Fertility Decline in Algeria
1980–2006

A Case Study

The World Bank
May 2010
Fertility Decline in Algeria
1980–2006
A Case Study

May 2010
## Contents

- **Acknowledgements** vi
- **List of Acronyms** vii
- **Executive Summary** viii
- **Algeria’s Fertility Transition in Context** 1
- **Algeria’s Fertility Transition** 3
- **National Family Planning Policies and Programs Emerged Slowly** 5
- **Key Determinants of Fertility are Age at Marriage and Contraceptive Use** 8
  - Increased Age at Marriage and Delayed Onset of Childbearing 8
  - Birth Interval and Tempo of Childbearing 9
  - Fertility Preferences 10
  - Contraception 11
  - Other Proximate Causes Have Less Influence on Fertility 13
    - Postpartum infecundibility 13
    - Abortion 14
    - Sterilization 14
- **Socioeconomic and Cultural Factors Affect Fertility** 15
  - Female Education 15
  - Urbanization and Housing 16
  - Religion 17
  - Women’s Labor Force Participation 18
  - Education and Women’s Employment 19
- **Conclusions** 21
- **References** 23
- **ANNEX: Sources and Methodology** 26
- **End Notes** 27
Tables

Table 1. Proximate Determinants of Fertility in Algeria, 2001 8
Table 2. Demographic Surveys in Algeria 26

Figures

Figure 1. Map of Algeria ix
Figure 2. Algeria’s Population Growth and Total Fertility Rate, Selected Years (1980–2005) 3
Figure 3. Algerian Total Fertility Rate, 1970–2002, by Residence 4
Figure 4. Birth Spacing Centers in Algeria, 1967–1988 6
Figure 5. Decomposition of Proximate Determinants of Fertility in Algeria, 1970–2002 8
Figure 6. Life Table Estimate of Women’s Median Age at Marriage and First Birth 9
Figure 7. Ideal Number of Children among Algerian Women, by Age, 1992 11
Figure 8. Ideal Number of Children among Algerian Women, by Number of Living Children, 1992 11
Figure 9. Contraceptive Prevalence Rate in Algeria, 1962–2006 12
Figure 10. Percent of Algerian Married Women Using Contraceptives, by Residence and Educational Level, 1966–1992 13
Figure 11. Percent of Married Algerian Women Using Contraceptives, by Method (1986 and 1992) 13
Figure 12. Female Primary School Enrollment in Algeria (percent gross) 15
Figure 13. Algeria Female Secondary School Enrollment 1962–2005 (percent gross) 16
Figure 14. Female Literacy Rate in Algeria, by Age Group (percent) 16
Figure 15. Average Number of People per Household in Algeria, Selected Years 17
Acknowledgements

This report was prepared by Robbyn Lewis (Johns Hopkins University, Bloomberg School of Public Health) and Sadia Chowdhury of the Health, Nutrition, and Population unit of the Human Development Network (HDNHE).

The authors are grateful to the World Bank Library Research Services for assisting with the literature search. Mukesh Chawla, Sector Manager (HDNHE), and Julian Schweitzer, Sector Director (HDNHE), provided overall guidance and support. Thanks to Victoriano Arias (HDNHE) for providing administrative support.

This case study was part of a larger World Bank Economic and Sector Work entitled *Addressing the Neglected MDG: World Bank Review of Population and High Fertility* with an external advisory group comprising: Stan Bernstein (United Nations Population Fund), John Bongaarts (Population Council), John Casterline (Ohio State University), Barbara Crane (IPAS), Adrienne Germain (International Women’s Health Coalition), Jean Pierre Guengant (L’Institut de recherché pour le développement), Jose Guzman (United Nations Population Fund), Karen Hardee (Population Action International), Daniel Kraushaar (Bill and Melinda Gates Foundation), Gilda Sedgh (Guttmacher Institute), Amy Tsui (Johns Hopkins University, Bloomberg School of Public Health), and Wasim Zaman (International Council on Management of Population Programmes). The World Bank advisory group comprised: Martha Ainsworth (IEGWB), Peter Berman (HDNHE), Eduard Bos (HDNHE), Rodolfo Bulatao (HDNHE), Hugo Diaz Etcheverre (HDNVP), Rama Lakshminarayanan (HDNHE), John May (AFTHE), Elizabeth Lule (AFTQK), and Thomas Merrick (WBIHS).

Bruce Ross-Larson, Communications Development Incorporated, edited the draft report and Samuel Mills (HDNHE) reviewed the final draft. The authors would like to thank the government of the Netherlands, which provided financial support through the World Bank-Netherlands Partnership Program (BNPP).

