Israel as a Demographic Anomaly: Between Europe and the Middle East

Isaac Sasson

Alexander Weinreb

Department of Sociology & Anthropology, Tel Aviv University

Taub Center for Social Policy Studies in Israel

Israel has a heterogeneous population with a combination of especially high life expectancy and a fertility rate that is well above replacement level. It is therefore seen as a demographic anomaly compared to Western countries. While Israel sees itself as part of the West in many respects—in terms of culture, scientific research, technological advancement, governance and the economy, which in recent years has equaled and even surpassed many European countries in per capita GDP its demography sets it apart. This paper argues that the key to understanding Israel's unique demographic profile lies in changing the point of reference from the West to the Middle East. From this perspective, demographic trends in Israel are not at all exceptional, and to some extent even expected. Fertility levels and trends in Israel have more in common with those of its neighboring countries than of Europe, as does the low percentage of births occurring outside of marriage. Although life expectancy in Israel is among the highest in the world, patterns of cause-specific mortality are closer to those of the Gulf States (among Arabs) and the Mediterranean Basin (among Jews). Contrary to familiar patterns in the West, mortality rates among low socioeconomic status groups in Israel, such as the Haredi (Ultra-Orthodox) population, are especially low. Patterns of immigration to Israel over the past two decades have also become more like those in the Gulf States than in Europe, due to the decline in Aliyah and the rise in labor migration, almost all of which is directed at the secondary labor market. Recent years have marked a demographic turning point in Israel. Against the backdrop of political instability and external shocks, including the Covid pandemic and the October 7 war, further demographic challenges may lie ahead.

Keywords: Demographic trends, Israel, Middle East, mortality, fertility, migration, uncertainty.

Introduction

Israel is facing a demographic turning point. In the last five years there have been unexpected changes in each of the fundamental components of demography—fertility, mortality and migration—which shape the size and composition of the population (Weinreb 2023). For the first time since the early 2000s, the total fertility rate has begun to fall in all major subgroups of the population. The trend of rising life expectancy was interrupted by the Covid pandemic and the October 7 war. Although these are external shocks whose impact is temporary, they could mark the beginning of a new era, characterized by growing uncertainty and changes in the mix of causes of death. Immigration to Israel has increased unexpectedly since 2022 against the backdrop of war in Ukraine, but there is also growing concern over native-born Israelis leaving the country due to the ongoing political crisis. All of these factors cast doubt on the validity of population forecasts in Israel, whose basic assumption is that past demographic trends will continue into the future or undergo very gradual change.

Moreover, Israel has a unique demographic profile, combining an exceptionally high life expectancy with a total fertility rate that is well above replacement level, and all this in a high-immigration country whose population is religiously and ethnically diverse. In other words, Israel's unique combination of demographic features—what we might term "Israeli exceptionalism"—makes demographic predictions very challenging even in the absence of external and unexpected crises. Demographic theories tend to favor generalizations over time and space. Demographic Transition Theory in particular describes the decline in mortality and fertility rates that occurs during the transition from pre-industrial to industrial societies (Notestein 1945). Although this theory remains widely accepted as a general framework for understanding long-term population change, growing attention has been given to variation between countries and regions of the world in the pace at which demographic rates change, how much they decline, and whether they reach a new point of equilibrium (Kirk 1996). In light of this understanding, regional and cross-country models have been developed to capitalize on past trends in similar countries and to recognize the demographic, social, and economic differences between societies (Rogers 1975; Raftery et al. 2012). However, due to Israel's unique demographic profile and geopolitical location between East and West, there is no clear reference group of countries from which conclusions can be drawn regarding its future trends.

Although many Israelis tend to view Israel as part of the West in many respects—in its economy, scientific research, technological advancement, and form of government it remains exceptional in its demographic patterns and trends compared to Western countries. It therefore faces fundamentally different demographic challenges to those faced by most Western societies. In this paper we review the gap that has arisen in recent decades between Israel's demography and that of other high-income countries; as an alternative to the Western-European model, we compare Israel's demographic trends to those of its neighboring countries and the Middle East region in general. Our argument is that from this perspective, demographic patterns and trends in Israel are no longer anomalous, and to a large extent are even foreseeable. First, we briefly review Demographic Transition Theory as a general framework for understanding longterm population changes. Next, we provide an overview of key demographic trends in Israel in international perspective, with particular emphasis on Western and Middle Eastern countries. The paper concludes with a discussion of Israel's expected demographic challenges and their social, economic, and political implications. Nevertheless, despite the important role that Israel's demographic makeup plays in shaping the balance of power between groups in society, it should not be construed as destiny (Sasson & Harpaz 2023).

