	0.33	0.05	0.00	0.76	0.42	0.09	0.01
2001	0.67	0.50	0.12	0.03	0.71	0.42	0.09	0.03
2002	0.68	0.43	0.09	0.06				
Change 1989 to 1995 (in %)					–12	–40	–23	–45
Change 1995 to 2001 (in %)					–17	–2	–10	–50
Change 1989 to 2001 (in %)					–28	–42	–31	–72

Source: Ukrainian Longitudinal Monitoring Survey, 2003.

Compared with Southern and Central European countries, the MAFB in Ukraine has remained low. Table 2 shows the MAFB throughout the past decade, based on the ULMS and official registry data. According to the ULMS, the MAFB has never risen above 22.8 and began to decline in the late 1990s, but these results are based on sample data and do not account for truncation. Official data shows that the MAFB increased from age 22.8 in 2000 to 23.5 in 2005. Still, this age is very low compared to the MAFB of other Central European countries that experienced rapid postponement in the 1990s; the MAFB of the Czech Republic, e.g., stood at 26.6 in 2005 (Sobotka et al. 2008).

Table 2: Mean age at first birth, 1990–2005

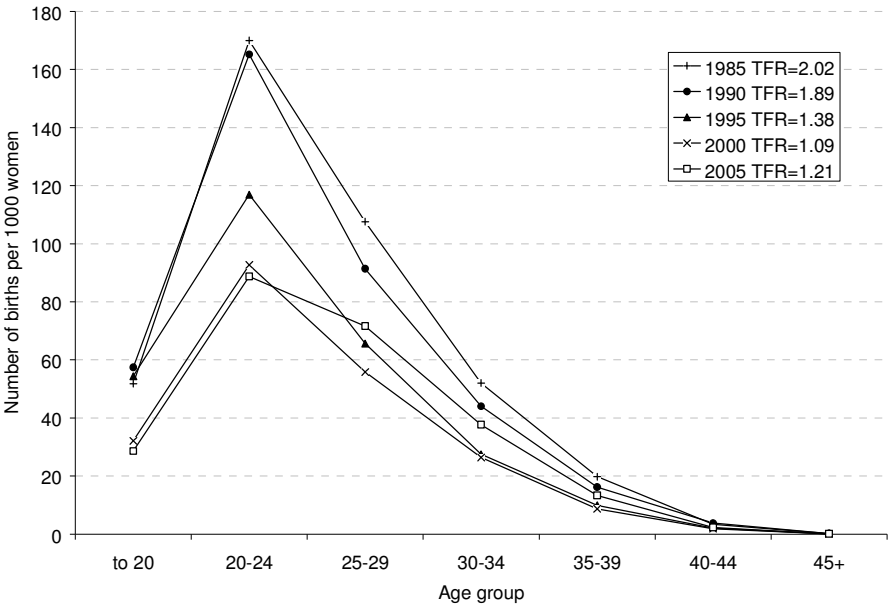
Year	ULMS	Ukrainian Statistical Agency
1990	23.1	
1991	22.9	
1992	22.2	
1993	22.7	
1994	22.8	
1995	22.4	22.2
1996	23.3	22.2
1997	22.7	22.3
1998	22.4	22.2
1999	22.3	22.7
2000	21.7	22.8
2001	22.4	
2002	22.4	
2003		
2004		
2005		23.5

Source: ULMS, 2003; Ukrainian Statistical Agency, 2006.

The young pattern of family formation dates back several centuries, as in other countries east of "Hajnal's line", which runs from Trieste to St. Petersburg (Coale 1992). Although the economic and social situation in the country changed dramatically after the break up of the Soviet Union, norms influencing the age at childbearing have been slower to change (Perelli-Harris 2005). Respondents of focus groups conducted in 2002 and 2003 reported that they felt pressure from parents and peers to marry and have at least one child early rather than risk becoming an 'old maid'. They cited physiological and medical reasons to give birth early, reasons advocated by doctors and other medical professionals. Many respondents expressed the fear of their health deteriorating in their late 20s, leading to complications during pregnancy and labor. Furthermore, respondents believed that the likelihood of medical complications and infertility would increase health threats such as poor nutrition, ecological hazards, the Chernobyl disaster, and declines in the standard of living. Finally, the early age at first birth is linked to a lack of contraceptive methods other than abortion. Because of a fear that aborting a first pregnancy may lead to infertility, women usually prefer to take their first pregnancy to term. Therefore, while Western Europeans rationalize that it is best to postpone childbearing, Ukrainians reason that it is better to have children young, i.e. when their bodies are most suited for reproduction.

Nonetheless, the age pattern of childbearing does seem to be slowly shifting to a later pattern. Figure 3 shows the distribution of age-specific fertility rates over the past 20 years. Up to 2000, the shape of the curves consistently peaked around age 20-24, with a reduction in the total number of births for each consecutive time period. The sharp peaks generally indicate that nearly all women gave birth to their first child while in their early 20s, and all-parity childbearing decreased after age 25. In 2005, the curve started to flatten out, with an increase in births in the 25-29 age group. It is difficult to know from Figure 3 whether the increase in births in this age group is due to recuperated second births or the realization of delayed first births. Parity-specific fertility rates, however, suggest that both processes took place. Ukraine's fertility rate for first births (TFR_1) in 2005 was 0.71, up from 0.65 in 2000. The second birth fertility rate (TFR_2) in 2005 stood at 0.38, compared to 0.32 in 2000. The third birth fertility rate (TFR_3) also increased slightly, from 0.07 births per woman in 2000 to 0.08 in 2005, although the increase is so slight as to be negligible. The fourth and higher birth rates (TFR_{4+}) were the same in the two years – 0.04 (Ukrainian Statistical Agency, 2006).

Figure 3: Age-specific fertility rates, 1985–2005

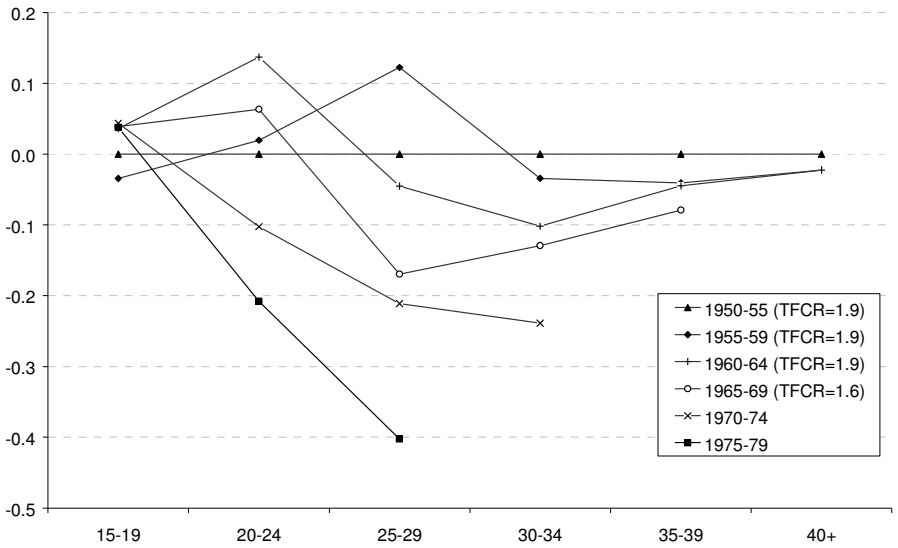


Source: Ukrainian Statistical Agency, 2006.

