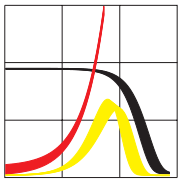


Max-Planck-Institut für demografische Forschung
Max Planck Institute for Demographic Research
Konrad-Zuse-Strasse 1 · D-18057 Rostock · GERMANY
Tel +49 (0) 3 81 20 81 - 0; Fax +49 (0) 3 81 20 81 - 202;
http://www.demogr.mpg.de

MPIDR WORKING PAPER WP 2006-034
OCTOBER 2006

First child of immigrant workers and their descendants in West Germany: interrelation of events, disruption, or adaptation?

Nadja Milewski (milewski@demogr.mpg.de)

This working paper has been approved for release by: Gerda Ruth Neyer (neyer@demogr.mpg.de)
Deputy Head of the Laboratory of Contemporary European Fertility and Family Dynamics.

Nadja Milewski October 6, 2006

Paper presented at the Workshop on Interdependencies in the Life Course: Family Dynamics, Childbearing, and Spatial Mobility,
Rostock, 11–12 May, 2006

First Child of Immigrant Workers and Their Descendants in West Germany: Interrelation of Events, Disruption, or Adaptation?

Abstract

This paper investigates the impact of immigration on the transition to motherhood among women from Turkey, Italy, Spain, Greece, and the former Yugoslavia in West Germany. We apply a hazard regression analysis to data of the German Socio-Economic Panel study. We distinguish between the first and second immigrant generation. The results show that the transition rates to a first birth of first-generation immigrants are elevated shortly after they move country. We trace the elevated birth risks shortly following the immigration back to an interrelation of events – these are migration, marriage, and first birth. We do not find evidence of a fertility-disruption effect after immigration. Our analysis indicates that second-generation immigrants are more adapted to the lower fertility levels of West Germans than their mothers' generation.

Key words: International migrants; fertility; West Germany; migrant workers from Turkey, Yugoslavia, Greece, Italy, and Spain; event-history analysis

Word count: about 10.000

Nadja Milewski
Max Planck Institute for Demographic Research
Konrad-Zuse-Straße 1, 18057 Rostock, Germany
Fon: +49(381)2081-132
Fax: +49(381)2081-432
E-Mail: milewski@demogr.mpg.de

1 Introduction

The second half of the 20th century is characterized by growing immigration flows to and within Western Europe among other factors. Although social research has focused on the first generation of international migrants, the interplay between international migration and the family dynamics of migrants has not been fully understood.

International migration is associated with a rapid change in the migrants' environment. This change usually takes place within a much shorter time span than societies alter as a whole. Immigrants have to cope with these changes. Therefore, the study of the demographic behavior of migrants enables us to gain insights into the patterns and speed of the demographic responses of individuals or groups to sudden environmental alterations they are exposed to (COLEMAN 1994). The life-course approach allows us to analyze the sequencing of several events and therefore to study the short-term as well as the long-term effects of migration on a person's life. Studies show, for example, that international migration often coincides with a social downward-trend of the migrants as to occupation, income, housing conditions – just to name a few (CONSTANT/MASSEY 2005). Internal or international migration and partner selection are frequently interrelated processes (KULU 2006, MILEWSKI 2003, STRAßBURGER 2003), and repeated moves have an impact on the sub-sequent stability of a union (BOYLE/KULU/COOKE/GAYLE/MULDER 2006, ROLOFF 1998). When it comes to fertility, the impact of migration is discussed based on competing hypotheses to address the following questions: Have a migration and its related cultural and socio-economic consequences a depressing or the opposite, a stimulating impact on childbearing behavior? Do migrants continue to display the behavior of their old environment or adopt behavior of the new environment? And what are the mechanisms behind the respective behavior?

Moreover, the population of the second immigrant generation is growing in European receiving countries; it consists of persons who moved with their immigrant parents to another country when they were a child or of persons born in a country of destination to one or two immigrant parents. Second-generation

immigrants have reached family-formation ages; a third generation is rising. "Growing up in an immigrant family has always been difficult, as individuals are torn by conflicting social and cultural demands while they face the challenge of entry into an unfamiliar and frequently hostile world" (PORTES/ZHOU 1993: 75). Hence, research should consider a comparison between the immigrant generations.

This study investigates the transition to motherhood of immigrants and their children's generation in West Germany. We compare women of the first and second immigrant generation of traditional labor migrants from Turkey, the former Yugoslavia, Greece, Italy, and Spain to West Germany. Women of the second immigrant generation can still be considered to be in their reproductive life span, hence, the focus of the analysis is on the transition to a first birth, which sheds light on their fertility behavior. The study contributes to the theoretical framework of short-term and long-term impact of migration on the fertility of immigrants, compared to persons of the country of destination. It also aims at broadening the understanding of population behavior und changes in behavior in Germany and Western Europe overall since labor migration to West Germany has parallels in other Western European countries.

The present paper begins by introducing the theoretical considerations behind our analysis, and then provides information on the West German context. This is followed by an introduction of the working hypotheses guiding this study as well as of definitions, data, and methods used. The analysis focuses on the transition to a first birth, applying intensity regression techniques; its results are discussed in the last section.

2 Background

2.1 Theoretical Considerations

Five hypotheses are discussed when analyzing the fertility behavior of international or internal migrants. They refer to timing effects, the individual characteristics of migrants and their living circumstances.

1) Disruption: The underlying assumption of the disruption hypothesis is that a move in itself, as well as the time preceding and following the move, is stressful for a person. For couples, migration may also mean that the two partners live separately for a certain time period, given that they move at different points in time. Accordingly, fertility levels may decrease preceding the migration due to the anticipation of a move and/or the separation of the partners. Fertility levels may also decline shortly after the migration because of difficulties related to the migration itself or to the new environment. Especially international migrants are confronted with a drastic change in their daily-life conditions. Evidence for the disruption hypothesis was found for immigrants moving to Australia (CARLSON 1985), Mexicans moving to the United States of America (STEPHEN/BEAN 1992), immigrants to Canada – although the disruptive effect was found to be of very short nature (and probably related to the estimation method chosen (NG/NAULT 1997)) – as well as for internal migrants (GOLDSTEIN 1973). Frequently, elevated birth rates shortly after migration are interpreted as constituting catching-up behavior for postponed or interrupted childbearing in the phase shortly preceding and during the migration (GOLDSTEIN/GOLDSTEIN 1981, TOULEMON/MAZUY 2004, FORD 1990).

2) Interrelation of Events: Instead of interpreting elevated birth transition rates shortly after immigration as catching-up behavior, they can be seen as a situation in which several events take place at the same time, namely migration and union formation (MULDER/WAGNER 1993). Evidence for this assumption has been found for international migrants as well as for internal migrants (ANDERSSON 2004, KULU 2005). One would expect childbearing to start soon after migration and marriage especially for marriage migrants as a special type of family re-union. This was proven, for example, for immigrants to the Netherlands (SCHOORL1990, ALDERS 2000), Canada (NG/NAULT 1997), and the US (SINGLEY/LANDALE 1998). Single migrants, by contrast, may also have to take into account longer searching time for a future partner. CARLSON (1985) showed elevated marriage ages for first-generation immigrants moving to Australia when they were single, MILEWSKI (2003) for first-generation immigrants to Germany. Hence, it is

important to consider the partnership status of a migrant. However, once married, the fertility levels of former single migrants do not seem to be influenced by migration (CARLSON 1985). Meanwhile, NG/NAULT (1997) observe lower fertility for some Asian immigrant groups to Canada because of their high share of non-married women.

