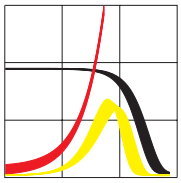

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Fertility of Migrants: A comparative study between Italy and Russia

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A comparative study between Italy and Russia*

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Abstract

This paper contributes to the analysis of fertility differentials between migrants and the native-born by examining the transition to first child using event history analysis. We looked for a tool that could link anthropological investigation with the representativeness of a statistical study. The meeting point is anthropological demography that permits the merging of different methods and approaches. We use event history as quantitative translation of the life course approach.

The data examined are the first-wave Italian Families and Social Subjects Survey conducted in 2003 and the first-wave Russian Gender and Generations Survey conducted in 2004. The datasets are examined separately and the results are contrasted. An immigrant is for this study defined as a person born outside of the country at interest.

The objective of the study is twofold: First we seek to determine whether differences exist in the decision and timing of childbearing between native and foreign-born women in Italy and in Russia. Second we aim to compare the experiences of immigrants in the two countries, to determine whether there may be any commonalities inherent to the immigrant populations, despite moving into widely different contexts.

This leads us to the following two conclusions: First, the similarities in the risk profiles of our immigrants into vastly different country contexts is more suggestive of immigrants being a distinct group rather than assimilating or conforming to the native fertility patterns. Second, our results do not seem to confirm the presence of either disruption or family formation being key events associated with migration.

Keywords: Event History Analysis, Fertility, Immigrants, Italy, Russia.

Introduction

The face of Europe is slowly changing. Immigration from a host of developing and transitional countries has replaced emigration to the new world as the dominant migration flow. According to the International Organization for Migration, migrants now make up an estimated 7.7 percent of Europe's population (including Russia).

Italy and Russia are two such countries adjusting to markedly increased immigration levels. In 2005 the Italian foreign resident population is estimated to have increased by almost 300,000 to 2,670,514 individuals, half of which are women (Caritas, 2006). In absolute percentages, the foreign population has risen from 2.7 percent of the total Italian population in 2003 to an estimated 4.5 percent today (Istat, 2007a). This leaves Italy with among the highest net migration rates in the developed world, comparable to levels found in North America (Livi Bacci, 2006). Russia meanwhile has witnessed large influxes of immigrants since the dissolution of the former Soviet Union and now contains the second-highest absolute number of resident migrants after the United States (UN, 2003). Yearly net migration flows were estimated by the UN to have been as high as 439,000 per year in the period 1995-2000, though have since dropped to 183,000 in the period 2000-2005.

International migration becomes all the more relevant when the population age structures of Italy and Russia are considered; both countries face the possibility of future population decline. According to the 2006 UN medium variant projections the Italian population will decrease from its current 58 million to 55 million by 2050. The anticipated decline is even direr for the Russian Federation, projected to shrink from 144 million to 108 million over the same time period. Accompanying these declines is the well-documented ageing process, already underway. By 2050 the old age dependency ratios are projected to increase from 30 to 60 dependants per 100 working aged persons in Italy, and from 19 to 39 dependants per 100 working aged persons in Russia.[1]

Touted as a potential solution to offset some of the negative consequences of population decline and ageing, the long-term effects of increased net migration have been the focus of much examination (UN, 2000). The effectiveness of this policy option, particularly in offsetting population ageing, relies upon the extent to which the migrant population is younger or has higher fertility levels than the native born population. Of the two mechanisms, having a young pool of migrants is thought to only postpone the problems associated with population ageing. Higher migrant fertility levels, on the other hand, would have more profound and lasting effects on the age structure of the population. The extent to which the fertility of migrants differs from that of the native born population thus becomes an especially relevant research question for the low fertility Italian and Russian populations.

Meanwhile, in both countries the transition from first to second child has become an increasingly rare event; in fact the total fertility rate is estimated at 1.3 children per woman in each country. For this reason, it becomes especially important to understand factors related to childbearing decisions, for native-born and migrants alike.

Quantitative studies of migrant fertility, however, are generally made difficult due to a lack of data. Macro data does not enable life history reconstruction. Survey data runs into the problem that migrants are often not captured in the dataset due to their legality status, high mobility, and language issues (Cibella, 2006). The data we examine here are the first-wave Italian Families and Social Subjects Survey conducted in 2003 and the first-wave Russian Gender and Generations Survey conducted in 2004. The GGS data base is constructed with the aim to direct the *life course approach* (Vikat et al., 2007), an invaluable tool for understanding fertility decisions. Moreover, the questionnaires included information on the nationality and citizenship of the respondents. Unfortunately, in some cases this information was incomplete. However,

[1] Dependants are considered to be persons over age 65 while working aged persons are individuals aged 15-64. Projections are available from http://esa.un.org

since both surveys contain a statistically significant number of persons born outside of the respective countries, we used these cases to define our immigrant study group.

This paper examines one aspect of differential fertility between native and foreign-born individuals, namely the transition to first child using event history analysis While demography in the past has focussed on population size and structure, socio-cultural anthropology has focussed on the social landscape influence individuals, including their reproduction (Bernardi & Hutter, 2007). In using such a technique, we aim to incorporate anthropological and cultural input into the study of immigrant fertility. We use event history as quantitative translation of the life course approach, allowing us to delineate the behaviours at the base of this process.

At first glance comparing the fertility experiences of migrants in Italy and Russia seems an odd choice. The migrant stock is pulled from different countries, and Italy and Russia themselves vary widely on a range of cultural, political and economic fronts. Indeed it is not expected that the fertility experiences should be identical. Rather it is hoped that a study of this sort can elicit certain behaviours that might be common to the experience of migration. By contrasting the immigrant to the native women in Italy and Russia we thus hope to satisfy two objectives: First we seek to determine whether differences exist in the decision and timing of childbearing between native and foreign-born women in Italy and in Russia. Second we aim to compare the experiences of immigrants in the two countries, to determine whether there may be any commonalities inherent to the immigrant populations, despite moving into widely different contexts.

The paper is set out as follows: Section two examines what is known about the relationship between migration and fertility. Section three discusses the fertility developments and patterns in both countries, for the native-born as well as the respective migrant groups. The fourth section puts forward the data and methodology that we use in our analyses. Following this we present respectively the Italian and Russian models in the 5th and 6th sections and we provide a comparison model in section 7. We end with a discussion of our findings and concluding remarks.

Migration and fertility

How immigration affects childbearing patterns is still an issue of contention with evidence found for both socialisation patterns on the one end of the spectrum and assimilation or even adaptation patterns on the other end. The act of migration itself has also been found to cause disruptive patterns to the traditional life course events. Complicating this debate is whether migrants themselves constitute a selective group whose fertility preferences may more closely resemble those of people at destination than at origin. Finally a body of literature exists seeing the acts of migration and family formation as interrelated events, better studied from a life course perspective.

The *adaptation model* argues that couples migrating to a country with lower fertility levels than their home country initially continue to exhibit fertility patterns akin to their home country, and over time adapt to patterns found in the destination country. Thus the earlier in her reproductive career that a woman migrates, the more her completed fertility should resemble the native level. Evidence for this type of behaviour has been found in a variety of contexts including immigrants to Germany (Mayer & Riphahn, 2000), Brazil (Hervitz, 1985) and Sweden (Andersson, 2001). That this model tends to be more prevalent in western European rather than American contexts it has been argued may be the result of a greater increase in standard of living felt by the average immigrant to Western Europe than might be the case for the United States (Mayer & Riphahn, 2000). However with the *assimilation* model, fertility preferences take longer to resemble those of the host country. Normally this term is employed for generational comparisons with either first-generation immigrants who migrated at or before school-age or with the second generation. The key difference to adaptation is that the female would have been exposed to the host country's cultural environment from a young age.

