

FERTILITY IN ISRAEL: IS THE TRANSITION TO REPLACEMENT LEVEL IN SIGHT?

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A. BACKGROUND: FORMATION OF THE RELIGIOUS-ETHNIC MOSAIC

The dynamics of Israel's fertility patterns revolve around three major socio-demographic dimensions – religion, ethnicity and socioeconomic structure. Jews, Moslems Arabs, Christian Arabs, and Druze Arabs are the major ethno-religious groups. The second dimension is ethnicity among the Jewish population. Distinction is made between populations of European or American origins (to be referred to as European-American), and of Middle Eastern and North African origins (to be referred to as Asian-African). In the last two to three decades the role of ethnicity in the fertility patterns of the Jewish population, has attenuated, while religiosity and socioeconomic status have become the most important distinguishing factors between high and low fertility.

After a short introduction section, I discuss theoretical considerations regarding fertility processes in general. Following that, I apply this theoretical framework to the various population subgroups in Israel, as a basis for the final section that attempts to assess future fertility patterns among these groups, and for the overall population of Israel.

The Jewish population (comprising about four fifth of Israel's population) has grown and developed primarily as a result of extensive immigration during the twentieth century. Up to the foundation of the State in 1948, immigration was predominantly from European countries in Eastern and Central Europe (primarily from Poland, the U.S.S.R, Romania, Germany and Austria). During the three years following the foundation of the state in 1948, the Jewish population doubled, mainly through the wave of mass immigration. Almost 50 percent of the 690,000 immigrants who arrived during that period came from Moslem countries in the Middle East (primarily Iraq, Yemen, Turkey and Iran) and North Africa (Morocco, Algeria, Tunisia, Libya and Egypt), while the rest were primarily European, including many refugees from World War II. Immigration from Asian countries was concentrated in the first few years of statehood, while immigration from North African and European (and later from American) countries was spread over a longer period. These immigrants created a Jewish society marked by different cultures, languages, and demographic regimes. Differences were especially dramatic between the European-American Jews, and those from Asian-African countries. In particular, the total fertility rates in the early 1950s were just over 3 birth per woman among the European-American ethnic group (which was similar to many European countries at that period) and 5.5-6.0 among the Asian-African ethnic group (which was similar to many less developed countries at that period).

As noted above, religiosity differences tended to increase over time while the ethnic differences have lessened. In particular, each of the two major Jewish ethnic groups contains a subgroup of orthodox population experiencing fertility levels over and above their group averages. Two religious sub-groups can be identified, the national religious population and the ultra-orthodox group. The fertility level of these two groups combined has been high, probably around 5.5 births per woman in the 1950s. Between these two groups the ultra-orthodox experienced the highest, over 6 births per woman in the 1950s. The important implication is that under such high fertility rates combined with relatively high life expectancy, the relative weight of the orthodox population could be expected to increase over time, other things being equal.

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Overall, the total fertility rate during the early 1950s was about 3.9 births per woman for the entire Jewish population, an average of the very different fertility levels experienced by the two major ethnic groups, including their religious subgroups. Israel was at that time a relatively modern country, and it was expected that the newcomers from the Asian and African countries, would undergo a cultural and socioeconomic transformation, among others in their fertility patterns (Goldscheider, 1996). We will show that among the three sub-groups of the Jewish population, the National and the ultra-orthodox (of both ethnicities), and the Asian-African and the European-American non-religious groups, the two later have completed their fertility transitions within 2-3 decades, the National-Orthodox has maintained its moderately-high fertility, while the ultra-orthodox population has increased its fertility levels over time. It should be noted that the distinction between religious and non-religious subgroups in terms of fertility patterns and or other socio-demographic characteristics is problematic because religiosity is not recorded in any formal registration or in census records. Therefore, whenever figures in this paper are quoted by religiosity, they are based on various kinds of indirect estimation.

The Arab population, comprising about one fifth of Israel's population, consists of three major religious groups. The largest is the Moslem (80 per cent) followed by Christians (11 per cent) and the smallest is that of Druze (9 per cent) of the Arab population. The Arab population has been in the country for many generations. Palestine was an undeveloped country during the early decades of the 20th century. The economy of the Arab population was based on a feudal-agrarian system, and political power was in the hands of the heads of the *Hamule* (a group of families under patriarchal lineage structure), and of the heads of the extended family. For the extended family, whose economic base was subsistence agriculture, large family size was beneficial because children contributed to the family's economy at an early age, while their consumption was limited. Hence, Arabs of all religions experienced high total fertility rates of about 7.5-8.0 births per woman.

