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Descriptive Finding

Cohort fertility of immigrants to Israel from the former Soviet Union

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Abstract

BACKGROUND
The political and economic change accompanying the collapse of the Soviet Union triggered a large wave of immigrants to Israel during the 1990s. These immigrants arrived from low-fertility contexts to a higher-fertility society.

OBJECTIVE
We consider how the fertility of cohorts of diverse immigrant women from a low fertility context shifts in the context of high fertility.

METHODS
We examine completed fertility, parity distributions, and age at first birth of immigrant women compared to native-born Jewish women. Data taken from the Israel Population Register and from Israel Social Surveys are examined by birth cohort, religion, and religiosity.

RESULTS
We document increases in completed fertility, proportions at final parity 3, age at first birth, and rapid reductions in proportions at final parity 1, across birth cohorts of immigrants who arrived between their early 20s and their early 30s. Rates of change slowed across cohorts of immigrants who arrived between ages 10–21. Relative to comparisons between all Jewish immigrants from the Former Soviet Union and all native-born Jews, there is much closer convergence between secular immigrants and the secular native-born in terms of completed fertility, but substantially less convergence in terms of age at first birth. We also describe strikingly different patterns of change among immigrants who are not classified as Jewish.

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CONTRIBUTION
Patterns of immigrant convergence in fertility patterns vis-à-vis native-born groups differ markedly by religion and religiosity. Our findings highlight the importance of explicitly considering heterogeneity among immigrant and native-born groups.

1. Introduction

About 330,000 immigrants from the Former Soviet Union (FSU) arrived in Israel during the period 1990–1991, thereby increasing the population of 4.5 million by approximately 8% over the period (ICBS 1992). Substantial immigration from the FSU to Israel continued for most of the decade, albeit at lower levels. Beyond its social implications for Israeli society, this massive immigration wave presents an interesting case study in immigrant fertility change. While most previous research has considered immigrants who arrived from higher fertility settings to low fertility settings, immigrants from the FSU moved from a very low-fertility context to a dramatically higher-fertility setting. In 1989, the TFR in Russia and Ukraine, from which the majority of the immigrants arrived, was approximately 2 (UN 2019). Among Jewish women in Russia and Ukraine, the TFR was around 1.50 in the late 1980s and declined sharply to 0.8 in the early 1990s (Nahmias 2004; Okun and Kagya 2012). By contrast, in the late 1980s the TFR was 3.07 in Israel, and 2.79 among Jewish women (ICBS 1992). Moreover, during the early 1990s young ages at first birth among Jewish women in the FSU (UNECE 2022) contrast with the relatively older ages of native-born Jewish Israelis (CBS 2021).

Examining birth cohorts at the end of their reproductive years, we compare the fertility experiences of immigrant women who arrived in Israel during 1990–1991 with those of their native-born Jewish counterparts. Taking a cohort – rather than a period – perspective in studies of immigrant fertility allows for a consideration of completed fertility, final parity distribution, and age at first birth (Wilson 2020). We examine cohort fertility by age at immigration, including child immigrants.

This research integrates and advances two related literatures on immigrant fertility. One growing strand of literature examines changes in the fertility of immigrants from low-fertility settings and suggests that younger age at immigration is generally associated with higher fertility, but that even child migrants do not close the gap vis-à-vis the native-born (e.g., Adsera and Ferrer 2014; Mussino, Wilson, and Andersson 2021; Tønnessen and Mussino 2020). In this paper we provide findings that are largely consistent with this literature, but clarify important differences between immigrant groups, defined by religion and religiosity. These differences tie in with a second literature that emphasizes the importance of looking at heterogeneity in patterns of immigrant fertility change by

social group (Liu and Kulu 2023). This direction is relevant in light of the "super diversity" of immigrant groups (Vertovec 2007, as cited in Milewski and Adsera 2023), as well as the heterogeneity among the native-born groups they are compared to. Perspectives on diversity have, to date, received insufficient research attention in the immigrant fertility literature (Milewski and Adserà 2023). In the current context we focus on religion and religiosity, as they play key roles in fertility patterns in Israel, with more religious Jewish women experiencing much higher levels of fertility than their secular counterparts (Friedlander and Feldmann 1993; Okun 2013; Okun 2017; Hleihel 2017).