Demographic Change: A European Model for the Middle East?

The transition from a pre-industrial to a post-industrial society is accompanied by extensive demographic change. According to Demographic Transition Theory, this transition is characterized by a sharp drop in mortality rates, followed by a decline in the birth rate, and in the interim the population grows rapidly (Notestein 1945). Ultimately, birth rates catch up with the low mortality rates and a new equilibrium is achieved, with no significant demographic growth thereafter. This description is based on the European experience in the nineteenth and early twentieth centuries, although there is substantial variation in the starting points and pace of change in demographic rates across European societies. Many of the social changes associated with modernity have been linked to the demographic transition, including urbanization, reduced gender differentiation, population aging, and decentralization of political power (Dyson 2010). The theory does not refer directly to migration (Fargue 2011), though rapid population growth is thought to induce pressure on resources, which in Europe were previously resolved by rapid urbanization and massive migration to the "New World."

Demographic Transition Theory attracted a range of criticisms leading to several reformulations. The main controversy revolved around two central issues. The first was the question of causation, i.e. what causes demographic transitions, how demographic processes interact, and whether these processes occur independently of one another or in a predictable order. With few exceptions, such as Hungary and Bangladesh, the empirical record shows that a decline in mortality is a necessary precondition to the decline in fertility (Angeles 2010; Kirk 1996). At the same time, considerable variation was found between countries in the

time lag between mortality and fertility decline. The pace at which these processes unfolded had decisive implications for population growth. In the first half of the nineteenth century, for example, the rate of natural growth at the height of the demographic transition was three times higher in England than in France (Mateos-Planas 2002). In other words, apart from the decline in mortality, the decline in fertility was also influenced by economic, social, and cultural factors, and the question of which of those factors was most important sparked lengthy debates in the demographic research literature (Cleland & Wilson 1987).

The second controversy concerned the nature of the theory and whether it was formulated as a historical description ("it happened in some societies") or as a predictive model ("it will happen in every society experiencing modernization") (Kirk 1996). This criticism was relevant for Europe, but even more strongly for developing economies after World War II. The theory was formulated after the demographic change had been observed almost in full in most European countries, and the widespread assumption was that a new equilibrium would ultimately be regained between death and birth rates, though at a much lower level than in the pre-industrial stage. But while the theory assumed that fertility rates would stabilize around replacement level—the average number of births per woman needed to replace the parents' generation¹—in fact this rate continued to fall in the last quarter of the twentieth century, resulting in negative natural growth rates in many European countries (Kohler et al. 2002). This later trend was ascribed to cultural changes common to Western Europe, key among them were the adoption of post-materialist values, individualism, and self-actualization outside of the family (Lesthaeghe 2014). This new and unexpected turn was termed the "Second Demographic Transition," and a new stage was added to the original theory.

While the controversy in Europe focused on the last stage of the demographic transition,

in non-Western countries it revolved around all stages of the transition. Demographic Transition Theory was formulated around the experience of countries in Western and Northern Europe, which in spite of the differences between them, experienced the transition over a unique historical period characterized by industrialization, modernization, economic growth, rising literacy rates, and improved sanitation (Szreter 2004). But in the decades following World War II, many other countries including those of the Middle East—experienced demographic transitions apart from many of these social processes. Moreover, the pace of demographic change in many countries in Asia, Latin America and the Middle East was much faster than in nineteenth-century Europe. In the Middle East, not only did the transition begin much later and under different conditions from those prevailing in Europe, but it also did not stop at the same point. While fertility rates in Europe continued to fall below replacement level, in most Middle Eastern countries the decline in fertility ceased at much higher levels. Over time, these patterns have led to negative natural growth rates in Europe and high positive growth rates in the Middle East. As a result, the population of Europe is expected to peak in the current decade, after which it will start to decline, whereas the population of the Middle East is expected to grow by 40% by 2050 (United Nations 2022).

The widespread assumption is that countries in the Middle East have not yet completed the demographic transition, but will ultimately conform to the European model. However, the sociologist Arland Thornton warns us against the fallacy of "reading history sideways," in which societies at a single point in time are placed on an imaginary yardstick of development, drawing an evolutionary line between them (Thornton 2001). Thus, we cannot extrapolate from the low fertility rates of Europe, derived from specific economic and cultural conditions, to what will happen in other countries—neither in the Far East, where fertility rates are below

the European average (between 0.7 children per woman in South Korea and 1.2 in Japan), nor in the Middle East, where apart from non-Arab countries (Iran and Turkey) the rates remain well above that average.