Contrary to adaptation or even assimilation, some hold that the behaviour of migrants may be more clearly defined by *socialisation,* whereby a woman's fertility behaviour is dictated by norms found in her childhood environment. For example, an American study showed that Mexican immigrants in the 1980s exhibited elevated fertility levels over the natives, regardless of the length of stay (Kahn, 1994). The extent to which migrants retain their home behaviour may play out differently by nationality (Hervitz, 1985). This may appear to hold true even among the second generation, as it has been shown in Australia that the closer was the ethnic background to the Anglo Saxon model, the more fertility patterns coincided (Khoo, McDonald, Giorgas, & Birrel, 2002).

Yet this debate is complicated by a potential bias. The *selection hypothesis* argues that migrants are not a representative group of their country of origin by the mere fact that they are attracted to the host country, which might also make them more predisposed to taking on its behaviours. It has been argued that the low fertility levels exhibited by female immigrants from China, India and Korea is attributable to their high social capital which compelled them to leave; in other words that their fertility behaviour would have differed from stayers regardless of whether they had chosen to leave (Kahn, 1994).

Finally the *disruption hypothesis* argues that the act of migration itself causes an initial drop in fertility in the immediate periods before, during and after migration, but is later followed by a subsequent acceleration of fertility to compensate for earlier delays. Evidence supporting this hypothesis was first put forward by Goldstein and Goldstein (1981) who compared the fertility of internal Thai migrant groups in the immediate period after migration to the non-movers at the place of origin. A lack of comparable data makes a study of this sort nearly impossible to do in an international setting. Nevertheless North American studies using the "own children method" from census data have found that fertility appears to drop in the period surrounding migration (Ford, 1990; Kahn, 1994; Ram & George, 1990). Yet as Ng and Nault (1997) discuss, this method can run into problems of time referencing births with the duration of stay. When they instead used only infants (rather than children under 3 or 5) to calculate fertility levels from the 1991 Canadian census, evidence of a disruptive period after migration mostly disappeared.

This latter body of literature does not argue over differentials between immigrant and native fertility levels but rather frames the fertility experience within a life course perspective to show how migration changes the life course pattern of the immigrant couple. While disruption may indeed be the case in some contexts, other studies find that migration itself is often associated with key demographic events such as marriage and family formation, leading to the *life course hypothesis* (Mulder & Wagner, 1993). However, this life course perspective may differ according to nationality. Schoenmakers et al. (1999) concluded that while the Turkish community in Belgium often used arranged marriage as a tool for chain migration (with migration only meant as a temporary economic measure), Moroccans were more individualistic and tended to view immigration as a permanent measure with an ensuing desire to "adhere to a more Western lifestyle". Perhaps the best evidence supporting the life course hypothesis comes from a study using longitudinal population registry data in Sweden. In this case it was seen that virtually all immigrant groups to Sweden over the period 1961 to 1999 showed elevated first birth risks shortly after arrival, even within the first year of moving. This suggests that many of the women had conceived before the registered immigration in Sweden, which was interpreted as evidence that migration and family formation were often interrelated events in the Swedish context, while no signs of disruption were found (Andersson, 2001) .

Though all of the above hypotheses need not be mutually exclusive, it does appear that both the context into which a migrant is moving as well as her ethnic affiliation may play a role in shaping the timing and overall pattern of fertility. To date there has been much written comparing the fertility experiences of women migrating from different origins into one destination. However, little has been done to compare migrant groups originating from different origins into multiple destinations. A comparative study such as ours thus becomes interesting to see whether the similarities between the immigrant fertility experiences in Italy and Russia outweigh the differences, given the different immigrant backgrounds and host country contexts. In this way we can investigate whether variables such as the women's *marital status* or other life cycle indicators which are known to have a strong impact on the decision to have a first child (see for example, Michielin, 2004; Milewski, 2006)) vary in intensity between the native born and immigrant groups.

Explaining fertility developments in Italy and Russia

Italy

Italy is now considered as a new *Immigration Harbour:* as of the 1st January 2006 there were 2,670,514 foreign residents in Italy, more than 49 percent of which were women (Istat, 2006). The latest yearly immigration figures show that in 2005, almost 300,000 people migrated to Italy. Today, the proportion of immigrants is 4.5 percent of Italian population whilst in 2005, 2004 and 2003 it was 4.1, 3.4 and 2.7 percent respectively (Istat, 2007b). In absolute terms, the largest immigrant groups are the Albanians, followed by Moroccans, Romanians, Chinese and Ukrainians; these groups together make up 45 percent of all foreign residents as of the 31st December 2005[2].

Italy represents the *Mediterranean immigration model* with all its characteristics including: A much later starting period of immigration (the 1970s) than in northern Europe; the transition from an emigration to an immigration country; employment dominated by seasonal agriculture work and service sector employment (as domestic service); a segmented labour market; late regulations and policies on immigration; a high presence of irregular immigration; and differential access to the social structure (EMN, 2004). Moreover this pattern is dominated by a negative demographic trend—low fertility and high proportions of elderly have led to 137.7 persons over age 65 for every 100 persons younger than age 15 in the country and an overall dependency ratio of 50.7.[3]

The Italian fertility level is among the lowest of developed nations; in 2005 the mean number of children per woman was 1.33. This follows a long decreasing trend having its roots in the early 20th century, with the notable exception of the period around 1965, the famous *baby boom*. Following the boom a rapid decrease in fertility levels set in, having its trough in 1995, when the Italian period TFR arrived at 1.19.

Historically it has been the case that the northern and central regions of the country have experienced lower TFR levels than southern regions. Recently, however, the north has experienced a slight upswing in fertility levels. Meanwhile fertility continues to follow a downward trajectory in the south. As a result regional differences in the TFR have disappeared, with levels of 1.33 in the north, 1.27 in the centre and 1.32 in the south (Istat, 2006). The low fertility levels and the high proportion of elderly in the population have led to small family sizes; in 2005 the mean number of persons in the family was 2.5.

Overall, the fertility rate of Italian immigrants (2.61) was almost double the rate of native Italians (1.26) in 2004 (Istat, 2006). Regionally, the greatest differences are visible in the north-west of the country. In 2004 the share of children born to at least one foreign-born parent in Italy had risen to 11.75 percent (Istat, 2006).

The rise in the TFR in northern regions is caused in part by the increased immigration levels in recent years. The other phenomenon is the catching-up of previously postponed births. Italy now has a long history of marriage and fertility postponement, particularly in the north; the first cohorts to do so were born in the 1950s. By 2005 the mean age of childbearing of resident women had climbed to 31 and to 29 for first births (Caltabiano, Castiglioni, & Rosina, 2007). Nevertheless Italy continues to posit low fertility levels even when compared to the other late childbearing nations of Europe (Caltabiano et al., 2007; Lesthaeghe & Neels, 2002).

[2] www.demoistat.it

[3] The dependency ratio is the proportion of the population below age 15 and above age 65 divided by the population 15-65. Data are from 2005.

A final trend worth noting is the link between education and fertility in Italy. While in the past there was a clear negative relationship between educational attainment and fertility, the most recent national and regional studies show that this relationship appears to have diminished; the new trend is that the higher educated couples with healthy economic resources are equally likely to become parents (Kertzer, White, Bernardi, & Gabrielli, 2006; Tanturri & Zuanna, 2007). All the same, higher levels of education still depress fertility by rising the age of childbearing (Tanturri & Zuanna, 2007).