2. Data and methods

We analyze micro-level data from the Israel Population Register (PR) at the end of 2020 and from Israel Social Surveys (SS) between the years 2003–2020. The PR includes all citizens and residents who were born in Israel or legally immigrated to Israel. Every citizen/resident has a unique ID number and is linked to their children and parents via ID numbers. The PR data are used to compute fertility measures for immigrant and Jewish native-born women. The data relevant to this study comprise 60,903 immigrant women with 120,572 children, and 689,204 native-born women with 2,133,524 children.

The annual SS comprises a cross-sectional sample drawn by the Israel Central Bureau of Statistics (ICBS), representing the adult (aged 20 and over) population of Israel. Questionnaires are administered by ICBS staff in face-to-face interviews with around 7,500 individuals annually. Survey response rates are over 80% (ICBS n.d.). The SS contains information on self-reported level of religiosity. Information on Jewish respondents in the SS was merged by ID number to data in the PR.

We examine completed fertility of women born in the FSU between 1950 and 1979, who immigrated to Israel in 1990–1991. Immigrants arriving in 1990–1991 had the highest educational levels and occupational attainments in their origin societies, relative to more recent emigrants, and they were also relatively educated compared to native-born Jewish Israelis (Stier and Levanon 2003). We chose 1990–1991 as the focus of the immigration period for several reasons: (1) the numerically largest wave of immigrants arrived in this period, (2) enough calendar time has passed in order to examine the completed fertility of immigrants who arrived as children or young teenagers, and (3) by fixing year of immigration, we hold constant the duration of exposure in Israel. This simplifies interpretation of results in terms of patterns by age at immigration.

We compare fertility patterns of FSU immigrants with those of native-born Jewish woman because minority Arab populations in Israel live in largely segregated communities, and their sociodemographic patterns have historically been very different

from those of the majority Jewish population (Okun and Friedlander 2005; Okun 2013; Saabneh 2015; Saabneh and Tesfai 2021).

We also present analyses by religiosity within the Jewish population. Consideration of religiosity is important in this study of immigrant fertility because the large majority of Jewish immigrants from the FSU self-define as secular, while the majority of native-born Jews consider themselves traditional, religious, or Ultraorthodox (authors' calculations based on SS). We present selected descriptive findings based on samples of self-reported secular women derived from the SS. The samples include 1,041 secular Jewish immigrant women with 1,939 children, and 8,404 secular Jewish native-born women with 20,518 children.