2.3 Cohort total fertility

With such rapid decline in period total fertility, it is difficult to know at this time whether cohort total fertility rates will mirror period total fertility rates or whether some recuperation will occur. Rough estimates based on the ULMS indicate that cohort fertility will continue to decline. Figure 5 presents differences in age-specific cohort fertility rates, using the 1950 cohort as a base. I have combined five year cohorts in order to increase the numbers on which the estimates are based. The 1950-54 cohorts had a total completed fertility rate around 1.9, which was relatively stable through to the 1960-64 cohorts. In comparison, the 1965-69 cohorts had a completed fertility of only 1.6 births per woman, although these cohorts were only 34-38 years old at the time of survey. By age 29, the 1970-74 cohorts had borne approximately 21% fewer children than the 1950 cohort. The cumulative fertility of the 1975-79 cohort by age 24 in 2003 was also 21% lower than in 1950. Again, this indicates that cohorts are experiencing either postponement of childbearing to older ages or a quantum decline. Thus, it is unlikely that cohort fertility will fully recover.

Figure 4: Differences in cumulative age-specific cohort fertility rates compared to the 1950-55 base cohort, birth cohorts 1950–55 to 1975–1979



Source: Ukrainian Longitudinal Monitoring Survey, 2003.

2.4 Childlessness

In contrast to the pattern found in the countries of Western Europe, childbearing in Ukraine has remained nearly universal. According to the ULMS, only 4% of the 1960-64 birth cohorts and 7% of the 1965-69 birth cohorts remained childless in 2003. Among women from the 1970-74 cohorts, aged 29-33 at the time of survey, only 13% remained childless. Thus, while childlessness may be increasing somewhat, it is unlikely that Ukrainian women will experience the high levels of childlessness found in other low fertility countries in the near future. Because at least some primary infertility exists in all societies, the low level of childlessness in Ukraine indicates that voluntary childlessness must be very low. This universal pattern of fertility provides further evidence that Ukraine has achieved very low fertility through a different path than Western and Central European countries (Perelli-Harris 2005), although sustained levels of very low fertility may be due to increasing childlessness.

3. Determinants of fertility

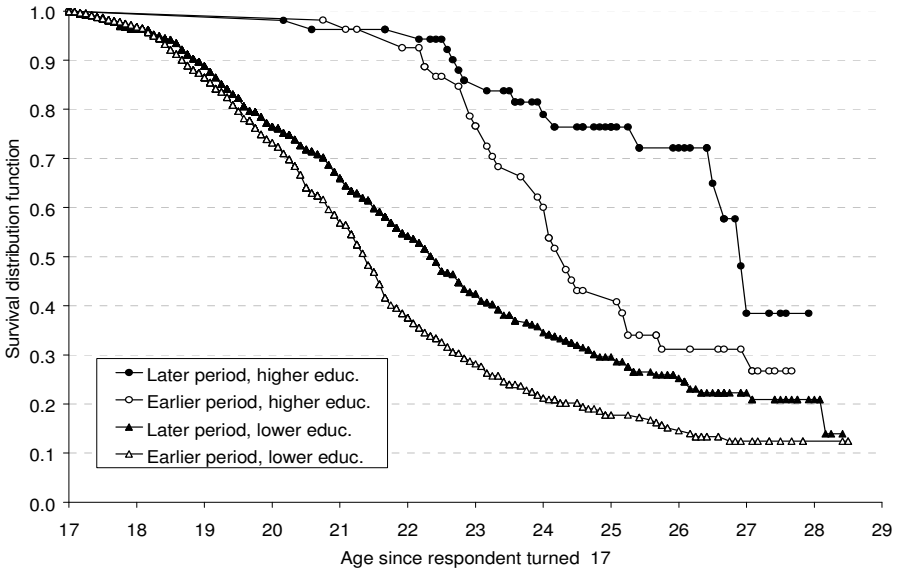
3.1 Education

Ukraine has a highly educated population. An analysis of the ULMS shows that in 2002, 25% of women aged above 30 had less than a high school education, 19% had graduated from high school, 40% had vocational or professional training, and 16% had completed a Bachelor's degree or above. As is the case in most societies, completed fertility levels differ by education. However, only recently has the timing of childbearing started to change dramatically by level of education. Within the past decade, more highly educated women have begun to postpone first births, while women with less than college education have maintained the previous age pattern of fertility (Perelli-Harris, forthcoming). During the period of rapid social change following Ukraine's independence, the relationship between education and the initiation of childbearing reversed: once school enrollment and marriage are controlled for, the more highly educated women changed from having significantly higher first birth rates before independence to lower first birth rates after independence. The general population, however, has experienced very little delay in the entrance into motherhood.

Using the Kaplan-Meier method, Figure 5 illustrates the changing relationship between higher education and first birth timing, although the figures do not include controls for school enrolment or marriage. The earlier period refers to women who turned 17 between February 1980 and September1991, and the later period refers to women who turned 17 between September 1991 and April 2003 (for more details on the

study, see Perelli-Harris, forthcoming). The curves for lower education start to diverge around 30 months (19.5 years), indicating that women with lower education in the earlier period had slightly lower (although statistically insignificant) first birth rates than their counterparts in the later period. The difference between the earlier and later period curves for higher education, however, is much wider. After having delayed childbearing due to school enrolment, more highly educated women in the earlier period experienced a very steep increase in first birth rates and nearly caught up with their less educated counterparts. In the later period, the distribution for more highly educated women curves outwards, indicating a significant delay. This change in relationship signifies a new process of reproductive decision-making for more highly educated women. Only time will tell whether these women are innovators in the postponement of childbearing, with the rest of the population following their lead, or whether entrenched social norms will maintain the overall early pattern of first births.