Correspondence Details:

→ Sadia Chowdhury (HDNHE), World Bank, Mail Stop G7-701, 1818 H Street N.W., Washington, DC 20433, USA, Tel: 202-458-1984, email: schowdhury3@worldbank.org

→ This report is available on the following website: http://www.worldbank.org/hnppublications
# List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTHE</td>
<td>Health, Nutrition, and Population unit of the Africa region</td>
<td></td>
</tr>
<tr>
<td>AFTQK</td>
<td>Africa Operational Quality and Knowledge Services</td>
<td></td>
</tr>
<tr>
<td>FLN</td>
<td>Front Liberation Nationale</td>
<td></td>
</tr>
<tr>
<td>HDNHE</td>
<td>Human Development Network, Health, Nutrition, and Population unit</td>
<td></td>
</tr>
<tr>
<td>HDNVP</td>
<td>Office of the Senior Vice President and Head of Human Development Network</td>
<td></td>
</tr>
<tr>
<td>IEGWB</td>
<td>Independent Evaluation Group, World Bank</td>
<td></td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
<td></td>
</tr>
<tr>
<td>IUD</td>
<td>intrauterine contraceptive device</td>
<td></td>
</tr>
<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
<td></td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
<td></td>
</tr>
<tr>
<td>WBIHS</td>
<td>World Bank Institute Health Systems</td>
<td></td>
</tr>
</tbody>
</table>
Like other countries in the Middle East and North Africa region, Algeria has undergone a demographic transition. But Algeria’s fertility decline defies conventional explanation. Despite inauspicious starting conditions—a high total fertility rate, reluctant policy environment, and delayed implementation of a national family planning program—Algeria has surpassed some of its neighbors in fertility reduction.

Before its fertility transition, Algeria had one of the highest crude birth rates in the world, nearly 50 per 1,000. The fertility transition began in 1965–70, before any significant government support for or investment in population control or family planning and before significant external donor funding became available. Since then, profound changes in the traditional family model have led to a 64 percent decline in the total fertility rate in recent decades, from 6.76 in 1980 to 2.41 in 2006.

The factors that have most contributed to Algeria’s fertility decline are increased age at first marriage, increased contraceptive use, and expanded female education. These factors exerted their strongest influence during different phases of the fertility transition—a phased phenomenon resulting from sociocultural and economic changes in the country. Increased age at marriage was most influential early in the fertility transition. Later, use of contraceptives contributed more to fertility decline.

The average age at first marriage for Algerian women is now nearly 30; their preferred form of contraception is oral contraceptives. Increased age at marriage can be attributed to greater female education. Women who receive at least primary education delay childbirth and consequently experience lower rates of lifetime fertility. Almost all Algerian women enroll in primary school, more than 80 percent completing it. And more than 86 percent of women enroll in secondary school.

Certain macro-economic forces can also contribute to increased age at marriage, for example, increased female labor participation, high rates of unemployment among young adults, urbanization, and the related urban housing shortage. Young couples confronted by unemployment may feel obliged to postpone marriage—and, consequently, childbearing. Other practical considerations, such as the lack of privacy associated when living in cramped quarters with parents and in-laws, might also induce young couples to voluntarily postpone childbearing, or reduce family size altogether.

Although Algerian women’s demand for children remains strong, their ideal number of children is decreasing. A shift from the large family model to that of the smaller nuclear unit is probably partly in response to strained living conditions created by unemployment and the housing shortage, as well as more subtle sociocultural changes. Nation-
ally Algeria’s model is not yet at two children per couple, as there remain variations between rural and urban norms and behavior. But the ideal number of children has decreased. Younger Algerian women prefer around 3.5 children, older women prefer 4 children.

Islam has not constituted an obstacle to socio-demographic change in Algeria. But entrenched cultural attitudes do present salient obstacles to women’s development. Declining fertility does not imply improvement in the condition or quality of women’s lives. Despite enormous advances in primary education and literacy, the struggle against gender inequality is far from over.