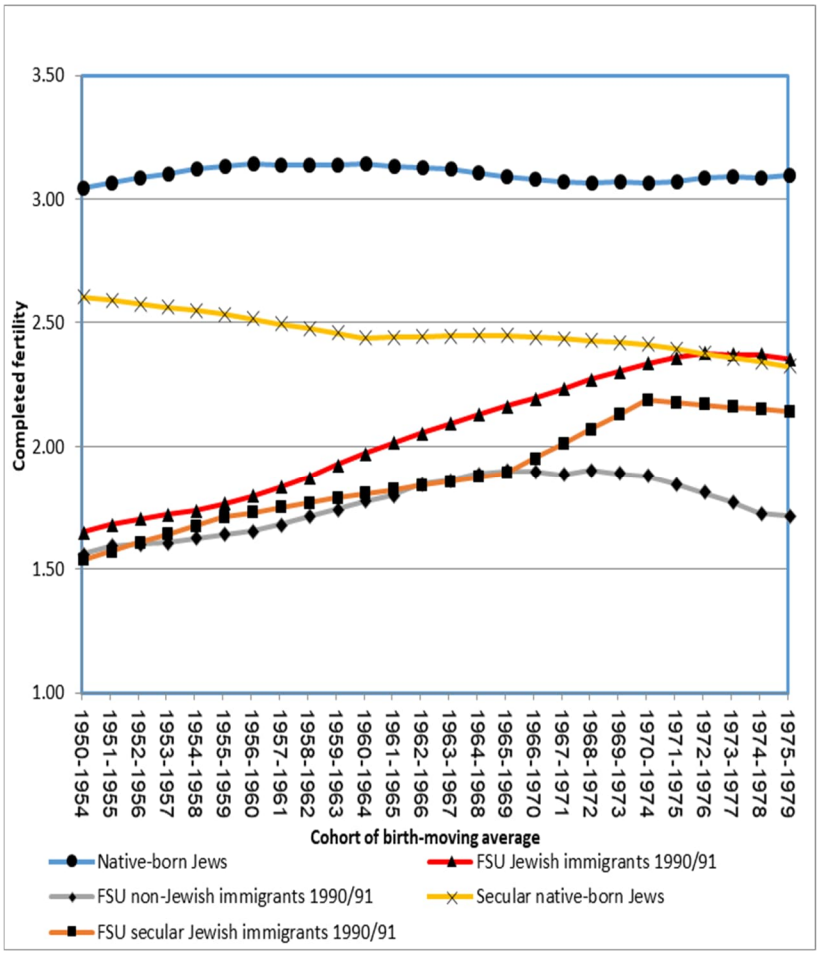
We also compare Jewish with non-Jewish immigrants. The Interior Ministry of Israel classifies persons as Jewish only if they meet certain criteria. Immigrants who do not meet these criteria are designated as either "unclassified by religion" or as Christians. These persons are usually family members of Jewish immigrants. Information on religion is taken from the PR. Given that there is no separation between religion and state in Israel, immigrant fertility processes may differ by state-classified religion. In the PR data analyzed here, 5,338 of the 60,903 immigrant women and 9,235 of the 120,572 children not classified as Jewish.

3. Results

Figure 1 presents completed fertility by birth cohort for five groups: FSU immigrants (Jews and non-Jews separately), native-born Jews, secular Jewish immigrants, and secular native-born Jews. Completed fertility of Jewish immigrants increases with younger age at immigration (later birth cohort). Consequently, gaps between Jewish immigrant women and native-born Jewish women generally narrow across birth cohorts. However, in the latest cohorts, immigrant fertility has stabilized at a lower level than that of native-born Jews.

The upward trend among Jewish immigrants begins with birth cohorts of the early 1950s and accelerates across 1960s' cohorts. Women born in the early 1950s immigrated to Israel in 1990–1991 towards the end of their reproductive lives, so the majority of their children were born in the FSU. Women in the 1960s' birth cohorts migrated during their 20s, so their exposure to fertility occurred mostly in Israel.

Figure 1: Completed fertility by birth cohort, immigrant status, religion, and religiosity



Source: 2020 Population Register and Israel Social Surveys 2003–2020. See text for details.

The upward trend in completed fertility among immigrants terminates around the 1970 birth cohort, followed by general stability in completed fertility among the birth cohorts of 1970–1979, who immigrated at ages 10–21 and therefore experienced the large majority of their reproductive lives in Israel. Thus, gaps in completed fertility between

immigrants and the native-born have declined substantially, but are still extant among immigrants who arrived as children, teens, or very young adults (ages 10–21).

Among secular Jews, an even greater narrowing of the immigrant–native-born gap is observed. By the early 1970s cohorts, gaps in completed fertility have dropped to an average of about 0.2 children. Among the last several birth cohorts, confidence intervals surrounding estimated completed fertility overlap for the secular, native-born, and secular Jewish immigrant groups (results available from authors). Nonetheless, the consistent pattern across cohorts is suggestive of a lingering gap in completed fertility.

Completed fertility among non-Jewish immigrants is lower than that of Jewish immigrant women for all cohorts. While gaps are small among cohorts born in the 1950s, they increase over time. Thus, reductions in gaps between non-Jewish immigrants and native-born Jews is modest and has even reversed in the last few birth cohorts.