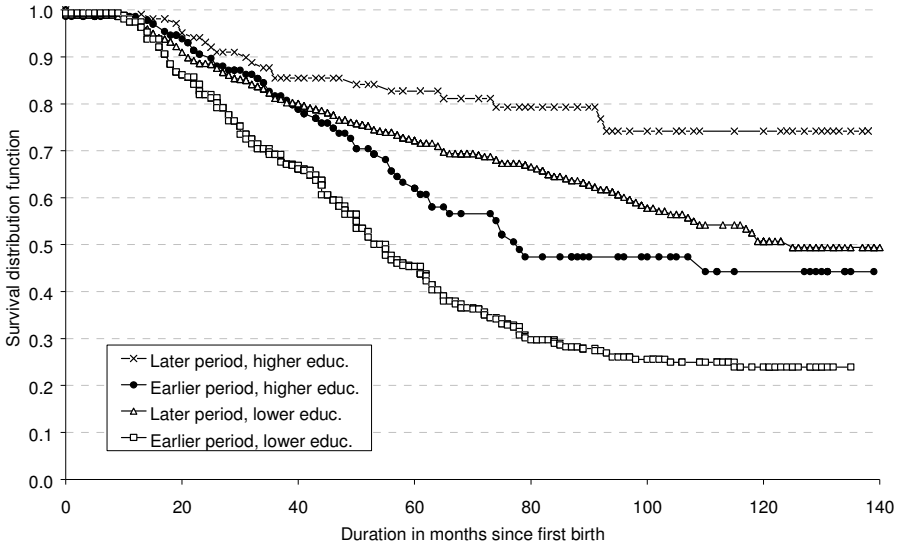
Figure 5: Comparison of first birth survival distributions by education and period. "Earlier period" refers to events occurring Feb. 1980-Sept. 1991, and "later period" refers to events occurring Sept. 1991-Apr. 2003.



Source: Ukrainian Longitudinal Monitoring Survey; Perelli-Harris, forthcoming.

Second birth rates, on the other hand, have declined in a similar manner for women with all levels of education (Perelli-Harris, forthcoming). Unlike the reversal that occurred for first births, there has been no reversal in the effects of education on second birth rates. Figure 5 shows that second birth rates for women with all levels of education were higher in the earlier period than they were in the later period. Although more highly educated women in the later period experienced lower birth rates than in the earlier period, the relationship between education and second birth rates did not change. These results suggest that education itself has not been a primary factor in the postponement or elimination of second births; women of all educational levels have refrained from additional childbearing. Further possible explanations for the decline in second births will be discussed below.

Figure 6: Comparison of second birth survival distributions by education and period. "Earlier period" refers to events occurring Feb. 1980-Sept. 1991, and "later period" refers to events occurring Sept. 1991-Apr. 2003.



Source: Ukrainian Longitudinal Monitoring Survey; Perelli-Harris, forthcoming.

3.2 Region and ethnicity

Fertility in Ukraine differs significantly by region and to some degree by ethnicity. According to 2000 official data, the TFR was 1.4 births per woman in Western Ukraine, 1.1 in Central Ukraine and 1.0 in Eastern Ukraine. Some of this difference is attributable to urban-rural differences; the majority of the population in the East lives in cities, while western Ukraine is largely rural. Yet the regions differ in other ways, e.g., in their orientation towards family life and national identity. Focus group respondents from all regions thought that the western region of the country followed a more traditional, religious, and nationalistic family orientation, while they perceived that the eastern part of the country remained under the influence of Soviet ideology. Political attitudes, public opinion, and electoral behavior are consistently found to be associated with regional differences (Kubicek 2000, Birch 2000, Barrington 2002, Arel 1995). The regions also followed different economic trajectories. Eastern Ukraine is more industrialized than the other regions, specializing in coal mining and heavy industry, and following political independence from the Soviet Union, much of this region became economically depressed. Central Ukraine, called the breadbasket of the Soviet Union, has been dominated by agriculture, food processing, and light industry. Western Ukraine historically has been primarily engaged in agricultural production, but its productivity lagged behind other regions (Birch 2000); following the break up of the Soviet Union, this region began to orient itself towards the West, with many inhabitants temporarily migrating abroad for work. Thus, each region has faced different challenges during the post-Soviet period, challenges that may result in a variety of family-formation responses and need to be analyzed further.

4. Proximate determinants of childbearing

4.1 Marriage

Like childbearing, marriage is nearly universal in Ukraine: 80% of all the ULMS female respondents under the age of 65 had ever married, and of those over 25 years of age, 94% had ever married. Of men aged above 25, 90.5% had ever married, partially reflecting the fact that men are generally older at marriage than their female counterparts. Official statistics show that marriage rates, which include first marriages and remarriages, declined after Ukraine gained independence (Derzhkomstat 2005). According to the ULMS, marriage rates between 1980 and 1991 were 50% higher than those marriage rates between 1991 and 2002 (Perelli-Harris, forthcoming). It is impossible to know at this point in time whether marriages are being postponed,

whether more people are remaining without partners, or whether couples are choosing to cohabit instead of marry. The ULMS data, however, indicates that at least part of this decline is due to first marriage postponement; the mean age at first marriage increased over the past decade by about one year to 22.7 for women and to 25.8 for men. Postponement of marriage usually means that there is a corresponding delay in childbearing.

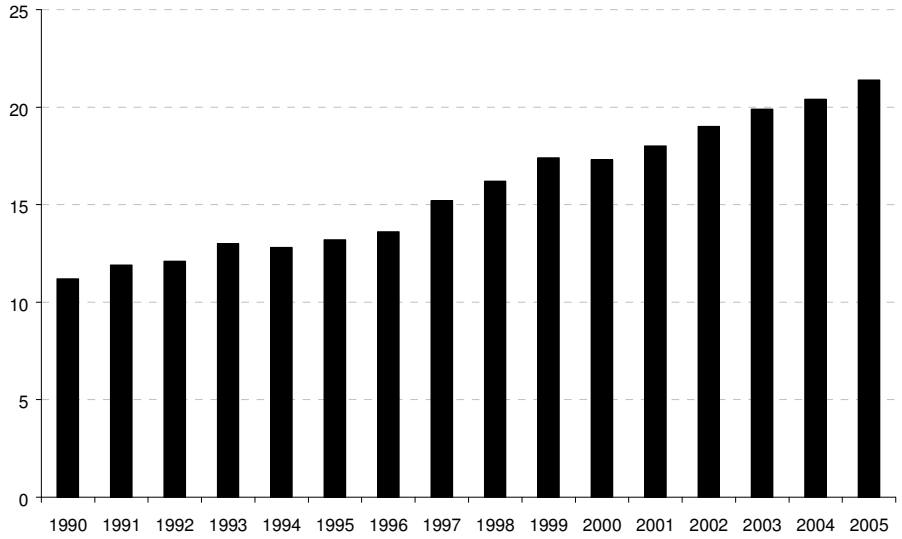
Unlike with first births, the relationship between education and marriage did not reverse after Ukraine's independence (Perelli-Harris, forthcoming). Instead, marriage rates fell for all women regardless of their level of education. In fact, once school enrolment is controlled for, women with higher levels of education had higher first marriage rates both before and after Ukrainian independence. This relationship probably indicates that more highly educated women are in higher demand on the marriage market and that they had greater resources – e.g., the potential to secure a job – with which to marry.