Overall, Algeria’s fertility decline is best understood in terms of changes in behavior, especially the delay in age at first marriage, the increase in contraceptive use, and—to a certain degree—the negative effects of the economic crisis manifested in the housing shortage and unemployment of young adults.
Figure 1 | Map of Algeria

Source: World Bank Map Design Unit.
Located in northern Africa along the Mediterranean, Algeria comprises two million square kilometers of coastal plain, high mountains, and the Sahara desert—four-fifths of its area (figure 1). As only about 3 percent of the land is arable, most of Algeria’s 33 million inhabitants—predominantly Arab-Berber and Muslim—reside on its Mediterranean coast. Algeria’s total fertility rate has decreased threefold in recent decades, from 6.76 in 1980 to 2.41 in 2006. Because this rapid reduction in fertility predates the emergence of strong national family planning policies or programs, Algeria is a remarkable case study.

Algeria is a key global exporter of oil and natural gas, with a gross national income per capita of $3,620. Only 14 percent of the population works in the agricultural sector. Algeria’s first post-Independence governments adhered to a rigid form of state socialism and prioritized rapid economic development over other social goods. Though its economy initially grew rapidly, in the wake of the 1970s oil shocks and fall in oil revenues, Algeria was heavily indebted by the late 1980s. The government’s focus on capital-intensive development had unfortunately produced few jobs, as those born during the 1960s discovered when they finally entered the job market. In 1994 the government undertook a program of structural adjustment to liberalize the economy.

Since Independence from France in 1962, Algeria has been a democratic parliamentary republic under the leadership of an elected president. Since the late 1980s struggles between the Algerian military and Islamist militants have destabilized the country, a bloody civil war in the 1990s killing more than 150,000 people and destroying hundreds of health facilities and schools. Political amnesty in 1999 helped reduce the violence, but unfortunately some unrest continues today.

Algeria had one of the highest fertility rates in the world during most of the 20th century. The rate of population growth accelerated rapidly during the first half of the twentieth century, reaching 3 percent by Independence in 1962. By 2007, the most recent year for which data are available, the rate of population growth had dropped dramatically to just 1.5 percent. Associated with this declining rate of population growth is an astonishing change in total fertility. The total fertility rate increased during most of the 20th century, reaching as high as 9 among younger women. In 1980, the total fertility rate was a relatively high at 6.76, but by 2006, it had fallen to just 2.41, a decline of 64 percent during that period.

Algeria has also made good progress in achieving two key Millennium Development Goals: eradicating extreme poverty and hunger (goal 1), and reducing child mortality (goal 4). Although poverty data is scarce for Algeria, in 1995 only 6.8 percent of the population was living below the target of $1 purchasing power parity per day, and in 1990–2006 the propor-
tion of underweight children under age five decreased by almost one-third—suggesting that Algeria is well on its way to achieving eradication of extreme poverty and hunger. Available data on infant and under-five mortality or Algeria are also sparse, but the trend suggests that Algeria has achieved this goal well in advance of the 2015 target. The infant mortality rate declined 64 percent from 1980 to 2006, from 94 per 1,000 to 33 per 1,000 live births. The under-5 mortality rate decreased 71%, mostly during the 15 years preceding 1995. And Algeria has achieved nearly universal rates of measles immunization for one-year-olds, 91 percent in 2006. The downward trend in infant and child mortality may have influenced desired family size during this period.

Because it defies conventional explanations for demographic change, Algeria’s recent fertility decline deserves close examination. Algeria adopted a population policy two decades later than its neighbors in the Maghreb. It was saddled with a remarkably high total fertility rate, a reluctant policy environment, and an unstable civil and political environment. Yet despite these constraints, Algeria has caught up with—and even exceeded—other countries’ fertility transition benchmarks, achieving a more than 60 percent decline in total fertility rate in about 20 years.

Algeria’s declining fertility to some extent echoes demographic changes in the entire Middle East and North Africa (MENA) region. Despite the MENA region’s continued rapid rate of population growth (2 percent), it has entered the fertility transition. And although the transition came later to the MENA region, it has generally proceeded at a faster pace. On average, women in this region now have 3.4 children, compared with 2.0 in East Asia and 2.5 in Latin America. Measures of nuptiality and fertility all suggest that significant changes in the traditionally dominant family model are under way throughout the MENA region, shifting from a large family model to that of the smaller nuclear unit, possibly in response to constrained living situations affected by employment, housing, and cost of living, but also reflecting urbanization and cultural change. Ideal family size has been decreasing for almost two decades among married women aged 15–49, and the proportion of married women aged 30–34 who report not wanting any more children is increasing. Nevertheless, the demand for children remains high.