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Thus, the central question for understanding demographic trends in Israel is which model is more suitable, the European model or the Middle Eastern model? On one hand, Israel's economy is similar to European economies and even surpasses them in conventional measures such as per capita GDP. Israel also shares values with the European Union—Western Europe in particular—and regularly participates in regional scientific and cultural initiatives. On the other hand, demographic trends in Israel are certainly different from those observed in Europe. These differences are most apparent with respect to fertility and family formation patterns, such as the combination of high fertility rates and low rate of births outside of marriage, but are also present in mortality and migration. Together, they place Israel on a separate demographic trajectory from European countries, a trajectory characterized by a high rate of population growth and a considerably younger population age structure. Israel shares all those features with its Middle Eastern neighbors.

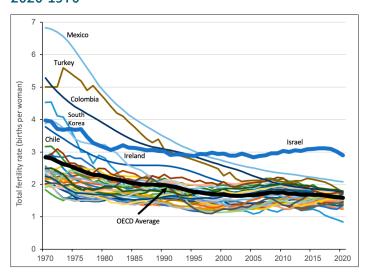
In order to address this question, we review the demographic trends in Israel (fertility, mortality, and migration) and contextualize them in relation to Europe and the Middle East. Our main argument, on which we elaborate in the discussion, is that the key to understanding these trends lies in the cultural attributes, rather than economic factors, that Israel shares with many of its neighbors.

Demographic Overview of Israel: Fertility, Mortality, and Migration *Fertility*

Much has been written about Israel's high fertility rate, which is the highest among OECD countries. Moreover, it has even increased since the early 2000s in spite of the constant rise in the standard of living as expressed by conventional economic metrics such as per capita GDP and average income (Figure 1). Already in the 1990s Israeli demographers speculated on why Israel's fertility rate differed from that of European countries, in spite of the broad similarities in income and consumption levels, as well as in its social values and norms (e.g., positive attitudes towards gender equality and high rate of female participation in the work force) (Friedlander & Feldmann 1993). These researchers argued that whereas most of the population in Israel had completed the fertility transition (secular Israelis of European

Figure 2 shows that Israel's total fertility rate, relative to its per capita GDP, stands out in international comparison. In fact, Israel is currently the only high-income country in which the fertility rate is well above replacement level.

Figure 1. Total Fertility Rates in OECD Countries, 2020-1970



Source: World Development Indicators

origin), or was on its way to completing it (Israelis originating in Western Asia and North Africa), other population groups (religious and Haredi Jews) followed a different trajectory. In light of these patterns, they stressed the heterogeneous nature of Israeli society as the key to understanding its demographic future. If high fertility groups maintain this behavior in the long term, their share of the population will increase and potentially counteract the drop in fertility observed among other groups. These researchers further emphasized that religiosity had become an important predictor of fertility, even more than (intra-Jewish) ethnic origin and socioeconomic status. This insight has proven to be correct and remains so to date. However, fertility began to increase unexpectedly in the early 2000s even among traditional and secular Jewish women (Okun 2016). In other words, the decline in fertility that characterized Israel until the 1990s came to a halt not only due to changes in population composition, but also because fertility rose in all sections of the population. There is a long-standing discussion in the demographic research literature concerning the relative importance of economic versus cultural factors in driving fertility trends (Cleland & Wilson 1987). In Israel, however, it appears that cultural (including religious) factors dominate whereas the association between fertility and economic indicators is relatively weak. Figure 2 shows that Israel's total fertility rate, relative to its per capita GDP, stands out in international comparison. In fact, Israel is currently the only high-income country in which the fertility rate is well above replacement level. A number of hypotheses have been proposed to explain this irregularity, rooted in the Israeli-Palestinian conflict and security threats to Israel, the trauma of the Holocaust, and the desire to restore the Jewish people to its former size, often coupled with the religious command to "be fruitful and multiply" (Fargues 2000; Shenhav-Goldbert et al. 2019).