3) Adaptation: While the hypotheses of disruption and interrelation of events focus on short-term impacts of migration, the adaptation hypothesis offers a medium-term perspective. Given that fertility patterns vary between the regions of origin and destination, a convergence may be achieved mainly by two channels: cultural or socio-economic conditions (shown by RINDFUSS 1976 for Puerto Ricans to the US, MAYER/RIPHAHN 2000 for labor migrants from Mediterranean countries to Germany, NAUCK 1987 for Turks to Germany, FORD 1990 for the US). ANDERSSON (2004, ANDERSSON/SCOTT 2005) points out that a convergence of the fertility behavior of immigrants to that of the host society (here: Sweden) is not due to acculturation but can be seen as adaptive behavior to the general situation in the host society as to its social, political, and labor-market conditions. For immigrants to Israel, FRIEDLANDER/EISENBACH/GOLDSCHEIDER (1980) observe an adjustment of the timing of births to the respective socio-economic circumstances. Adaptive behavior starts immediately following immigration. "The convergence of fertility *within* ethnic groups and the great convergence of fertility *between* ethnic groups is remarkable evidence of rapid fertility response appropriate to societal changes" (FRIEDLANDER/GOLDSCHEIDER 1978: 313). Socio-economic circumstances as channels of adaptive behavior are also found among Norwegian immigrants to the US (GJERDE/MCCANTS 1995). Whereas most of the studies on family dynamics of migrants focus on persons moving from a higher to a lower-fertility context and observe a convergence between old and new residents, a convergence can also be observed for those moving from a low- to a higher-fertility environment, as it is the case for immigrants from the former Soviet-Union states to Israel. NAHMIAS (2004) explains that this behavior is related to better socio-economic circumstances that are conducive to having more children compared to the country of origin. HWANG/SAENZ (1997) also observe

increased fertility for immigrants from the People's Republic of China, where one-child politics dominates fertility behavior, to the US.

4) Socialization: This hypothesis emphasizes the role of the migrants' socialization. Focusing on the values, norms, and behavior dominant during a person's childhood and assuming their continuance during the life course. Accordingly, immigrants follow the fertility patterns as perceived in their country of origin even if they differ from that of the host society. Immigrants from different countries of origin that exhibit different fertility patterns may also show differences in the same country of destination (SCHOORL1990, ALDERS 2000).

The long-term impact of migration can be observed in the fertility behavior of second generation immigrants exposed to their parents' behavior, values, and norms as well as to those prevailing in the country of destination. This has been discussed as the assimilation hypothesis. PORTES/ZHOU (1993) point out that a process of adaptation should be seen as segmented or selective assimilation. In the US context, children of immigrants would remain in their co-ethnic community because this is regarded as the best strategy for capitalizing on material and moral resources otherwise not available. Regarding fertility behavior, LANDALE/HAUAN (1996) observe a convergence between second-generation immigrants from Puerto Rico to the US in terms of a delay of marriage and an increasing share of extra-marital births. However, no common pattern was found for second-generation immigrants to Australia. Immigrants with a background that resembles the Australian one (like other Anglo-Saxons) show a fertility behavior that is more similar to the Australian fertility behavior than do persons with a background that differs from that of Australians (KHOO/MC DONALD/GIORGAS/BIRRELL 2002, NG/NAULT 1997 for Canada, FORD 1990 for the US, SCHOENMAECKERS/LODEWIJCKX/GADEYNE 1998 for the Netherlands).

5) Selection and characteristics: The selection hypothesis predicts convergence of fertility patterns between immigrants and their counterparts in the host society because migrants share the fertility intentions of the persons at destination. Therefore, immigrants may not represent fertility intentions as dominant in their country of origin, but similar to the one of the receiving country. This selection

can result from observed characteristics, such as education, or from unobserved factors, such as social-mobility ambitions or family proneness (MACISCO/BOUVIER/WELLER 1970, KREYENFELD 2002, KULU 2005, HWANG/SAENZ 1997). One may consider the hypothesis of interrelated events (marriage and migration) to be part of the selection hypothesis; however, we list it separately. We argue that the interrelation effect may occur only once, that is shortly after migration, but that the completed fertility differs between migrants and people at destination – not due to adaptive behavior, but due to long-term fertility intentions.

On the other hand, fertility differentials may be caused by socio-economic differences between migrants from different origins or/and between migrants and people at destination (COLEMAN 1994, NG/NAULT 1997). For example, a cross-over is observed for Mexican-US migrants. Whereas earlier Mexican emigrant cohorts had a lower fertility than the stayers in Mexico, it is today the opposite. "Migration increasingly may be selecting women with socio-demographic profiles that are conducive to higher fertility patterns, such as women with a lower educational level from more rural and/or marginalized areas that are characterized by higher fertility norms" (FRANK/HEUVELINE 2005: 97). A comparatively low socio-economic status may be inherited also by second- and third-generation immigrants, which can be interpreted from a racial-stratification perspective: differential opportunity structures channel fertility behavior in a way that younger women, who face lower opportunity costs because of their lower socio-economic status, engage in early and high fertility (FRANK/HEUVELINE 2005).

2.2 The West German Context

Immigrant workers to West Germany

Germany[1] has been one of the main countries of destination in Europe (FASSMANN/MÜNZ 1994), this despite of the fact that politicians have not

[1] In this paper "Germany" refers to the Federal Republic of Germany as it has been existing since October 3rd, 1990. "West Germany" refers to the FRG before German unification as well as to this territory after the unification, including West Berlin. "East Germany" refers to the former German Democratic Republic (GDR) before 1990 and to the new federal states of the FRG since 1990.

acknowledged West Germany as an immigration country for a long time (HÖHN 1979, RONGE 1997). Three main types of international migration can be distinguished; these are labor immigration, the immigration of ethnic minorities as well as migration of refugees and asylum seekers (RUDOLPH 2002). The stay of immigrants to Germany was in part intended as only temporary – as for migrant workers –, in part with the intention to stay forever – as for ethnic Germans. In fact, immigrants who were considered as staying temporarily have shown an increasing tendency to make Germany their centre of living. As the century turned, Germany had about 82 million inhabitants, among them about ten percent of foreign nationality. The share of persons born abroad of the total foreign population was six million (81 percent). 1.4 million were born to immigrants to Germany (MÜNZ/ULRICH 2000). However, the number of persons with an immigration background is much higher since increasing numbers of naturalization hide the migration background.

The immigrant population in Germany is heterogeneous; the focus of our analysis is on women originating from countries that have provided West Germany with labor migrants since the 1950s. As early as the beginning of the *Wirtschaftswunder* era, West Germany started recruitment activities in Southern Europe. Its first so-called guest worker treaty was signed with Italy in 1955. Treaties followed with Spain in 1960, Greece in 1960, Turkey in 1961, Morocco in 1963, Portugal in 1964, Tunisia in 1965, and Yugoslavia in 1968. Whereas in 1960 half of the immigrant workers came from Italy, Greece and Spain took over four years later, and then Turkey dominated at the end of the 1960s. "Guest workers" received a working and residence permit for one year. This included a rotation of the recruited workers. Accordingly, the number of immigrants and emigrants was high until the early 1970s. As early as in 1964 (Turkey), the rule of forced rotation was changed gradually to two-year permits and later to five additional years, if a worker has been employed for five years. However, the rotation model failed – on the immigrants' side, because the workers' tended to stay in West Germany for a longer time than anticipated, on the employers' side because the training costs for new workers were too high. The year 1973 marked a

turning-point in the guest-worker policies of West Germany as well as of other Western European countries. A recruitment ban was put into force because of the recession resulting from the OPEC oil embargo and the oil crisis. West Germany supported the return of migrant workers to their country of origin by financial means. This applied to "guest workers" from non-member states of the European Communities. Persons stemming from the member states of the European Union (EU) and its predecessor, the European Communities (*EC*), have had liberality of movement since its foundation in 1957; this applies in the main to workers from Italy, Greece, and Spain (RUDOLPH 2002, MÜNZ/ULRICH 2000).

Mainly as a reaction to the recruitment stop, "guest workers" made West Germany their focus of living and brought their families to West Germany, too. Family re-unification was and still is possible after the recruitment stop. It includes spouses and children of persons residing in Germany. Half of the total immigration to West Germany during the 1970s and 1980s involved family members. The stay of the immigrant workers became increasingly permanent. Moves were made easier because "guest workers" had been building up social networks consisting of families, associations, and religious communities. A stable immigrant population was being formed (BADE 1994). Up to today, the majority of the foreign population lives in the western part of Germany. Among all foreigners, only about every tenth lives in East Germany and Berlin; the share of the foreign population as to the total population in the five eastern *Bundesländer* is less then three percent each (STABA 2006). The biggest groups of immigrants from non-EU countries living in today's Germany are people from Turkey as well as the former Yugoslavia and its successor states (MIGRATIONSBERICHT 2003). By increasing length of stay, the structure of the foreign population started to resemble that of the host society with respect to sex ratio, age structure, and labor-force participation (BÜRKNER/HELLER/UNRAU 1987).