Demographic transition in the MENA region—including Algeria’s neighbors in the Maghreb, Tunisia and Morocco—indicates that the conventional logic linking Arab and Islamist culture to resistance to fertility change deserves reconsideration. Islam does not necessarily constitute an obstacle to demographic or social change, as demonstrated by data that the MENA region experienced fertility declines comparable in scale—if not tempo—to other regions. Nor are high fertility and early marriage inherent to Islamist culture.
During the first half of the twentieth century, Algeria’s population growth rate soared. The crude birth rate rose from 35 per 1,000 in 1911–15 to nearly 50 by 1969. Algeria’s total fertility rate reached 7.8 in 1955–60. For young married women between the ages of 17 and 19, total fertility in 1965 was 9—one of the highest rates in the world. This soaring rate of population growth was made possible by a large number of women of reproductive age, decreasing age at marriage (especially after World War II), very high marital fertility, and decreased duration of breastfeeding. During this pre-transition period, there was little difference in completed fertility between urban and rural women.

Around 1970, the birth rate reached a record high of 50 per 1000. After reaching its peak, the rate of population growth began to fall, dropping significantly during 1980–2000 and leveling off afterward (figure 2). The turning point occurred between the first national fertility survey in 1970 and the 1987 census. Birth and mortality rates both fell, age at first marriage rose, the total fertility rate declined, and contraceptive prevalence substantially increased.

Throughout the 1970–2002 decline in total fertility rate, urban fertility was distinctly lower than rural fertility.

**Figure 2** | Algeria’s Population Growth and Total Fertility Rate, Selected Years (1980–2005)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of population growth (percent per year)</th>
<th>Total fertility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>3.5</td>
<td>7.8</td>
</tr>
<tr>
<td>1990</td>
<td>3.2</td>
<td>5.6</td>
</tr>
<tr>
<td>2000</td>
<td>2.3</td>
<td>4.5</td>
</tr>
<tr>
<td>2005</td>
<td>2.5</td>
<td>4.7</td>
</tr>
</tbody>
</table>

lower than rural fertility, particularly during the 1970s–90s. By the late 1990s the urban-rural divide began to converge (figure 3). The decline in urban fertility was nearly uniform across all age groups (except ages 45–49), but rural fertility dropped only for women up to age 25.

**Figure 3 | Algerian Total Fertility Rate, 1970–2002, by Residence**

![Graph showing Algerian Total Fertility Rate, 1970–2002, by Residence.](source:Tabutin 2005.)
By the time Algeria’s bloody war for independence (1954–1962) ended, the country had one of the highest fertility rates in the world. Algeria’s independent government launched a campaign to provide broad access to health care and education but did not view rapid population growth as a serious concern. As a consequence of this policy focus, infant mortality declined substantially, the proportion of children in school increased, while the population growth rate soared.

During the early years after independence, political consensus was weak and anti-colonial feeling strong; in such an environment, there is reluctance to embrace Western notions about links between economic development and population growth. The Front Liberation Nationale (FLN) came to power in 1965 without a strong constituency, and so its ability to build political consensus was impaired. Skeptical about the link between economic development and population reduction, Algeria’s leaders declared that family planning was a false solution imposed by the West and that the issue for Algeria was not population growth but economic development. President Boumedienne, unconvinced about the potential value of limiting population growth, called family planning a “false solution”, adding further that “the best pill is development.” Without a clear political majority to push forward any agenda in the post-independence years, policymakers in favor of family planning had to move slowly.

Despite the recalcitrance of politicians, Algerian women wanted access to family planning and demand for family planning was growing. By the mid-1960’s, when the FLN came to power, women’s groups were already demanding family planning services as a right. Not long after, the ministries of public health and national education opened the first birth spacing center at the Centre Hospitalo-Universitaire in 1967. Further, a fatwa (religious edict) was issued in support of the voluntary use of contraception. While politicians dithered about the sinister nature of “population control,” more birth spacing centers, providing access to modern contraception, appeared. Because of the dearth of physicians, midwives were trained and authorized to provide contraception. Although no private family planning association existed in Algeria at that time, the World Health Organization provided some assistance in maternal and child health initiatives, including training and services for the early birth spacing efforts. Within about ten years, almost 2,000 birthing centers existed (figure 4).

During the 1970s Algeria’s government continued to prioritize economic growth, promoting productivity and development as the most effective way to raise living standards,
and thereby indirectly reduce fertility. The government’s official population policy was to establish a balance between population size and available resources, but “population control” was not a national priority.

However, the government did see the value in demographic analysis, and undertook efforts to collect more robust data: the planning and statistics sections of the government began to conduct demographic surveys to better estimate fertility, mortality, and migration patterns. The goal of these efforts was to evaluate information on national problems while closely watching the efforts of other countries—especially Maghreb neighbors—to introduce family planning, allowing some limited family planning activities to reach a few hundred women annually, and relying on economic development.