Russia

The collapse of the former Soviet Union unleashed a major wave of immigration to Russia, prominent of which was the return migration of individuals considering themselves of Russian ethnicity. Mostly these were children born to parents who, during Soviet times, were placed in neighbouring republics to satisfy vacancies in either the urban, highly skilled sectors or in agriculture, particularly during the 'Virgin Lands' campaign of 1954. More recent immigration flows have been dominated by economic considerations, as eight years of modest economic growth have made Russia an attractive region for migrant workers, though still predominately from other former Soviet states (IOM, 1999; UN, 2002). As a result, understanding the fertility developments of both the Russian-born and Russian immigrants requires an examination not only of the current Russian social landscape but also of prior Soviet social and political developments.

Russia itself has one of the lowest fertility rates in the world, currently estimated at 1.3 children per women. Unlike other low fertility countries, the fall of the Russian birth rate to below replacement levels happened rather dramatically at the time of the dissolution of the former Soviet Union. Meanwhile, of the prime migrant-sending nations, the Baltic and European republics posit fertility levels well below replacement, the Central Asian states continue to have fertility rates in the neighbourhood of two to four children per women, while the Caucasian states have fertility levels somewhere in-between, though dropping to Russian levels.

Prior to dissolution, Soviet fertility levels in the 1980s actually increased slightly until 1987 due to a series of pronatalist measures including the introduction of partially paid maternity leave (initially for one year, gradually increasing to three years) and the introduction of a juridical definition of a large family as being one containing three children, who were then made eligible for a series of housing and public service benefits (Bühler, 2004; Kohler & Kohler, 2002; Zakharov & Ivanova, 1996). While fertility levels did increase almost immediately as a result of these measures, much of the increases were tempo effects, with family formation coming about at an earlier age and families giving birth in rapid succession to take advantage of the new policies.

There is some evidence that these changed fertility patterns in the 1980s, particularly for second-order births, had an effect on the low period fertility levels observed in the early 1990s (Zakharov & Ivanova, 1996). As far as explaining the sharp reductions in the total fertility rate observed during the transitional period, some have pointed to models showing a likelihood of postponing births during times of economic uncertainty (Ranjan, 1999). However, analysis using Bongaarts and Feeney's tempo-adjusted TFR revealed that while central European transitional fertility declines owed much to tempo effects, lower fertility rates in Baltic and other European post-Soviet countries contained a greater quantum effect (Sobotka, 2003). Indeed, evidence from the Russian Microcensus of 1994 revealed that though women were still having their first child early in Russia, the reduction in second order births were especially responsible for the drop in period fertility levels (Barkalov, 2005). This survey also suggested that women desired smaller family sizes regardless of socioeconomic background. Ethnicity and urban/rural residence were found to be the prime determinants of desired family sizes (Kharkova & Andreev, 2000). A final factor explaining the overall reductions in births during the transitional period is the small size of the childbearing cohorts of the 1990s. These cohorts were the children of women born in and around World War II, when Soviet fertility levels had reached all-time lows.

Overall, fertility in the other former Soviet states showed similar period fertility trends, albeit with the rises and falls from different levels.

Data[4] and model specification

In comparing the fertility of migrants in Italy and Russia we are sourcing our data from two longitudinal surveys, the Italian *Families and Social Subjects* (FSS) survey of 2003 and the Russian *Parents and Children, Men and Women in Family and Society* of 2004, both of which were part of the broader Pan-European *Generations and Gender Program/Survey* (GGS). The Italian FSS is now a part of the GGS family of surveys and the Italian National Institute of Statistics (ISTAT) and the Ministry of Labour collaborated with the QDG2 (The Questionnaire Development Group 2) to guarantee the comparability between the GGS and FSS on the second wave.

The Italian FFS is a PAPI (Paper and Pencil Interviewing) retrospective multipurpose household survey, the first wave of which was conducted in November 2003 by the Italian National Statistical Office (ISTAT). The survey was designed explicitly to be representative at the regional level and included questions on demographic, social and economic events, as well as questions seeking the opinions, values and attitudes that are included in the GGS model. The response rate for the Italian survey was 80.7 percent. The Russian GGS is a retrospective panel survey of the resident population the first wave of which was conducted in June-August 2004 by the Russian National Committee, a conglomerate led by the Independent Institute for Social Policy (IISP). The sampling covered 11,261 respondents aged between 18 and 79 years from 32 regions of Russia. The survey was representative on a country scale. One major shortcoming of the Russian GGS is the low response rate of 57.2 percent; in the urban regions of Moscow and St Petersburg this figure was less than 15 percent (IISP, 2004).

The survey samples can be broken down by the gender and place of birth characteristics as shown in Table 1. The Italian sample of 49,541 individuals relates to 19,227 households while in the Russian GGS each respondent relates to one household.

Table 1: Italian FFS and Russian GGS sample composition

	Italian FFS			**Russian GGS**		
	Italian-born	**Foreign-born**	**Total**	**Russian-born**	**Foreign-born**	**Total**
Males	23,221	734	23,955	3,788	435	4,223
Females	24,641	945	25,586	6,359	679	7,038
Total	47,862	1,679	49,541	10,147	1,114	11,261

Sources: Italian FSS, Russian GGS--Our elaboration

When only women aged 15 or over are considered, the sample size for Italy reduces to 21,945 Italian-born females and 855 foreign-born women.

Since time-varying covariates are utilised in our examination of the transition to parenthood, we estimate the first-birth intensities using piecewise constant exponential models. The richness of the Russian dataset allowed us to work entirely with monthly information. The Italian dataset contained only monthly information pertaining to the date of birth of the child; all other variables were constructed to allow for monthly analysis.

Our first two models are designed to compare the fertility experiences of the native-born to the foreign-born in both countries. Given the substantially different sample sizes between the foreign and native-born groups in each country, we split each dataset according to whether the individual was born abroad to create two subsamples, which we then compare to understand the factors important to making the transition to the

[4] *Fourth Meeting of the GGP Informal Working Group, Istanbul, Turkey6-8 October 2005*

first child for both groups. In our final analysis we compare the foreign-born of the two countries.[5] Unfortunately it was not possible to compare all covariates between Italy and Russia because the data came from two different databases, however when information was available we constructed our covariates in the same manner. The particular models employed to analyse the Italian and Russian transitions to parenthood are elaborated in the two subsequent sections. For the comparison model we considered the following factors:

1. *Age*: Given their different countries of birth, we are curious to see whether our immigrants exhibit similar first birth age patterns to one another, or whether we could find evidence of adaptation to host country patterns. If the Italian immigrants were giving birth at a later age than the Russians, we would take this as an indication that the context into which the immigrants were moving was playing a role in determining the age at first birth. The age categories were split into 60 month (5 year) periods, with the exception of the last 36-45 age category.

2. *Period*: We analyse the period affecting the women's reproductive history rather than doing a cohort analysis for two reasons: the first is that immigration policy is rarely demand-driven but rather follows decisions taken at a state-level that sway with the socio-political climate. Secondly, since large proportions of the immigrant population in both countries (particularly Russian) are assumed to have come from areas under state-sponsored socialism, we desired to investigate whether any differences could be discerned between immigrant populations bearing children before or after the transitional period.