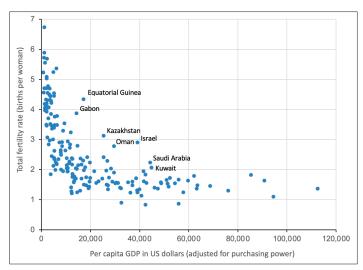
Whatever the case, previous studies have tended to view Israel as a kind of demographic anomaly

when compared to Western European countries, its main reference group. Yet, if we compare Israel to Middle Eastern countries, its fertility level—2.9 births per woman on average—is not at all anomalous, nor is its fertility trend in recent decades, which resembles those of its closest neighbors (Figure 3). In Jordan and in Egypt, the decline in total fertility rate came to a halt in the first decade of the new millennium at about 3.5 births per woman, slightly higher than in Israel; a few years later both countries showed signs of a modest increase (in Egypt more than in Jordan), as did Israel (Cetorelli and Leone 2012; Krafft et al. 2021; Zalak and Goujon 2017). However, in recent years the fertility rate in both countries has resumed a downward trend, converging to the fertility level in Israel. Notably, since 2018 Israel has experienced an almost continuous drop in fertility, except for a slight increase in 2021 in the wake of the Covid pandemic, and it appears that this drop marks a turning point in the fertility trend (Weinreb 2023). Here too the decrease in fertility is observed across all sectors of the population—among Muslim, Christian and Druze women as well as among Jewish women at all levels of religiosity (though the largest drop occurred among religious and Haredi women). Nevertheless, in all three countries—Israel, Jordan, and Egypt—the fertility rate remains well above replacement level and twice as high as the European average.

As in other Middle Eastern countries, marriage and family continue to play a central role in Israeli society. It is expressed, for example, in the very low rate of births outside of marriage—less than 8% of all births in Israel—compared with an average of 42% of births in the European Union (Eurostat 2020; CBS 2022). The centrality of the family institution in Israel is also expressed in other ways. Both Jews and Arabs in Israel maintain frequent and intensive family contacts (Raz-Yurovich 2014; Okun and Stecklov 2021), even if the context in which they take place differs between sub-populations (Schwarz et al. 2019). A comparative analysis of intergenerational

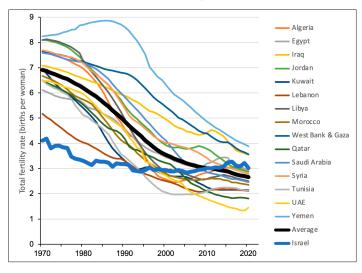
transfers between households shows that the downward flow of resources from Israelis in their sixties and seventies tends to be larger in Israel than in Europe (Weinreb et al. 2024). In fact, this pattern of intergenerational transfers could be one of the factors that explain why the effective retirement age in Israel is high by international comparison. Older adults in Israel remain in the work force longer than most of their European counterparts, particularly in white-collar professions, and on average they

Figure 2. Total Fertility Rate by Per Capita GDP in 2020



Source: World Development Indicators

Figure 3. Total Fertility Rate in Countries of the Middle East and North Africa, 1970-2020



Source: World Development Indicators

also spend more time caring for grandchildren (Axelrad et al. 2021; Kimhi & Shraberman 2014). These empirical findings are consistent with the positive effects of grandparents on fertility in Israel (Okun & Stecklov 2021). Without such support, it is hard to imagine how Jewish women in Israel could have managed to sustain both the highest fertility rate and second highest participation rate in the work force (after Iceland) among OECD countries.

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However, it is worth noting a few emerging trends in marriage and family formation in Israel. There are signs of a drop in the marriage rate in the Jewish population, as well as a modest increase in the number of births outside of marriage (some to couples in long-term cohabitation which substitutes for marriage). More importantly, the divorce rate is rising steadily among all age groups in the Muslim Arab population, particularly among younger women. These trends are consistent with the increase in women's educational attainment. Among Israeli Arabs in particular, more than two thirds of all Arab students in higher education in Israel are women (75% of Arab Master's degree students). These trends will likely have consequences for marriage, family formation, and Israeli society overall (Weinreb 2022).

Mortality

In terms of mortality patterns and trends, Israel is not a typical Mediterranean country. According to UN estimates Israeli life expectancy at birth in 2019, prior to the Covid pandemic, was 81 years for men and 85 years for women. These figures are higher by 8.8 and 7.4 years, respectively, than the average among Israel's direct neighbors—Egypt, Jordan, Syria and

Lebanon—and about three years higher than the average in the rich Arab countries, including Kuwait, Qatar, Saudi Arabia and the Emirates (United Nations 2022).

Israel is also not a typical Middle Eastern country in terms of infant and child mortality. Estimates by the UN Inter-Agency Group for Child Mortality show that 2.7 infants out of 1,000 births in Israel die before their first birthday, compared with an average of 15.1 deaths in Israel's direct neighbors and 5.4 deaths in the rich Arab countries. The differences between Israel and other Middle Eastern countries in child mortality (under the age of five) are even greater (UNICEF 2023).