However, on the one hand immigrant workers may still be better off in economic terms in West Germany compared to their countries of origin. Turkish workers, for example, mainly came from the important immigration cities of Turkey, which did not provide satisfactory jobs. "Thus the distribution of Turkish workers in

Federal Germany at this early stage represents the whole process of the migratory chain, starting with the economically depressed village dwellers, who, rather than moving to larger cities first, make the leap by joining their relatives or countrymen abroad" (ABADAN-UNAT 1974: 368/369). On the other hand, a comparison between the immigrant population in West Germany and German natives shows that immigrants have a lower socio-economic status than West Germans; a downward-trend of international migrants such as this is also observed in other countries of destination (CONSTANT/MASSEY 2005, FASSMANN 1997). This includes educational attainment, in the sense that the educational degree of immigrants is on average lower than that of natives, or immigrants cannot utilize their education to the fullest in the labor market. This disadvantage of immigrants also continues in their children's generation. Yet, in general a trend towards higher education is visible among younger cohorts in the last years (FRITZSCHE 2000, KONIETZKA/SEIBERT 2003, SEIFERT 1997).

The fertility of immigrant workers in West Germany and in their countries of origin

Whereas research focused on issues of integration, such as education, the family formation of immigrants to Germany did not receive much attention for long (VASKOVICS 1987) and "no attempt has been made to analyze the longer trends in guest worker fertility or to link migrant fertility to selectivity or assimilation" (KANE 1986: 103). This situation has not changed much in the meantime. Only few studies distinguish between migrant generations (STRAßBURGER 2003 on partner selection) and take the duration of stay into account (MAYER/RIPHAHN 2000 on fertility). All fertility studies use summary measures, such as the Total Fertility Rate or completed fertility, rarely asking about the sequencing of childbearing and migration (NAUCK 1987 looks at the role children who remain in the country of origin play in further childbearing).

Looking back to the 1960s, only about five percent of newborn children in Germany were of non-German nationality. At the end of the previous century, about 100.000 newborn babies per year were of foreign nationality, representing

about 13 percent with a peak of 17 percent in 1974). So far, the fertility of immigrant women from Mediterranean countries declined in the previous three decades, whereas the TFR of West German women has been relatively stable since the 1970s (about 1.3). The decline of the TFR of foreign children after 1975 was not equally distributed by nationalities. The decrease first set in for married couples from Spain, followed by Yugoslavian, Italian, and Greek couples one year later. The biggest decline of the TFR was later witnessed for Turkish couples, however, their TFR remained above that of Germans and other immigrant groups. Today it is even higher than the TFR of stayers in Turkey (BMFSFJ 2000, MÜNSCHER 1979, VASKOVICS 1987, ROLOFF 1997, SCHWARZ 1996).

As pointed out, crude numbers do not reveal much about the fertility behavior of immigrant women to Germany. Most of the studies use nationality as an indicator for classifying someone as an immigrant. Due to naturalization, this may not cover all births of the immigrant population (STRAßBURGER 2000).

With the decline of the fertility of immigrants to West Germany, birth rates fell in the respective countries of origin. Although fertility dropped to different levels in the Mediterranean countries, childlessness still remains exceptional in each of them. Moreover, childbearing and marriage are strongly correlated. In Turkey, for example, only about two percent of all Turkish women never marry. Almost all births occur within marriage (ERGÖCMEN/ERYURT 2004, HANCIOGLU 1997). However, the number of children a woman has ever born varies greatly by education and region: from 4.3 for illiterates in villages to 1.9 for women with secondary schooling (eight years) in the three biggest cities of Turkey at the end of the 1960s, at a time when labor emigration was high (SHORTER/MACURA 1982). Towards the end of the 20th century, fertility differentials remained or even widened in terms of women's education: The TFR of women without education or without a school degree was 4.2 in 1993, whereas the TFR of women with secondary or higher education was 1.7 (TOROS 1994, HANCIOGLU/ERGÖCMEN 2004). The median age at first birth increased steadily, from about 21 years for women born in the 1950s to about 23 years for the cohorts of the 1970s (KOC/ÖZDEMIR 2004). The changes in fertility levels that Turkey showed in the

past four decades were the most substantial alterations among the Mediterranean countries. However, women living in the other countries have remarkably delayed childbearing to higher ages, too. The family size, however, is on average smaller than in Turkey. Compared to the 1970s, the TFR decreased by about one child on average: in Greece to 1.4, in Italy to 1.3, and in Spain to 1.2 in the mid 1990s. However, marriage has been remaining the universal form of partnership and the share of extra-marital births has been remaining at a low level in these regions, compared to Central and Northern European countries. The similarities between Turkey, Greece, Italy, and Spain are usually traced back to a shared inheritance of traditionally patriarchal family structures and the persistence of strong family ties (ROSINA 2004 and DALLA ZUANNA 2004 for Italy, REHER 2004 for Spain, HIONIDOU 1995 for Greece, BMFSFJ 2000).

2.3 Working Hypotheses

The main research question of this study is: Are transition rates to first birth of immigrant women different from those of West German women? If so, what is the extent to which fertility differentials can be explained by immigrants‘ selectivity, duration of stay in Germany, and compositional differences? We compare the immigrant generations, and we ask if there are differences between national sub-groups.

Our guiding hypotheses derived from the theoretical framework are as follows:

For first-generation immigrants, we expect to find a disruption effect of the move on fertility. We hypothesize that the move delays childbearing and/or decreases first-birth intensities of migrant women shortly after immigration (disruption/H1).

The second hypothesis competes with the first one: Women migrating to Germany from the countries selected for this study moved to a low-fertility regime from countries that earlier on had a tradition of higher fertility. In addition, a large part of these moves may have been due to family re-union or union formation. Therefore, we think that the birth of a first child would be desirable among these women and their partners, so that first-birth intensities may be elevated after immigration (interrelation of events, selection/H2).

Next, we ask if there is an adaptation effect by stay duration of first-generation immigrants. The adaptive process towards lower fertility may accelerate when a woman with an immigration background is married to a West German man, compared to an immigrant woman is married to a partner from the same country of origin (SAENZ/HWANG/AGUIRRE 1994) (adaptation/H3).

The women in our study stem from five countries of origin: Turkey, Yugoslavia, Greece, Italy, and Spain. A common trait of these countries is that they all experienced a fertility decline in the past four decades, however, there are differences in the timing of this decline and in the patterns of fertility. We expect these differences to be reflected in the first-birth intensities of emigrants from these countries to West Germany. Therefore, women from Turkey are expected to have higher transition rates than their counterparts from Southern Europe. In order to see long-term effects of migration, we compare the first-birth risks of first-generation immigrants to that of the second generation. We expect to find that differences of first-birth rates are smaller between the second-generation immigrants and West Germans than between the first-generation immigrants and West Germans (socialization/H4).

Finally, we review the assumption of selection and characteristics. We have seen that the educational attainment (as a proxy for socio-economic status) of immigrant women is in general lower than that of women of the host society. We assume that these differences may cause differences in fertility levels, too. Mainly, we expect to find that higher education has a decreasing impact on childbearing intensities (MAYER/RIPHAHN 2000). For the purpose of the analysis, compositional differences may be more important in terms of the second immigrant generation when there is a trend to higher education (characteristics/H5).

2.4 Definition, Data, Method

We use data from the German Socio-Economic Panel (SOEP), carried out by the German Institute for Economic Research, Berlin. Respondents have been questioned annually since 1984. Foreigners in West Germany are overrepresented

in the sample B. It includes households with a Turkish, Greek, Spanish, Yugoslavian, or Italian household head. The original sample size was 1393. Sample D on "immigrants" was started in 1994/95. It includes households in which at least one person has moved from abroad to Germany after 1984. The starting size was 522 households. Sample A, the West German sample, contains households with heads of German nationality. Only few of the respondents in sample A have an immigration background. The initial sample size was 4528 households (HAISKEN-DENEW/FRICK 2003).