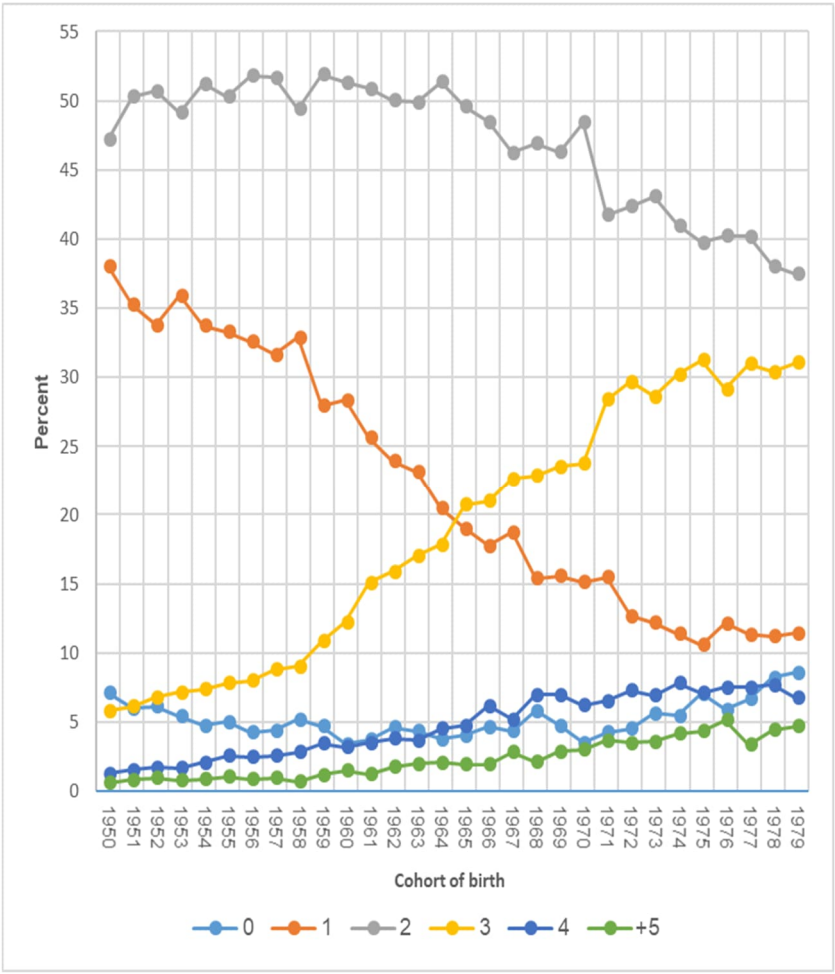
Figure 2 presents final parity distributions among FSU immigrants. We note the following main findings: the proportion of women at final parity 1 drops dramatically from about 40% in the early 1950s' birth cohorts to just over 10% in the late 1970s' cohorts. Beginning in the mid-1960s' birth cohorts, we see some reduction in proportions at final parity 2, which nonetheless remains the modal parity even among the latest birth cohorts. Strikingly, the percentage of women at final parity 3 increases from around 6% in early 1950s' cohorts to about 30% in late 1970s' cohorts.

Despite these dramatic changes, we note that the consistent modal final parity of 2 among immigrants contrasts with a long-standing modal family size of 3 among cohorts of native-born Jewish women (not in figure; see Okun 2013). We also document relative stability in the parity distribution among FSU immigrants born in the early 1970s' cohorts and onwards (immigrants who arrived between ages 10–21). This stability is also visible with regard to completed fertility (Figure 1).

Figure 3 presents percentage of childless women by birth cohort. Across all cohorts, the percentage childless is higher among native-born Jewish women than among Jewish immigrants. In the 1970s' cohorts there is a narrowing of the gap, along with a moderate increase in the proportion of childless women among both groups. Until the cohorts of the late 1960s, the proportion of childless women among non-Jewish immigrants is similar to that among Jewish immigrants. In later cohorts there is a sharp increase in the proportion of childless women among non-Jewish immigrants.