In 1974, seven years after the introduction of the first birth spacing clinic in Algiers, the government officially launched a formal national program for birth spacing. Funded by the United Nations Population Fund (UNFPA), the program sought to completely integrate birth spacing into maternal and child health promotion efforts and involve midwives and paramedical workers in the program.

The impact of economic factors in population policy making cannot be ignored. As an oil producer and member of the Organization of Petroleum Exporting Countries, Algeria enjoyed dramatic increase in oil revenues during the 1970’s, which encouraged policy makers to believe that sufficient resources existed to meet all of society’s requirements, without resorting to forced population control. Algeria declined to mimic its neighbors embrace of national family planning programs; despite its greater oil wealth during this era, Algeria committed less public funding to family planning than Tunisia.

By 1980, the national birth spacing program had established 260 Maternal & Child Clinics, also known as Postes Maternelle et Infantile, offering birth spacing services throughout the country. Integration of these services normalized the idea of family planning and instituted a linked program of in-service or “on-the-job” capacity building. Training strategies evolved over time, becoming shorter, more decentralized, and more efficient. From 1974 to 1980, 421 health pro-

Figure 4 | Birth Spacing Centers in Algeria, 1967–1988

![Graph showing the number of birth spacing centers in Algeria from 1967 to 1988.](image)

providers—including physicians and midwives—were trained in family planning. During the 20 years between 1962 to 1982, contraceptive prevalence rose from an estimated 2–3 percent to 50 percent—while the total fertility rate plummeted by nearly half, from 7 to 3.9.

But policy-makers’ attitudes regarding family planning were changing. One sign of this shift occurred in 1980, when the ministry of planning presciently issued a statement in the general report for its first five-year plan, affirming that “action to reduce the birth rate has become indispensable to ameliorate economic growth and may well answer many of the social needs of the Algerian people.”

Ultimately, industrial development failed to keep pace with the needs and demands of a rapidly growing population, and eventually forced the government to embrace an explicit population reduction strategy. Algeria’s official policy on family planning evolved over the years as it became clear that an exclusive focus on economic development could not solve the country’s problems.

Algeria’s official national family planning program, Programme National de Maîtrise de la Croissance Démographique, was launched in 1983 with a continued focus on birth spacing rather than population reduction. This program began almost twenty years after Tunisia and Morocco had adopted their own national family planning policies. The Algerian program’s strategy was to integrate family planning services into the public health units and train midwives to provide contraceptive services. But many women still accessed contraceptives through the private sector. The following year, Algerian policy-makers voiced their acceptance that “the demographic problem constitutes the principle cause of underdevelopment.” This shift led to a new objective: to reduce the rate of population growth from 3 percent to 2 percent by 2000. The national family planning program began to expand after donor agencies became involved in the late 1980s. Algeria established a program of cooperation with the UNFPA and also began to receive substantial U.S. family planning aid in 1989.

While a supportive policy environment and national family planning service system did increase women’s access to contraception, these phenomena alone are insufficient to explain Algeria’s extraordinary fertility decline, especially during the earliest phase of the demographic transition, before 1980. The establishment of 260 centers between 1967 and 1980 did increase access to modern contraceptives for some women, but not all. There were over 4,000,000 Algerian women of reproductive age (15–49). There were far too few clinics to serve all of them. Therefore, other determinants of fertility decline must be examined.
The key proximate determinants of fertility include age at marriage, postpartum infecundibility and contraceptive use. Each of these factors contributed to Algeria’s overall fertility to different degrees at different times. Delay in marriage and the increased use of contraceptives are the principle motors now driving down fertility in Algeria.36

Algeria’s pretransition, “natural” fertility rate reflected traditional norms and behaviors, including early age at marriage and low prevalence of contraceptive use. When norms and behaviors changed, so did the fertility rate. Age at first marriage continued to increase between the mid-1980s and the early 1990s (figure 5). By 2002 contraception had become the most important determinant, contributing to about 39% of the fertility reduction.37 By 2001 contraceptive prevalence was about 51 percent among married women, about 40 percent of whom preferred oral contraceptives.38 Strikingly, 50 percent of married women desired no more children (table 1).39

Increased Age at Marriage and Delayed Onset of Childbearing

Marriage and childbearing are viewed as interrelated social and demographic events in Algeria, and illegitimate births are traditionally

