

Population & Societies

Unexpected developments in Maghrebian fertility

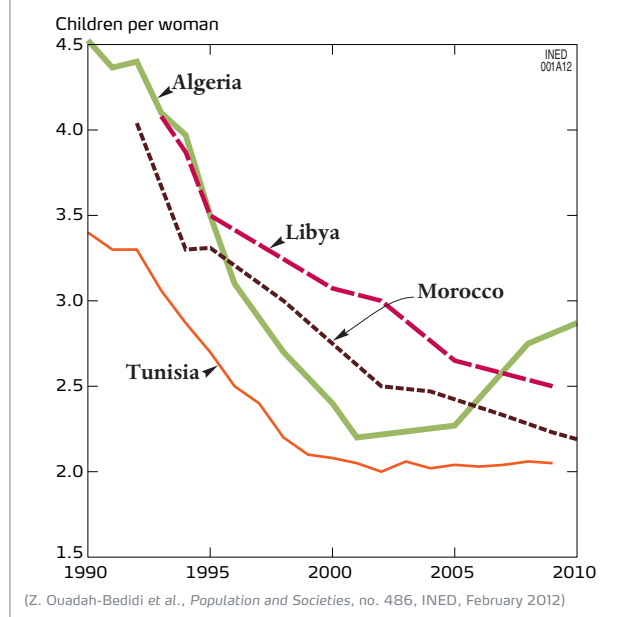
Zahia Ouadah-Bedidi, * Jacques Vallin ** and Ibtihel Bouchoucha ***

In the countries of the Maghreb⁽¹⁾ where fertility was traditionally very high, the rapid and almost simultaneous fertility decline in the 1980s came as a surprise. Demographers then predicted a steady fall to below two children per women, following the trend observed in many countries of Asia and Latin America. But as Zahia Ouadah-Bedidi, Jacques Vallin et Ibtihel Bouchoucha explain, fertility in North Africa has again surprised observers by remaining consistently above the two-child threshold.

In the early 1970s, fertility was still very high in Tunisia and Morocco (6.5 children per woman) despite the family planning programmes introduced in the mid-1960s, while in Algeria it stood at 8 children per woman thanks to a post-liberation baby boom. Nobody imagined that rapid decline was a real possibility in countries with natalist traditions. Yet, contrary to all expectations, Maghrebian fertility had fallen dramatically by the year 2000 – to just 2.08 children per woman in Tunisia, 2.2 in Algeria and 2.5 in Morocco [1] (figure 1) – almost reaching the emblematic level of 2.1 children per woman needed for a population to replace its numbers over the long term. Even more surprisingly, the later the onset of decline, the faster its pace. Algerian fertility plummeted from the 1980s, almost catching up with Tunisia by 2001 after overtaking Morocco along the way. In Libya, meanwhile, the last country to join the trend, the decline was even faster than in Algeria, falling from 7.6 children per woman in 1982 to 3.1 in 2000.

While not ruling out the possibility that behavioural changes might slow down or even halt the fertility decline, it looked as if fertility would soon drop well below replacement levels, as was already the case in certain large cities (1.9 children per woman in 1998 in Algiers, Annaba and Tizi Ouzou, 1.5 in 1999 in Tunis).

Figure 1. Total fertility rates in the Maghreb since 1990



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(1) The Maghreb is the region of north-west Africa comprising Algeria, Libya, Morocco and Tunisia.

This seemed to be a very reasonable assumption, given that other developing countries with a recent rapid fertility decline had already fallen below the 2.1 child threshold, both in Asia and in Latin America.