According to the same metrics, however, Israel does not fit precisely into the European model either; it is positioned between the Europe and the Middle East. More precisely, the core metrics of the Jewish population of Israel are closer to those of Southern Europe—particularly Greece, Italy, France, and Spain—whereas the core metrics of the Arab population of Israel are closer to, and often better, than the equivalent metrics in rich Arab countries.

For example, the infant mortality rate in the Jewish population of Israel was 1.9 deaths per 1,000 births in 2021—similar to the rate in Southern European countries—despite the higher proportion of high-risk births among Haredi women that occur in the absence of prenatal checkups (CBS 2022). Jews in Israel are also similar to Southern European countries in (age-adjusted) death rates from suicide, heart disease, and stroke (in fact, the latter two are even lower in Israel) (Weinreb & Sela 2021). Given these similar patterns in causes of death, it is not surprising that the life expectancy of Israeli Jews, currently standing at 86 for women and 82 for men, is similar to or higher than the figures among their Southern European counterparts.

By contrast, life expectancy at birth among Israeli Arabs—although lower than that of Israeli Jews by about 5.2 years for men and 3.9 years for women—is similar to life expectancy in Qatar and the United Arab Emirates (World

Bank Open Data n.d.). The infant mortality rate among Israeli Arabs, about 5.2 deaths per 1,000 births, also falls within the range of the rich Arab countries (excluding Kuwait, where the infant mortality rate is higher).

These mortality patterns echo the aforementioned heterogeneity of Israel's population, not only in terms of group differences between Jews and Arabs, but also with respect to the baseline levels of Israeli Jews. The demographic research literature argues that health disparities between groups derive both from gaps in access to and quality of health services, and from differences in lifestyles and health-promoting behaviors (Sasson & Regev 2022). A systematic comparison of population health metrics between Europe and the United States indicates that the first factor—access to and quality of health services—is shaped by government policy and national wealth, in that order (Bleich et al. 2012). The second factor is to a large extent a function of "health inputs:" smoking prevalence, nutrition, and physical activity (both daily and intensive).

Each of these health inputs is the result of other downstream factors, some structural and some behavioral. Structural factors such as living environments, work conditions, socioeconomic status, and even institutional discrimination have become the preferred explanations for researchers, because they can be framed in terms of social inequality and injustice. But in Israel it appears that the Haredi population is healthier than average; based on indirect measurement, they also have remarkably high life expectancy relative to their low socioeconomic positioning in society (Chernichovsky & Sharoni 2015). If our goal is to understand why Israel is a demographic outlier, behavioral factors—particularly "risk factors" as they are referred to in the epidemiological literature—are no less important than the structural factors. It is precisely in this aspect that Israel differs from Europe and is closer to both the Mediterranean Basin and the Middle East.

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We illustrate this argument using two examples. First, Israel has one of the lowest levels of alcohol consumption per capita in the OECD (3.0 liters annually compared to an average of 8.6 liters), and it ranks fifth in daily consumption of fruits and vegetables by adults (World Bank Open Data n.d.). These patterns are deeply rooted in local drinking and eating habits. Although these habits are prone to change over time, they are nevertheless part of a cultural heritage passed down from generation to generation, in a society characterized by strong (nuclear and extended) family ties. Second, the age-adjusted smoking prevalence among adults in Israel, estimated at 20.7% in 2021, is low in comparison to Europe but lies in the range of Egypt (24.5%), Kuwait (19.9%), and Bahrain (15.2%) (WHO n.d.). It is worth noting, however, that the link between these risk factors and obesity and diabetes is expressed differently in Israel than in Arab countries. Whereas the proportion of overweight or obese adults in Israel is one of the lowest among OECD countries—only South Korea, Japan, and France have lower rates—a 2016 report from the World Health Organization attributes some 6% of all deaths in Israel to type 2 diabetes—more than twice the OECD average (2.9%), with Mexico alone exhibiting a higher proportion of deaths from diabetes (WHO 2016). It is without a doubt the clearest pattern of Middle Eastern morbidity in the modern era. The prevalence of type 2 diabetes in the Middle East is higher than in any other region of the world (Sherif & Sumpio 2015), and in Israel it is higher among the Arab population than among the Jewish population. In the 30-55 age range, for example, the agespecific incidence rate of type 2 diabetes is

two to three times higher among Arab women compared to Jewish women, and 1.5 times higher among Arab men compared to Jewish men (Jaffe et al. 2017).