We use waves 1984 to 2004. The focus is on women born from 1946 to 1983, living in West Germany. Women in our sample are considered to be West Germans if they were born in Germany and have reported a German citizenship in each survey year. We define as an immigrant or someone with an immigration background each person who has ever reported having a non-German citizenship and/or was born abroad. All respondents of the samples A, B, and D who can be defined as of Turkish, Yugoslavian (or its successor states), Greek, Italian, Spanish, or West German origin were considered for our analysis. We construct birth histories for 5260 women in total who are under risk of a first birth in West Germany: 1368 women with an immigration background (557 first generation, 811 second generation) and 3892 non-immigrant West Germans. First-generation immigrants who gave birth to a first child or whose pregnancy started before the immigration are excluded from this analysis. The countries of origin of the immigrant women are Italy, Spain, Greece, former Yugoslavia, and Turkey. Concerning the immigrant generation, we take age 15 years to distinguish the generations: Immigrants coming at age 15 and older to Germany are considered as being of the first generation. Women immigrating under age 15 to or born in Germany are defined as second generation. There are different reasons for using age 15 to distinguish the migrant generations: Firstly, the basic time process of our analysis – age of the woman – starts with the 15th birthday. Secondly, we take into account a relatively early start of marriage formation in the countries of origin we are looking at. ERGÖCMEN/ERYURT (2004) show, for example, that about eight percent of women born in the 1950s were married by age 15 in Turkey. The SOEP

also contains women married before age 15. Moreover, compulsory school education ends in general at about age 15 or 16 in Germany. Persons immigrating at younger ages are therefore expected to participate in school education and are therefore more exposed to influence of German socialization than older immigrants, who are no longer participating in the educational track. Concerning second-generation immigrants, the SOEP does not contain enough information in order to reconstruct for all respondents if both of their parents are immigrants. Therefore, the group defined as second-generation immigrants includes persons with one or two immigrant parents. We do not distinguish between second-generation immigrants born in Germany and those who moved during childhood, either. This is related to the relatively small size of the sample.

Since we are interested in fertility behavior after immigration, we only take into account conceptions occurred following the move to West Germany. Hence, we exclude all women who are mothers when they migrated. Moreover, cases where a birth took place in the same year as immigration are excluded. Since we assume that the conception took place before migration. These pregnancies may be correlated with the anticipation of the move; however, the reason for our sample selection is that the anticipation of a new living environment and the actual experience of being in the new living circumstances may differ from each other. Taken into account only first-generation immigrants coming childless to Germany, the share of women remaining childless is 17.7 percent compared to 18.2 among the second generation and 22.4 among West German women.

We analyze the transition to first conception leading to a live birth and apply piece-wise linear intensity regression models as a form of indirect standardization (HOEM 1993, ANDERSSON 2004). We use monthly information on births, which is available for births since January 1983. For births occurring before 1983, we assumed them to occur in June. In order to calculate the transition to first conception, we backdate the time by nine months. Concerning the date at immigration of first-generation immigrants, we use monthly information. If this is not available, we assume the immigration to have taken place in January in the year reported.

The covariates capturing migrant-specific characteristics are: migrant generation, country of origin (for immigrants derived from ever reported non-German citizenship), and time since immigration for the first generation. First-generation immigrants start being under risk of first conception from the date of their arrival in West Germany (the mean age at immigration is about 20 years), second-generation immigrants and West German women are under risk from age 15 onwards. We reconstruct the marital status and marriage situation at the time of migration for the first generation only (this variable is called "migration process"): The first category contains women who were married before they have moving to West Germany and who have migrated with the partner (if he comes from the same country) in the same year. The second category are women who were married before the move, but migrated at a different point in time than the partner; it also contains women married before migration or in the same year, but the spouse is a West German or second-generation immigrant to West Germany. The women in this category share the experience of spatial separation from the spouse. Finally, we distinguish women not married at the time of the move (a last category is on women without information on the spouse). By doing so, we take into account different forms and phases of migration, as introduced in the immigration overview.

We consider only women who were unmarried or married for the first time at a first birth or at censoring in our analysis. The number of women who were married more than once before they had a first conception is negligible. Also, the share of women living in non-marital unions is negligible. Only about 30 first-generation immigrants were not married at the time of censoring, and there is no unmarried mother. Although the share of married women is only about 50 percent in the second immigrant generation, extra-marital births are exceptional. Therefore, we consider it sufficient to include only married partners into our analysis. Since panel data containing information on the household is available from 1983 onwards, we can identify the respective partner of the woman. In case of sub-sequent partners, our procedure is the following: Women married only once are related to the partner they were sharing a household with during the

panel time. Women who got divorced or widowed before panel time cannot be linked to the first spouse. Of course, in case a woman has had several partners we use the information on the partner at the time of pregnancy. But we include into the analysis the partner's information only for married couples.

As indicator of the socio-economic background, we use the school degree of the woman. We built the following categories: First degree accounts for the *Hauptschule* (nine years of schooling) and *Realschule* (ten years of schooling) in Germany as well as the completed level of the compulsory school education in the respective country of origin. The second degree refers to the German *Abitur* or *Fachabitur* and the equivalent secondary education abroad (a certificate qualifying for entry into college or university). A third category captures school visits that cannot be summed up under the previous two categories. Finally, we have a category for respondents who did not receive a school degree or never have been to school. We decided to focus on school-leaving certificate instead of completed apprenticeship or tertiary education (university) because this seems to be more appropriate to our sample. About 30 percent of the female first-generation immigrants in our sample did not complete school education, about 22 percent among the women of the second generation (three percent among West Germans) did not do so. Less than 15 percent of the immigrant women completed secondary school education (compared to every forth West German woman).

If information on the spouse is available, we include the partner's school degree and country of origin into the analysis. Finally, we control for birth cohort in order to capture period effects if there are any. For sample statistics, see Table 1.

The model can be formalized as follows:

$$\ln \mu_i(t) = y(t) + \sum_k z_k(u_{ik}+t) + \sum_j a_j x_{ij} \ ,$$

where $ln\ \mu_i(t)$ denotes the hazard of a first pregnancy for individual i and $y(t)$ represents the impact of the baseline duration – time since age 15 – on the hazard. The parameter $z_k(u_{ik}+t)$ expresses the spline representation of the impact of continuously time-varying covariates with the origin u_{ik} (duration of stay, duration of marriage). The term $a_j x_{ij}$ denotes the effect of time-constant variables (migrant

generation, country of origin, marriage situation at migration, birth cohort, school degree).

Tab. 1: Sample statistics:

Covariate	Exposure time in months	Number of events
Migrant generation		
First generation	30691,5	389
Second generation	72582	304
West German	505336	2018
Birth cohort		
1946 to 59	221838,5	1249
1960 to 69	238864,5	1012
1970 to 79	128268,5	416
1980+	19638	34
Country of origin		
Turkey	37609,5	307
Yugoslavia	20441,5	120
Greece	16270	74
Italy	19645,5	131
Spain	9307	61
Partner's origin (marriages)		
she migrant/he West German	6627	38
both migrants, same country	49292,5	564
both migrants, different countries	3155	26
she West German/he migrant	20535	112
both West German	260527	1241
partner, no info	70401	401
single	198072	141
Migration process (first generation)		
married+together	1411,5	23
married+separated	5798	216
single at migration	20719	116
partner, no info	2763	34
Woman's school education		
first degree	397431	2043
second degree	166587	423
no degree	30211	191
other degree	5256	18
in education	3682	7
no info	5442,5	29
Spouse's school education		
first degree	204729,5	1440
second degree	104097	509
no degree	14851,5	147
other degree	1360	9
in education	282	4
no info	85217,5	461
no partner	198072	141
Marital status		
single	511053,5	830
married	97556	1881

3 Results

We achieved the results by stepwise modeling. Table 2 presents the estimates of the five main steps of the analysis.

Model 1: Model 1 displays a simple comparison between the two migrant generations and non-migrants, controlling for the age of the woman only. We observe highly elevated first-birth risks for the first generation and smaller, but still elevated risks for the second generation, compared to West Germans. All differences are significant.

Model 2: The second step in the modeling process replaces the constant risk for first-generation immigrants by a time-varying risk by stay duration in West Germany. We see a jump in birth risks right after immigration, followed by slightly declining levels. Note that we have excluded from our analysis women moving to West Germany whilst pregnant. Even without them, the effect of arriving in the new country on first-birth behavior is very strong.