### Table 1: Proximate Determinants of Fertility in Algeria, 2001

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median duration of breastfeeding (months)</td>
<td>11.2</td>
</tr>
<tr>
<td>Median duration postpartum amenorrhea</td>
<td>NA</td>
</tr>
<tr>
<td>Median duration postpartum abstinence</td>
<td>NA</td>
</tr>
<tr>
<td>Contraceptive prevalence</td>
<td>50.7%</td>
</tr>
<tr>
<td>Ever use of contraceptive methods</td>
<td>74.9%</td>
</tr>
<tr>
<td>Percent of married women using oral contraceptives</td>
<td>38.7%</td>
</tr>
<tr>
<td>Percent of married women using IUD</td>
<td>2.4%</td>
</tr>
<tr>
<td>Mean number of children desired</td>
<td>4.2</td>
</tr>
<tr>
<td>Married women wanting no more children</td>
<td>50.1%</td>
</tr>
</tbody>
</table>

uncommon; hence, age at first marriage has a profound impact on fertility. Changes in marital patterns may account for long-term fertility changes in Algeria, rather than changes in deliberate birth-limiting strategies alone.

The turning point in marriage patterns began after Independence. In 1966 over half of all women were married by age 19, and 87 percent by age 24. Twenty years later those proportions were reversed: 90 percent of women up to age 19 were unmarried, and about half of women up to age 24. By 2002, the average age at first marriage in Algeria was 29—a spectacular leap forward, exceeding even the United States. The median age at first marriage rose across cohorts. For example, women aged 25–29 marry and have their first child approximately three years later than their older sisters, aged 30–34, did (figure 6).

Reasons for the delayed age at marriage may include increases in the duration of women’s education, economic pressures that prevent saving enough money to marry—related to male unemployment—and housing shortages. Uneducated and underemployed women are bearing the burden of Algeria’s nuptiality transition. Among never-married women ages 15–49, 62.4 percent have primary education or less. Of those, only 6.6 percent have paid employment. This pattern underscores the ambiguous nature of the fertility transition for women’s progress—and presents a greater social challenge.

The increasing age at first marriage is closely associated with a rise in the age at onset of childbearing. This suggests that the delay in childbearing, associated with delay in marriage, plays an important role in reducing the fertility level in Algeria.

**Birth Interval and Tempo of Childbearing**

As discussed above, the reduction in the total fertility rate is mainly the result of increased age at marriage and the use of contraceptives among married women to limit and/or space childbearing. While useful, when taken alone the total fertility measure tells only part of the story; it does not distinguish between the

![Figure 6 | Life Table Estimate of Women’s Median Age at Marriage and First Birth](image-url)
impact of childbearing onset, birth spacing, or birth limitation. During the 1990’s, when total fertility rate was around 4.4, a large proportion of ever-married Algerian women were still having high numbers of births, and their tempo of childbearing was somewhat fast.\(^48\) In 2001, to gain a more complete understanding of fertility patterns, an analysis of birth order, using life tables, was conducted. The results of the analysis provide some illumination into the overall picture of the fertility transition during the early 1990’s period of Algeria’s fertility transition.

The increase in age at first marriage is closely associated with a rise in the age of onset of childbearing. Women in the younger age cohort are marrying later, and are consequently older at the time of first childbirth than women in previous cohorts.\(^49\)

Once married, the average Algerian woman gives birth within the first five years of marriage, and has children in relatively quick succession. At the time of the study, the median length of the interval between marriage and first birth, was about 14 months. Younger women, who are likely to be more fecund and to breastfeed for shorter durations, are at higher risk of having a short birth interval.\(^50\) Older women are more likely to have longer birth intervals, possibly because of decreasing fecundity or longer duration of breastfeeding.

However, the tempo, or median length of the birth interval by parity, is also important in overall fertility. The interval between the second and subsequent births has increased. In other words, as the number of children increases, so does the birth interval, with a median length ranging from 27 to 50 months. The probability of bearing another child within 60 months, following the second birth does not decrease until parity 5. The degree to which these higher-order births are limited is an important factor in the overall fertility rate.

The fast tempo of childbearing in Algeria is an interesting finding, especially given the reported high rate of contraceptive prevalence. One possible explanation for this phenomenon is that the length of the birth interval is influenced by postpartum amenorrhea (directly related to both duration and intensity of breastfeeding) and postpartum sexual abstinence. It is also possible that the data on contraceptive prevalence might be exaggerated, or the efficiency of method use might be poor overall. The results of this analysis of childbearing patterns strengthens the argument in support of delay in childbearing on fertility reduction in Algeria. The study’s author suggested that since the rise in age at marriage could not increase indefinitely, that unless other forces came to bear, Algeria could face upward pressure on its fertility rate. In reality, Algeria’s fertility rate continued to decline throughout the years following this study. A key force driving this downward pressure was, in fact, the increasing use of contraceptives among married women.