All Arab religious groups experienced major socioeconomic changes for several decades under the British rule from 1917 to 1948. However, the particular characteristics and the intensity and timing of these changes differed considerably among these groups. Socioeconomic change occurred earlier and more rapidly among the Christians than among Moslems and Druze. While fertility levels among Christians began their decline during the 1930s fertility levels among the Moslems and the Druze remained at high levels for another two to three decades. We show that all these religious groups experienced substantial fertility reductions since the 1960s, but fertility levels of the Moslems remained at a high level.

B. THE PROCESS OF FERTILITY CHANGE: SOME THEORETICAL CONSIDERATIONS

The theoretical perspective under which fertility patterns are evaluated in this paper, is that childbearing patterns are of functional importance to the family, operating under a system of strain and responses, within given cultural traits. Strain is defined as a widening discrepancy between current welfare and that which could be achieved (or aspired to) under a changed pattern of behavior, demographic or otherwise (Davis, 1963). Such a perspective emphasizes the impact of changing societal or community socioeconomic characteristics on the costs and benefits of children to their parents, as the major explanation of fertility change. The costs and benefits of children are functions of the roles of children in the family under varying socioeconomic, cultural and demographic conditions in a given type of community (Friedlander and Okun, 1996). Hence, fertility levels in a population may be enhanced or depressed when family-formation patterns become inconsistent with the changing socioeconomic structure (Davis and Blake, 1954). On the family level it means that at some stage of the reproductive span the conflict between an additional birth and the attainment of competing goals (such as the increase in standards of living) must be resolved. When such a conflict arises, some proportion of families may be expected to respond by delaying an additional birth, given the feasibility and desirability of the entire set

of responses. Such intervention in childbearing patterns may result in a permanent postponement, or in a temporary postponement of childbearing until an additional birth is preferred. Consequently, changes in birth spacing and family-size limitation may take place and in turn, fertility levels in the community are altered (Friedlander and others, 1980).

C. SOCIOECONOMIC CHANGE AND FERTILITY TRANSFORMATIONS AMONG ISRAEL'S POPULATION GROUPS SINCE THE 1950S

1. *The non-religious population of European and American origins*

This population group, including 3rd generation immigrants, comprised over 30 per cent of the population during the 1970s. It has practiced relatively low fertility levels for over three quarters of a century, similar to Western populations. It experienced a baby boom in the late 1940s and the 1950s and began its decline towards replacement fertility levels subsequently. Educational attainments in this population have been high for a long period, and have increased over time. Occupational status has been relatively high, and women's participation in the labor force has more than doubled between the 1960s and the end of the century. Hence, the aspirations of raising 'quality' children and enjoying high standards of living became increasingly inconsistent even with moderately high fertility, particularly as both parents tended to participate in the labor force or were otherwise engaged in independent economic activities. Hence, their total fertility rate declined to 2.5 in the 1970s and to replacement levels towards the end of the 1990s. This group comprises currently nearly 40 per cent of the entire population, including the immigrants from former USSR in the early 1990s.

2. *The population of Asian and African origins*

As mentioned above, the majority of this group immigrated between the late 1940s and the 1960s from less developed countries characterized with both high fertility and high mortality. Prior to immigration, they had a religious mode of behavior and a social life centered on the family and the Jewish community. Economic activity was mostly based on small family-run businesses. Hence, the large family was functional in relation to such social and economic environments. Total Fertility Rate was between 5-6. The first-generation immigrants were generally a traditional, religious group, but it was only subsequent to immigration that an ultra orthodox mode of life was adopted by a segment of this population. This ultra religious sector has been increasing over time, which affected considerably the characteristics of this ethnic group and indeed of the entire Jewish population. We return to this ultra orthodox group in a following section.

3. *The development of a more secular segment of the population of Asian and African origins*

This group tended to assimilate quite rapidly into the mainstream population in various respects. A large proportion of this population turned from family economic activities to being hired laborers or employees in larger industrial activities. They accepted modern education for their children, which replaced the traditional religious education before immigration. They modernized their consumption behavior. These changes implied that direct and indirect costs of childbearing and childrearing increased after immigration. Dramatic changes in family structure, mortality levels, and a series of other socio-demographic transformations occurred among this population subsequent to immigration. Under such conditions of structural discontinuity and rapid socioeconomic transformation, the continuation of high fertility would have generated strain on the family. Hence, the process of fertility decline within this population group began soon after their arrival in Israel and was quite rapid, without government intervention and with relatively simple family planning means (Okun, 1997). The total fertility rate, which was 5-6 prior to immigration, declined to just over 3 in the early 1970s and reached nearly

replacement level (2.2 birth per woman) towards the end of the 1990s. This group currently comprises nearly 30 per cent of the entire population of Israel.