3. *Educational achievement*: It is well established that education is a key factor controlling for human capital and as such plays a major role in determining entry into parenthood (Blossfeld & Huinink, 1991; De Wit & Ravanera, 1998; Lappegard & Ronsen, 2004). It is expected that the effect of education will be particularly strong for the immigrant groups as educational achievement might be correlated with the reasons for migrating; if highly educated women are migrating to better their career prospects this could result in the postponement of fertility decisions. The education variable was constructed in a time-varying manner so as to account for the time spent in education as well as to reduce the problematic time-sequencing patterns observed when women pursue further education after having given birth (Hoem & Kreyenfeld, 2006).

4. *Marital status:* This variable is also time-varying. Although it has been argued recently in the American context that changing patterns of marriage and childbearing dictate broadening the definition of marriage to include cohabiting relationships (Singley & Landale, 1998), for our study we consider only legally defined marriages. A recent Spanish study found that childrearing in cohabiting relationships continued to be rare (Baizán, Aassve, & Billari, 2003), we assume this to be the case for the Russian and Italian (including immigrant) households as well; in 2005 in Italy, for example, more than the 73 percent of births from foreign mothers took place within marriage[6]. We hypothesise that marriage continues to be seen as a precondition for the birth of a first child, particularly during earlier periods.

5. *Parent Nearby:* This variable was included to account for the role played by parental support. With immigrants, having a parent living less than 12 hours away (the way the question was phrased in the surveys) could be taken as approximating whether the woman had a parent living in the same country. It is suspected that women with a parent nearby would be more likely to make the transition to childbearing. Data limitations meant that this variable was constructed as time-fixed, with the proximity of the closest parent being taken at the time of interview. This argument relies on the assumption holding that the proximity of the parent was the same at the time of

[5] We considered merging our two migrant populations into one large dataset, however the different years in which the sampling took place as well as the different question formats and lack of individual comparability cautioned us against this approach. Instead we decided to make qualitative comparisons between the two migrant groups.

[6] Data from www.demo.istat.it

childbearing, or that when a woman decided to immigrate, she had already considered the possibility to have a parent nearby.

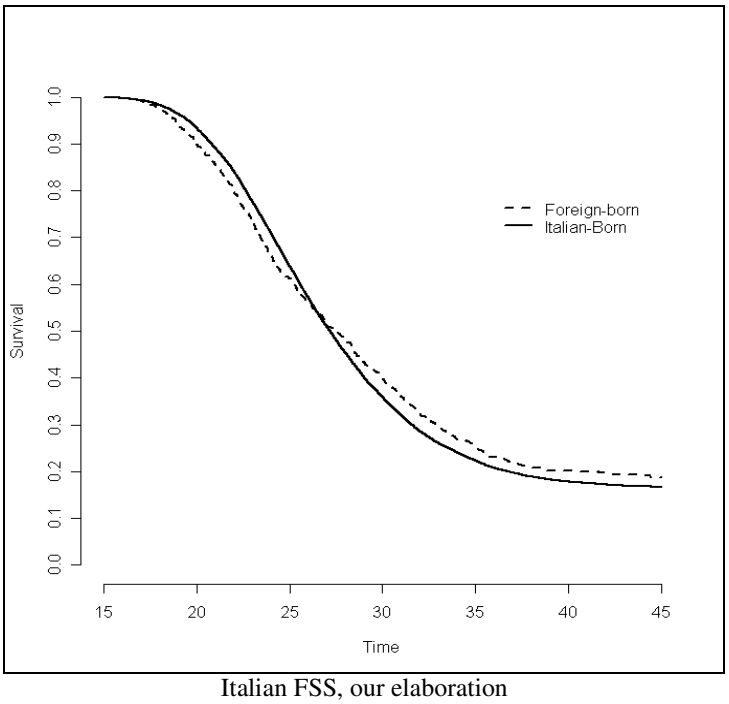
The limitations to this study are twofold: First the small sample size of the immigrant groups means that the results are not necessarily representative to the immigrant populations, especially given the low likelihood of irregular migrants being part of the sampled group. Thus even significant results need to be interpreted with caution.

The second limitation is that the Italian dataset does not contain a question on the date in which the immigrant moved to the country. As such, we are unable to determine whether the births to immigrant women took place in the country of origin or in Italy. Moreover, the ambiguous but likely importance of the act of immigration to fertility decisions suggests the need for incorporation of a duration variable into the Event History model (Andersson, 2001; Toulemon & Mazuy, 2004). While we are unable to do such an analysis on the Italian data, the Russian GGS included a question on the date the respondent moved to Russia (for foreign-born respondents), allowing us to examine the effect of controlling for duration of stay in the Russian model.

Italian model

In this model we hope to examine the predisposition of Italian-born and immigrants to have a first child and to describe the foreign women's universe as it appears in our sample. We have to be careful in interpreting these results since we cannot check if the child was born before or after the migration because we do not have the date of migration. The relative risks of childbearing for the native and immigrant childless women are represented in the follow graph:

Figure 1 Kaplan-Meier estimate for the transition to first birth by place of birth in Italy



Italian FSS, our elaboration

Though Italian immigrants have their first child earlier than the Italian-born, they are also slightly more likely to remain childless. The two survival curves cross one another close to the Italian-born median age of 27, with the immigrant population giving birth on average but a few months earlier. The log-rank test resulting from these estimates is not significant, however, which cautions us from putting too much emphasis on these patterns. At the same time the log-rank test is used as an overall test for determining whether two survival functions are different so crossing can produce problems in such a proportional hazard model.

At interview, the age distribution of our sample differs for the two subgroups under consideration, with the immigrants being much younger; more then 48 percent of the foreign-born are from the birth cohorts 1966-1987 while the majority of the native Italian subset are born before 1950. This is to be expected given that immigration has increased in intensity in recent years, and immigrants tend on average to be younger than the mean age of the Italian population.

Understanding the behaviour of our immigrants in part requires a better understanding of who comprises this group. A few descriptive statistics comparing them to the Italian-born population show that they, on the whole, are less religious as measured by church participation and have fewer social interactions. Of the immigrant population 21.22 percent never attend church services compared to 9.33 percent of native Italians. These differences however may be biased by the high rate of missing answers or by the wording of the question: respondents may have associated religious participation strictly with the Italian Roman Catholic Church, thus omitting mosque or temple attendance, and not directly measuring religiosity.

Family migration appears to be the norm for our Italian immigrant group. Overall 74.2 percent of the foreign-born respondents have at least one parent living in the same country, of which 10.65 percent live together in the same house.

Characteristic to the Italian family system is a strong parental support network. For the immigrant population we expect that an outside social network might be more influential. To measure participation in social activities a question was asked how often the respondent goes out with friends. This was felt to be a good indicator of the social network available to the immigrant. Overall, the Italian-born appear to have more frequent social contact, though the differences were not so large and again there were a high proportion of missing answers that may distort the results. These variables were not considered in the models that follow because we did not have information that was time-varying and were concerned that these effects might have played out differently at the time of first birth.

At the moment of interview the largest group of immigrants resided in cities having between 2000 and 5000 inhabitants; meanwhile regionally the North-East (31.35 percent) was the most popular. In terms of employment prospects, there is a clear positive association between educational attainment and employment status for the immigrant population at interview

Though the concept of an immigrant is closely linked with being born outside it is not a pure definition. We also considered reconstructing an immigration life course following the first employment decision. However, only 9.05 percent of our foreign-born sample moved abroad (we suppose to Italy) for their first work experience. This low percentage is likely due to other motivations for migration including family reunification, employment (but not the first position) and studies. As a result we were not able to use this information to gain a better picture of the timing and concept of immigration.

