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# Cohort, Policy, and Process: The Implications for Migrant Fertility in West Germany

Jeylan Erman

**ABSTRACT** Although a growing literature explores the relationship between migration and fertility, far less scholarship has examined how migrant childbearing varies over time, including across migrant cohorts. I extend previous research by exploring migrant-cohort differences in fertility and the role of changing composition by education and type of family migration. Using 1984–2016 German Socio-Economic Panel data, I investigate the transition into first, second, and third birth among foreign-born women in West Germany. Results from an event-history analysis reveal that education and type of family migration—including marriage migration and family reunions—contribute to differences in first birth across migrant cohorts. Specifically, more rapid entry into first birth among recent migrants from Turkey stems from a greater representation of marriage migrants across arrival cohorts, while increasing education is associated with reduced first birth propensities among recent migrants from Southern Europe. I also find variation in the risk of higher parity transitions across migrant cohorts, particularly lower third birth risks among recent arrivals from Turkey, likely a result of changing exposures within origin and destination contexts. These findings suggest that as political and socioeconomic circumstances vary within origin and destination contexts, selection, adaptation, and socialization processes jointly shape childbearing behavior.

**KEYWORDS** Migration • Fertility • West Germany • Migrant cohort • Country of origin

## Introduction

Scholarship on migration and family formation has emphasized the fertility behavior of first-generation immigrants as a process—one that is shaped by social circumstances and the onset of other life course transitions. Applying the standard migrant-fertility framework, authors have shown how immigrants' behavior may be consistent with the maintenance of family norms from origin context, adaptation to native fertility at destination, disruption due to migration, or migrant selectivity (Andersson 2004; Carlson 1985; Goldstein 1973; Kahn 1988; Milewski 2007; Singley and Landale 1998). Although this growing literature has enhanced our understanding of how and why childbearing

patterns may vary over the life course or across national origin groups, it has often overlooked variation in fertility behavior over time. In particular, far less research has considered how childbearing varies across migrant cohorts or arrival cohorts, from the same country or region of origin, necessitating further work that provides evidence of within-group differentiation across migrant cohorts and an assessment of the processes underlying these changes. While an increased focus on cohort processes may further the view of migrant fertility as dynamic, the explicit focus on within-group heterogeneity helps move beyond simplistic treatments of national origin differences. As immigration becomes increasingly central to public debates, research that highlights the social dynamics underlying migrants' demographic behavior is becoming even more critical for informing public opinions and improving policy making (Massey and Pren 2012).

Fertility may vary across migrant cohorts for several reasons. Changing sociohistorical conditions in origin and destination countries may incite new fertility trajectories among migrants. For instance, widespread fertility declines in sending countries may be reflected in migrants' lower fertility over time. In addition, fluctuating conditions in the destination context's labor market or "childbearing climate" may produce differing fertility patterns. Beyond changing socioeconomic conditions at the origin or destination, immigration policies may shape family formation behavior, particularly through their impact on migrant selectivity and settlement processes. In many Western countries, restrictions on labor migration in the mid-1970s led to the increased prominence of family reunification and marriage migration (Akgündüz 1993). Previous work has suggested that family migration is important for childbearing outcomes (Andersson 2004; Baykara-Krumme and Milewski 2017; Frank and Heuveline 2005) and has additionally shown that fertility varies by type of family migration, including marriage migration and family reunification (Wolf 2016). Drawing on this work, I distinguish among different migration and marriage pathways and, thus, explore changing selectivity by family migration type as a potential source of migrant-cohort variation in fertility. Ultimately, this study builds on evidence that migrant selectivity related not only to education but also to family migration is important for migrants' demographic outcomes and extends the current literature, which has focused primarily on educational selectivity (Feliciano 2005; Ichou and Wallace 2019).

In this article, I investigate the relationship between migrant cohort and fertility in West Germany, an interesting case study for several reasons. First, Germany is the largest recipient of international migrants in Europe (United Nations 2017). The West German government's recruitment of foreign labor was initiated during the *Wirtschaftswunder* ("economic miracle") period following World War II. Despite a ban on foreign labor recruitment in 1973, family reunification and refugee channels led to sustained growth in the country's foreign-born population. Second, Germany's long history of international immigration makes it possible to study differential selection into migration over time, corresponding with migration policy reforms and socioeconomic developments within origin and destination contexts. Third, the continued arrival of migrants from single origin countries permits a study of cohort variation by national origin group.

I use the German Socio-Economic Panel (SOEP) data set, which provides detailed marriage, migration, and fertility histories of women. Since the original survey in 1984, SOEP has incorporated households headed by individuals of foreign origin. I focus on migration from Turkey, former Yugoslavia, Spain, Italy, and Greece, which

were oversampled in the original survey because they were the largest country-of-origin groups in West Germany in 1984. I take advantage of the addition of the 2013, 2015, and 2016 migrant samples (M1–M4), which incorporate migration to Germany since 1995. I define migrant cohorts based on female respondents' year of migration to West Germany and use event-history analysis to study cohort differences in the transition into first, second, and third births.

Results demonstrate that changing education and marriage/migration histories are important for patterns of entry into childbearing across migrant cohorts—specifically, lower first birth risks among the most recent arrivals from Southern Europe and higher first birth propensities within the most recent migrant cohort from Turkey. Patterns of higher parity transitions, however, diverge from those of first birth transitions. For instance, although recent migrants from Turkey transition into first birth more rapidly than their predecessors, they nevertheless experience declining risk of third birth, likely a result of increasing exposure to low-fertility norms in Turkey and West Germany. This analysis ultimately suggests that selection, adaptation, and socialization processes jointly affect migrant-cohort differences in fertility behavior as migration policies and political and socioeconomic conditions within origin and destination contexts evolve.

## Theoretical Background

### Migrant Fertility

The traditional migrant-fertility framework posits several hypotheses—socialization, adaptation, disruption, and selection—for understanding migrants' fertility patterns and, particularly, whether they resemble those of natives. The socialization hypothesis suggests that social exposure during childhood matters most for migrant fertility and that fertility behavior is largely unaffected by the family regime at destination (Kahn 1988; Milewski 2010). In contrast, the adaptation hypothesis holds that immigrants tend to adjust their behavior in response to the prevailing cultural norms, institutional setting, or socioeconomic conditions, as time in the destination country increases (Andersson 2004; Hervitz 1985; Milewski 2007).

Even when the underlying secular trend is in close alignment with a destination or origin context, there may be short-term fluctuations in fertility. For example, stress experienced during or after the move, postarrival adjustments, temporary spousal separation, or economic constraints may lead to a short-term disruption in fertility after arrival (Carlson 1985; Ng and Nault 1997; Stephen and Bean 1992). Alternatively, as described by the interrelation hypothesis, family formation may be embedded in the migration decision, as for instance with marriage migration, leading to a sudden rise in fertility after arrival (Andersson 2004; Milewski 2007; Singley and Landale 1998). Previous work has also highlighted the significance of selection processes, which are reflected in the demographic and human capital differences between migrants and nonmigrants at origin (Feliciano 2005; Frank and Heuveline 2005) and make migrants' family behavior distinct not only from that of nonmigrants at origin but also from that of natives and other foreign-born groups at destination (González-Ferrer et al. 2017; Mussino and Strozza 2012). Authors have

shown that migrant selectivity in terms of an orientation to family formation may also shape childbearing patterns (Baykara-Krumme and Milewski 2017; Milewski 2010; Singley and Landale 1998). That this orientation to family building may produce accelerated fertility upon arrival—signifying the interrelation hypothesis—shows the complementary nature of the migrant-fertility hypotheses; often, they are jointly relevant (Kulu 2005).