4. *The Arab population*

The Arab population, particularly the Moslem, rank far lower on the socioeconomic scale than Jews. This gap has historical roots, and has not changed much during half a century since the foundation of Israel as a state. The major factor behind this wide socioeconomic gap is the differential opportunity structure between the Jewish and the Arab populations, particularly Moslems. There are not only large differences in human resources between Jews and Arabs, but even for those Arabs whose educational status is relatively high, entrance into higher status employment is difficult. This differential opportunity structure results in reduced motivations for the attainment of higher educational levels among Arabs. This, and government discrimination in the quality between Jewish and Arab schools explains why educational attainments of the Moslem population have not only been the lowest among the major population groups, but have actually declined over time in their attainment of post secondary education.

Heterogeneity, which characterizes Israel's entire population, is also a characteristic of the Arab population. High proportions of both Moslems and Druzes reside in overgrown villages while the Christian population is predominantly urban. The Christian population has a higher socioeconomic status than the Moslems or the Druze in various respects, such as educational attainments, occupational status, income etc. However, it should be noted that the proportion of Christians in the Arab population is just about 11 per cent, so that the impact of their higher socioeconomic levels on those of the entire Arab population is minor.

The Christian population, which has been at a higher stage of socioeconomic modernization since the 1930s has experienced major fertility declines from a total fertility rate of 7.5, to 3.6 in the early 1970s, and to 2.5 in the year 2000. Hence, the Arab Christian population is likely to proceed with its fertility decline towards replacement level. The Druze population is located between the Christian and the Moslem Arab population groups in their socioeconomic status, and so in their total fertility rate. This declined to 7.2 in the early 1970s and to 3.0 in the late 1990s.

The most interesting fertility patterns among the three Arab religious groups are those of the Moslem majority group. Their total fertility rate was at the beginning of the 1940s about 7.5-8.0, and reached a record of 9.3 in the 1960s. It started to decline subsequently to reach a rate of 4.6 in mid 1980s, remaining at that level through the year 2000. How can this changing pattern be interpreted? The increases through the 1960s can be explained by various factors. Hence, since the 1940s, there were improvements in health services, there were increases in the availability modern consumer goods, improvements in the overall standards of living, and very probably improvements in the completeness of birth registration. Another interpretation that has been proposed was connected with the Israeli military administration under which the Arab population lived up to the early 1960s. This made communication and social interaction with the Jewish sector difficult. Under such circumstances, various state administration agencies found it convenient to deal with the Arab minority through its traditional political institutions – the *Hamule*. Thus, the social and economic power that was transmitted by these state agencies to these traditional institutions, and the importance of population size of the *Hamule* for its power *vis a vis* other *Hamules*, was not an encouragement for families to restrict their childbearing. It has been suggested that some of the changes mentioned above operated, through declines in breastfeeding, to increase fertility levels up to the 1960s (Schellekens and Eisenbach, 2001).

Two questions remain unanswered. First, what is the explanation of the rapid decline of Moslem fertility to about half the 1960s level in less than two decades? Second, why did fertility declines discontinue since the 1980s, remaining at moderately high levels of over 4.5 births per woman? These

issues have not yet been adequately analyzed and we propose our interpretation, which is based on socioeconomic and political changes, that are likely to have affected the fertility behavior of the Moslem population in accordance with the theoretical considerations outlined above.

The military administration ended in the early 1960s, which increased social and economic interaction with the Jewish sector. Hence, agriculture - the main economic branch of the Moslem population at that time - started to modernize, which was associated with a rapid decline in the percentage of agriculturally based households. Other things equal, large family size may be assumed to form stronger strains with modernization processes in the non-agricultural sector compared with the agriculture. Also, interaction with the Jewish sector introduced new, more costly, consumption goods, which could not be attained under conditions of high fertility. The law of compulsory elementary education which passed in the 1950s, implied that children who were previously a source of benefit to the family from a young age, turned into a net economic liability. All these changes tended to produce strain due to increasing costs of raising children, which could be relieved by limiting childbearing. However, one additional change, which had the opposite effect, was the law of child allowances enforced since 1959, which provided monthly payments to households on the basis of the number of children. Obviously, the contribution of these allowances to family welfare increased with family size, which was particularly significant for lower income families. A precise analysis, which might suggest the 'optimum' childbearing behavior at each parity under the changed socioeconomic conditions, is complex. However, we suggest that the net effect of all these changes was conducive to the beginning of the onset of fertility decline.