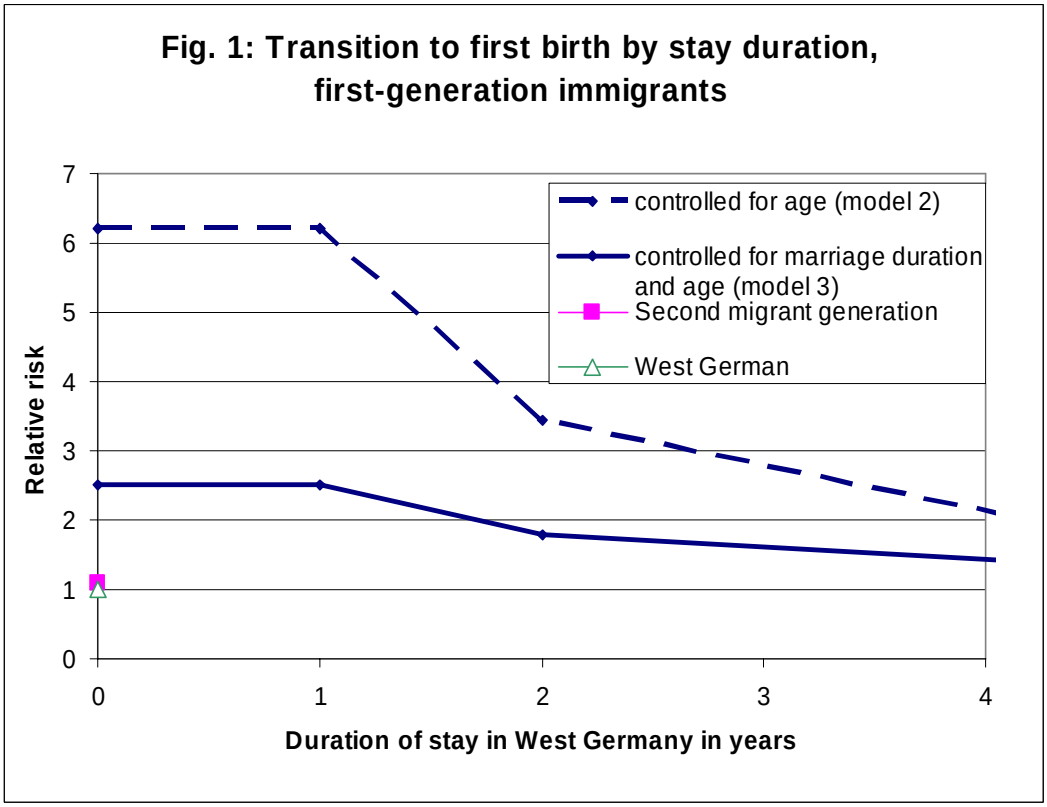
Model 3: We test the hypothesis of the interrelation of events by including marriage duration in the third step of the analysis. Controlling for marriage duration reduces the high birth risks right after migration by more than 50 percent (see Figure 1). We first estimated the marriage duration for first-generation immigrants, second- generation immigrants, and West Germans separately. Since the patterns are very similar for the three groups, we combine them. Interestingly, controlling for marriage duration shows that first-birth risks of second-generation immigrants are not different from those of West Germans.

Tab. 2: Transition to first child: coefficients and relative risks

Covariate	Model 1 ß	RR		Model 2 ß	RR		Model 3 ß	RR		Model 4 ß	RR		Model 5 ß	RR		Model 6 ß	RR	
Migrant generation																		
First generation (1)	0,955	2,60	***															
Second generation (1)	0,219	1,24	***	0,239	1,27	***	0,083	1,09		0,227	1,25	**	0,325	1,38	***	0,236	1,27	*
West German		1			1			1			1			1				
Stay duration G1 in months (2)																		
intercept				1,827		***	0,917		***	0,982		***	0,617		***	0,584		***
to 12				0			0			0			0			0		
12 to 24				-0,049		***	-0,028		**	-0,028		**	-0,022		*	-0,022		*
24 to 60				-0,024		***	-0,01		*	-0,01		*	-0,007			-0,007		
60+				-0,008		***	-0,007		**	-0,007		**	-0,007		**	-0,007		**
Marriage duration in months (3)																		
intercept							2,372		***	2,358		***	2,359		***	2,317		***
to 12							0,035		***	0,035		***	0,035		***	0,035		***
12 to 24							-0,032		***	-0,032		***	-0,032		***	-0,032		***
24 to 60							-0,008		***	-0,008		***	-0,008		***	-0,009		***
60+							-0,011		***	-0,011		***	-0,011		***	-0,012		***
Ref.: unmarried							0			0			0			0		
Birth cohort																		
1946 to 59											1			1			1	
1960 to 69										-0,017	0,98		-0,009	0,99		-0,011	0,99	
1970 to 79										-0,064	0,94		-0,071	0,93		-0,016	0,98	
1980+										-0,125	0,88		-0,144	0,87		-0,036	0,96	
Country of origin (4)																		
Turkey, first generation											1			1			1	
SSE Europe, first generation										-0,111	0,89		-0,041	0,96		-0,04	0,96	
Turkey, second generation											1			1			1	
SSE Europe, second generation										-0,217	0,80	*	-0,230	0,79	*	-0,258	0,77	*
Partner's origin (5)																		
both migrants, same country														1			1	
both migrants, diff. countries													0,301	1,35		0,333	1,40	
she migrant/he West German													-0,213	0,81		-0,093	0,91	
no info on partner													-0,786	0,46	***	-0,619	0,54	***
Migration process (6)																		
married+together														1			1	
married+separated													0,381	1,46	*	0,334	1,40	
single at migration													0,085	1,09		0,015	1,02	
no info on partner													1,143	3,14	***	1,117	3,06	***
Woman's school education																		
no degree																0,045	1,05	
first degree																	1	
second degree																-0,445	0,64	***
other degree																-0,136	0,87	
in education																-0,621	0,54	
no info																-0,017	0,98	
Spouse's school education (5)																		
no degree																0,15	1,16	
first degree																	1	
second degree																-0,008	0,99	
other degree																0,24	1,27	
in education																0,961	2,61	
no info																-0,126	0,88	***
Age in years																		
15-20	0,042		***	0,042		***	0,026		***	0,026		***	0,026		***	0,026		***
20-25	0,005		***	0,006		***	-0,003		**	-0,003		**	-0,003		**	-0,003		**
25-30	0,003		*	0,004		***	0,003		**	0,003		**	0,003		**	0,005		***
30-35	-0,009		***	-0,008		***	-0,008		***	-0,009		***	-0,008		***	-0,009		***
35-45	-0,029		***	-0,029		***	-0,026		***	-0,026		***	-0,026		***	-0,025		***
Constant	-7,85		***	-7,90		***	-7,67		***	-7,66		***	-7,65			-7,573		***
ln-L	-16657			-16561			-14943			-14942			-14937			-14883		

Significance: '*'=10%; '**'=5%; '***'=1%.

Technical note:
1) refers to all five countries in models 1 to 3; to Turks only in model 4
2) piece-wise linear spline for first-generation immigrants
3) piece-wise linear spline for married women
4) Yugoslavia, Greece, Italy, Spain relative to Turkey
5) applies only to married immigrant women
6) applies only to first-generation immigrants



Model 4: The next two steps also contain the woman's country of origin and a period indicator. Firstly, we run the models testing the effect of each of the countries of origin interacting with the migrant generation compared to West Germans. Then, we made tests to see if there are differences between the migrant groups. We cannot find any differences by country of origin for first-generation immigrants after controlling for stay duration and marriage duration. For second-generation immigrants, we find significant differences only between women of Turkish descent compared to women of Yugoslavian, Greek, Italian, and Spanish descent. There are no differences between women from the Southern and South East European countries (SSEC); the first-birth risk of the SSEC group is about 20 percent lower than that of women of Turkish descent. Therefore, we combine the categories of the variable referring to the country of origin: Turkish and Southern/South East European.

The period indicator does neither change the results obtained so far nor reveal additional information. We also used (not shown here) an indicator for the

immigration cohort of first generation immigrants. The estimation showed higher first-birth risks for first-generation immigrants who have moved since 1980, compared to women who have immigrated between the 1960s and 1980. However, this model showed significant results only without controlling for stay duration and marriage duration. Therefore, we decided to include birth cohort as a covariate that applies to all women in the sample.