## Migrant-Fertility Cohort Effects

### *Social Change in Origin Countries*

Although much work has been done to highlight the complex processes that influence migrants' fertility behavior, less is known about variation across migrant cohorts. One potential source of differences is change in social exposures at origin. Over the past several decades, immigrant-sending countries to Western Europe—countries that historically have had higher fertility rates—have also experienced fertility declines, corresponding with socioeconomic development and institutional transformations. For example, Spain and Italy reached “lowest-low” fertility—period total fertility rates (TFRs) below 1.3—in 1993, while Greece saw similar trends in the late 1990s, although all countries' TFRs have since returned to levels above 1.3 (Billari 2008; Goldstein et al. 2009). Fertility also declined in former Yugoslavian countries, from 1.8–6.0 in the early 1970s to 1.3–1.8 by the late 2000s; only in Kosovo does period fertility remain above 2.0 (Frejka and Gietel-Basten 2016; Lerch 2018; Pobric and Robinson 2015). Likewise, in Turkey, a major immigrant-sending country to Western Europe, period fertility has steadily declined from around five children per woman in the early 1970s to 2.3 by 2013 (HUIPS 2014). These trends mean that recent migrants may bring with them different family norms than earlier migrants. As previous high-fertility contexts saw births decline, one would expect reduced fertility relative to previous migrant cohorts over time. In particular, fertility declines may be more pronounced at higher parities, commensurate with patterns within sending countries.

### *Social Change in Destination Countries*

Changing social and economic conditions within receiving contexts may also affect immigrant cohorts' fertility trajectories. Since the early 1970s, Western Europe has generally been marked by low or very low fertility behavior (i.e., TFR below 2.1 or 1.5, respectively), with period fluctuations resulting from demographic developments, labor market conditions, and institutional or policy changes (Andersson 2004; Frejka and Sobotka 2008). These developments may also produce varying fertility across migrant cohorts, especially as they influence adaptation differentially. For instance, migrants who are less established in the labor market or are experiencing economic uncertainty may have reduced fertility (Andersson and Scott 2005; González-Ferrer et al. 2017). It is also possible that migrants may respond to the overall childbearing climate, thus demonstrating similar childbearing propensities as natives. This may be true more so in countries with strong welfare institutions and less so in contexts where immigrants have fewer social rights, such as in the United States and Germany (Andersson 2004; Parrado and Morgan 2008).

The growth of migration networks and associations within destination countries may also be important for migrant-cohort differentials in fertility. Where networks are mature, newcomers have increased access to emotional and cultural resources, as well as information on housing and jobs (Hagan 1998). Furthermore, networks develop ethnic associations, which offer additional venues for support and circulation of information (Massey et al. 1987). In Germany, immigrants were found to rely heavily on personal networks for employment (Drever and Hoffmeister 2008). As networks develop, the search for housing and employment is likely to become less cumbersome, thus preventing disruptions to childbearing. Alternatively, changes in access to such medical services as contraception could also lead to differing child-bearing behavior over time.

### *Migration Policy and Immigrant Fertility*

When examining differences in fertility across migrant cohorts, it is also important to consider the potential for migration policies to shape both selection into migration and the process of adaptation. Admission regulations are important because they bear upon who migrates (discussed in the next subsection) and through which pathways. Although refugees may arrive with other family members, labor migrants often migrate individually and—if leaving family members behind—may later be joined by family members through family reunification channels (Glick 2010; González-Ferrer 2007). As patterns of family separation vary with migration channels and spousal separation may disrupt childbearing, migration policies are likely to influence short-term fertility differences across migrant cohorts.

Furthermore, policies related to immigrant integration are important for migrants' adaptation to destination countries. Broadly speaking, policy approaches within European countries have ranged from multicultural models to more exclusionist orientations, where rights are typically based on ancestry and measures to facilitate the social and political integration of immigrants are largely absent (Ikram et al. 2015). They have also evolved over time, an example being the easing of citizenship acquisition for foreign-born individuals with long-term residence in Germany and their children via a 1999 law (Anil 2006). In Germany, where an exclusionist orientation has prevailed for several decades, a system of residency and work permits—a “patchwork catalog” of individual laws and regulations (Green 2013:338)—has meant that rights have traditionally been built over time (Hailbronner et al. 1998). Individuals who came to Germany as family migrants were often unable to work immediately following their arrival (Münscher 1979). In the 1990s, restrictions on recognition of asylum seekers also curtailed access to employment, although many still managed to work (Bahar et al. 2019; OECD 2017). In 2005, Germany implemented its first systematic integration framework, including the introduction of integration courses and the simplification of residential attainment statuses (Green 2013). Since 2007, those joining spouses through family reunification have also been required to show basic German language skills before arrival (Grote 2017).<sup>1</sup> An enhanced focus on integration may lead to greater contact between natives and foreign-born individuals and, consequently, migrants' increasingly adaptive family behavior.

<sup>1</sup> By tightening entry criteria, this regulation also serves as a form of admissions control (Goodman 2011).

### *Shifting Selection Processes*

Changing selectivity into migration may also affect migrant-cohort differences in fertility. Previous scholars have identified multiple causes of migrant selection, including economic, political, and environmental conditions in origin and destination countries; labor demand; migrant networks; and migration policies (Black et al. 2011; Massey 1999; Rumbaut 1997). As selection processes evolve, migrant cohorts may vary in their socioeconomic and demographic profiles, work and family orientations, and experiences prior to migration. For instance, the ban on labor migration in the early 1970s in several Western European countries played a critical role in the growth of family migration thereafter. In particular, marriage migration grew as it served as one of the few legal entry channels among non-EU citizens (Hooghiemstra 2001; Kalter and Schroedter 2010). With family formation increasingly motivating migration decisions, entry into childbearing may become more rapid following migration. In the Netherlands, Alders (2000) finds a strong link between migration and childbearing among more recent arrivals from Turkey, which the author attributes to growing migration for family formation reasons.

An additional facet of changing selection processes is shifting selectivity by regions within origin countries. For instance, Southern Europeans who arrived as early labor migrants originated in poor agricultural areas in Western Spain, Southern Italy, and Northern Greece (Van Mol and de Valk 2016); however, recent migrants from the region are more likely to come from urban areas (Lafleur et al. 2017). In contrast, Turkish migration—particularly that to West Germany—initiated in urban, western regions of the country and then shifted over time to lesser developed areas, including the country's higher fertility eastern regions as the Kurdish conflict intensified in the 1980s (Akgündüz 1993; Sirkeci 2003). Similarly, emigration from former Yugoslavia originated in more developed areas in the northwest, then diffused to less developed southeastern regions, including Kosovo and Bosnia-Herzegovina in the 1980s, intensifying with the Bosnian War and ethnic conflict in Kosovo in the 1990s (Fassmann and Münz 1994; Molnar 1997). As regions vary by levels of socioeconomic development and family regimes, fertility behavior will likely depend on the nature of changing migration flows.

According to the literature, selection processes thus influence migrants' childbearing in two ways. First, migrant selection may occur in terms of fertility intentions, such as among marriage migrants who migrate for the purpose of family formation. Second, selection may take place in terms of the sociodemographic characteristics that are conducive to certain fertility norms, such as higher fertility among migrants with lower education or from rural areas. If compositional differences produce fertility differentials across migrant cohorts, fertility differentials may disappear once they are controlled for.