Fertility Preferences
Evidence indicates that during the 1990s many Algerian women wanted to stop childbearing—possibly signaling a large unmet need for contraception.\(^51\) The percentage of currently married Algerian women wanting no more children was 53 percent in 1992\(^52\) and 50.1 percent in 2001.\(^53\)

A 1992 survey revealed that younger Algerian women prefer a smaller family size than
their mothers did. Women aged 15–19 desired only 3.5 children; older women (45–49) felt that 4.7 children represented the ideal family size (figure 7). The most recent estimate, dated 2001, gives the mean number of desired children as 4.2; more recent data on this trend was not available at the time of this writing. Paradoxically, this ideal family size was higher than the current total fertility rate, which is nearly at replacement level. And Algerian women with fewer living children desire a smaller family size than those having more living children (figure 8). Conclusions about current trends in desired family size will be more robust once more recent data become available.

**Contraception**

There is no question that increased contraceptive prevalence has contributed to fertility decline in Algeria. Survey data from 1986, 1992, and 2007 all show increasing use of

![Figure 7](image-url)  
*Source: Pan Arab Project for Child Development Survey 1992.*

![Figure 8](image-url)  
*Source: Pan Arab Project for Child Development Survey 1992.*
contraception among married women aged 15–49. If the delay in age at marriage is a key determinant of reduced fertility, it alone would not have sufficed without the coincident increase in contraceptive prevalence among married women.

The contraceptive prevalence rate in the era before widespread family planning was negligible—just 2 percent in 1962. After jumping significantly during the late 1960s and 1970s, it reached over 30 percent by 1984 and remained constant until 1988. From 1992 on, the contraceptive prevalence rate began to climb upward again, reaching 61.4 percent by 2006 (figure 9). The unmet need for contraception was estimated at 25 percent in 2008.

The level of contraceptive use varies by urban-rural residence and by educational level. An early survey of reproductive health knowledge, attitudes and behaviors conducted by the Algerian health services demographic research unit in 1966—one year before the first birth spacing center opened—revealed that 44.5 percent of urban women and 65 percent of urban men were aware of at least one method of contraception, but only 15 percent of rural women and 30 percent of rural men were aware. And the desire for family planning increased with higher levels of education. More recent data also indicate that a greater percentage of urban women use contraceptives than rural women (figure 10). Women with secondary or greater level of education are also more likely to use contraceptives, but the data suggest that the gap between no education and primary education is greater than the gap between primary education and secondary education.

Among Algerian women using modern contraceptive methods, the majority chose oral contraceptives (figure 11). The intra-uterine contraceptive device (IUD) is the second most common method, though considerably less popular.

The 1992 survey also revealed several common reasons why married women did not use contraception. Among women aged 15–29, the most commonly reported reasons were the “husband disapproves” (19 percent of respondents), followed by the desire for another child. Among women aged 30–49, the most common reason was “menopause/infertile” (26 percent of respondents), followed by concern about side effects.

Figure 9 | Contraceptive Prevalence Rate in Algeria, 1962–2006

Other Proximate Causes Have Less Influence on Fertility

**Postpartum infecundibility**
Reduced postpartum fecundability is caused by breastfeeding and postpartum sexual abstinence. Post-partum abstinence is traditionally brief in the MENA region, averaging around 40 days—likely somewhat shorter among educated and younger couples, and among urban dwellers. The sharp decline in breastfeeding among young women, an important proximate determinant of “natural” fertility, was a key factor in Algeria’s high fertility before the transition. Breastfeeding continues to be widely practiced in Algeria, usually for around

---

**Figure 10** Percent of Algerian Married Women Using Contraceptives, by Residence and Educational Level, 1966–1992

![Bar chart showing percentage of women using contraceptives by residence and educational level.](chart)

*Source: Population Council 1994.*

---

**Figure 11** Percent of Married Algerian Women Using Contraceptives, by Method (1986 and 1992)

![Bar chart showing percentage of women using different contraceptive methods.](chart)

13–15 months,\textsuperscript{68} without any major changes since the pretransition decline.