Compared to other countries in Europe, cohabitation is not very widespread in Ukraine. According to the 2003 ULMS, only 5% of the respondents reported currently living in an 'unregistered' marriage (the term used in the ULMS to refer to cohabitation) at the time of survey. This percentage does not increase dramatically for younger cohorts; only 7% of the 1970-74 and a mere 8% of the 1975-79 cohorts reported being in an 'unregistered' marriage. Because of the high level of commitment implied by the term 'unregistered marriage', the term may not capture all cohabiting relationships. Couples in romantic relationships may be living together without considering themselves to be in an 'unregistered' marriage. Focus group discussions revealed that other terms, such as 'civil union' or 'living together', may capture the increase in cohabitation more accurately. More research needs to be conducted to determine the meaning of cohabitation in Ukraine and how widespread cohabitation is.

4.2 Non-marital childbearing

In Ukraine, marriage and childbearing have traditionally been linked, although this relationship has changed recently. Before the break up of the Soviet Union, marriage was usually a precondition for childbearing, but this did not necessarily apply to conception (Perelli-Harris 2005). As in many countries (Wu and Wolf 2001), the link between marriage and childbearing has eroded over the past decade, and non-marital childbearing has increased. Figure 6 shows the rise in the proportion of non-marital births: from 11% in 1990 to 21% in 2005 (Derzhkomstat 2006). No official information is available as to whether these births occurred within cohabiting unions or to single mothers.

Figure 7: Distribution of non-marital births, 1990-2005; in percentage



Source: Ukrainian Statistical Agency, 2006.

Data from the ULMS shows that non-marital childbearing is associated with incomplete high school education (Perelli-Harris, forthcoming). First birth rates for women with incomplete high school education are nearly twice as high as they are for women with a high school education, suggesting that women who do not marry before the birth of a child drop out of school. In addition, women enrolled in school had non-marital first birth rates that were 73% lower than their counterparts not enrolled in school. On the other hand, non-marital births in Ukraine tend to be spread throughout the reproductive lifespan rather than concentrated among teenagers. Based on these results, it is difficult to conclude whether the increase in non-marital births is due to changing values and the acceptance of cohabitation, similar to what has occurred in the Scandinavian countries, or whether non-marital births are the result of economic difficulties that discourage marriage, as among disadvantaged groups in the United States (Rindfuss et al. 1996). Nonetheless, the association between incomplete high-school education and non-marital childbearing suggests that non-marital births in Ukraine may occur among more disadvantaged women.

4.3 Contraception

The use of modern methods of contraception, such as oral contraceptives, condoms, and IUDs, is a relatively new phenomenon in Ukraine. Before the disintegration of the Soviet Union, couples relied on either traditional methods such as withdrawal and periodic abstinence, or abortion. Recently, contraceptive prevalence has increased and abortion rates have declined. According to the 1999 Ukrainian Reproductive Health Survey (URHS), modern contraceptive prevalence increased by 7% from 1994 to 1999 (KIIS 2001). In 1999, overall contraceptive use among women within a registered or unregistered marriage was 68%. The use of modern methods of contraception, however, is much lower; only 38% of women used them, while 30% used either periodic abstinence or withdrawal (KIIS 2001). Women in union who employed a modern method either used IUDs (19%) or condoms (14%). Only 3% of women relied on oral contraceptives. The level of modern contraceptive prevalence is low relative to other countries in the region, e.g., 53% of women in Russia used modern contraceptives, 50% in Moldova and 55% in Kazakhstan (Seltzer et al. 2003). The discontinuation of modern contraceptive use and contraceptive failure rates are much higher in Ukraine than they are in other regions, especially for oral contraceptives (Seltzer et al. 2003). This leads to many unintended pregnancies – both mistimed and unwanted – a majority of which are terminated, increasing the risk of medical complications and poor reproductive health.

Given the relatively low level of modern contraceptive prevalence and high failure rates, it is not surprising that abortion rates are still high relative to international standards. According to official statistics, the official abortion rate declined from 1990 to 2002, from 70 to 22 abortions per 1000 women of childbearing age, but the accuracy of these statistics is questionable. According to the URHS, the abortion rate in 1999 was 54 abortions per 1000 women of childbearing age, which is higher by about 30% than the official statistics (KIIS 2001). The latter missed abortions performed outside of the public health system, due to underreporting and other reasons (Seltzer et al. 2003). According to the URHS report, induced abortion is a common procedure no matter what measure is used. For example, 43% of the respondents ever had an induced abortion. Also, the total induced abortion rate (the mean number of lifetime abortions per woman based on current age-specific abortion rates) was about 1.6 abortions per woman in the two years before the interview.

Although abortion is common in the country, Ukrainian women are unlikely to terminate first pregnancies, due to a fear of post-abortion sterility or complications arising from the procedure (Perelli-Harris 2005). Instead, abortion is primarily used to space and stop as opposed to delay childbearing. The limited availability of alternate contraceptive methods and the reluctance to abort first pregnancies has played a role in maintaining a young age at first birth. As other methods of contraception become more

widely available, women can begin to delay childbearing. More highly educated women have greater knowledge of and access to other forms of contraception (KIIS 2001). Therefore, the spread of contraception enables women to control the timing of their pregnancies, with more highly educated women changing their behavior first.

4.4 Desired fertility

Survey data on desired fertility supports the assertion that childbearing in Ukraine is nearly universal, and that on average, Ukrainians desire to have two children. For example, according to the ULMS only 3% of women under age 45 reported at the time of the survey that they did not want children, indicating that most women desire at least one child. A slightly greater number of men intend to remain childless: 5% reported they wanted zero children. The mean number of desired children for both men and women under age 45 was 2.0. Of the female respondents, 66% desired to have two children, 15% wanted one, and 16% wanted more than two. Of the male respondents, 64% desired to have two children, 16% wanted one, and 16% expressed preference for more than two. The ULMS also asked respondents what their preferred number of children would be if they could start their adult life over again under ideal economic conditions. The mean number of children rose to 2.3 for both men and women, suggesting that childbearing preferences and behavior have been depressed by the current economic situation.

5. Explanations towards very low fertility in Ukraine

Fertility researchers have developed a number of explanations for the recent decline to very low fertility throughout Europe, and in Eastern Europe and the former Soviet Union in particular. The explanations fall into the following categories: economic uncertainty, societal-level stress and anomie, changing values and belief systems, and unequal gender relations. The categories are not meant to be exclusive; the explanations overlap and could be occurring in some combination. In the section below, I discuss these explanations and any relevant evidence. I include explanations and evidence that pertains to Russia for the following reason: although Ukraine differs in many ways from Russia, both societies share similar cultural practices of family formation and have experienced parallel trajectories of change on the societal level.