Two models were constructed for Italy, the first labelled A and B (for the immigrants and Italian-born respectively) and the second labelled C and D. The A and B models examined *age*, the *period*, the *marital status* and the *educational level* as time-varying covariates (discussed in section 4), and as a time constant we created a *sibling* variable. This we feel will be an interesting determinant in the Italian context, given its high proportion of only children. We expect that women who had siblings growing up will be more likely to be family-oriented, and thus to have children themselves.

The second model examines the effect of the size of the municipality on the transition to parenthood. It was included because theory suggests that medium-sized Italian cities have been more responsive to the

local needs than have the larger cities (Allasino, 2000). We can extend this theory to include childrearing policies. Moreover for the immigrant, the medium-sized city is thought to be most conducive to integration (Caritas, 2000). Though also taken at the time of interview, we can assume that for the most part households make the decision to move prior to having their children. In fact, studies have shown that family formation is often a prime motivator for moving (Kulu & Vikat, 2007).

It is clear, from the first simple model presented, that the risk of having a first birth is very sensitive to the women's marital status, for immigrants and Italian-born alike. Both groups showed elevated first birth risks within marriage—be it the first or second marriage. Italian natives also seemed to be much less likely to bear children while single; this is a very common result for Italy: people first marry and then have a child. This could be resulting from the strong influence the Roman Catholic Church continues to exert over Italian society.

The first model also suggests that for the foreign-born there is a strong positive correlation between educational attainment and childbearing contrary to what we would have expected. We suspect that it could be related to the difficulties the less educated face in finding employment, which we hypothesise may be a precondition to family formation. For the Italian-born the link is not so clear: the highest first-birth intensity occurs with the least-educated women but the relative risk is not so different from that of the best educated women. Meanwhile the risks were significantly smaller for time spent in education or for women having a secondary school education.

The age-risk profile has a clear peak in the age group 21-25 for both subgroups but the overall trend is not so similar between the migrants and the native Italians. For the migrant group the relative childbearing intensities after the peak decreases with each subsequent age category; for the Italian-born woman the childbearing risk is not so concentrated in the young age category but is spread through her twenties. As for the presence of siblings, we are assuming that a woman had a sibling before giving birth herself. As expected for both the immigrant and native-born groups the presence of siblings gave an elevated risk for childbearing. This result was significant for both groups, especially for the native-born[7], as we hypothesised.

Controlling for period effects led to a better overall fit of the model, however our first birth risks were not significantly different across time periods for the immigrant group. Nevertheless it will be interesting to see with further waves of data whether recent events strongly impacting on immigrants such as the Turco-Napolitano law of 1998 or the Bossi-Fini Amnesty of 2002 will have changed the risk profiles of immigrants. In our study the sample was too small to examine these most recent effects. The Italian-born, meanwhile, have showed a significant decreasing first-birth intensity over time reaching a trough in the period 1992-1997 after which it started to rise again, consistent with findings from macro data

Finally, adding the *city size* variable (in Models C and D) improved the fit of our simple model (Models A and B) significantly[8] in the foreign-born model and highly significantly[9] in the Italian-born model. This showed interesting results; within the immigrant group living in the suburbs was significantly associated with a much lower risk of childbearing, while the Italian-born group showed few differences between suburban and metropolitan living. It could be that the living arrangements for the two subgroups differ in the suburbs: on the one hand suburban life can be associated with single family dwellings and larger living areas. On the other hand suburban living can mean living in crowded apartment blocks outside of the city centre, which may be less conducive to childrearing. This heterogeneity makes it difficult to draw meaningful distinctions between the two groups.

In general, our results suggest that immigrants do indeed face different risk profiles from the native-born Italians. Key differences among the groups were that those immigrants who were younger and better educated appeared to be at higher-risk, while those living in suburbs were at a much lower risk of having a first child. These results need to be interpreted with some caution, however, as our definition of an

[7] $P<0.000$
[8] $P<0.05$
[9] $P<0.000$

immigrant in this case simply depends on the place of birth, and we do not have the ability to test a host of covariates such as religiosity, ethnicity and nationality to check whether we are indeed considering the right group of people. Moreover, the inability to control for the duration of stay in Italy could have an impact on our results.

Table2: Piecewise Exponential Model for First Birth Risks in Italy (females)

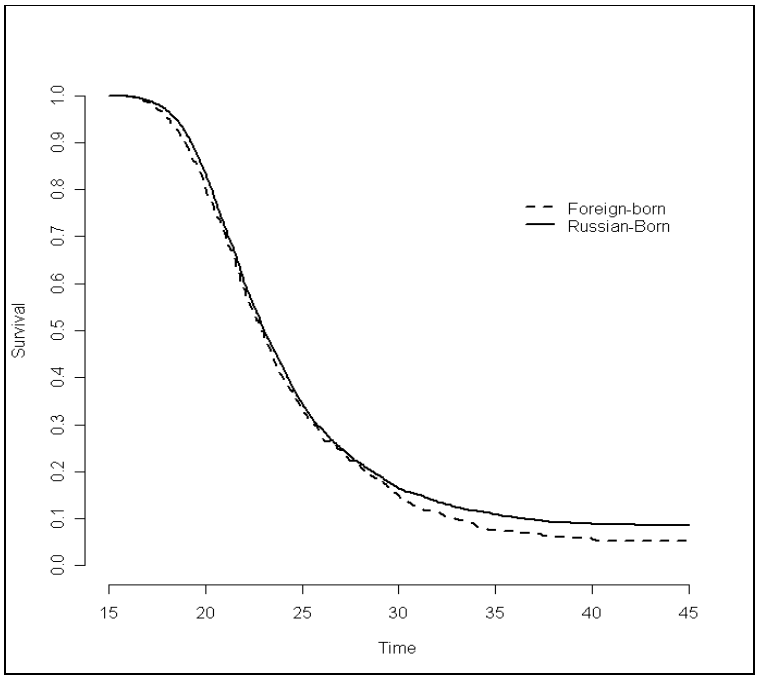
	Migrants				**Italians**			
	Model A		**Model C**		**Model B**		**Model D**	
	Exp(b)		Exp(b)		Exp(b)		Exp(b)	
Age								
15-20	*1*		*1*		*1*		*1*	
21-25	1.323	**	1.326	**	1.260	***	1.260	***
26-30	0.875		0.879		1.090	**	1.094	***
31-35	0.781		0.776		0.829	***	0.833	***
36-45	0.325	***	0.330	***	0.276	***	0.278	***
Period								
before 1968	*1*		*1*		*1*		*1*	
1968-1973	1.081		1.108		0.908	***	0.908	***
1974-1979	1.053		1.071		0.935	**	0.932	**
1980-1985	0.841		0.860		0.857	***	0.850	***
1986-1991	0.958		0.988		0.765	***	0.758	***
1992-1997	0.994		1.036		0.751	***	0.744	***
1998-2004	1.027		1.050		0.825	***	0.817	***
Highest education received (except for those still in education)								
less than secondary education	*1*		*1*		*1*		*1*	
secondary education and/or vocational or non-university training	1.097		1.099		0.891	***	0.896	***
university degree	1.335	*	1.425	**	0.952		0.968	
In education	0.639	***	0.637	***	0.820	***	0.815	***
Marital Status								
marriage	*1*		*1*		*1*		*1*	
Single, divorce, separation or widow	0.057	***	0.057	***	0.019	***	0.019	***
Siblings								
No	*1*		*1*		*1*		*1*	
Yes	1.362	**	1.288	*	1.327	***	1.320	***
City Typology								
metropolitan center	-		*1*		-		*1*	
metropolitan suburbs	-		0.660	*	-		1.023	
area<2.000	-		1.007		-		1.144	***
2.000-50.000	-		1.072		-		1.126	***
area>50.000	-		0.855		-		1.067	**
Model Fit								
Initial LL	-979.414		-979.414		-23650.192		-23650.192	
Final LL	-430.490		-425.724		-3188.754		-3174.460	
Degrees of freedom	15		19		15		19	

*** p<0.01; ** p<0.05; *p ≤ 0.1
Source: Italian FSS, our elaboration

Russian model

From our sample, immigrants to Russia showed a different pattern of first births to native-born Russians. The former gave birth at a younger age, and showed lower overall levels of childlessness (8.4 percent compared to 12 percent). This result is significant with a p-value of 0.0609. Overall, our data is split into 679 immigrant women having had 599 first births and 6,355 native-born Russian women having had 5,324 first births. The Kaplan-Meier estimates for the transition to the first birth are shown for both groups in Figure 2.