### **The West German Context**

Over the past several decades, West Germany's foreign-born population has increased through labor migration, family reunification, humanitarian migration, and internal EU migration. Post–World War II economic recovery and growth prompted West Germany's

entry into labor recruitment agreements with multiple origin countries, including Italy (in 1955), Spain and Greece (1960), Turkey (1961), and Yugoslavia (1968) (Münz and Ulrich 1998). As this study focuses on migrants from these countries, this review will highlight their experiences. Although migration to West Germany during the guest worker period is traditionally characterized as male-driven, a substantial number of women also migrated, either jointly with spouses or following their husbands' arrivals. As demand for workers in service industries increased, many employers also hired the spouses of male guest workers (González-Ferrer 2007). After the 1973 oil crisis incited a ban on recruitment, some guest workers returned to their origin countries, with financial support from the West German government; however, many stayed and continued bringing in relatives through family reunification channels. In Germany, family reunification law allowed both family reunions and marriage migration—the latter becoming more dominant since the 1980s, particularly among men from Turkey and former Yugoslavia (Kalter and Schroedter 2010; Wolf 2016). In the 1970s and 1980s, about half of the migrants to Germany could be attributed to family reunification from former labor-sending countries (Münz and Ulrich 1998). Family reunification continues to be a major source of immigrant flows to Germany today (BAMF 2019).

Of further consequence to migration flows is the migration of refugees and asylum seekers to Germany. After an initial surge following a military coup in Turkey in 1980, migration for humanitarian reasons increased throughout the 1980s, reaching its peak in 1992, when almost 440,000 asylum seekers from former Yugoslavia were admitted during the Yugoslav Wars, although many of them would later repatriate (Münz and Ulrich 1998; OECD 2017). Asylum applications would not again reach that level until 2015 with the war in Syria. Although Syria contributed the largest share of asylum applications, former Yugoslavian territories—including Kosovo, Serbia, and North Macedonia—also constituted large shares (BAMF 2016). Migration from former Yugoslavia has increased since 2008 because of humanitarian, economic, and family reasons (BAMF 2016, 2019; Destatis 2018).

Another source of migrant flows is internal EU migration. In the early 1990s, European governments enhanced restrictions on migration from outside of the EU, while also abolishing internal borders and facilitating the mobility of highly skilled migrants, from both within and outside of the EU. These policies have contributed to new patterns of migration to Germany, such as increased irregular migration and migration for educational purposes (Van Mol and de Valk 2016). Additionally, they have supported the movement of EU citizens to Germany during economic crises, including the increased migration of young and highly educated Southern Europeans following the 2008 financial crisis (Lafleur and Stanek 2018).

Figure 1 presents the annual number of female arrivals from Turkey, former Yugoslavia, Greece, Italy, and Spain, between 1962 and 2017. These figures mirror the patterns of migration described previously. In 2019, the number of citizens from Turkey totaled 1.47 million, and the number from former Yugoslavia was 1.26 million; 650,000 were from Italy, 360,000 were from Greece, and 180,000 were from Spain. Other foreign nationality groups with large populations living in Germany included Poland (with 860,000), Syria (with 790,000), and Romania (with 750,000).<sup>2</sup>

<sup>2</sup> The migration of Poles and ethnic German resettlers has also contributed to Germany's immigrant population. Polish migration began during a period of rapid industrial growth before World War I and continued



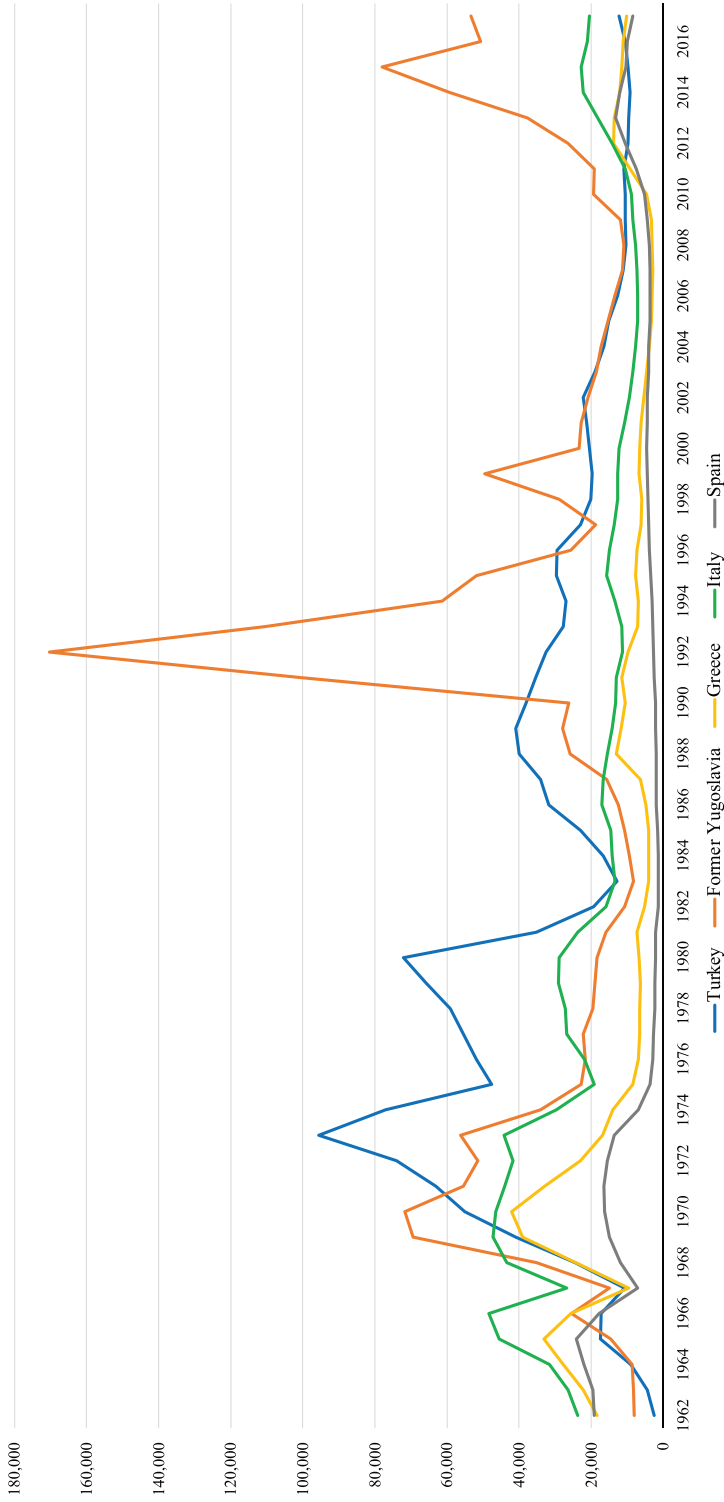


Fig. 1 Arrivals of females to Germany by country of origin, 1962–2017. Data before 1991 refer to the former federal territory. Source: Destatis (2018); author's calculations and representation.

The majority of Germany's foreign-born population lives in the western part of the country (Destatis 2020).