The key message that emerges from these comparisons is that the morbidity and mortality patterns in Israel resemble those of its geographic region, whereas fewer characteristics are shared between Israel and Northern or Eastern Europe. Thus, with respect to health and mortality, Israel should be benchmarked against high-income Mediterranean countries with similar lifestyles and nutritional characteristics. Moreover, with the exception of attitudes to alcohol, the rich Arab countries (together with elites in the poorer Arab countries bordering on Israel) are part of the same cultural-demographic context.

The current models used for forecasting mortality and life expectancy are not well suited for this emerging reality.

It is worth noting that the long-term mortality trends in Israel were interrupted in recent years by unforeseen mortality shocks. Conventional methods for forecasting mortality and life expectancy rest on the assumption that changes in cause-specific mortality are gradual and, as a result, life expectancy is not subject to large fluctuations. This assumption has proven correct for most European countries since World War II, a period characterized by relative political stability, and it has also been valid for Israel in recent decades. However, recent events may mark a turning point. First, the Covid pandemic led to a reduction in life expectancy at birth of two to three months in 2020 (Weinreb 2021). However, this decline was relatively small by international standards and in the following years Israel experienced a fast recovery (Aburto et al. 2022). Mortality rates in Israel were lower than ever when the trend was overturned again with the outbreak of the October 7 war (Weinreb 2023).

These were external shocks whose impact on life expectancy is likely temporary. However, they may indicate the beginning of a new epidemiological era characterized by the return of epidemics and wars as prominent causes of death, and as a result also by growing uncertainty. The current models used for forecasting mortality and life expectancy are not well suited for this emerging reality. Deterministic population projections ignore the uncertainty altogether and more sophisticated methods (e.g., random walk models) may underestimate it because they depend heavily on the choice of countries and reference period. Here too, benchmarking Israel against post-war Western and Northern Europe may prove too narrow to capture the effects of global and local crises.

Migration

In historical perspective, Israel can be viewed as an immigrant country. In 1990, the proportion of Israelis born abroad reached 36%, though this figure declined gradually to 25% by 2015 (World Bank Open Data n.d.). Alongside natural increase, immigration has been an important component of population growth in Israel, which has increased 12-fold in its 75 years of existence. The basis for the historical migration to Israel was, and to a large extent remains, ethno-religious, which distinguishes Israel from most immigrant-receiving countries in Europe. Over the past two decades, however, the number of Jewish immigrants arriving based on the Law of Return ("Aliyah") declined considerably. From 2002 to 2021, they numbered 22,000 each year on average, compared with nearly triple that number in the preceding twenty-year period (CBS 2024). Breaking from this trend, Israel received some 74,000 Jewish immigrants in 2022 against the backdrop of the Russian invasion of Ukraine in February of that year.

Figure 4 illustrates how Israeli migration patterns stand out from a global perspective. Over the past four decades, the net migration rate in high-income countries was positive

overall and it generally increased throughout this period. By contrast, in low and middleincome countries the net migration rate was close to zero or negative on average in most years. Israel stands out relative to both of these groups, since it had far higher net migration than the average across high-income countries in the 1990s. Yet, as soon as wave of immigrants from former Soviet Union subsided at the start of the new millennium, net migration dropped in Israel below the average for high-income countries (though unlike low and middle-income countries it remained consistently positive). In other words, in the past two decades Israel has been positioned between those two broad groups, high-income countries on the one hand and low and middle-income countries on the other. Moreover, net migration actually fell in Israel during a period in which it increased in other high-income countries.

In addition to Aliyah, over the past three decades, the Israeli labor market began to rely on labor migrants in the aftermath of the first Intifada. Israel has high per capita income and therefore makes an attractive destination for labor migrants from lower income countries. However, unlike many Western European countries, Israel does not offer those immigrants any path toward naturalization or permanent residence in the long term (not even for skilled workers). From 2010 onward, Israel began regulating the status of migrant workers in a series of bilateral agreements with their countries of origin—first with Thailand and subsequently with Bulgaria, Moldova, Romania, Ukraine, and China (as well as more limited agreements with Nepal and Sri Lanka) (Reichman and Kushnirowitz 2019). These agreements helped regulate immigrant rights but did not break from the organizing principle of Israeli migration policy, which affords the right to permanent residence and citizenship only to those eligible under the Law of Return and their families. In this respect, Israel resembles the Arab Gulf countries more than Western Europe, and as a result does not face the same challenges that Europe faces in this regard (we expand on this issue in the discussion). Given its relatively high levels of income, Israel is expected to remain an attractive destination for work migrants from lower income countries, particularly for those in the secondary labor market (e.g., agriculture, construction, and caregiving). At the same time, Israel is unlikely to become a prominent destination for skilled workers from countries with similar levels of income.