Model 5: The next steps in our analysis take into account the partner's country of origin and the marital status of the female first-generation immigrants at the time of the move; these steps apply to married women only (conditional covariates). We find that women of the first and second immigrant generation who are married to an immigrant partner have higher transition rates to a first birth than have immigrant women who are married to a West German partner. However, this effect correlates with the duration of marriage and disappears after controlling for the latter. We tested the effect of the covariate "migration process", which applies to the first immigrant generation only, in steps. The birth risks are higher for women who were already married by the time of their move, but who had experienced a time of separation from their partner due to their migration background (this applies to women who are married to a first-generation immigrant, but moving at a different point in time than the partner, and to immigrant women who are married to a second-generation immigrant living in West Germany or to a West German partner). The risk of the "separate" group is elevated compared to immigrants who were married before migration, but moved together with their husband. For unmarried migrants, we find lower birth risks, but the difference is no longer significant – this is related to the fact that the model 5 first takes marriage duration into account and only the order of the events thereafter. Without controlling for marital status, women who have immigrated separately from their partner have an almost 90 percent higher birth risk compared to married women who moved together with the partner; immigrants who were unmarried by the time of their move have an about 70 percent lower birth risk than married women who moved together with the partner.

Model 6: Finally, we control for the school education of the woman. The first-birth risks decrease if a woman has a higher school degree compared woman who have a first school degree. Adding this covariate to the model lowers the effect of the duration of stay in West Germany. We carried out an interaction between school education and country of origin in a step not show here. We find that school education affects women of each origin in the same way. However, it is worth to have another closer look at the results for the indicator of the second generation and country of origin. We see that second-generation immigrants of Turkish descent have birth risks that are about 24 percent higher than that of West Germans. Compared to Turks, the birth risk of women with a Southern and South East European background continues decreasing. This indicates compositional differences between the immigrant groups regarding their educational attainment. Finally, we also add the school degree of the partner (again: conditional only for married women). This does not add much information to the model, but removes the significance of the "migration-process" indicator.

We do not add further control variables. A covariate often used in fertility studies in general and particular for studies on international migration is religious affiliation. However, our analysis showed that religion does not reveal significant differences between the religions for immigrants to West Germany (see also MAYER/RIPHAHN 2000). This might result from a high correlation between the country of origin and religious affiliation.

4 Discussion

Our analysis focuses on first-birth behavior of women with an immigration background in West Germany, compared to persons of the host society. We see that it is importance to distinguish between the immigrant generations. The first-birth risk of first-generation immigrants moving childless to West Germany is 2.6 times higher than the ones of West Germans whereas second-generation immigrants have 0.2 times higher transition rates to a first birth compared to natives. Whilst the immigrants' country of origin does not play a significant role in the fertility behavior of first-generation immigrants, it does matter for the

second generation: transition rates are higher for women of Turkish descent than they are for women of Southern and South East European background. School education is an important factor for the second generation, too, but less so for the first generation. The marriage status is the most important covariate for both immigrant generations. It stresses the endogeneity of a first marriage and a first child (BAIZAN/AASSVE/BILLARI 2003).

For first-generation immigrants, we find the hypothesis of interrelated events proven: Migration, marriage, and a first pregnancy appear all follow in a short sequence. This effect would be even more pronounced if we included cases where women of the first immigrant generation were shortly before migration, probably in anticipation of the move. Marriage duration seems to be a more important factor here than the circumstances of a move – it does not matter much if a married couple moved separately or together – birth risks are elevated in the first year following immigration and in the first year of marriage. This leads to the assumption that childless couples arrange marriage and migration within a narrow time span. As the transition to a first pregnancy is much elevated in the first year following immigration, we cannot prove the hypothesis of a disruption shortly after immigration. It rather seems that a first child marks the end of the migration process of a couple or the phase of separate living. A child may also strengthen the position of an immigrant wife since it "completes" the union of the partners. A married couple turns into a family by having a child, and a woman is becoming a mother. This is especially important in patriarchal family structures as motherhood adds value and prestige to a woman. We found this attitude reflected in interviews carried out with immigrant women in Germany as well as with women and men in the respective countries of origin.

In terms of the legal framework of Germany, one may not consider that immigrants aim at receiving the German citizenship by the birth of a child in Germany. Before 2000, the German citizenship was based on descent (*ius sanguinis*)[2]. An application for the naturalization was possible only after a stay of

[2] The *Staatsangehörigkeitsrecht* was changed by January 1st, 2000. According to this, it is possible to apply for the German citizenship after an eight-year stay. For the first time, elements of the

15 years in Germany. Hence, most of the immigrant workers who moved to West Germany in the 1950s and 1960s have remained "foreigners" for a long time or are still "foreigners". However, migrants from Italy, Spain, and Greece have freedom of movement and residence since they are members of the European Union. Turkish and Yugoslavian women with a "guest-worker" background may have less a problem obtaining a residence permit in general. If immigrants come to West Germany owing to family re-union, marriage is the crucial factor.

However, there are (West) German laws that may directly or indirectly affect the childbearing behavior of immigrants in particular. Firstly, child-care benefit, which is paid in general for two years: Women from EU countries receive this even when they give birth to a child and raise it in their country of origin, if they previously worked in Germany. Since 1986, in contrast, families from non-EU countries receive child benefits only for children born and raised in Germany (SCHWARZ 1996). This may help to understand why women from Turkey and the former Yugoslavia postpone childbearing in anticipation of the move. Note that the mean age at immigration of first-generation immigrants in the sample is about 20 years. Compared to the women in their country of origin, immigrants from Turks, for example, have been postponed a first child when they moved to West Germany. Almost every second "stayer" in Turkey has already become a mother by this age. The work permit is the second law that is interesting in the context of fertility behavior of immigrants. Since the recruitment policies ended it has not been allowed to move to (West) Germany in order to start working there. Foreigners coming from EU-member states are not affected by this rule, but family members of persons from non-EU countries who move to Germany for reasons of a family re-union are. Since 1974, they have not received a work permit in the first time following the immigration (MÜNSCHER 1979, ANGENENDT 2002). Therefore, we may think of the first two or three years following the move

---

territorial principle *(ius soli)* have been introduced into German law: if one of the parents has been having an *Aufenthaltsberechtigung* for longer than eight years or an *unbefristete Aufenthaltserlaubnis*, a child born by foreign parents in Germany receives the German citizenship. If the child receives in addition the citizenship of the parents, it has to choose one of those citizenships before its 23rd birthday (*Optionsmodell*) (ANGENENDT 2002, DORNIS 2002).

as a time of few opportunities competing with childbearing and raising, in other words a good time to have children.

The “3 pack” of marriage, migration, and a first child implies that there is a selection effect: Female first-generation migrants moved to West Germany mainly for reasons of family re-union or family formation. Migrants doing so may be prone to have a first child. Unmarried women immigrating to West Germany, by contrast, have lower transition rates to a first birth than their counterparts who were already married by the time of the move. The lower transition rates of single migrants may be attributed to the partner selection process, which may take relatively long time in a new living environment, or to a selection effect: single immigrant women may come for different motives than married women. We may consider here, for example, the participation in higher educational tracks. However, further research must focus on the transitions the sub-sequent births, too, in order to fully answer the question if immigrants to West Germany are a selected group regarding their fertility intentions.

We cannot answer the question about the importance of socialization in full by analyzing the transition to a first birth only, either. We attribute the elevated transition rates of first-generation immigrants to a result of selection, or more specifically to the interrelation of events rather than to the influence of socialization since the risks are elevated only shortly after immigration. We do not find fertility differentials in the respective countries of origin to be reflected in the first-birth risks of first-generation immigrants to West Germany. First-generation immigrants from Turkey, the former Yugoslavia, Greece, Italy, and Spain have in common that the first-birth risks decrease as the duration of stay increases. This proves the assumption of an adaptive behavior.