In Germany, much of the literature on immigrants' childbearing behavior has explored one or more of the migrant-fertility hypotheses: adaptation, socialization, disruption, and selection (Kulu et al. 2019). Owing to the centrality of the assimilation perspective, whereby immigrants' behavior is assumed to align with that of natives over time, this research has often focused on national origin comparisons, especially those between migrant and nonmigrant women (Cygan-Rehm 2014; Krapf and Wolf 2015; Mayer and Ripahn 2000; Milewski 2007, 2009).<sup>3</sup> Among the studies that explore first-generation women's childbearing behavior, authors have found higher fertility relative to natives that decreases with duration of stay (an adaptation effect), relative differences that vary across foreign-born groups (a socialization effect), and a reduction in gaps when controlling for compositional differences. Until now, researchers have not fully considered variation in fertility behavior over time, including differences across migrant cohorts and the relevance of migrant-fertility hypotheses when taking this "long view." Additionally, authors have paid limited attention to variation *within* national origin groups, thus risking representing national origin groups as monolithic and unchanging. A study of differences across migrant cohorts helps resolve these gaps in the literature.

## Research Questions and Hypotheses

Given the limited consideration of migrant-cohort processes in previous research on migrant fertility, I examine differences in fertility behavior across waves of arrivals to West Germany. Additionally, I explore how changing migrant-cohort composition by education and marriage/migration histories is linked with childbearing patterns. Building on previous work that shows the importance of family migration for demographic behavior, I aim to shed light on how changing selection processes related to education and type of family migration—including marriage migration or family reunification—may influence fertility differentials.

I formulate several hypotheses related to these research questions. Among women from Turkey and former Yugoslavia, I expect more rapid first birth transitions among more recent arrivals because of a greater representation of marriage migrants. Additionally, I expect that shifting geographic origins toward higher fertility regions will accelerate entries into childbearing among women from Turkey and former Yugoslavia, although data constraints prevent me from testing the role of geographic origins directly. In contrast, for more recent arrivals from Southern Europe, who are more highly educated, I expect lower first birth risks relative to earlier migrant cohorts. In terms of higher parity transitions, I hypothesize that transition rates will

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throughout the twentieth century (Marks-Bielska et al. 2015). Since World War II, millions of ethnic Germans from Eastern and Central European countries have also migrated to Germany. Unlike other groups, many received German citizenship soon after arrival (Münz and Ulrich 1998).

<sup>3</sup> Recently, however, there have also been comparisons of single origin groups across multiple destination contexts or of migrants abroad with nonmigrants at origin (Baykara-Krumme and Milewski 2017; Milewski 2011).

decline for all groups, coinciding with secular declines in fertility across sending regions and changing exposures. For Southern European women, fertility declines at low and high parities would also be consistent with their shift in origins from rural to urban areas.

## Data and Methods

### Data

To examine migrant-cohort differentials in fertility patterns across country-of-origin groups, I draw on detailed life histories in West Germany. The SOEP, which has been collected annually since 1984, is a large, nationally representative sample collected by the German Institute for Economic Research in Berlin. The survey is a high-quality source of information on fertility histories in Germany. Furthermore, it is the only data source to prospectively capture the family formation of immigrants across multiple cohorts. An important limitation of the survey is that the number of observations across country-of-origin groups (detailed in [Table 1](#)) is small for some groups. To evaluate the representativeness of the sample, I compared the 1984–2016 SOEP data with the 1985 and 2016 German Micro Censuses—which, unlike the SOEP, mandate participation. Results demonstrated very similar household characteristics across samples (including age at migration, marital status, household size, number of children in the household, and education), mitigating concern over selective participation in the SOEP. These tables are available in the online appendix (see [Tables A1 and A2](#)).

Both West German and foreign-born respondents have been included in the SOEP since 1984. Among the first samples, Sample A targeted private households headed by individuals not from a main guest worker group in West Germany (Turkey, Greece, Yugoslavia, Spain, or Italy) and covered 4,528 households. Although this sample mostly consists of native-born residents, a few foreign-born household heads still became part of the sample. Sample B—also collected in 1984—oversampled foreign-born household heads in West Germany with origins in Turkey, Greece, Yugoslavia, Spain, and Italy. In 1994, the SOEP incorporated Sample D to reflect migration to Germany between 1984 and 1994. Between 2013 and 2016, the survey added four new samples (M1–M4), which focused on individuals who came to Germany after 1995, including more recent asylum seekers and family migrants (Kara and Zimmermann 2019). The majority of the analytic sample comes from Sample B (55%) and samples targeting later migration (27%), while the rest originate from Sample A and other added samples, including refreshment samples. In addition, given that men often migrate first and patriarchal norms often shape immigrant family structures, oversampled foreign-born household heads may overrepresent couples in which at least the male is foreign-born and underrepresent couples in which a foreign-born woman is married to a German man. Thus, it should be acknowledged that the focus of this article is households that are headed by a foreign-born person, rather than all households that contain immigrants.

To construct the analytic sample, I use SOEP retrospective data files, which provide detailed information on respondents' migration, marriage, and childbearing histories. I first limit my sample to those who have complete migration and childbearing

**Table 1** Person-years and events by country of origin, migrant cohort, and parity

|                   | 1955–1973   |              |             | 1974–1989   |              |             | 1990–2015   |              |             |
|-------------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|
|                   | First Birth | Second Birth | Third Birth | First Birth | Second Birth | Third Birth | First Birth | Second Birth | Third Birth |
| Turkey            |             |              |             |             |              |             |             |              |             |
| Person-years      | 232.67      | 303.33       | 586.50      | 539.08      | 550.75       | 765.92      | 490.33      | 780.17       | 933.08      |
| Events            | 52          | 62           | 54          | 112         | 115          | 75          | 156         | 134          | 61          |
| <i>n</i>          | 60          | 68           | 86          | 143         | 129          | 119         | 171         | 171          | 144         |
| Former Yugoslavia |             |              |             |             |              |             |             |              |             |
| Person-years      | 516.00      | 629.42       | 966.17      | 207.58      | 203.92       | 317.92      | 594.67      | 603.83       | 885.83      |
| Events            | 62          | 67           | 30          | 35          | 33           | 15          | 124         | 119          | 61          |
| <i>n</i>          | 85          | 89           | 93          | 43          | 42           | 39          | 166         | 158          | 145         |
| Southern Europe   |             |              |             |             |              |             |             |              |             |
| Person-years      | 752.67      | 957.17       | 1,325.92    | 327.75      | 385.17       | 625.33      | 553.08      | 313.50       | 360.17      |
| Events            | 132         | 135          | 70          | 63          | 59           | 21          | 72          | 54           | 18          |
| <i>n</i>          | 148         | 170          | 168         | 78          | 75           | 72          | 119         | 80           | 68          |

Source: 1984–2016 German SOEP (2017).

histories, which removes 5% of total female respondents. Given my interest in marriage and migration pathways, I also consider restrictions related to respondents' marriage histories, which remove 14.8% of remaining women with incomplete information.<sup>4</sup> I further limit my sample to women who are unmarried or are in their first marriage at the time of childbearing or censoring, similar to previous research (Milewski 2007, 2010).<sup>5</sup> Most married women who begin childbearing do so during their first marriage and, thus, only a small percentage (about 1%) is affected. Further selections are made with respect to age of childbearing and migration. I only consider first childbearing from age 15. Although consistent with previous studies (Milewski 2007; Wolf 2014), this restriction also allows for a relatively young marital age, which may be more common among earlier migrant cohorts. Likewise, I also only consider women who migrated at age 15 or older. Age 15 is often used to distinguish the 1.5 generation, that is, those who migrated during childhood and undergo differential socialization in part owing to distinct school experiences (Krapf and Wolf 2015; Milewski 2007). In addition, I exclude women who have ever resided in East Germany given the greater concentration of foreign-born women in West Germany and differences in fertility behavior across regions (Goldstein and Kreyenfeld 2011). This restriction affects less than 2% of the sample. As I am interested in first, second, and third birth transitions that occur in West Germany, a final restriction is made to women who complete all three transitions before arrival. In the analytic sample, this exclusion applies to 15% of Turkish women, 6% of former Yugoslavian women, and 11% of Southern European women. The resulting sample size is 1,390 foreign-born respondents, 34% of whom are from Turkey, 31% from former Yugoslavia, and 34% from Southern Europe (Greece, Italy, or Spain).