Figure 2 Kaplan-Meier estimates for the transition to first birth by place of birth in Russia



Source: Russian GGS, our elaboration

Unlike in the Italian survey, the Russian GGS respondents showed little variation in age depending on their place of birth. The foreign-born group came predominately from other countries of the former Soviet Union, most notably Ukraine, Kazakhstan and Belarus. They differed little in terms of religion; in fact the Russian-born population contained a higher proportion of Muslims (4.36 percent) than did the foreign-born population (3.39 percent). Furthermore, the two groups showed similar religious participation levels. In terms of social networks, as expected the Russian-born group contained a higher proportion of women with a parent living less than twelve hours away. Though the differences between the two groups in this case are not as large as one might have imagined, suggesting that family migration is also popular in the Russian context.

One key dimension of the Russian model is the high proportion of ethnic Russians making up the sample of immigrants. As mentioned, return migration was a prominent feature of the Russian social landscape following the collapse of the former Soviet Union. Overall, in our sample of 679 immigrant women, only 250 considered themselves to be of a non-Russian ethnicity. Nevertheless, it is expected that having been born and raised in another country or former Soviet republic would result in different influences than having lived one's life in Russia. Other empirical sources support this notion. For example, the Kazakh Demographic and Health Survey conducted in 1999 showed ethnic Russians there to have a higher period

total fertility rate (1.38 children per women) than Goskomstat reported for Russia for that same year (1.16) (KDHS, 2000).

For the most part immigrants showed similar patterns to native-born Russians in making the transition to first birth, as can be seen in Table 3. We felt it particularly important in the Russian context to examine the period in which the birth took place. Prior to the collapse of the Soviet Union, a number of pronatalist policies encouraged near universal marriage and family formation. Indeed, for both immigrants and the native-born the period 1986-1991 showed the highest first birth intensities. Once the Soviet Union collapsed these pronatalist policies disappeared and first-birth intensities also lowered for both groups. Nevertheless, first-birth risks did not appear to decline to the extent found for second births (Rieck, 2006).

In terms of age, immigrants showed a higher propensity than native Russians to give birth early, with the median age at first birth (23) for the foreign-born being a few months earlier than the median age for native Russians. Yet despite this, the immigrant group contained a larger proportion of individuals waiting until their thirties or later to bear children than their native counterparts, even after controlling for educational attainment and the duration of stay in Russia. At first glance we speculated that this could be due to the disruption hypothesis, that the act of migration itself would cause postponement of family formation. Yet surprisingly in our sample the duration of stay in Russia was not a significant factor in determining the risk of first birth, nor was actually physically residing in Russia. We can think of three reasons why this may be the case: First our sample size of 679 immigrant women, 599 of whom gave birth might be too small and not truly representative of the Russian immigrant population. Secondly, though immigrants, most of the women born outside of Russia considered themselves to be of Russian ethnicity (64 percent); thus though living outside of Russia it is conceivable that they lived within a Russian Diaspora or had family still in Russia, whose influence would not have been much different regardless of the country in which they were living, which goes against other empirical findings. Third, it could be that the influences from their country of birth continued to resonate more strongly once in Russia than new Russian influences, which thus caused them to maintain their fertility preferences and behaviour.

In terms of other factors, education played a slightly different role for native Russians and immigrants. While Russians showed a clear negative association between educational attainment and first birth risks (even after controlling for time spent in education), the immigrant population did not show such a clear pattern; those having attained a university degree experienced a similar risk to have a first child as the least educated group. Meanwhile, being married seemed to be a particularly important factor for having a first child, among immigrants and Russian-born alike.

Finally, self-determined ethnicity was not a significant factor in determining the propensity to form a family.

Table 3: Piecewise Exponential Model for First Birth Risks in Russia (females)

	Immigrants		Russian Natives	
	Exp(b)		Exp(b)	
Age				
15-20	*1.000*		*1.000*	
21-25	1.341	**	1.702	***
26-30	0.768	*	1.104	**
31-35	0.718	*	0.554	***
36-45	0.201	***	0.154	***
Period				
before 1968	*1.000*		*1.000*	
1968-1973	1.229		1.188	***
1974-1979	1.069		1.218	***
1980-1985	1.067		1.246	***
1986-1991	1.495	***	1.570	***
1992-1997	1.328	*	1.371	***
1998-2004	1.210		1.435	***
Highest education received (except for those still in education)				
less than secondary education	*1.000*		*1.000*	
secondary education and/or vocational, other non-university	1.020		0.934	
university degree	1.024		0.881	**
In education	0.618	***	0.619	***
Marital Status				
Married	*1.000*		*1.000*	
Single/divorced/widowed/separated	0.062	***	0.068	***
Duration in Russia				
outside of Russia	*1.000*		-	
in Russia less than one year	1.119		-	
in Russia between 1-5 years	1.193		-	
in Russia longer than 5 years	0.963		-	
Ethnicity				
Russian	*1.000*		*1.000*	
non-Russian	0.872		0.987	
Model Fit				
Initial LL	-809.68		-7607.71	
Final LL	-206.14		-2182.98	
Degrees of freedom	18		15	

*** p<0.01; ** p<0.05; *p<0.1
Source: Russian GGS, our elaboration

Comparison

In this final model we compare the experiences of Italian and Russian immigrants in order to determine whether there may be common influences or factors determining the decision to start a family. The variables under consideration are age, period, educational attainment, marital status and the proximity of parents. The results are presented in Table 4.

In terms of age, the Italian and Russian immigrants appeared to follow remarkably similar risk profiles. Both groups experienced the highest risk to childbearing in their early twenties, followed in succession by

their late teens, late twenties, and finally their thirties. In fact, the immigrant groups much more closely resembled one another than they did to their respective host nations. This is all the more remarkable when it is considered that the Russian immigrant group in particular shares a more closely linked ethnic heritage to Russian natives than to Italian immigrants.

The time periods chosen had a different influence over the two groups, which is expected given the dissimilarities in the socio-political climates of Italy and Russia. However the time periods chosen were specifically designed to take account of differences relating to the period before and after transition. It could be that using dates more specific to the Italian socio-political history would yield significant results.

The model further suggests that for the migrant resident in Italy the hazard to become a mother is highest if university-educated however for the foreign-born in Russia the risk did not change significantly depending upon education. At first we suspected that this could be because many of the Russian immigrants holding a university degree would have been of the low-fertility Russian ethnicity, while the lower educated groups might be more likely to have been of a higher-fertility ethnicity; however after controlling for ethnicity the results remained robust (not shown). The explanation could also be in part because the low-educated Italian immigrants were shown to have difficulty finding work. To test whether the impact of education was indeed different for migrants and non-migrants, in both countries we ran an interaction between migrants and education in models with all women pooled together in the transition at the first child. The log-rank test for equality of survivor functions showed significant results for both Italy and Russia[10].