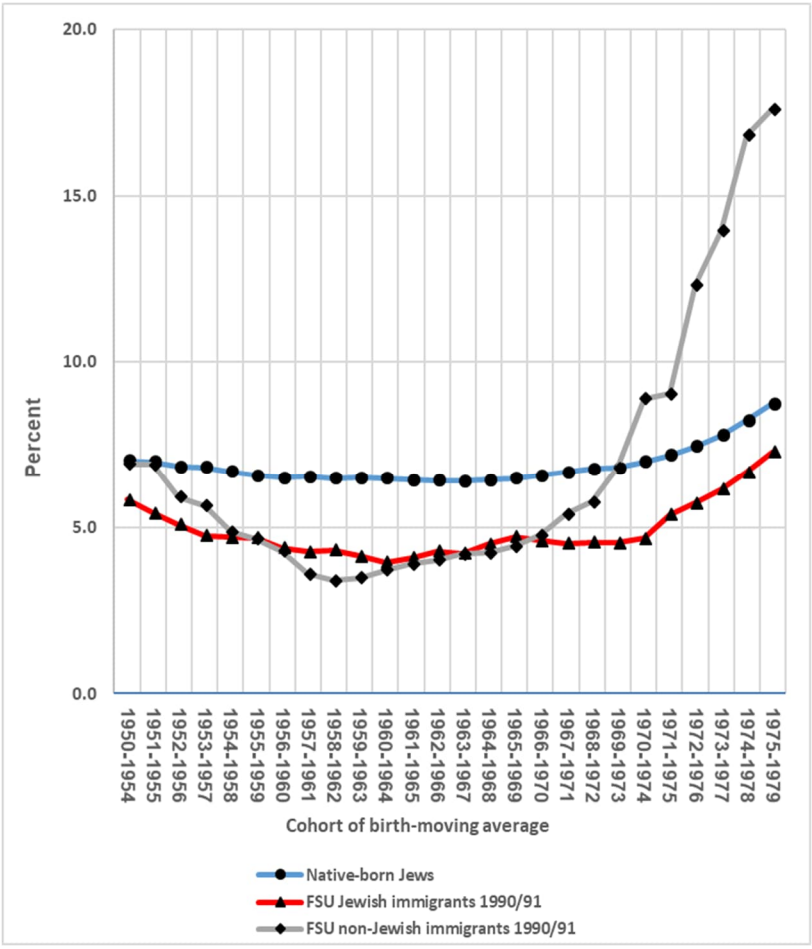
Figure 4 presents percentage of women with final parity 1. Among immigrant groups, the percentage decreases with younger age at immigration (later birth cohort), and approaches the analogous percentage among native-born Jewish groups.

Figure 2: Female immigrant population from the FSU – Completed parity distribution by birth cohort (percentages)