5.1 Economic uncertainty

Economic uncertainty caused by economic crisis or depression is one of the leading explanations for lowest-low fertility (Kohler et al. 2002, Macura 2004). According to this argument, macro-level economic instability leads to financial uncertainty on the individual level, delaying union formation and childbearing in early adulthood in favor of continued residence in the parental household and the pursuit of higher education and job stability. In some societies, economic uncertainty is less likely to delay entry into parenthood, but may lead to the delay or elimination of higher-parity births, as parents realize they can not afford to have more children (Philipov 2002, Perelli-Harris 2005). The hypotheses predicting the negative association between labor market crises and fertility emerge from micro-economic fertility theory. Economic or 'demand' theories of fertility posit a cost-benefit framework of analysis, in which parents maximize utility by balancing decisions about consumption with income and resources (Becker 1991, Easterlin and Crimmins 1985). In such a model, children are considered one of the trade-offs; they use up psychological, financial, and time resources that parents would otherwise spend elsewhere. According to this perspective, in times of labor market crisis when individuals experience involuntary job loss or face the prospect of job loss, the strains on income or potential income should lead couples to forego or delay childbearing.

After the dissolution of the Soviet Union, Ukraine experienced a grave economic crisis, leading to individual level economic uncertainty. Between 1991 and 1998, Ukraine failed to experience a single year of economic growth; the country's percent change in GDP was consistently negative. As a result, the GDP per capita declined by 60% and unemployment rates rose to at least 12%. The proportion of the population living below the poverty line increased, and 45.2% lived on less than one dollar a day in 1999 (UNDP Ukraine 2002:14-37). Since 2000, the macro-economic situation has improved dramatically, with GDP growth rates surpassing neighboring EU countries. In 2004, Ukraine's GDP growth stood at 12%, one of the fastest rates in the world (Ministry of Economy of Ukraine 2005). At least some of this economic growth has contributed to a rising standard of living and declining poverty; real population income was 72% higher in 2004 than in 1999, and the overall ratio of average income to the poverty line increased by 80% from 2000 to 2004 (Ministry of Economy of Ukraine 2005). It is questionable, however, how much these improvements have reduced overall economic uncertainty on the individual level.

While economic uncertainty does seem to be a plausible explanation for the dramatic fertility decline in the former Soviet Union, the only evidence for such a relationship is found on the macro-level. Throughout the 1990s, there was a correlation between declining economic output and fertility (Heleniak 1995, Steshenko 2001), but this correlation does not prove causality. Also, fertility did not increase substantially

once macro-economic conditions improved. More importantly, studies of the relationship between fertility and economic uncertainty on the individual level have been inconclusive. For example, no consistent relationship between men's or women's unemployment and fertility has been found in Ukraine (Perelli-Harris, forthcoming) or in Russia (Perelli-Harris 2006a, Kohler and Kohler 2002). Income has had only a minimal effect, quickly becoming insignificant with the inclusion of other factors such as education (Perelli-Harris 2006a). Other attempts to operationalize economic uncertainty through subjective measures, such as concerns about job loss, have had inconclusive results (Kohler and Kohler 2002). Thus, conventional microeconomic factors such as formal employment in the labor force and income do not appear to constitute the most important factors in the decline to very low fertility.

5.2 Social anomie and societal-level stress

The collapse of the Soviet Union and the turmoil of the 1990s has had a broader impact on the Ukrainian society than simply causing financial hardship. The disintegration of the Soviet Union has led to rapid social change, resulting in the reorganization of society and the transformation of values and expectations. This instability has led to social anomie, or a breakdown in social norms (Durkheim 1984 [1893]). The negative change has caused individuals to feel they have lost control over their lives, resulting in high levels of stress and anxiety (Dooley et al. 1996, Fenwick and Tausig 1994). Psychological studies have shown that stressful conditions can lead to a host of negative outcomes, such as poor health (Schneiderman et al. 2005), depression (Hammen 2005), and poor health behaviors (Schneidermann et al. 2005). In Ukraine, stressful conditions are said to have resulted in lower life expectancy (UNDP 2004), high levels of distress and anxiety (Kohn et al. 2002), and low levels of self-reported health (Gilmore, McKee, and Rose 2002).

Social anomie, as opposed to simple economic uncertainty, may be one of the main reasons for the rapid decline in fertility in Ukraine. Social anomie can make people averse to taking on additional risks, such as childbearing and rearing (Perelli-Harris 2006a, Philipov 2002). Ukraine is a highly educated society, in which parents have developed a desire for 'quality' children (Becker 1991). Therefore, under anomic conditions, Ukrainians may be reluctant to bring another child into the world, not necessarily because they do not have the means to do so, but because they feel that they have lost control over their environment. They may feel hopeless when faced with everyday conflict and the breakdown in social norms, and may limit their childbearing to avoid exposing someone else to such a life. They may want to avoid expending the additional physical and emotional energy that raising children requires. Hence, the

postponement or avoidance of childbearing is not only a response to individual financial concerns, but also a psychological reaction to anomic conditions.

Perelli-Harris (2006a) found that in Russia, subjective well-being and participation in informal work can act as buffers to the anomic conditions leading to very low fertility. Both factors provide people with the means to cope with economic and social uncertainty; subjective well-being is a psychological resource that helps people to maintain a positive attitude, while participation in informal work indicates an ability to act regardless of labor market insecurity. Both subjective well-being and informal work are significantly related to wanting and having additional children. Although the factors are not directly related, they can be seen as indicators of the willingness to take on additional responsibilities, including childbearing and rearing. The study shows that psychological factors are more important to the limitation of childbearing than purely economic factors, lending support to the anomie explanation of fertility decline. The evidence in the study applies to Russia, but similar influences most likely play a role in additional childbearing in Ukraine as well.

5.3 Ideational change

Fertility decline in Ukraine may also be due to changes in values and belief systems. With the breakup of the Soviet Union, Ukraine has been flooded with external influences that may be changing priorities, behaviors, and the way people think. Some demographers argue that Ukraine is on the verge of the Second Demographic Transition, purported to have occurred in some Western European countries in the 1960s and 1970s (Van de Kaa 1987, Lesthaeghe and Surkyn 2002). The Second Demographic Transition theory argues that changes in family structures, including declines in fertility, later ages at first marriage and birth, and increases in cohabitation and non-marital childbearing occur concomitantly with a reorientation towards autonomy, secularization, and self-interest (Surkyn and Lesthaeghe 2004). According to the theory[2], individuals, and in particular women, re-prioritize career and self-actualization over family and childbearing. Some demographers argue that Russia is on the threshold of SDT, part of the evolutionary trend towards the 'Western' model of family formation, although with a unique Russian twist (Vishnevsky 1996, Gerber and Berman 2005, Zakharov 2006). They posit that the shift constitutes part of the natural

[2] Some argue that the term 'Second Demographic Transition' (and indeed the 'First Demographic Transition') is not a theory, but rather a description of emerging trends, or at best, merely an explanation of these trends. I will refer to Lesthaeghe's conceptualization of the term, which points to ideational change as a primary factor influencing the new trends in family behavior.

process of modernization, a process that has always been met with some degree of resistance in Russia (Vishnevsky 1996).