The total fertility rate which declined by 1985 to half its 1965 value remained almost constant over the subsequent period of 14 years. Actually, between 1985 and 2000 the total fertility rate of the Moslem population varied between 4.6 and 4.8 births per woman. Why did fertility decline come to a halt at such a high level? No analysis has been made as yet to explain this fertility pattern. Our interpretation is that the modernization of childbearing patterns of the Moslem population, which was associated with socioeconomic change, did not proceed rapidly enough. Although the increased economic and social interactions with the Jewish economic sector since the 1960s resulted in the formation of conflict with the very large family (TFR=9.15), socioeconomic change was, apparently, not enough to generate further declines in fertility. A large gap in the opportunity structure between the Jewish and the Moslem population remains. One conspicuous example of continuous discrimination is the lower quality of elementary and secondary education in Arab residential areas. It is not surprising that their attainment of post secondary education has actually declined. Discrimination in the labor market did not provide encouragement for families to invest in education for the young generation, which made child bearing and child rearing less costly. Additionally, the generous child allowances have a pro-natalistic effect, particularly for less affluent families for whom these account for a significant proportion of their income. It is our conclusion that under such conditions, moderately high fertility is beneficial for a high proportion of Moslem families.

5. The National and the Ultra Orthodox Jewish Population

Our main discussion in this section is concerned with the two ultra-religious groups (of European and of Asian-African origins), because they form a large part of the Jewish religious population and because their fertility levels are the highest. In this discussion we deal with them as one group. In comparison to the ultra-orthodox, the National orthodox group can be characterized as a moderately high fertility group and differs from the ultra orthodox group in many respects very considerably. It has been argued that the roots of Israel's religious groups date back to the period of emancipation and enlightenment in 19th century Europe. Two groups have been identified historically. One, the acculturation group, favored the promotion of cultural contact with the outer world, while retaining Jewish culture and beliefs. The contemporary national religious group has adopted this ideology. The second was the contra-acculturation group, which favored turning away from the contemporary way of

life in order to preserve traditional ways. Israel's ultra-orthodox group originates from this ideological stream. Indeed, Israel's ultra orthodox group 'strives to separate itself not only from every aspect of the outside world culture, but also from people or things that, having passed near or through that world, carried contaminating elements of it' (Heilman and Friedman, 1991).

How can the very high fertility (TFR of around 7.0) of this group be explained? We argue that it is the socio-cultural structure of this group, which makes high fertility beneficial, if not for the individual family, then for the community and its political establishment. This group has its own independent educational system, which is the key for its inter-generational survival within a very materialistic outer world. Education begins at a very early age, and male students remain in the more advanced educational institutions (*yeshiva*) until their mid-thirties or forties. Women are regarded as supports of scholars and are the main breadwinners in many ultra-orthodox families. They are engaged in various occupations such as teachers – in an ever-growing young population – and particularly in employment, which does not involve the necessity of mixing with people of the outer world.

Marriages are arranged and take place at an early age. Couples are expected to have their first child within a short time following marriage, and high fertility is an encouraged norm throughout marriage (Heilman and Friedman, 1991). Obviously, many years of education for men, early marriages and household formation, high fertility, and rapid population growth, are societal characteristics which require economic resources over and above those, generated within this ultra-orthodox community. Where do such additional economic sources come from? The major source is the larger society of Israel through generous governmental child allowances, assistance in housing young religious couples, etc. Another important source is specific funds which are allocated to families by their own community institutions, and which are secured by various governmental authorities. These have been granted for years as part of coalition agreements between the ultra-orthodox parties and the main political parties either on the left or on the right. It has therefore, been argued that the ultra-orthodox community 'lives in an ambivalent relationship with the larger society. It rejects the values of that larger world while depending on it. Hence, although the families of this community are the poorest, at least, in the Jewish population there is no conflict with high fertility, as long as women can work while children are either at school for the day, or with boarding arrangements with no costs to parents, where they are indoctrinated into their community norms. Not only child allowances, but also public funds administered through the community, are partly allocated in relation to family size, - clearly pro-natalistic in their effects. Hence, the socioeconomic structure of the ultra-orthodox population, its internal educational system and its political power within Israel's society, are conducive to its survival as a high fertility group whose families conform to community norms of early-universal marriage and high continuous fertility.