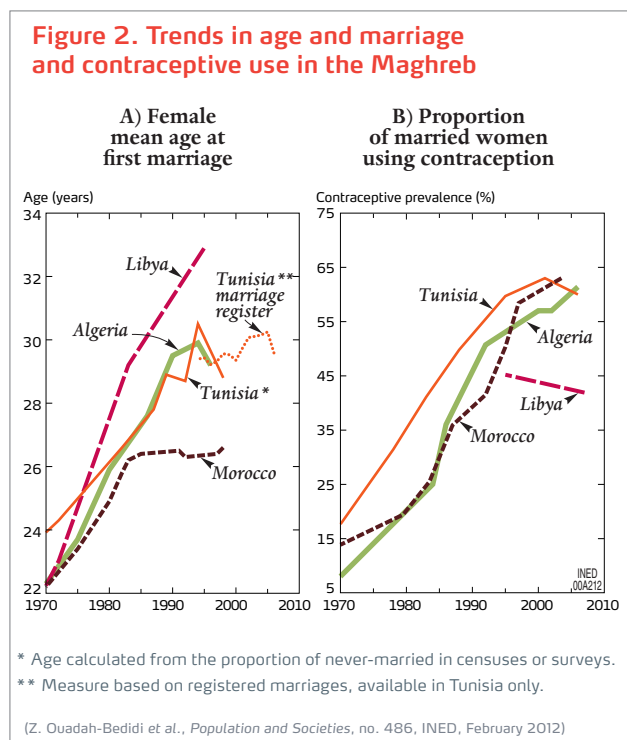
But change has not followed the predicted pattern in the Maghreb. After their extraordinary convergence from the 1980s to the turn of the twenty-first century, the four countries now exhibit very contrasting trends. In Tunisia, the total fertility rate (TFR) has remained stable at 2.1 children per woman since 1999, while in Algeria, after bottoming out at 2.2, the TFR has been rising ever since, reaching 2.9 in 2010. In Morocco and Libya, meanwhile, where fertility was still above replacement in 2000, the TFR has continued its rapid decline, down to 2.2 and 2.5, respectively. In sum, not only has fertility remained above replacement level in all of these countries, but Algeria has even seen a sharp upturn in the last decade, taking the country's TFR to a level well above those of Morocco and even Libya, which joined the initial downtrend at a later date.

So what is happening in the Maghreb – in Algeria and Tunisia especially – to prompt this original pattern of fertility transition? These countries are singular for two reasons: not only was the rapid fertility decline in the last decades of the twentieth century due largely to an increase in the age of marriage rarely observed in other developing countries,[1] but fertility decline also appears to have levelled off at above-replacement level while elsewhere it is maintaining its downward path.

While this stabilization at replacement level is not necessarily permanent, and while we cannot claim to identify all the reasons for such a trend, it is useful to ask three questions. First, is the rise in age at marriage, which played a key role in fertility decline, also a factor of fertility stabilization in Tunisia or its reversal in Algeria while at the same time explaining the ongoing downtrends in Morocco and Libya? Second, how have changes in internal disparities, notably in urbanization and education, influenced recent developments? Last, are population policies evolving in a new direction?

The role of changes in the age at marriage

Through its culture, religion and political institutions, Maghrebian society does its utmost to prevent women from engaging in sexual relations before marriage, and there is even less opportunity for women to give birth outside marriage. In such a society, any rise in the age at marriage automatically lowers fertility. Indeed, all studies of fertility decline in the Maghreb have shown that the increase in the female mean age at first marriage



was, at the outset at least, the key driver of the downtrend observed from the 1970s to the 1990s. [2, 3, 4] It was only later that the effects of contraception became visible, and birth control ultimately played a role more or less equal to that of later marriage in the decline of the TFR from 7 to 2 children per women in under three decades. [1]

What are the respective roles of these two factors in the contrasting patterns observed today in the four countries under review? In other words, is the ongoing fertility downtrend in Morocco and Libya still driven by ever later marriage, is the stable fertility in Tunisia linked to a stabilization of age at marriage, and does the Algerian fertility upturn reflect a trend towards earlier marriage in that country? And what is the role of contraception?

The age at first marriage rose rapidly in all four countries up to the mid 1980s, but then diverged, increasing sharply in Libya (up to almost 33 years in 1995), Tunisia and Algeria, while levelling off in Morocco (Figure 2A). Unfortunately, this divergence tells us nothing about the much more recent divergence in fertility. It simply shows that in the last decade of fertility decline, the role of later marriage was certainly much stronger in Libya than in Tunisia and Algeria, and especially with respect to Morocco where the effects of contraception became dominant much earlier than in the three other countries.