Proponents of the Second Demographic Transition point to the rapid change in demographic trends in Russia as evidence that the SDT is occurring. For example, Zakharov and Ivanova (1996) interpret trends such as the decrease in the number of abortions, the increase in non-marital childbearing, and the decline in the number of births in the 15-19 age group as signs that Russia is on the verge of the SDT. Gerber and Berman (2008) conclude that the rapid decline in marriage in post-Soviet Russia is due to normative change rather than economic conditions. Few studies, however, have been able to show that these trends are due to an actual shift in values. Using the World Values Surveys, Lesthaeghe and Surkyn (2002) provide evidence that cohabitation and divorce in Eastern Europe are associated with more 'non-conformist' values, but they are not able to show the magnitude of this trend or its change over time. In fact, the new trends may be the result of economic or cultural factors that have little to do with a shift towards SDT. As mentioned above, non-marital childbearing in Ukraine is associated with incomplete high-school education rather than higher education (Perelli-Harris, forthcoming), possibly due to impoverished conditions rather than a Scandinavian-type shift towards cohabitation. Therefore, further research is needed to show how ideational change is impacting family behavior, with subtle attention paid to the Ukrainian context.

5.4 Unequal gender relations

The gender equity explanation argues that different levels of support for women have resulted in variation in fertility (Chesnais 1998; McDonald 2000). In very low fertility countries, such as Italy and Spain, women have made major gains in terms of equality in the educational system and the labor force, but have not achieved similar levels of equality within the home. Women are provided with little domestic childcare or state childrearing support and must decide whether to limit their childbearing or reduce their career aspirations. In Northern European countries, on the other hand, women receive more assistance from their partners and from governmental resources, including subsidized childcare and maternity leave. As a result, these countries have maintained fertility levels closer to replacement (McDonald 2000).

The gender equity situation in Ukraine is complex; for decades Ukrainian women have had almost the same educational outcomes and labor-force participation rates as men, but gender roles and attitudes have remained conservative. During the Soviet period, the communist party pushed for gender equality in order to expand the workforce, and to some degree it worked: by 1987, Soviet women comprised 51% of

the labor force. Some fields, such as medicine and education, came to be dominated by women. Yet despite the constitutional proclamation that men and women are equal, genuine equality never materialized in the Soviet Union. State policies excluded women from night shifts and hazardous labor (Dudwick et al. 2002), and women primarily held jobs in the semi-skilled professional sector or they held low-skilled jobs (Brainerd 2000). The result was "not so much an equalization as a feminization of the lower levels of the vocational hierarchy: women occupied the worst-paid and least prestigious jobs and were poorly represented on the higher rungs of the vocational ladder." (Kon 1995).

Now, the situation of inequality is not helped by the unstable economy and high unemployment rates. According to the focus group respondents, the current economic conditions have provided few opportunities for career development. Female focus group respondents spoke of discrimination in hiring, especially for women who may become pregnant or have young children. Either because they face discrimination or by personal choice, post-Soviet women still rarely participate in senior management or highly visible political positions (Sperling 2000). Official statistics reflect this disparity: female unemployment stands at 14%, compared to 10% for male unemployment, and the wage differential for men and women is 36% (UNDP 2002a). It is not surprising, therefore, that women express little interest in pursuing a long-term, self-actualizing career in such an environment, although as the economy improves, women may begin to re-orient themselves towards professional development.

Within the domestic sphere, traditional gender roles have largely been maintained. Both male and female focus group respondents spoke of the husband's responsibility to financially support his family, and the wife's natural concern for child care, cooking and cleaning, and other household duties (Perelli-Harris 2005). These attitudes, however, rarely result in a breadwinner family model, especially in today's uncertain labor market. Only in elite circles can families afford for the woman to stay at home permanently (Sperling 2000). Instead, women usually take on the 'double burden' of employment outside the home combined with domestic responsibilities. Anecdotal evidence suggests that women often work full-time and then continue to be busy around the house long into the evening, while husbands relax.

In conclusion, the gender equity argument may have some relevance to Ukraine's situation of lowest-low fertility. As in Southern Europe, Ukrainian women have experienced increased equality in the workforce; a large proportion of the Ukrainian female population has achieved higher education and participates in the labour force. As in Southern Europe, too, the gender distribution of domestic work in Ukraine is unequal, and up until recently there was little state support for families (see below). However, this difficulty in combining work and domestic responsibilities is not a phenomenon new to Ukraine either; Soviet women also struggled under the 'double burden', but often chose to have more than one child. Therefore, other factors, such as

economic uncertainty, anomie, or changing values, must be exacerbating the situation, making the difficulty of combining work and childbearing more acute.

6. Family policy

Ironically, Ukraine has one of the most generous but least effective family policies in the world. Much of the generosity of the system arose during the socialist era, when the Soviet state proclaimed that women were equal to men and attempted to incorporate them into the labor force. As a result, state-sponsored maternity leave and childcare facilities allowed women to combine work and childbearing, leading to female labor-force participation rates that were nearly the same as those for men (Gerber and Mayorova 2006). The Soviet state was also concerned about the decline in fertility to replacement level, which became evident in the 1970s (Zakharov 2006). In an attempt to address this problem, the Soviet state enacted concrete measures in 1982 with the goal of raising fertility. Mothers in Ukraine who had worked more than a year or who had interrupted their work in order to study received partially paid leave, – 35 rubles per month at that time -- to look after a child through the first year These women also had the right to additional unpaid leave for an extra half a year without interruption of social security benefits. In 1990, pregnancy and birth leave at full pay was expanded to 70 days before birth and 56 days after birth (special circumstances allowed for 70 days postpartum leave). The period of paid maternity leave at minimum wage was expanded to one and a half years, with a payment of 70 rubles.

After Ukraine gained independence in 1991, the Ukrainian government began to finance its own social protection programs and expanded the budget allocated to such programs; however, the amount dedicated to family programs was minimal (Chemerys et al. 2002). The period of partially paid maternity leave was expanded to two years, and unpaid leave was expanded to three years without interruption of social security benefits. In 1996, maternity leave benefits were expanded to three years, and women received a token amount that varied throughout the period. The amount of the benefits depended on whether a woman was insured through her workplace or whether she was engaged in formal employment. Due to budget constraints and mismanagement, the amount legislated for childcare benefits often differed from actual payments. For example, in 2001 women with social insurance were entitled by law to receive 74 UAH ($14) per month, but on average, the actual payments received were a mere 22 UAH ($4) per month. Women without insurance were entitled to receive 37 UAH, but in actuality received 7 UAH (Chemerys et al. 2002). Considering the inconvenience of collecting the materials and signatures needed for the application, some women did not bother collecting the small amount.