Alongside immigration, a non-negligible trend of emigration from Israel has emerged in the past decade. The Central Bureau of Statistics (CBS) recently revised its definition of emigration in order to reflect more accurately population movements in the new millennium. According to the old definition, Israelis were defined as emigrants if they had spent 365 consecutive days abroad. The new definition, on the other hand, includes Israelis who had

According to the new definition, the number of emigrants (but also returning migrants) are about 2.5 times higher than previous estimates. Based on these new estimates, between 2012 and 2020 a total of nearly 60,000 Israeli residents were deducted from the population base estimate.

15 10 Net migration rate (per 1,000) 0 -10 2010 1980 1985 1990 1995 2005 2015 2020 Low income countries Lower-middle income countries — Upper-middle income countries High income countries

Figure 4: Net Migration Rate in Israel and Other Countries by per Capita Income, 1980-2020

Source: UN Data

spent a total of 275 days or more abroad in the year following their departure, of which the first 90 days were consecutive. According to the new definition, the number of emigrants (but also returning migrants) are about 2.5 times higher than previous estimates. Based on these new estimates, between 2012 and 2020 a total of nearly 60,000 Israeli residents were deducted from the population base estimate (Cohen-Castro 2023).

An important caveat is that Aliyah during this period compensated for the deficit and net migration remained positive. Nevertheless, this trend is disconcerting for several reasons. First, we know little about those who choose to emigrate apart from the most basic demographic attributes such as age, sex, and marital status (Ravhon 2023). Yet, there is reason to believe that emigrants have higher levels of human capital than average, and that if this trend intensifies their departure may thwart future economic growth in Israel (Ben-David 2019). Due to the scarcity of microdata on both immigrants and emigrants in Israel, we do not currently know if the former compensate for the potential loss of human capital at population level. Second, the ongoing political instability in Israel may fuel the emigration trend, especially among the economic and academic elites. Israel's political instability was marked by five rounds of parliamentary elections between 2019 and 2022, followed by highly controversial attempts at a judicial overhaul and the October 7 war in 2023. Regrettably, in this case too we lack credible estimates of the number of emigrants in the aftermath of recent events, and it may take several years before a clear picture can emerge.

Discussion and Conclusions

Our central argument in this paper is that Israel appears to be a demographic anomaly primarily when it is compared to high-income Western countries. However, when the frame of reference is shifted to the Middle East, the demographic trends in Israel are not so exceptional and to

some degree even predictable. With respect to fertility levels and trends, Israel resembles in recent decades its closest neighbors—Jordan and Egypt. Although Israel's life expectancy at birth is very high by international comparison, its age and cause-specific mortality patterns place it among the countries of Southern Europe (Jews) and the Arab Gulf countries (Arabs). Israel has also become more similar to the Arab Gulf countries than to Europe in its migration patterns over the past two decades, against the backdrop of decreasing Aliyah (except in the last two years) and the increase in labor migration. Unlike Western Europe and North America, Israel's migration policy is oriented primarily toward the secondary labor market (agriculture, construction, and caregiving).

Comparing and drawing analogies between countries is a common analytical strategy (Dogan 2008). Yet, the choice of reference group must be tenable in order to yield accurate demographic forecasts, as well as their social and economic implications. Despite the tendency to view Israel as a society middemographic transition according to the European model, there is in fact no guarantee that Europe is the right model for Israel. The comparison with Europe, almost by default, is rooted in two unsubstantiated assumptions. The first assumption is Eurocentrism—one that is not unique to Israel—whereby Europe is seen as the ultimate model for human populations since the industrial revolution, if not earlier. The second assumption is prioritizing economic over cultural proximity, which implies that because of Israel's similarity to Western Europe in macro-economic indicators, and perhaps also because of their close mutual contacts, the two will also resemble demographically. In this paper we demonstrated that, by international standards, cultural norms and social policies in Israel prevail over economic factors in predicting demographic behavior. For the same reason, Israel does not follow the same demographic trajectory as Western Europe and North America, and in light of those differences Israel's frame of reference must be reexamined.