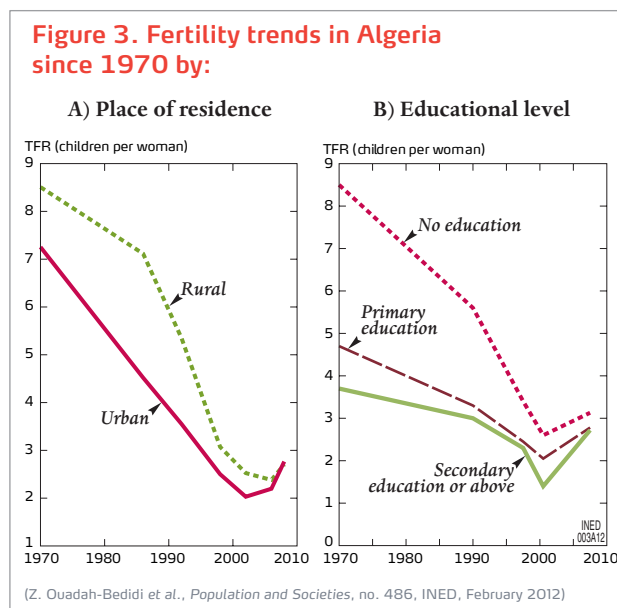
The most recent measures of age at marriage based on the latest censuses and surveys reflect a reality that dates back more than a decade. Year-on-year observation of marriages (based on marriage registers for example)

is necessary to follow recent trends in marriage age. These data are only available for Tunisia, and solely for the period 1994-2006 (dotted line in figure 2A). The increase in age at marriage in Tunisia has slowed substantially, and in recent years has tended to level off at around 30 years. This gradual stabilization is certainly one of the factors behind the steady fertility levels observed since the late 1990s. While no relevant data are available for Algeria, we can nonetheless intuit that the increase in age at marriage may have stopped more abruptly than in Tunisia. We may even speculate that it has fallen, since the annual birth rate for all ages almost doubled from 2000 to 2010, and this would have been difficult to achieve without a lowering of the age at marriage. Such a hypothesis may provide the main explanation for the recent fertility upturn.

Does contraception provide a second explanation for the contrasting fertility trends? In Tunisia, contraceptive use in marriage increased steadily up to 1995 and appears to have stabilized some years later at just over 60% (Figure 2B). Alongside the gradual stabilization in age at marriage, this provides a good explanation of the fertility decline observed over the last decade. In Morocco, the rapid increase in contraceptive use in the 1990s and 2000s up to levels above those observed in Tunisia and Algeria may explain why fertility decline has continued despite the stabilization of age at marriage. By contrast, the fact that Libya has fertility levels on a par with those of the three other countries, despite lower contraceptive use, can be explained by the spectacular increase in age at marriage. The Algerian fertility upturn since 2002 is more difficult to explain, since the increase in contraceptive use continued up to 2006. However, this apparent paradox lends support to the above-mentioned hypothesis of a fertility increase brought about by a sudden lowering of age at marriage. If age at marriage is the only factor at play, the recent fertility increase should soon be followed by a downward readjustment. But contraceptive use may also have decreased since 2006. More recent data are needed to determine whether this is indeed the case.

The influence of urbanization and progress in education

As in many other countries, fertility decline began in the cities. But in the Maghreb it quickly spread to rural areas, so its effects were felt at national level within a short lapse of time. The case of Algeria is exemplary (Figure 3A). At the early stage of the transition, the urban-rural gap grew wider, rising from 1 child per



woman in 1970 when the national TFR stood at 8, to more than 2.5 in 1986, by which time the national TFR had fallen to 5.4. But the decline accelerated quickly in rural areas, narrowing the urban-rural gap to just half a child in 2002 at a time when the national TFR was reaching replacement level. The rural contribution to fertility decline is even stronger than it appears, however, since while many rural dwellers migrated to the cities over the period,⁽²⁾ they soon adopted the city-dwellers' fertility regime and did not hold back the urban fertility decline. However, after dipping to replacement level, urban fertility then rose sharply again, while its decline in rural areas continued for longer, and the subsequent upturn was less pronounced. Mirroring the earlier decline, the recent Algerian upturn began among city-dwellers, followed only slowly by their rural counterparts. Indeed, in 2008, urban fertility was slightly higher than that of rural areas. This ties in with the fact that the urban-rural relationship has also been reversed for mean age at marriage (it is now higher in rural areas than in cities), while contraceptive prevalence in rural areas is almost equivalent to that of the cities.