D. PROSPECTS OF FERTILITY DECLINE TOWARDS REPLACEMENT LEVELS

The foregoing analysis attempted to show that Israel's society is characterized by heterogeneity and contrast in many respects, not the least in its fertility levels among the different population groups. While fertility differentiation during the 1950s and 1960s was mainly by religion, ethnicity and socioeconomic levels, ethnic differentials have disappeared and replaced by religiosity differentials. By 1995-2000 we can identify four major population groups in terms of their total fertility rates and their approximate percentages in the population:

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| The Jewish non-religious group of both ethnicities (67 per cent-70 per cent) with TFR of | 2.0-2.2 |
| The Arab Christian population (2 per cent) with TFR of | 2.6 |
| Arab Moslems and Druze (16 per cent) with TFR of | 4.0 |
| The Jewish ultra-orthodox, and the National Orthodox (12 per cent-15 per cent) with TFR | 6.0-7.0 |
| Israel's overall TFR | 2.9 |

What are our assessments for changes that are likely to take place in Israel's fertility levels in the coming 2-3 decades? This depends on changes that are likely to occur in marriage patterns and marital fertility levels among the different groups, on their changing proportions in the population and on immigration. The volume of immigration might increase or decrease unexpectedly. For example, immigration of some 900,000 immigrants from the former Soviet Union in the early 1990s increased significantly the proportions of Israel's low fertility population.

1. *Prospects of fertility decline in major population groups*

We begin with the fertility level of the Jewish non-religious population, which is around replacement level. It seems unlikely that the total fertility rate of this group will change enough to affect Israel's global TFR more than marginally. However, another wave of large-scale immigration may increase the proportion of the non-orthodox low fertility population and in turn, lead to a decline in the global TFR.

The Arab Christian population might well join the Jewish non-religious group in a further decline in their fertility level. However, because the proportion of the Arab Christian population is so small, such a possible change cannot affect significantly the global TFR.

The Druze minority has been classified with the Moslem population although their fertility level is only moderately high, in relation to that of Moslems, and it has declined in recent years. This is because no feasible change in fertility patterns of this group can possibly affect significantly Israel's global TFR, because their proportion in the population is so small.

Clearly, the most important among the religious Arab groups in its effect on Arab, and on Israel's overall fertility, is that of the Moslem population. It is our view that fertility level within the Moslem population has reached some kind of an equilibrium between family size on the one hand, and the opportunity structure in terms of education, labor markets, child allowances, on the other. The verification of this hypothesis would show that fertility change occurs when there is a conflict between existing patterns and socioeconomic structure under which families tend to regulate their reproductive behavior. Their goal in this regulation is to increase their own welfare levels in the short run, and this has no connection with any macro level goals such as replacement levels or zero population growth. The acceptance of this contention implies that unless there is a radical change towards equalization in the overall structure of opportunities between the Arab and the Jewish population, there is little chance for substantial declines in Moslem fertility levels. However, such a radical socio-political change is not in sight at this time. It is our view therefore that a meaningful decline in Moslem fertility is unlikely in the foreseeable future.

The ultra-orthodox Jews form a distinct group within Israel's society. Its religious ideology, particularly its strive for high fertility, has been backed up with political manipulation for decades. Their representation in Israel's parliament, the *Knesset*, is larger than its proportion in the population due to their appeal among some low status members of the Asian-African ethnic group. The ultra-orthodox population, which supports the two major political parties, has held the balance of political power for most governments, either of the left or the right. Consequently, they succeeded in transforming political power into direct financial support for their independent educational system, for securing generous child allowances for large families, for highly subsidized housing projects for young couples, and more. It can be assumed that as long as these political realities persist in Israel's society, very high fertility levels of the ultra-orthodox population will be maintained. Even if the political structure does change, which seems very unlikely, it will take years before growth rates of this population declines to lower levels, in part because their age structure is extremely young.

2. Future fertility levels of Israel's population

Roughly 30 per cent of Israel's population can be characterized as varying between high to very high fertility levels. We have argued that chances of fertility decline among these groups are extremely small. Roughly 70 per cent of Israel's population can be characterized as low fertility groups, at or near replacement levels. Our conclusion is, therefore, that Israel's global TFR will remain in the region of 2.5-3.0, probably closer to 3.0.

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