As to second-generation immigrants, we suggest discussing their fertility behavior within a context of adaptation rather than of socialization. On the one hand, the first-birth risks of the second generation reflect fertility differences between the respective countries of origin; women of Turkish background in West Germany have higher first-birth risks than women of Southern and South East European background. However, this can be traced back to compositional differences of the

second immigrant generation in West Germany regarding their school education. On the other hand, we see that the differences between second-generation immigrants and West German women are only significant when the marital status is not taken into account. Married women of the second immigrant generation show birth risks similar to that of West Germans, for whom we observe an interrelation of marriage and first child, too. This shows that the second immigrant generation in West Germany is on the way of adapting to the West German fertility behavior in when married. If the socialization background of the immigrant parents continued to affect their children's family-formation behavior in Germany, this may be found in marriage behavior rather than in marital childbearing. Our results support this assumption since first-birth risks are correlated with the (non-)migration background of the partner: Migrant women married to a West German man have lower first-birth risks than women married to a migrant. Of course, the causality may work in both directions here: Women with lower fertility intentions may be more likely to marry a West German man, whereas women with originally higher fertility intentions may adapt to West German birth patterns when married to a West German man.

The results stress that current living circumstances affect fertility decisions, as indicated by declining birth risks of the first immigrant generation by stay duration and lower risks of the second immigrant generation. The shared features of an immigration process and an immigrant background seem to be more important than differences by country of origin in first birth behavior of immigrants in West Germany. However, since a first child can be seen as the norm in the countries of origin of the women analyzed in this paper and country differences occur mainly in higher parities, further research needs to study the transition to sub-sequent births as well. It is assumed that socio-economic characteristics and immigration-background variables may have a different impact on these transitions than on a first birth. It may also be interesting to compare immigrant women who moved to West Germany childless to immigrants who immigrated after becoming a mother.

Acknowledgement:

We thank Susann Backer for editing the English of the manuscript.

5 References

ABADAN-UNAT N (1974) Turkish External Migration and Social Mobility. In: Benedict P/E Tümertekin/F Mansur (Eds) Turkey. Geographic and Social Perspectives. Leiden: 362-402.

ALDERS M (2000) Cohort fertility of migrant women in the Netherlands. Developments in fertility of women born in Turkey, Morocco, Suriname, and the Netherlands Antilles and Aruba. Paper for the BSPS-NVD-URU Conference, 31 August-1 September 2000, Utrecht, the Netherlands. Statistics Netherlands.

ANDERSSON G (2004) Childbearing after Migration: Fertility Patterns of Foreign-born Women in Sweden. *International Migration Review* 38/2: 747-775.

ANDERSSON G/K SCOTT (2005) Labour-market status and first-time parenthood: The experience of immigrant women in Sweden, 1981-97. *Population Studies* 59/1: 21-38.

ANGENENDT S (2002) Einwanderungspolitik und Einwanderungsgesetzgebung in Deutschland 2000-2001. In: Bade KJ/Münz R: Migrationsreport 2002. Fakten – Analysen – Perspektiven. Für den Rat für Migration. Frankfurt/New York: 31-59.

BADE KJ (1994) Ausländer, Aussiedler, Asyl in der Bundesrepublik Deutschland. 3. Aufl. Niedersächsische Landeszentrale für politische Bildung, Hannover.

BAIZAN P/A AASSVE/FC BILLARI (2003) Cohabitation, Marriage, and First Birth: The Interrelationship of Family Formation Events in Spain. *European Journal of Population* 19: 147-169.

BOYLE PJ/H KULU/T COOKE/V GAYLE/CH MULDER (2006) The effect of moving on union dissolution. Max Planck Institute for Demographic Research, Rostock. WP-2006-002. http://www.demogr.mpg.de/papers/working/wp-2006-002.pdf.

BMFSFJ – Bundesministerium für Familie, Senioren, Frauen und Jugend (2000): Familien ausländischer Herkunft in Deutschland. Leistungen – Belastungen – Herausforderungen. Sechster Familienbericht. Berlin.

BÜRKNER H-J/HELLER W/UNRAU J (1987) Rückkehrzwänge und Motivstrukturen türkischer Migranten. Zum Problem der Freiwilligkeit von Remigrationsentscheidungen. *Zeitschrift für Bevölkerungswissenschaft* 13/4: 451-472.

CARLSON ED (1985) The Impact of International Migration Upon Timing of Marriage and Childbearing. *Demography* 22/1: 61-72.

COLEMAN DA (1994) Trends in Fertility and Intermarriage among Immigrant Populations in Western Europe as Measure of Integration. *Journal of Biosocial Science* 26: 107-136.

CONSTANT A/MASSEY DS (2005) Labor market segmentation and the earnings of German guestworkers. *Population Research and Policy Review* 24: 489-512.

DALLA ZUANNA G (2004) The banquet of Aeolus. A familistic interpretation of Italy's lowest-low fertility. In: Dalla Zuanna G/GA Micheli (Eds.) Strong Family and Low Fertility: A Paradox? New Perspectives in Interpreting Contemporary Family and Reproductive Behavior. Dordrecht/Boston/London 2004: 105-125.

DORNIS C (2002) Zwei Jahre nach der Reform des Staatsangehörigkeitsrechts – Bilanz und Ausblick. In: Bade KJ/Münz R (Hg) Migrationsreport 2002. Fakten – Analysen – Perspektiven. Für den Rat für Migration. Frankfurt/New York: 163-177.

ERGÖCMEN BA/MA ERYURT (2004) Other Proximate Determinants of Fertility. In: Hacettepe University Institute of Population Studies: Turkey Demographic and Health Survey, 2003. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union. Ankara: 89-96.

FASSMANN H (1997) Is the Austrian Labour Market Ethnically Segmented? *European Journal of Population* 13: 17-32.

FASSMANN H/R MÜNZ (1994) European East-West Migration, 1945-1992. *International Migration Review* 28/3: 520-538.

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

FRANK R/P HEUVELINE (2005) A cross-over in Mexican and Mexican-American fertility rates: Evidence and explanations for an emerging paradox. *Demographic Research* 12/article 4. www.demographic-research.org/Volumes/Vol12/4/default.htm.

FRIEDLANDER D/Z EISENBACH/C GOLDSCHEIDER (1980) Family-Size Limitation and Birth Spacing: The Fertility Transition of African and Asian Immigrants in Israel. *Population and Development Review* 6/4: 581-593.

FRIEDLANDER D/C GOLDSCHEIDER (1978) Immigration, Social Change and Cohort Fertility in Israel. *Population Studies* 32/2: 299-317.

FRITZSCHE Y (2000) Die quantitative Studie: Stichprobenstruktur und Feldarbeit. In: Fischer A/Fritzsche Y/Fuchs-Heinritz W/Münchmeier R: 13. Shell Jugendstudie, Bd. 1/Quantitative Studie. Opladen: 349-378.

GJERDE J/A MCCANTS (1995) Fertility, Marriage, and Culture: Demographic Processes Among Norwegian Immigrants to the Rural Middle West. *The Journal of Economic History* 55/4: 860-888.

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

HAISKEN-DENEW JP/JR FRICK (Eds) (2003) Desktop Companion to the German Socio-Economic Panel Study (SOEP). Deutsches Institut für Wirtschaftsforschung, Berlin: Version 7.0 – September 2003. Updated to Wave 19 (S).

HANCIOGLU A (1997) Fertility Trends in Turkey: 1978-1993. In: Hacettepe University Institute of Population Studies/Macro International Inc. (Eds) Fertility Trends, Women's Status, and Reproductive Expectations in Turkey. Results of Further Analysis of the 1993 Turkish Demographic and Health Survey. Ankara: 1-78.

HANCIOGLU/ERGÖCMEN (2004) Women's Characteristics and Status. In: Hacettepe University Institute of Population Studies: Turkey Demographic and Health Survey, 2003. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union. Ankara: 33-44.

HIONIDOU V (1995) Nuptiality patterns and household structure on the Greek island of Mykonos. *Journal of Family History* 20.

HOEM J (1993) Classical Demographic Methods of Analysis and Modern Event-history Techniques. IUSSP: 22nd International Population Conference, Montreal, Canada 3: 281-291.

HÖHN C (1979) Children of foreigners in the Federal Republic of Germany – a social concern. In: Macura M (Ed) The effect of current demographic change in Europe on social structure. Proceedings of the Third European Population Seminar. Beograd, 26-29 September, 1978. Beograd.