In Tunisia and Morocco, the fertility decline began in the cities before spreading to rural areas, although in the most recent period the gap has stabilized at 1 child per woman, with rural fertility remaining above that of the cities.

The pattern of fertility trends by the mother's level of education is even more striking. In Algeria, as in the three other countries, the decline in the national average TFR is due above all to the fertility behaviour of the least educated women (Figure 3B). Already in 1970, the fertility of women who had attended school, if only for

(2) The urban population rose from 31% in the 1966 census to 60% in that of 2008.

a few years, was already half that of illiterate women (4 children per woman versus 8). Thirty years later, the fertility of uneducated women had fallen to 6 children per woman, and that of educated women to 2. But above all, the share of illiterate women dropped sharply over this period, thanks to immense progress in school enrolment.⁽³⁾ These figures illustrate the major role in fertility decline played by the development of education. The spectacular fertility decrease among illiterate women, who are now a small minority, is simply the closing phase of a social transformation whereby the two-child family has now become a universal norm adopted by all sections of the population. By contrast, the very recent upturn in Algerian fertility is clearly driven by more educated women who are starting to challenge this new model. After dipping to 1.4 children per woman in 2001, their fertility had moved back up to 2.8 by 2007.

Has there been a policy change?

These recent contrasting fertility trends – ongoing fertility decline in Morocco and Libya, stabilization at replacement level in Tunisia, sharp upturn in Algeria – cannot be linked to any substantive changes in national birth control policies. Nothing has changed in terms of attitudes or government action to explain these contrasts. In 2001, when Algerian fertility was at an all-time low, the government continued to implement direct measures to limit family size. Clearly, there is no point looking here for an explanation of the recent upturn. In Tunisia likewise, government family planning policy cannot account for the stabilization at 2.1 children per woman. In fact, these trends are independent of policy.

We already knew that fertility decline has little to do with birth control policies, [5] and we see here that they are powerless to prevent trend reversals. They have merely accompanied a fundamental change in attitudes, partly by anticipating its emergence, but above all by flavouring its realization. The underlying causes of upward or downward shifts in fertility behaviour are to be found elsewhere, in the economic, social and cultural transformations of society, of which urbanization and progress in education are two key aspects.

However, the limited impact of birth control programmes on actual fertility behaviour does not mean

(3) In 2003, 93% of girls aged 6-14 attended school, compared with just 37% in 1966.

that policy has no useful role to play. On the contrary, the transformation of society is shaped by government action, through the very issues of urbanization and school enrolment, for example. But more directly, political events may give rise to new behaviours. At the turn of this century, the end of terrorism in Algeria may have engendered a need to reassert the importance of family ties through earlier couple formation and childbearing. Tomorrow, with the new freedoms resulting from the Arab spring, but also with the revival of certain religious values, a different pattern of change may emerge.

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ABSTRACT

After converging towards replacement level, fertility in the Maghreb is now following contrasting trends. In Tunisia, the total fertility rate (TFR) has levelled off and remained stable at 2.1 children per woman since 1999. In Algeria, after dipping to 2.2 in the early 2000s, fertility has increased steadily, reaching almost 2.9 in 2010. In Morocco and Libya, meanwhile, where fertility was still above replacement in 2000, the TFR has continued its rapid decline, down to 2.2 and 2.5 children per woman, respectively. Not only has fertility remained above replacement level in all of these countries, but Algeria has even seen a sharp upturn in the last decade. As in the past for fertility decline, the change in age at marriage is now the key factor behind the stabilization at 2 children per woman in Tunisia and in the increase to almost 3 in Algeria. Then again, perhaps the two-child model has lost its appeal in the latter country.