The marital status risk profile also showed remarkable similarities for the migrant groups in the two countries. That the Italian migrant group would have risks much more akin to the Russian migrants than to their native counterparts again is suggestive that migrants follow distinct behavioural patterns rather than conforming to the norms of the host country.

As for the effect of having a parent living nearby, as suspected women were more likely to give birth if a parent lived less than 12 hours away, though the result was not significant in both contexts. This we believe is due to the support in childrearing that parents provide. However, it could also be that the more family inclined women would be more likely to bring their parents over in some form of family migration.

[10]Italy: chi^2= 1105.18 d.f.= 7 Pr>chi^2 = 0.0000 Russia: chi^2 = 440.12 d.f.=7 , Pr>chi^2 = 0.0000

Table 4: Piecewise Exponential Model for Immigrant First Birth Risks in Italy and Russia (females)

	Italian Immigrants		Russian Immigrants	
	Exp(b)		Exp(b)	
Age				
15-20	*1.000*		*1.000*	
21-25	1.293	*	1.380	***
26-30	0.826		0.778	*
31-35	0.731	*	0.733	
36-45	0.297	***	0.205	***
Period				
before 1968	*1.000*		*1.000*	
1968-1973	1.075		1.208	
1974-1979	1.070		1.037	
1980-1985	0.871		1.015	
1986-1991	1.001		1.433	**
1992-1997	1.077		1.252	
1998-2004	1.139		1.118	
Highest education received (except when still in education)				
less than secondary education	*1.000*		*1.000*	
secondary education and/or vocational, other non-university	1.091		1.012	
university degree	1.379	*	1.020	
In education	0.638	***	0.623	***
Marital Status				
Married	*1.000*		*1.000*	
Single, divorce, separation or widow	0.057	***	0.062	***
Proximity to Parent				
One parent living less than 12 hours away	*1.000*		*1.000*	
Parents live more than 12 hours away	0.856		0.871	
Model Fit				
Initial LL	-979.414		-809.681	
Final LL	-432.327		-207.506	
Degrees of freedom	15		15	

*** p<0.01; ** p<0.05; *p ≤ 0.1;
Source: Italian FSS, Russian GGS, our elaboration

Conclusion

Results from the Italian model emphasise three points: the first, in agreement with our hypothesis, points out that personal history (i.e. siblings, education, and marital status) has a big influence in determining the risk profile of an individual, particularly for immigrants. This, we argue, is linked to the decision to remain in the country as part of a longer term family life cycle strategy, and is in accordance with other findings (Michielin, 2004). The tradition of having the first child within marriage remained particularly strong in both contexts, which complements similar finding on immigrants to Germany and to Spain (Baizán et al., 2003; Milewski, 2006) The second point is that the age and education level influences the two subgroups differently, as expected migrants become mothers earlier than Italian-born citizens—a finding which is

confirmed by the Kaplan-Meier survival curve. Our results on the weakening negative relationship between education and fertility confirm observed trends in the Italian native-born context, while a mostly positive trend was found for the foreign-born Italians, suggestive of an easier climate for child-rearing among those with high human capital. The third finding is that the addition of an illustrative variable, in this case city size, adds clarity to our risk profiles.

Many similar conclusions can be drawn from the Russian model, particularly as regards personal traits. Overall Russian immigrants have different age and education risk profiles from their native counterparts. The negative gradient between education level and first-birth risks for the Russian-born is consistent with the view that the higher educated are more career driven. Moreover, a Spanish study postulated that difficulties in attaining career expectations before family formation in light of a high unemployment rate may have further depressed fertility among the highest educated group (Baizán et al., 2003). This could also be the case in the Russian context, given that much of the period under study was in times of economic uncertainty. That this affect was not so pronounced among the immigrant group could be due to the living conditions being more conducive to having children among the higher educated group, or it could be due to some selection effect in that the higher educated were already moving to secure well-regarded jobs, thus having the economic security to begin a family. Period effects, however, were similar for the two subgroups suggesting that policy decisions relating to fertility can equally affect the foreign and the native-born.

Finally relating the two immigrant groups to one another presented us with our most striking findings. The models presented in this paper seem to confirm that immigrants do indeed make up a distinct group with common risk profiles for bearing their first child. The age profiles, marital status and the presence of a parent nearby all similarly affected the immigrant regardless of whether she was migrating to Russia or to Italy. Even the educational attainment appears to play a more similar role for the two immigrant groups than it did between Italian immigrants and their native counterparts or Russian immigrants to Russian natives.

At the same time, the context into which an immigrant is moving does play an influence on childbearing. This is especially obvious by the opposite period effects experienced by immigrants in the two countries. It would thus appear that policies, the economic climate and other macro-factors must then be the main driver of any observed similarities between subgroups in the same country.

In terms of relating our findings back to migration theory, our findings suggest the following:

1. *Adaptation*: The similarities in the risk profiles of our immigrants into vastly different country contexts is more suggestive of immigrants being of a distinct group rather than adapting or conforming to the native fertility patterns.

2. *Disruption and/or family formation*: We were only able to construct a duration variable for the Russian model, however in this case the duration of stay in Russia did not have a significant impact on the fertility behaviour. Our small sample size limits us from completely refuting these hypotheses; at the same time our findings cannot lend support to either disruption or immediate family formation being key events associated with migration in the Russian context. Without data available to compare the migrants who have remained to those who have returned home we cannot evaluate how the decision to migrate affects the family life course decisions over the longer run.

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References

Allasino. (2000). Immigati in Piemonte. Una panoramica sulla presenza degli stranieri nel territorio regionale [Migrants in Piemonte. A survey of the foreigners present in the regional territory]. *Istituto Ricerche Economico-sociali del Piemonte, W.P. 143/2000.*

Andersson, G. (2001). Childbearing patterns of foreign-born women in Sweden. *MPIDR WORKING PAPER WP 2001-011*, 38.

Baizán, P., Aassve, A., & Billari, F. C. (2003). Cohabitation, Marriage, and First Birth: The Interrelationship of Family Formation Events in Spain. *European Journal of Population/Revue européenne de Démographie, 19*(2), 147-169.

Barkalov, N. (2005). Changes in the Quantum of Russian Fertility During the 1980s and Early 1990s *Population and Development Review, 31*(3), 545-556.

Bernardi, L., & Hutter, I. (2007). The anthropological demography of Europe *Demographic Research, 17:18, 541-566*.

Blossfeld, H.-P., & Huinink, J. (1991). Human Capital Investments or Norms of Role Transition? How Women's Schooling and Career Affect the Process of Family Formation. *The American Journal of Sociology, 97*(1), 143-168.

Bühler, C. (2004). Additional Work, Family Agriculture, and the Birth of a First or a Second Child in Russia at the Beginning of the 1990s. *Population Research and Policy Review, 23*(3), 259-289.

Caltabiano, M., Castiglioni, M., & Rosina, A. (2007). *Lowest-Low Fertility. Signs of a recovery in Italy?* Paper presented at the Presented at the Population Association of America 2007 Annual Meeting, New York, New York, March 29-31, 2007. [22] p.

Caritas. (2000). *Statistical Dossier on Immigration*. Rome: Centro studi e Ricerche IDOS.