## Measures

The measure for migrant cohort—referring to the years in which female respondents migrated to West Germany—consists of three significant periods. The first period, 1955–1973, is the guest worker era, which begins the year in which the first labor recruitment agreement was signed and ends with its termination. The second period, 1974–1989, begins after the ban on labor migration in late 1973 and ends with the fall of the Iron Curtain; it represents the period of rising family and refugee migration. The third period, 1990–2015, is marked by continuing marriage and refugee

<sup>4</sup> I exclude 14.3% of respondents with missing or incomplete marital histories and an additional 0.5% of women who have incomplete divorce and widowhood information. I am able to use partners' information in cases in which women have missing marriage timing and they and their partners are married only once. To explore potential selection bias, I perform analyses including women with missing marital histories. Results are largely similar except for an even higher increase in first birth risks across Turkish and former Yugoslavian arrival cohorts relative to the earliest migrant cohort from Turkey and similar first birth risks among Southern European migrant cohorts compared with the earliest Turkish arrivals (see Table A3 in the online appendix), which I attribute to unusually high childlessness among excluded women who arrived in earlier periods.

<sup>5</sup> I remove 0.4% of women who are childless and divorced or separated before censoring.

migration and increasing migration for other reasons, such as education. The latter part of this third period also initiates Germany's new integration paradigm.<sup>6</sup>

I distinguish between three traditional migrant-sending countries/regions to West Germany: Turkey, former Yugoslavia, and Southern Europe (combined because of small sample sizes). These were the largest country-of-origin groups in West Germany in 1984, after prominent migrations during the previous two decades, and were thus oversampled in the original survey. Migrants from Croatia, Bosnia-Herzegovina, North Macedonia, Slovenia, Kosovo, Serbia, and Montenegro are categorized as being from former Yugoslavia.

The main indicator for socioeconomic status is respondents' highest level of educational attainment. Education is an important marker of potential earnings across the life course and, thus, the opportunity costs of childbearing. The education measure—consisting of four categories that distinguish between those with low education (less than high school), medium education (completed high school), high education (more than high school), and no information—allows me to explore whether higher education in later arrivals accounts for fertility differentials across cohorts and national origins. One concern with the use of highest education is that women may not be finished with their education at childbearing. Nonetheless, a supplementary analysis on the last year of education demonstrates that a vast majority of mothers report finishing school before first birth (94%), which reduces this concern.<sup>7</sup>

I also include controls for marriage and migration histories. Combining information on respondents' year of migration and year of marriage, I create categories for whether an individual married prior to the year of migration (which proxies for family reunification), married in the same year as migration (which proxies for marriage migration), married following the year of migration (which may be common among solo migrants or younger women who migrate to join nuclear family members), or remained unmarried within the study period. As marriage migration becomes more prevalent among later migrant cohorts, especially among Turkish and former Yugoslavian women, this measure allows me to explore the role of shifting patterns of family migration in cohort fertility differentials.

Additionally, I control for age at migration, distinguishing among four categories: 15–19, 20–24, 25–29, and 30 or older. Age at migration is critical as it reflects one's degree of exposure to influences within the origin country (Parrado 2015).

## Analytic Approach

Using piecewise constant hazard models, I run a series of nested models to understand differences in the risk of first, second, and third birth across migrant cohorts and the factors that mediate the relationship between migrant cohort and birth risks. Piecewise constant hazard models enable a study of variation not only in the total number of children, but also in the timing of childbearing (González-Ferrer et al. 2017), and

<sup>6</sup> Small sample sizes prevent separate examination of the post-2005 period.

<sup>7</sup> For this analysis, I create a crude measure based on the reported year of leaving school (included in the SOEP since 2002), last year of receiving education or training, and number of years of education (with assumed enrollment at age six).

are ideal as they require few assumptions about the baseline hazard (Blossfeld et al. 2007). Given that differences in fertility across arrival cohorts are likely to vary by country-of-origin group, I apply an interaction term between country-of-origin group and period of arrival to determine group-specific differences across migrant cohorts.

In the first model, I control only for age of migration to illustrate the underlying time dimension. For second and third birth risks, I also include controls for the age of the respondent at last birth and whether the last birth occurred abroad. In the second model, I add a covariate for respondent's education, and in the third model, I add marriage and migration histories. The process time is time since migration in models for first birth and time since last birth in models for second and third birth. I use time since migration in analyses of first birth because previous researchers have found elevated fertility soon after arrival (Andersson 2004; Milewski 2007; Wolf 2014). Women become censored at childbirth; at age 40 if they have not yet had a first, second, or third birth; or at the time of last contact if they leave the survey before age 40. Relatively few women bear children at age 40 or later in my sample. All events are in person-years (rescaled from person-months for interpretation in person-years).

## Results

### Description of Migrant-Cohort Composition

I first explore descriptively how migrant cohorts and country-of-origin groups vary by sociodemographic characteristics (Table 2). In general, results are consistent with historical patterns, including increasing marriage migration among Turkish and former Yugoslavian women, as well as higher educational attainment within the most recent migrant cohort from Southern Europe. Regarding completed fertility, Turkish migrants are increasingly concentrated at a parity of two, and Southern European migrants are increasingly childless; no clear pattern emerges for former Yugoslavian women.<sup>8</sup> As many migrant women—particularly more recent arrivals—are still in their prime reproductive years, these figures are likely to change with continued observation. Results also reveal relatively younger ages of migration during the 1974–1989 period, which followed the ban on foreign labor recruitment. About 70%–85% of women regardless of origin arrived at ages 15–24, which is consistent with growing migration for marriage purposes or the reunion of younger women (i.e., daughters) with nuclear family members. Excluding Turkish women, age at migration is highest for the most recent arrivals—in particular, Southern European women, 64% of whom are at least aged 25 at migration. Similarly, women who arrived in the latest period are more likely to have higher education. The starkest increase is also among Southern European women, 45% of whom have at least some tertiary education in the most recent period, compared with 3% in the earliest period. While trends of increasing educational attainment may reflect socioeconomic development within origin countries, among Southern European women, I expect changing migrant selectivity with respect to higher education to be particularly influential.

<sup>8</sup> These patterns are also consistent with available Micro Census data (see Table A4 in the online appendix).