HWANG S-S/R SAENZ (1997) Fertility of Chinese Immigrants in the U. S.: Testing a Fertility Emancipation Hypothesis. *Journal of Marriage and the Family* 59/1: 50-61.

KANE TT (1986) The fertility and assimilation of guestworker populations in the Federal Republic of Germany: 1961-1981. *Zeitschrift für Bevölkerungswissenschaft* 12/1: 99-131.

KHOO S-E/P MC DONALD/D GIORGAS/B BIRRELL (2002) Second Generation Australians. Canberra.

KOC I/ E ÖZDEMIR (2004) Fertility. In: Hacettepe University Institute of Population Studies: Turkey Demographic and Health Survey, 2003. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union. Ankara: 45-58.

KONIETZKA D/H SEIBERT (2003) Deutsche und Ausländer an der "zweiten Schwelle". Eine vergleichende Analyse der Berufseinstiegskohorten 1976-1995 in Westdeutschland. *Zeitschrift für Pädagogik* 49/4: 567-590.

KREYENFELD M (2002) Time Squeeze, Partner Effect or Self-Selection?: An Investigation into the Positive Effect of Women's Education on Second Birth Risks in West Germany. *Demographic Research* 7/Article 2: 15-48. www.demographic-research.org/Volumes/Vol7/2/default.htm.

KULU H (2006) Fertility of Internal Migrants: Comparison between Austria and Poland. *Population, Space and Place* 12: 147-170.

KULU H (2005) Migration and Fertility: Competing Hypotheses Re-examined. *European Journal of Population* 21: 51-87.

LANDALE NS/SM HAUAN (1996) Migration and Premarital Childbearing Among Puerto Rican Women. *Demography* 33/4: 429-442.

MACISCO JJ/LF BOUVIER/RH WELLER (1970) The Effect of Labor Force Participation on the Relation between Migration Status and Fertility in San Juan, Puerto Rico. *The Milbank Memorial Fund Quarterly* 48/1: 51-70.

MAYER J/RT RIPHAHN (2000) Fertility assimilation if immigrants: Evidence from count data models. *Journal of Population Economics* 13: 241-261.

MIGRATIONSBERICHT (2003) Migrationsbericht der Beauftragten der Bundesregierung für Migration, Flüchtlinge und Integration im Auftrag der Bundesregierung.

MILEWSKI N (2003) Partner Selection by Immigrants in Germany: The Impact of Religious Affiliation and Education on Age at Marriage. *Anthropologie* 41/3: 291-294.

MÜNSCHER A (1979) Ausländische Familien in der Bundesrepublik Deutschland – Familiennachzug und generatives Verhalten. DJI Verlag Deutsches Jugendinstitut München.

MÜNZ R/ULRICH R (2000) Die ethnische und demographische Struktur von Ausländern und Zuwanderern in Deutschland. In: Alba R/Schmidt P/Wasmer M (Hg) (2000) Deutsche und Ausländer: Freunde, Fremde oder Feinde? Empirische Befunde und theoretische Erklärungen. Wiesbaden: 11-54.

MULDER CH/M WAGNER (1993) Migration and Marriage in the Life Course: a Method for Studying Synchronized Events. *European Journal of Population* 9: 55-76.

NAHMIAS P (2004) Fertility behavior of recent immigrants to Israel: A comparative analysis of immigrants from Ethiopia and the former Soviet Union. Demographic *Research* 10/article 4. www.demographic-research.org/Volumes/Vol10/4/default.htm.

NAUCK B (1987) Individuelle und kontextuelle Faktoren der Kinderzahl in türkischen Migrantenfamilien. *Zeitschrift für Bevölkerungswissenschaft* 13/3: 319-344.

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

PORTES A/M ZHOU (1993) The New Second Generation: Segmented Assimilation and Its Variants. Annals of the American Academy of Political and Social Science 530 Interminority Affairs in the U. S.: Pluralism at the Crossroads: 74-96.

REHER DS (2004) Family ties in Western Europe: persisting contrasts. In: Dalla Zuanna G/GA Micheli (Eds.) Strong Family and Low Fertility: A Paradox? New Perspectives in Interpreting Contemporary Family and Reproductive Behavior. Dordrecht/Boston/London 2004: 45-76.

RINDFUSS RR (1976) Fertility and Migration: The Case of Puerto Rico. *International Migration Review* 10/2: 191-203.

ROLOFF J (1997) Die ausländische und deutsche Bevölkerung in der Bundesrepublik Deutschland – ein bevölkerungsstatistischer Vergleich. *Zeitschrift für Bevölkerungswissenschaft* 22/1: 73-98.

ROLOFF J (1998) Eheschließungen und Ehescheidungen von und mit Ausländern in Deutschland. *Zeitschrift für Bevölkerungswissenschaft* 23/3: 319-334.

RONGE V (1997) German Policies Toward Ethnic German Minorites. In: Münz R/M Weiner (Eds) Migrants, Refugees, and Foreign Policy. U.S. and German Policies Towards Countries of Origin. Vol. 2. Providence/Oxford: 117-140.

ROSINA A (2004) Family formation and fertility in Italy: a cohort perspective. In: Dalla Zuanna G/GA Micheli (Eds.) Strong Family and Low Fertility: A Paradox? New Perspectives in Interpreting Contemporary Family and Reproductive Behavior. Dordrecht/Boston/London 2004: 23-43.

RUDOLPH H (2002) Dynamics of Immigration in a nonimmigrant Country: Germany. In: Fassmann H/R Münz (Eds) European Migration in the Late Twentieth Century. Historical Patterns, Actual Trends, and social Implications. 2nd ed. Laxenburg: 113-126.

SAENZ R/HWANG S-S/BE AGUIRRE (1994) In Search of Asian War Brides. *Demography* 31/3: 549-559.

SCHOENMAECKERS RC/E LODEWIJCKX/S GADEYNE (1998) Vruchtbaarheid bij Turkse en Marokkaanse vrouwen in Belgie: resultaten van de volkstellingen. Bevolking en Gezin 27/3: 127-154.

SCHOORL JJ (1990) Fertility Adaptation of Turkish and Moroccan Women in the Netherlands. *International Migration* 28: 477-495.

SCHWARZ K (1996) Die Kinderzahl der Ausländer und ihre Bedeutung für die Bevölkerungsentwicklung in den alten Bundesländern. *Zeitschrift für Bevölkerungswissenschaft* 21/1: 57-67.

SEIFERT W (1997) Occupational and Economic Mobility and Social Integration of Mediterranean Migrants in Germany. *European Journal of Population* 13: 1-16.

SHORTER FC/M MACURA (1982) Trends in Fertility and Mortality in Turkey, 1935-1975. Committee on Population and Demography Report No. 8. Washington, DC.

SINGLEY SG/NS LANDALE (1998) Incorporating Origin and Process in Migration-Fertility Frameworks: The Case of Puerto Rican Women. *Social Forces* 76/4: 1437-1464.

STABA – STATISTISCHES BUNDESAMT (2006) Gebiet und Bevölkerung – Ausländische Bevölkerung. Auf: http://www.statistik-portal.de/Statistik-Portal/de_jb01_jahrtab2.asp (September 4, 2006).

STEPHEN EH/FD BEAN (1992) Assimilation, Disruption and the Fertility of Mexican-Origin Women in the United States. *International Migration Review* 26/1: 67-88.

STRAßBURGER G (2003) Heiratsverhalten und Partnerwahl im Einwanderungskontext. Eheschließungen der zweiten Migrantengeneration türkischer Herkunft. Würzburg.

TOROS A (1994) Fertility. In: Ministry of Health, Hacettepe University Institute of Population Studies, and Macro International Inc. (Eds): Turkish Demographic and Health Survey 1993. Ankara: 23-32.

TOULEMON L/M MAZUY (2004) Comment prendre en compte l'âge à l'arrivée et le durée de séjour en France dans la mesure de la fécondité des immigrants? Documents de travail 120, Institut National d`Etudes Démographiques. Paris.

VASKOVICS LA (1987) Geburtenentwicklung, Fruchtbarkeit und demographische Entwicklung bei Gastarbeitern. In: Reimann H/H Reimann (Hgs): Gastarbeiter. 2. Aufl. Opladen: 22-242.