One example of challenging these basic assumptions can be found in the critique of secularization theory. According to the theory, as societies undergo modernization, religious practices are abandoned and the role of religion as a central social institution is minimized, culminating in the separation of church and state (Swatos and Christiano 1999). Although the theory gained some empirical support in European societies (Gorski and Altinordu 2008), it has generally been refuted in the Middle Eastern context, including in Israel. As previously stated, religiosity remains a major demographic determinant in Israel and there is no basis for assuming that its population is on its way to a second demographic transition—a transition rooted in a shift of social values from collectivism to individualism. Further evidence of the endurance of cultural norms and values can be found in the central role that marriage and the family continue to play in Israeli society (Weinreb 2022).

After reviewing the key demographic trends in Israel, as well as how they compare with trends in other countries, we can derive several conclusions. First, it appears that each of the three fundamental demographic processes—fertility, mortality, and migration has undergone important changes in Israel in recent years. Some of those changes reflected a reversal of the long-term trend (the decline in fertility), whereas others were the result of external shocks whose impact is likely temporary (sudden increases in mortality and immigration to Israel). These unforeseen developments make forecasting Israel's demographic future all the more difficult. External crises by their very nature are difficult to predict, and they may become more frequent against the backdrop of growing political instability in Israel and elsewhere. Demographic forecasting relies on past trends. To the extent that they are based on the historical record in Western countries, which were characterized by political stability

since World War II, these forecasts are likely to underestimate the uncertainty inherent in each of the three demographic processes. As a result, the forecasts will also understate the uncertainty regarding the population's future size and composition. With respect to migration in particular, the uncertainty relates not only to the number of immigrant and emigrants but also to their sociodemographic profiles, because the former may not substitute for the latter in its overall contribution to economic growth and national resilience.

Second, although Israel may be facing a demographic turning point, population momentum ensures that its population will continue to grow in the coming decades (i.e., the absolute number of births will continue to grow each year despite the drop in fertility rates due to the population age structure). Thus, the demographic challenges faced by Israel are fundamentally different from those faced by Europe and North America, and are closer to those of other Middle Eastern countries. Israel's population continues to increase at a rate of about 2% per annum, and according to the Central Bureau of Statistics forecast, will reach 15 to 20 million over the next 30 years. The steady population growth in Israel has clear benefits compared to Europe: the pace of population aging is slower and Israel does not depend on immigrants to maintain a shrinking labor force (Harper 2014).

However, there are also many drawbacks to rapid population growth. Population density will continue to increase in an ecologically sensitive region with limited resources (Tal 2017). Israel has thus far managed to deal with this challenge, for example with large investments in water desalination and reclamation systems. But will it continue to meet this challenge through its 100th birthday, with a population far greater than today, in addition to about eight million Palestinians in the West Bank and Gaza, and all this in a sensitive climate zone where extreme heatwaves are likely to become more frequent? Furthermore, Israel's neighbors will be facing

similar challenges but without sufficient investments in infrastructure. The collapse of food and water sources in neighboring countries is a plausible scenario, though it is difficult to incorporate into demographic forecasts. Imagining such scenarios, as well as their demographic consequences, is all the more difficult when Europe and North America serve as Israel's reference group.

In this paper we have reevaluated Israel's demographic profile, which is indeed anomalous relative to Western Europe and North America, but is not so exceptional relative to the Middle East. In some respects Israel more closely resembles its immediate neighbors and in other respects it is similar to the more distant Arab Gulf countries. If there is any resemblance to Europe, it lies in countries around the Mediterranean Basin. All of those countries together form the demographic reference group for Israel.

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Prof. Isaac Sasson is Associate Professor of Sociology at Tel Aviv University. He holds a PhD in Sociology with specialization in Demography from the University of Texas in Austin, and was Postdoctoral Fellow in Population Health at the London School of Economics. His research focuses on demography and inequalities in health and mortality. isasson@tauex.tau.ac.il

Prof. Alexander Weinreb is Research Director at the Taub Center for Social Policy Studies in Israel. Until 2019 he was Professor of Sociology at the University of Texas at Austin. Prior to that he was a lecturer in the Department of Sociology & Anthropology at the Hebrew University of Jerusalem. He holds a doctorate in Demography & Sociology from the University of Pennsylvania and was Postdoctoral Fellow in Demography at the University of Chicago. Before his return to Israel, his research focused largely on population transitions in developing countries. weinrebim@gmail.com

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Note

1 In countries with a low mortality rate, the replacement rate is about 2.1 births per woman.