**Table 2** Sample distributions of key characteristics by country of origin and migrant cohort

| Characteristic             | Turkey    |           |           | Former Yugoslavia |           |           | Southern Europe |           |           |
|----------------------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------------|-----------|-----------|
|                            | 1955–1973 | 1974–1989 | 1990–2015 | 1955–1973         | 1974–1989 | 1990–2015 | 1955–1973       | 1974–1989 | 1990–2015 |
| Number of children         |           |           |           |                   |           |           |                 |           |           |
| 0                          | .08       | .19       | .07       | .16               | .14       | .18       | .07             | .14       | .32       |
| 1                          | .06       | .08       | .18       | .15               | .16       | .16       | .16             | .15       | .18       |
| 2                          | .31       | .27       | .42       | .44               | .44       | .37       | .44             | .50       | .36       |
| ≥3                         | .55       | .46       | .32       | .24               | .26       | .29       | .33             | .21       | .15       |
| Age at Migration           |           |           |           |                   |           |           |                 |           |           |
| 15–19                      | .25       | .60       | .39       | .22               | .35       | .18       | .28             | .37       | .13       |
| 20–24                      | .36       | .25       | .36       | .42               | .37       | .38       | .28             | .35       | .22       |
| 25–29                      | .25       | .09       | .15       | .15               | .19       | .27       | .22             | .17       | .36       |
| ≥30                        | .14       | .05       | .11       | .21               | .09       | .18       | .22             | .11       | .28       |
| Education                  |           |           |           |                   |           |           |                 |           |           |
| No information             | .00       | .03       | .06       | .01               | .02       | .04       | .00             | .04       | .02       |
| Low                        | .79       | .81       | .65       | .69               | .70       | .51       | .83             | .70       | .34       |
| Medium                     | .17       | .13       | .20       | .27               | .25       | .34       | .13             | .16       | .19       |
| High                       | .05       | .03       | .08       | .03               | .04       | .11       | .03             | .10       | .45       |
| Marriage/Migration History |           |           |           |                   |           |           |                 |           |           |
| Never married              | .01       | .08       | .03       | .03               | .09       | .14       | .02             | .07       | .30       |
| Married before migration   | .61       | .38       | .32       | .54               | .42       | .34       | .42             | .31       | .22       |
| Married at migration       | .18       | .29       | .52       | .11               | .23       | .28       | .20             | .35       | .13       |
| Married after migration    | .19       | .25       | .13       | .32               | .26       | .24       | .36             | .27       | .36       |
| Parity at Arrival          |           |           |           |                   |           |           |                 |           |           |
| Childless                  | .58       | .86       | .83       | .60               | .75       | .70       | .66             | .74       | .80       |
| First birth abroad         | .17       | .11       | .11       | .20               | .16       | .19       | .18             | .13       | .11       |
| Second birth abroad        | .24       | .04       | .06       | .20               | .09       | .11       | .16             | .13       | .09       |
| <i>n</i>                   | 103       | 167       | 205       | 142               | 57        | 237       | 224             | 106       | 149       |

Note: Number of children and parity at arrival are included for context.

Source: 1984–2016 German SOEP (2017).



Sample distributions for marital and migration histories also reveal trends consistent with historical patterns. Marriage is nearly universal for foreign-born women who arrived in the guest worker period, while later migrant cohorts from former Yugoslavia and, particularly, Southern Europe are increasingly single. These patterns may also change with continued observation. Furthermore, family reunification becomes less prevalent across origin-country groups, while marriage migration increases in importance for Turkish and former Yugoslavian women, from 18% to 52% among the former and from 11% to 28% among the latter. I also examine parity at migration and find that women are more likely to arrive with 1–2 children in the earliest period, also consistent with patterns of marriage before arrival in those years; however, regardless of period, women in my sample are most likely to arrive childless.

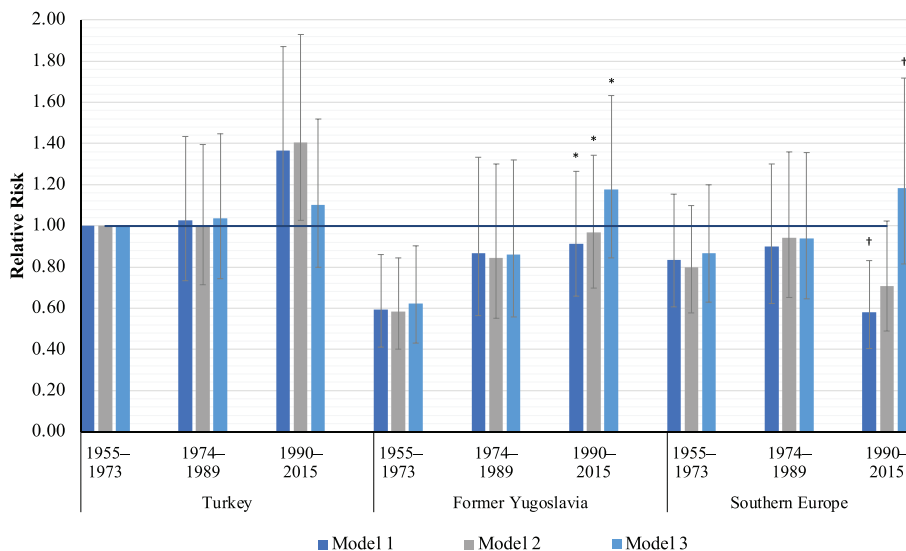
The addition of new migrant samples beginning in 2013 and SOEP's incorporation of migrants' status at entry to Germany allow for a more direct assessment of the relative importance of specific migration channels. However, a considerable number of missing values—partially because of the last migrant cohort's being drawn from multiple samples—means that results should be taken with caution. In addition, information is missing for migrants who returned to their origin countries before 2013. The available data, shown in Table A5 of the online appendix, demonstrate that while family migration plays an important role for Turkish respondents, migration for economic reasons and family migration are almost equally common among the most recent Southern European arrivals. Furthermore, while former Yugoslavian women are most likely to arrive as family migrants, their partners are more likely to arrive as refugees or asylum seekers, which suggests a pattern of pioneering male migration and subsequent female family migration.

In sum, these descriptive results reveal differing sociodemographic compositions of women by migrant cohort and origin-country group consistent with historical accounts. Although family migration persists for Turkish and former Yugoslavian women, there exists change by family migration type—from family reunification toward marriage migration. High educational attainment among Southern European women corresponds with an increase in age at migration and being never-married in the most recent period. This changing composition across migrant cohorts is likely to produce variation in childbearing behavior over time.

### **Analysis of Cohort Variation in First Birth**

I explore migrant-cohort fertility differentials through a series of nested piecewise constant hazard models with interactions between migrant cohort and origin-country group. All model results are presented as net effects, including 95% confidence intervals, with the 1955–1973 arrival cohort from Turkey serving as the reference category (complete models are shown in Tables A6–A8 in the online appendix).

The results for first birth are shown in [Figure 2](#). According to model 1, which controls only for age of migration, Turkish migrant women arriving in the most recent period experience marginally quicker transitions into childbearing than their counterparts arriving during the guest worker period. Additional analysis (not shown) reveals that this effect is even stronger relative to Turkish arrivals in the 1974–1989 period. Women from former Yugoslavia also experience an increased propensity of first birth



**Fig. 2** Hazard ratios of first birth by migrant cohort and origin country/region showing net effects from interaction models, with the 1955–1973 arrival cohort from Turkey as the reference category. Presentation is based on results given in Table A6 of the online appendix. Error bars represent 95% confidence intervals. Model 1 controls for age at migration; model 2 adds control for education; and model 3 adds control for marriage/migration history. *Source:* 1984–2016 German SOEP (2017). \*Statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from former Yugoslavia; †statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from Southern Europe.

relative to the earliest Turkish arrivals. Specifically, while the earliest migrant cohort from former Yugoslavia demonstrates a significantly reduced risk of first birth relative to the earliest Turkish migrant cohort, the two most recent arrival cohorts are statistically equivalent. Conversely, previous arrival cohorts from Southern Europe demonstrate similar patterns as the earliest Turkish arrivals, while the most recent migrant cohort has a significantly lower propensity of first birth.