Nonetheless, focus group discussions conducted in 2003 revealed that many Ukrainian women expect the government to provide support for families and childbearing (Perelli-Harris 2003). Most respondents believed they were entitled to three years of maternity leave with state support. Some respondents expressed the opinion that the government was responsible for the low fertility rate, not only because of economic mismanagement, but also because of a lack of financial support for families with children. Some respondents complained that maternity leave benefits were barely enough to buy a packet of Pampers, much less provide them with the necessities for raising a child. These attitudes reveal an underlying expectation of state support, which is an attitude commonly held in socialist societies.

After the dissolution of the Soviet Union, the condition of childcare facilities also deteriorated substantially. State-subsidized childcare facilities declined by a third after 1990 (UNDP Ukraine 2003). While some of the facilities closed due to declining birth rates, many were affected by budget cuts and the transformation of the workplace from state-run to private. For example, many rural daycare centers once operated by collective farms closed down due to restructuring and privatization (Nikolaenko 2006). Although some private daycare centers arose to take the place of public facilities, they were often expensive. As a result, families now have to decide whether to provide childcare themselves or rely on relatives, often grandmothers.

In April of 2005, the Ukrainian government increased child assistance dramatically. New mothers now receive a one-time payment of 3,384 hryvna ($677) following the birth of a child, and 5114 hryvnia ($1023) to be paid throughout the course of the next year. The total sum of 8500 hryvnia is a substantial amount in a country where the average monthly wage is about 760 hryvnia per month ($152) (Ministry of Economy of Ukraine 2005). In addition, for three years after the birth of a child, women receive maternity payments based on household income, but not less than 90 hryvnia per month ($18). This amount changes at least once a year, depending on the state budget.

Although 8500 hrynvia is a substantial sum, it is questionable how well the new system works. First, the payments are not spread uniformly throughout the country – women in major cities have much better access to benefits than their counterparts in outlying regions (Levchuk 2006). Even a year after the enactment of the law in question, some regions still experienced budget deficits that delayed actual payments. Second, women have to struggle against complicated bureaucratic procedures in order to receive payments. Women must provide documents at different locations throughout the city, queue up in long lines, and deal with bureaucratic inefficiencies – and all this with a young infant (Gurina 2005). Finally, there is a six month limit to completing the application process; this is barely enough time to collect all the documents, especially while recovering from the birth of the child.

Although the latest data from the Ukrainian statistical bureau already shows a slight increase in births compared to previous years, demographers in Ukraine question whether the assistance will actually raise fertility in the long-run (Steshenko 2005, Levchuk 2006). Because the payments are restricted to 12 months after childbirth, they provide little support for childcare before pre-school or raising the child afterwards. They are not specifically directed towards second and higher-order births, the elimination of which is primarily responsible for the sharp decline in fertility. The payments also do little to address larger socio-economic problems, such as low living standards, insufficient wages, or expensive housing. Steshenko (2005) speculates that encouraging the growth of small and medium-size businesses would be more effective in increasing fertility than paying families directly. Levchuk (2006) suggests that government-subsidized housing loans would do more to encourage larger families. Some Ukrainians also worry that this assistance will only be used by people with lesser means, thus stimulating fertility only among the lesser educated population.

In conclusion, Ukraine's family policy now appears to be one of the most generous in the world, entailing a one-time payment of $1700 plus three years of paid maternity leave. However, in reality, the irregularities of payment, the low level of parental leave benefits, insufficient support throughout the period of childrearing, and neglect of childcare facilities all dilute the policy's effectiveness. And, considering that living conditions generally are poor and that government action is ineffective in other spheres of life, it is questionable whether these policies will have much of an impact on reproductive decision-making. This amount will be enough to stimulate fertility for some couples – especially given the expectation of state support in terms of childrearing – but it is unlikely that the new policies by themselves will be able to reverse the population decline.

7. Other influential factors

The explanations discussed above, including the influence of family policy, can be considered overarching reasons behind fertility decline in Ukraine. However, specific factors that have rarely been discussed or explored possibly also lead to fertility limitation. In this section, I will outline other factors that may be of importance to reproductive decision-making.

7.1 The changing relationship between parental leave and second births

An analysis of the ULMS indicates that the relationship between parental leave and fertility changed after Ukraine gained independence (Perelli-Harris, 2006b). Compared to Soviet women, post-Soviet women on parental leave had second children at higher rates than women not on parental leave. This change in relationship indicates that the childbearing behavior of working and non-working women diverged. The divergence may be due to a number of factors. First, the dissolution of the Soviet Union weakened work requirements; women who wanted to stay at home to raise children were now able to do so. Second, rapid social change led to an increase in the diversity of norms regarding work and childbearing, allowing underlying beliefs about gender roles to become expressed in more conservative behavior, such as remaining on parental leave and having a second child. Third, the deterioration of economic conditions changed the opportunity costs of childbearing. After Ukraine gained independence, working women became less likely to disrupt employment with pregnancy and childrearing as they feared dismissal from their job; inadequate anti-discrimination legislation and weak enforcement of women's rights did little to protect them from layoffs (Dudwick et al. 2002). Job uncertainty of the husband led working women to avoid job disruption in order to ensure household income stability. The decline in childcare facilities made it even more difficult to combine the roles of worker and mother. Then again, women who desired to have more children may have found the opportunity costs of returning to work too high. If available jobs were incompatible with childrearing, e.g., in that they did not offer part-time work or flexible working hours, family-oriented women may have decided to stay on maternity leave. These women may have compressed their birth interval to fulfill their fertility intentions. In conclusion, the changing relationship between parental leave and fertility reveals an emerging behavioral trend that requires a new way of theorizing about the decline to very low fertility.

7.2 Lack of housing

Limited affordable housing and insufficient space is possibly one of the main factors discouraging childbearing in Ukraine. Difficult access to home-ownership is a proposed factor leading to the postponement of childbearing in other lowest-low fertility countries, such as Italy and Spain (Palomba 2001; Mulder and Billari 2006). In Ukraine, insufficient or unaffordable housing is not necessarily resulting in delayed entry into parenthood, but it may be restricting family size. Many young couples with one child can cope with small living quarters by sharing resources with their parents; intergenerational households are a common solution to housing shortages. But couples

may feel that sharing a one or two-bedroom apartment with their parents and two children is unfeasible.

During the Soviet era, families also had to cope with limited housing space. Urban apartments were often very small and it was not uncommon for families to share communal space or live in dormitories. Now, many of these housing conditions have improved; e.g., communal living is rare. However, changing attitudes and expectations lead couples to place a greater emphasis on housing when making childbearing decisions. The same ideational change that is shifting priorities towards individualism, the career, or material goods may also influence space requirements. In addition, access to home-ownership has become more difficult. Before the disintegration of the Soviet Union, couples applied for housing and received an apartment within a few years. In the late 1980s, the birth of a child qualified families for larger apartments. After Ukraine gained independence, however, the housing market was privatized and moving into a new residence required a significant outlay of cash or an inheritance. Loans continue to have exorbitantly high interest rates and require large down-payments. Thus, upward mobility in the housing market is limited and many young couples doubt that they will ever be able to afford their own home. This situation creates a serious impediment to additional childbearing.