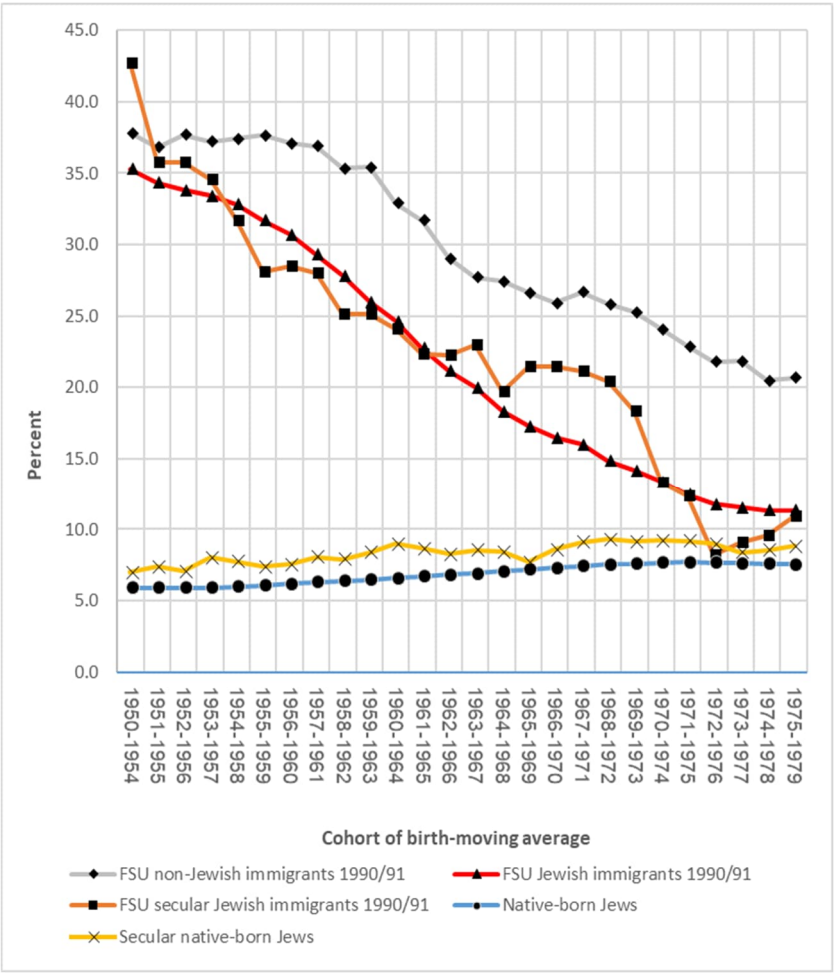
Source: 2020 Population Register. See text for details.

Figure 3: Percent childless by birth cohort, immigrant status, and religion



Source: 2020 Population Register. See text for details.

Figure 4: Percent with completed parity 1, by birth cohort, immigrant status, religion, and religiosity