Accounting for education in model 2 does not appreciably affect the lower risk of first birth among Southern European women relative to the earliest Turkish arrivals. However, when education is controlled for, the difference in first birth risks across Southern European arrival cohorts (when the earliest Southern European migrant cohort is the reference) becomes nonsignificant, which suggests that higher educational attainment is important for within-group differences across Southern European arrival cohorts. According to model 3, first-birth differentials across migrant cohorts from Turkey are completely explained by variation in marriage behavior (i.e., the growth in marriage migration among Turkish women), while differences for former Yugoslavian women remain even after accounting for changes in composition.<sup>9</sup>

The models also present covariate associations. I find that, except for those who migrated at ages 15–19, women who migrate at younger ages average higher risks

<sup>9</sup> Increased migration of women with a Kurdish background may also accelerate Turkish women’s first birth transitions, particularly if marriage migration is more common within this group.

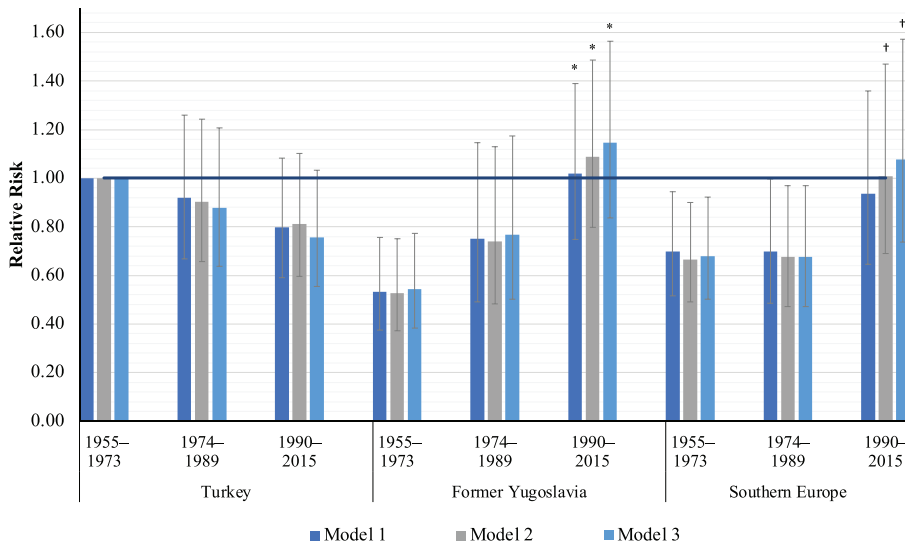
of first birth and women who are more highly educated average lower risks of first birth. The marriage and migration pathway also shaped fertility outcomes. Overall, those who marry and migrate in the same year average quicker transitions into first birth than women who marry after migration and, although only marginally, those who marry prior to migration. Furthermore, remaining never-married is linked with a substantially lower risk of first birth.

Additionally, the risk of first birth is highest in the first three years after arrival and falls with increased length of stay, which is consistent with arguments that migration is a disruptive event often followed by accelerated fertility shortly after arrival (Lübke 2015; Wolf 2016). Because this association is aggregated across origin-country groups and migrant cohorts, I perform an extended analysis to assess potential origin-group and cohort differences. I find a notable exception among the most recent migrant cohort from Southern Europe, who averages a higher risk of first birth with increased length of stay. Rather than migration disrupting fertility, among those females who are positively selected with respect to education and are more likely to emigrate from urban areas, postponed fertility likely reflects economic uncertainty and the longer than average partner searches for better educated women.

### Analysis of Cohort Variation in Second and Third Births

Analyses of second and third birth transitions are shown in Figures 3 and 4, respectively. In both figures, model 1 presents net effects controlling for only age of migration, age of last birth, and whether the last birth occurred abroad. Results show that although the most recent migrant cohort from Turkey experiences more rapid transitions into first birth, second birth propensities are similar across migrant cohorts and third birth risks are significantly lower compared with the earliest Turkish arrivals. This result is consistent with Alders' (2000) finding of overall smaller family sizes among younger Turkish birth cohorts in the Netherlands (coupled with a stronger migration–childbearing linkage with later Turkish arrivals). On the other hand, recent migrant cohorts from former Yugoslavia demonstrate an increased risk of progressing to higher parities relative to the earliest Turkish arrivals. More specifically, while earlier arrival cohorts have reduced second and third birth risks compared with Turkish women who arrived in the guest worker period, the most recent migrant cohort does not differ significantly from the earliest Turkish arrivals. Results also reveal significantly reduced levels of second and third birth rates across Southern European migrant cohorts relative to the earliest arrival cohort from Turkey, except for the most recent arrivals, who experience similar second birth risks. Results for third birth among Southern European women must be interpreted with caution given small sample sizes.

In addition, results show that migrant-cohort variation in second and third birth risks remain even after controlling for women's educational characteristics and marriage/migration histories. Thus, rather than education or type of family migration, other factors are more likely to produce variation across arrival cohorts. For Turkish women, reduced fertility may reflect women's increased exposure to lower fertility norms within Turkey and in West Germany. Elevated second birth propensities among Southern European women despite delayed entry into childbearing suggest potential catch-up behavior: once women enter parenthood, they move quickly to fulfill their ideal family sizes.

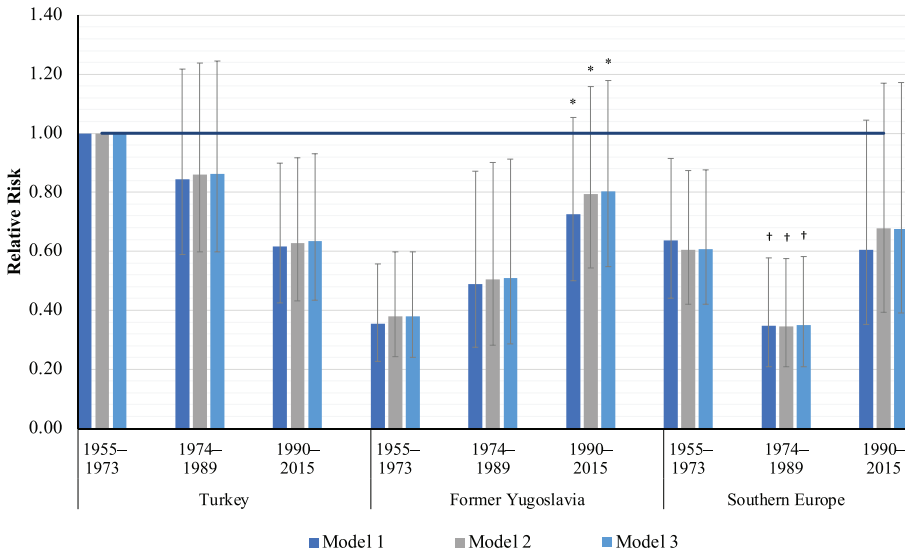


**Fig. 3** Hazard ratios of second birth by migrant cohort and origin country/region showing net effects from interaction models, with the 1955–1973 arrival cohort from Turkey as the reference category. Presentation is based on results given in Table A7 of the online appendix. Error bars represent 95% confidence intervals. Model 1 controls for age at migration, age at last birth, and whether last birth occurred abroad; model 2 adds control for education; and model 3 adds control for marriage/migration history. *Source:* 1984–2016 German SOEP (2017). \*Statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from former Yugoslavia; †statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from Southern Europe.