Caritas. (2006). *Statistical Dossier on Immigration* (Vol. XVI report). Rome: Centro studi e Ricerche IDOS.

Cibella, N. (2006). Elementi e caratteri dell'integrazione [Elements and character of integration]. In A. Golini (Ed.), *L'immigrazione streaniera: indicatori e misure di integrazione [Foreign immigration: indicators and measures of integration]* (pp. 75-162). Bologna: il Mulino.

De Wit, M., & Ravanera, Z. (1998). The changing impact of women's educational attainment and employment in the timing of births in Canada. *Canadian Studies in Population, 25*(1), 45-67.

Ford, K. (1990). Duration of Residence in the United States and the Fertility of U.S. Immigrants. *International Migration Review, 24*(1), 34-68.

Goldstein, S., & Goldstein, A. (1981). The Impact of Migration on Fertility: an `Own Children' Analysis for Thailand. *Population Studies, 35*(2), 265-284.

Hervitz, H. M. (1985). Selectivity, Adaptation, or Disruption? A Comparison of Alternative Hypotheses on the Effects of Migration on Fertility: The Case of Brazil. *International Migration Review, 19*(2), 293-317.

Hoem, J., & Kreyenfeld, M. (2006). Anticipatory analysis and its alternatives in life-course research. Part I: The role of education in the study of first childbearing. *Demographic Research, 15*(16), 461-484.

IISP. (2004). Generation and Gender Survey - Field Work in Russia - Technical Report of the Main Study. *Moscow: Independent Institute for Social Policy.*

IOM. (1999). Migration in the CIS 1997-1999. *Geneva: Technical Cooperation Center for Europe and Asia. IOM.*

Istat. (2006). *Bilancio demografico nazionale anno 2005 (national demographic balance, year 2005).*

Istat. (2007a). *Essere madri in Italia anno 2005 (Becoming a mother in Italy, 2005).*

Istat. (2007b). *Popolazione residente per sesso, età e stato civile e popolazione residente straniera per sesso ed età nei comuni italiani (al primo gennaio 2006*.

Kahn, J. R. (1994). Immigrant and Native Fertility during the 1980s: Adaptation and Expectations for the Future. *International Migration Review, 28*(3), 501-519.

KDHS. (2000). *Kazakhstan demographic and health survey, 1999*. Almaty, Kazakhstan; Calverton, Md.: Academy of Preventive Medicine; Macro International.

Kertzer, D. I., White, M. J., Bernardi, L., & Gabrielli, G. (2006). Italy's Path to Very Low Fertility The Adequacy of Economic and Second Demographic Transition Theories. *MPIDR WORKING PAPER 2006-049*.

Kharkova, T. L., & Andreev, E. M. (2000). Did the Economic Crisis Cause the Fertility Decline in Russia: Evidence from the 1994 Microcensus. *European Journal of Population/Revue européenne de Démographie, V16*(3), 211-233.

Khoo, S., McDonald, P., Giorgas, D., & Birrel, B. (2002). *Second Generation Australians* (1st ed. ed.): ACPR & Department of Immigration & Multicultural & Indigenous Affairs, 1st ed., Canberra.

Kohler, H.-P., & Kohler, I. (2002). Fertility Decline in Russia in the Early and Mid 1990s: The Role of Economic Uncertainty and Labour Market Crises. *European Journal of Population/Revue européenne de Démographie, 18*(3), 233-262.

Kulu, H., & Vikat, A. (2007). Fertility differences by housing type:an effect of housing conditions or of selective moves? *MPIDR WORKING PAPER WP 2007-014*.

Lappegard, T., & Ronsen, M. (2004). The Multifaceted Impact of Education on Entry into Motherhood. *European Journal of Population, 21*, 31-49.

Lesthaeghe, & Neels. (2002). From the First to the Second Demographic Transition: An Interpretation of the Spatial Continuity of Demographic Innovation in France, Belgium and Switzerland. *European Journal of Population, 18(4)*, 325-260.

Livi Bacci, M. (2006). editorial of 5th August *la repubblica*

Mayer, J., & Riphahn, R. T. (2000). Fertility assimilation of immigrants: Evidence from count data models. *Journal of Population Economics, 13*(2), 241-261.

Michielin, F. (2004). Lowest low fertility in an urban context: the role of migration in Turin, Italy. *Population, Space and Place, 10*(4), 331-347.

Milewski, N. (2006). First child of immigrant workers and their descendants in West Germany: interrelation of events, disruption, or adaptation? *MPIDR WORKING PAPER WP 2006-034*

Mulder, & Wagner. (1993). Migration and Marriage in the Life Course: a Method for Studying Synchronized Events. *European Journal of Population/Revue européenne de Démographie, 9*, 55-76.

Ng, E., & Nault, F. (1997). Fertility among Recent Immigrant Women to Canada, 1991: An Examination of the Disruption Hypothesis. *International Migration, 35*(4), 559-580.

Ram, B., & George, M. (1990). Immigrant fertility patterns in Canada, 1961-1986. *International Migration, 28*(4), 413-426.

Ranjan, P. (1999). Fertility Behaviour under Income Uncertainty. *European Journal of Population/Revue européenne de Démographie, 15*(1), 25-43.

Rieck, D. (2006). Transition to second birth - the case of Russia (2006). Max Planck Institute for Demographic Research.

Schoenmaeckers, R. C., Lodewijckx, E., & Gadeyne, S. (1999). Marriages and Fertility among Turkish and Moroccan Women in Belgium: Results from Census Data. *International Migration Review, 33*(4), 901-928.

Singley, S. G., & Landale, N. S. (1998). Incorporating Origin and Process in Migration-Fertility Frameworks: The Case of Puerto Rican Women. *Social Forces, 76*(4), 1437-1464.

Sobotka, T. (2003). Re-Emerging Diversity: Rapid Fertility Changes in Central and Eastern Europe after the Collapse of the Communist Regimes. *Population (English Edition), 58*(4/5), 451-485.

Tanturri, & Zuanna, D. (2007). *Istruzione e fecondità: il Veneto nella seconda metà del Novecento [Education and fertility: Veneto in the middle of the twentieth century]*. Paper presented at the Biannual meeting of Italian Population Scientists Association.

Toulemon, L., & Mazuy, M. (2004). Comment prendre en compte l'age à l'arrivee et la duree de sejour en France dance la mesure de la fecondite des immigrants? [How to take the age at arrival and the duration of stay in France into account in the examination of immigrant fertility?]. *Document de travails 120, INED*.

UN. (2000). Replacement Migration: Is it a solution to Declining and Ageing Populations? *United Nations Secretariat, ESA/P/WP.160*, 1-71.

UN. (2002). International Migration from Countries with Economies in Transition: 1980-1999. *United Nations Secretariat, ESA/P/WP.176*.

UN. (2003). United Nations, Trends in Migrant Stock: The 2003 Revision. *data in digital form*, POP/DB/MIG/2003/2001.

Vikat, A., Spéder, Z., Beets, G., Billari, F. C., Bühler, C., Désesquelles, A., et al. (2007). Generations and Gender Survey (GGS): Towards a better understanding of relationships and processes in the life course. *Demographic Research, 17: 14*.

Zakharov, S. V., & Ivanova, E. I. (1996). *Fertility Decline and Recent Changes in Russia: On the Threshold of the Second Demographic Transition.* Paper presented at the Russia's Demographic Crisis, Santa Monica.

Websites:

http://www.unece.org/pau/ggp/Welcome.html
http://www.stata.com/support/faqs/res/
http://www.demoistat.it
http://esa.un.org