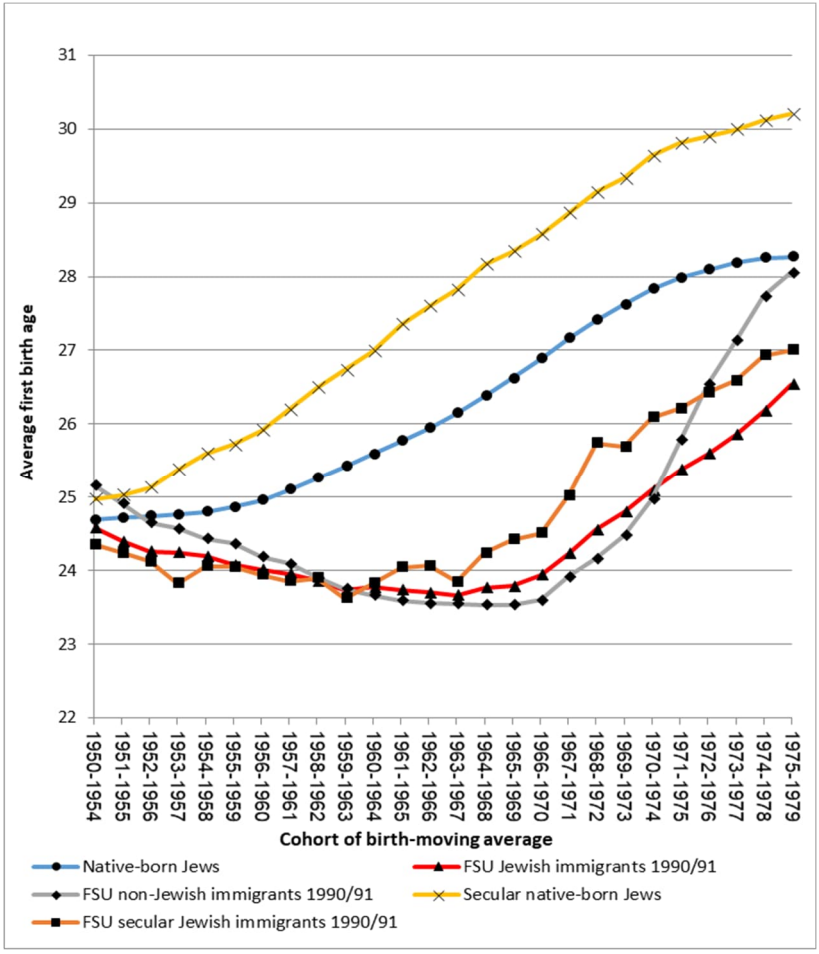


Sources: 2020 Population Register and Israel Social Surveys 2003–2020. See text for details.

We also note that in later cohorts the gap between the immigrant and native-born secular Jewish groups is narrower than the gap between the Jewish groups undifferentiated by level of religiosity. Moreover, convergence to native-born Jewish patterns is much greater among Jewish immigrants than among non-Jewish immigrants.

Figure 5 presents average age at first birth. The gap between FSU Jewish immigrants and native-born Jews was small among cohorts born before the late 1950s. The average age at first birth began rising among native-born Jewish cohorts of the late 1950s/early 1960s, and a gap of nearly 3 years opened up relative to their immigrant counterparts.

Figure 5: Average age at first birth by birth cohort, immigrant status, religion, and religiosity



Sources: 2020 Population Register and Israel Social Surveys 2003–2020. See text for details.

In cohorts born some 10 years later, age at first birth begins to increase among FSU Jewish immigrants, and by the late 1970s' cohorts there is some narrowing of the gap between the two groups. Increases in age at first birth occur among immigrant cohorts who likely gave birth to their first child in Israel. While the gap between Jewish immigrants and their native-born counterparts has narrowed in the latest birth cohort, there remains a substantial difference of roughly 1.7 years in age at first birth.

More modest convergence can be seen between the secular groups, and the gap between them remains large (more than three years) even in cohorts born in the late 1970s. Confidence intervals surrounding estimated average age at first birth do not overlap for the secular, native-born, and secular Jewish immigrant groups in 1960s' and 1970s' cohorts (results available from authors). With regard to non-Jewish immigrants, we see large increases in age at first birth beginning with the late 1960s' birth cohorts, with gaps nearly closing vis-à-vis native-born Jews.

4. Summary and discussion

Examining birth cohorts who have reached the end of their reproductive years, we compare the fertility experiences of immigrant women with those of their native-born Jewish counterparts. With regard to completed fertility, proportions childless, and proportions with completed parity 1, our results present a picture of narrowing differences between native-born and immigrant Jewish women across cohorts, with smaller gaps stabilizing in the 1970s' birth cohorts. Sizable gaps remain in important features of fertility, such as modal family size and age at first birth. Results also point to much closer convergence in completed fertility between secular native-born and secular immigrants, a point that reflects the importance of religiosity as a key determinant of fertility in Israel.

We also find strikingly different patterns of change among immigrants who are not classified as Jewish. With respect to childlessness, non-Jewish immigrants have experienced notable increases, and levels among recent cohorts substantially exceed those of native-born Jews. The high percentage childless in recent birth cohorts of non-Jewish immigrants can be partly attributed to a particularly high percentage of never-married women, and in turn the high percentage of never-married women may be related to institutional and social factors. For example, the Interior Ministry classifies children of non-Jewish women as not Jewish, a factor which may make non-Jewish women less attractive as potential mates. Survey research suggests that most Jewish Israelis would object to their children marrying a non-Jewish immigrant (Chachashvili-Bolotin et al. 2022).

Overall, our findings highlight the importance of explicitly considering heterogeneity among immigrant and native-born groups (Milewski and Adserà 2023).

Patterns of immigrant convergence in fertility vis-à-vis native-born groups differ markedly, not only by country of origin (Liu and Kulu 2023) but also by other factors such as religion and religiosity. The future development and testing of immigrant fertility theories would benefit from a deeper consideration of such diversity.

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