Higher fertility behavior among former Yugoslavian women may be linked with shifting geographic origins. As shown in Table A9 of the online appendix, information on religious denomination—which has been collected by the SOEP since 1990—reveals a greater representation of Muslim women over time and a corresponding lower share of Christian women, which is consistent with shifting origins toward southeastern regions of former Yugoslavia.<sup>10</sup> In addition, the available country-of-origin data for the 1990–2015 cohort reveals a larger representation of women from Kosovo (32%) and Bosnia-Herzegovina (20%), followed by Serbia (18%), Croatia (13%), and other areas (10%).<sup>11</sup> Thus, results may reflect growing migration from Kosovo, which has maintained relatively high birth rates within the region.

Estimates for covariate associations show the importance of education for higher parity transitions, namely, that increased schooling is associated with lower risks of second and third births. Furthermore, while marriage/migration histories play an important role in patterns of first birth, they generally have little impact on higher parity transitions. Women’s childbearing histories abroad, however, are linked with transitions into second or third births. In particular, women whose last birth occurred abroad average lower third birth risk. This result is somewhat consistent with Milewski (2010), who found increased third birth propensities (relative to native

<sup>10</sup> I use the first reported religious denomination.  
<sup>11</sup> Information is unavailable for 7% of the sample.



**Fig. 4** Hazard ratios of third birth by migrant cohort and origin country/region showing net effects from interaction models, with the 1955–1973 arrival cohort from Turkey as the reference category. Presentation is based on results given in Table A8 of the online appendix. Error bars represent 95% confidence intervals. Model 1 controls for age at migration, age at last birth, and whether last birth occurred abroad; model 2 adds control for education; and model 3 adds control for marriage/migration history. *Source:* 1984–2016 German SOEP (2017). \*Statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from former Yugoslavia; †statistically significant difference at  $p < .05$  from the 1955–1973 migrant cohort from Southern Europe.

West Germans) among Turkish women whose last birth occurred domestically than among women whose last birth was abroad.

In sum, I find partial confirmation of my hypotheses. Consistent with my expectations, recent migrants from Turkey experience more rapid transitions into child-bearing coinciding with increasing marriage migration. On the other hand, Southern European women experience lower first birth risk linked with their changing educational compositions. In terms of higher parities, the only pattern consistent with my hypotheses is the decline in third birth risk among Turkish migrant women. Although widespread fertility declines and changing patterns of socialization within Turkey provide one potential explanation, smaller family sizes may also be because of migrants' increasing adaptation to low-fertility norms within West Germany. Counter to my expectations, the most recent arrival cohorts from Southern Europe and former Yugoslavia demonstrate an increased risk of progressing to higher parities; however, this pattern may be explained by catch-up behavior within the former group and shifting geographic origins within the latter.

### Supplementary Analysis

One potential reason for the limited role of educational attainment in accounting for migrant-cohort differentials in fertility is that selection processes are producing

cohort variation *within* categories of education. Accordingly, I examine migrant-cohort differences in first birth risk by education categories using piecewise constant hazard models and interactions between migrant cohort and origin-country group, presented as net effects in Table A10 of the online appendix. I omit results for the high-education category because of low sample sizes. Results for low education reveal patterns similar to those previously observed, including increased propensities of first birth across Turkish and former Yugoslavian arrival cohorts relative to the earliest Turkish arrivals. However, Southern European arrival cohorts with low education are no different than the earliest Turkish arrivals with similar education. For those with medium levels of education, the only notable pattern is higher first birth risks across former Yugoslavian migrant cohorts relative to the earliest Turkish arrivals. Thus, changing migrant selection processes are likely to produce variation in childbearing even within levels of education.

## Discussion

The literature has shown how migrants' fertility behavior reflects a process of change that may be consistent with adaptation to family norms at destination, adherence to family norms at origin due to socialization, disruption due to migration, or migrant selection processes. Until now, research has not fully considered how migrants' fertility trajectories vary over time, especially across migrant cohorts from the same country of origin. I address this gap in the literature by studying how childbearing behavior varies across cohorts of arrivals from Turkey, former Yugoslavia, and Southern Europe to West Germany. In particular, I explore how diverging education and marriage/migration histories across cohorts contribute to differences in childbearing. In doing so, I aim to situate migrants' family formation processes within broader sociohistorical developments in origin and destination countries.

This study has several important implications for the literature on migrants' fertility outcomes, as well as on demographic behavior more broadly. First, my findings are consistent with the migrant-fertility framework and, in particular, highlight the joint relevance of the adaptation, socialization, and selection hypotheses when taking the long view of migrants' fertility behavior. For women from Turkey, results indicate the importance of changing patterns of marriage selectivity in the acceleration into first birth across migrant cohorts, but also the influence of lower fertility norms at origin and destination in the reduced transition into third birth over time. Among Southern European women, higher education—likely related to changing migrant selectivity based on urban origins—is influential for reduced risks of first birth among recent arrivals. Increased fertility across cohorts of arrivals from former Yugoslavia may also be explained by shifting selection processes, specifically, growing migration from higher fertility regions of former Yugoslavia. Ultimately, results suggest that adaptation, socialization, and selection processes jointly influence migrant fertility as political and socioeconomic circumstances within origin and destination contexts evolve.

Second, this study suggests the importance of selection processes beyond education as shifting patterns related to family migration contribute to differences in women's childbearing trajectories. In particular, we see that an increasing prevalence of marriage migration relative to family reunions is important for trends across cohorts

from Turkey. We might not think about marriage selectivity as a source of migrant selection, but it nevertheless has important consequences for demographic behavior.

Third, and relatedly, this study calls for increased consideration of the role of immigration policies in shaping migrant flows and demographic outcomes. Anti-immigrant sentiment sometimes results in legal restrictions on immigration, but rather than eliminating or reducing foreign-born populations, the end result can be more nuanced and unexpected. In the United States, enhanced border enforcement is argued to have contributed to a shift from circular to more settled migration patterns. These changes within the U.S. Latino population have been linked with the recent decline in U.S. birth rates (Alvira-Hammond 2019). In Western Europe, the ban on labor migration drew in more family reunification and marriage migration, contributing to more rapid childbearing transitions among immigrant women in more recent arrival cohorts. On the other hand, the migration of highly educated Southern European women in the most recent period—who experienced postponed childbearing—was bolstered by relaxed migration policies for EU citizens. Thus, migration policies not only guide labor market access and integration processes, but also have multiple downstream effects that are often overlooked. In future work, these processes should be explored further.

Finally, and more broadly, this study highlights how country-of-origin comparisons may obscure considerable heterogeneity within groups. Rather than being uniform, migrant cohorts in this study differed in their education, marriage histories, age of migration, region of origin within countries, and religion. They are also likely to have varied in other ways that are more difficult to measure, such as premigration exposure to war and trauma. This heterogeneity should be more seriously considered in future research, especially as an assumption of uniformity or invariability with respect to migrant flows and family behavior often contributes to public fears of continued immigration.

This analysis was made possible by the SOEP's detailed childbearing, marriage, and migration histories for several country-of-origin groups; however, small sample sizes of some immigrant groups are important limitations. Larger data sets should be collected to allow for further analysis of within-country-of-origin group dynamics, including across migrant cohorts. In addition, future work should examine cohort variation within other national contexts, including those that share similar national origin groups with West Germany, to better understand how policy contexts shape childbearing behavior and whether patterns in West Germany can be generalized to other contexts. Taking the long view of migrants' fertility behavior will ultimately help broaden our understanding of family change among migrants. ■

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