7.3 Intergenerational support

Given the historical interdependence and co-residence of multiple generations in Ukraine (Coale 1992), it is important to study the role of grandparents in fertility timing and decline. Russia and Ukraine have a long-standing practice of intergenerational wealth flows from older to younger generations (Buckley 2001). Parents and grandparents often help young couples when they have financial problems, for example, by providing housing or supplying produce from the village. Grandmothers frequently provide childcare assistance, sometimes on a regular basis, thus allowing mothers to return to work. The parental resources help to maintain an early age of childbearing – young couples can negotiate economic constraints with the support of older generations (Perelli-Harris 2005). However, because this support usually takes the form of housing, childcare services, or goods, parents may still face cash shortfalls for expenses and decide to limit additional childbearing.

Owing to a decrease or delay in pensions due to state budget restrictions, older generations have fewer resources at their disposal to help their children. In many cases, the middle-aged generation has to support not only its children but also its parents or other relatives (Steshenko 2000). These changes in intergenerational wealth flows may be contributing to fertility limitation. In addition, given the reliance on grandmothers

for childcare assistance, the deteriorating health of the elderly population may be influencing childbearing decision-making. Since the disintegration of the Soviet Union, mortality and morbidity has been increasing, resulting in lower life expectancy and increased disabilities among the retired population (Steshenko 2000). The uncertain health of the older generations puts pressure on women of childbearing age to have children earlier, i.e. at a time when parents can still provide financial support and childcare assistance (Gabriel 2005). Such pressures may also contribute to fertility limitation, since couples now have fewer resources to assist with childrearing.

7.4 Stress, poor health lifestyles, and marital quality

Although social anomie is one of the leading explanations of fertility decline in Eastern Europe and the Soviet Union, few studies have investigated the relationship between fertility and a broad array of indicators of anomie, such as stress, risky behaviors, poor health, alcoholism, and poor marital quality. As discussed above, Perelli-Harris (2006a) found an association between fertility and subjective well-being in Russia; Philipov, Speder, and Billari (2005) investigated the relationship between psychological well-being, disorientation, and birth intentions in Bulgaria and Hungary. These studies, however, focus on relatively simple psychological indicators, as opposed to the specific mechanisms that may be causing the low levels of well-being. More sophisticated measures of stress are needed to help locate the source of the psychological discontent and disentangle the relative influence of stressful life events versus personality type.

Poor health lifestyles, which have been one of the leading causes of mortality in the former Soviet Union (Cockerham 2002), may be discouraging mothers from having additional children. After Ukraine gained independence, male mortality from accidents, poisonings, and trauma increased drastically (Steshenko 2000). The increase in risky behavior not only resulted in an increase in deaths, it also affected home life and household stability. Alcoholism in particular took a toll on the family (Gabriel 2005). Alcoholism in Ukraine has been incredibly high; according to the 2002 Ukrainian World Mental Health survey, the rate of alcoholism in Ukraine was higher than in any other European country with a comparable survey (Bromet et al. 2005). Alcoholism has been particularly prevalent among men of working age, when men are expected to be engaged in childrearing (Bromet et al. 2005). Alcoholism often results in negative behaviors that threaten the family, such as despondency, violent outbreaks, or abuse. Such behaviors may be negatively impacting the decision to have more children.

Stress and negative health behaviors often lead to poor marital relations and divorce, which in turn depresses fertility. Ukraine has one of the highest divorce rates in the world – in 2000 there were 4.0 divorces per 1000 people (Derzhkomstat 2001). The

high level of marital dissolution most likely limits additional childbearing, especially if the dissolution occured early in marriage (although completed fertility occurring before divorce may have no effect on total fertility, and remarriages may actually lead to additional childbearing). Regardless of actual marital dissolution, however, poor marital quality and marital uncertainty may be discouraging women from having additional children. Research conducted in the United States shows that couples in unstable marriages have fewer children than couples in stable marriages (Myers 1997). People may think having children saves marriages, but it rarely does so. Thus, the deterioration of spousal relations is a major factor behind fertility decline in Ukraine.

8. Conclusion

The decline to very low fertility in Ukraine has been a complex process with no single explanation. Macro-level social and economic change has clearly led to a new form of childbearing decision-making, but the specific causes of the new practices are still unknown. The two primary explanations for fertility decline in Ukraine – economic uncertainty and the Second Demographic Transition – lack the support of micro-level evidence. No study has found a direct relationship between fertility and economic indicators such as unemployment or income. Likewise, little research has been conducted showing an association between shifting values and fertility decline. Nonetheless, economic uncertainty may be operating through other unmeasured mechanisms, such as inadequate housing or pressure to support elderly parents, and some strata of the population may be experiencing the SDT. For example, more highly educated women have experienced a reversal in childbearing behavior and are now leading the postponement of childbearing within marriage. This most likely indicates that these women are undergoing substantial ideational change (Perelli-Harris, forthcoming). Thus, economic uncertainty and ideational change are probable explanations, but require further research.

In any case, more nuanced approaches are necessary to better understand the situation. In particular, the concept of economic uncertainty should be expanded to encompass a broader sense of psychological distress and anomie. After the collapse of the Soviet Union, individuals felt a loss of control over their lives, resulting in anxiety, stress, and a sense of hopelessness. As Perelli-Harris (2006a) shows, subjective well-being and participation in informal work are two ways in which anomic conditions are buffered, leading to additional childbearing. Other symptoms of anomie, such as alcoholism, stress, risky behaviors, and poor marital quality may be negatively impacting the decision to have a child. The link between increases in mortality and

morbidity and decreases in fertility calls for further investigation; both may be stemming from the same destructive behaviors, and ultimately social anomie.

It is important to bear in mind that multiple trends in behavior have been emerging simultaneously, but not necessarily due to the same social forces. While some strata of the population may be postponing or eliminating higher parity births as a result of changing values and belief structures, others may be adopting more conservative behaviors that accord with their concept of distinct gender roles (Perelli-Harris 2006b). The rise in cohabitation and non-marital childbearing may be the result of increased gender equality and of the rejection of official institutions (as in the Scandinavian countries) or it may be due to impoverished conditions and the inability to afford marriage. Thus, rather than assuming that all individuals are on the way to becoming more autonomous, self-interested, and career-oriented, it is prudent to recognize the heterogeneity in the population.

Finally, family policies may have a substantial impact on childbearing decision-making, especially now that child allowance has been raised to 8500 hryvnia. It will be interesting to observe whether this amount actually stimulates childbearing and to which segments of the population this applies. The extent of the policies' effect in the long run, however, is questionable, since they do not address other pressing needs of the population. Affordable housing, decent wages, a functional government, a belief in progress, and hope for the future are all necessary to change attitudes towards childbearing and halt the drastic decline of Ukraine's population.

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