\textbf{Abortion}

Though it can influence fertility rates, abortion is a taboo subject in the MENA region. Unsafe abortions are thought to contribute to 6 percent of maternal deaths in the region,\textsuperscript{69} but access to safe abortion services is increasing as public attitudes begin to change despite legal barriers.\textsuperscript{70} Algeria allows abortion in the event that pregnancy will cause risk to the physical and mental health of a woman—the mental health indication was added during a reform effort in 1985.\textsuperscript{71}

Through data on abortion in Algeria is very limited, a recent estimate suggests that during 1995–2000 about 14,373 abortions were performed in Algeria each year\textsuperscript{72}—suggesting that about 8 percent of pregnancies in Algeria during that period ended in abortion.\textsuperscript{73} Although this rate of abortion is lower than the region overall, it does suggest an unmet need for contraception—estimated at 25 percent.\textsuperscript{74}

In April 1998, Algeria’s Islamic supreme Council was said to have issued a fatwa that shocked many in the Arab and Muslim world. The Council stated that abortions would be allowed for women raped during attacks by Islamic extremists, who used sexual assault as a weapon of war.\textsuperscript{75} This edict was seen as a victory for women’s groups and organizations working for human rights. Despite some controversy over whether the Council had actually issued the fatwa, eventually it was confirmed, with the Algerian government stating at the United Nations that abortion was allowed in cases of rape.\textsuperscript{76} But the edict was not translated into law. Although religious support for abortion is important, the rationale behind such arguments does not include women’s rights.

Another potential motive for abortion in Algeria stems from the persistence of marriage between blood relatives for social reasons.\textsuperscript{77} More than 20 percent of Algerian marriages are consanguineous,\textsuperscript{78} a rate that has decreased slightly since 1970 but remains relatively stable. Given the frequency of consanguineous marriage in Algeria, recessive hemoglobin disorders—such as thalassemia—are not uncommon. Genetic counseling and antenatal testing have increased,\textsuperscript{79} and more couples who face decisions about whether to carry a fetus with a lethal genetic condition to term may consider abortion.

Despite relaxation of some social mores in some settings, illegitimate birth remains a taboo. In a documented link between unwanted pregnancy, lack of access to abortion, and suicide among young women, 30 percent of attempted suicides in an Algerian psychiatric ward followed unwanted pregnancies.\textsuperscript{80} This finding lends further support to the problem of unmet need for contraception. Women’s groups in Algeria have formed to advocate for expanded reproductive rights.\textsuperscript{81}

\textbf{Sterilization}

Rates remain very low in Algeria—and are therefore not a significant cause of declining fertility. Only 1.1 percent of Algerian women had undergone permanent sterilization in 1992, most having already reached four or five births before the procedure.\textsuperscript{82}
Algeria’s fertility transition has also been strongly influenced by socioeconomic and cultural change. Increased female education, insufficient housing, and unemployment have delayed marriage or childbearing and reduced desired family size.

Female Education
The relationship between Algeria’s declining total fertility rate and Algerian women’s high rates of primary and secondary school completion is strong. The education of women has played a key role in reproductive behavior to the degree that it modifies other intermediate fertility variables, such as age at marriage and desired family size. Receiving a primary education is sufficient in itself to modify reproductive behavior considerably; secondary or higher education further enhances this effect.

Education in Algeria is free and compulsory up to age 16. Obligatory coeducational school enrollment was mandated in 1965. By 1970, girl’s primary school enrollment reached 43% of the total primary school population. By 2002 girl’s primary school enrollment had reached 100% (figure 12). Just as important, girls’ school completion rates also increased. Girl’s primary school completion rates in 1989 were 73% and increased thereafter, reaching a high of over 95% in 2005 and subsiding to 84% in 2006.

Reflecting the increasing rate of primary school enrollment, female literacy also increased between 1987 and 2002, with younger

Figure 12 | Female Primary School Enrollment in Algeria (percent gross)

Source: des Forts 1998; World Bank 2007/MDG.
women achieving greater rates of literacy than older women (figure 13).

Female enrollment in secondary school has also increased (figure 14). In 1962 one-fifth (1,277) of Algeria’s 5,823 lycée students were female (Des Forts 1998). By 1985 the percentage of females had increased by a factor of nearly forty while the total number of lycéens had increased by a factor of twenty. By 2005 the gross rate of female secondary school enrollment had reached over 86%, a remarkable achievement in the space of little more than a generation.

Urbanization and Housing

Despite its expansive geographic size, Algeria’s population is quite dense, and most inhabitants dwell in the urbanized, coastal areas. The rate of urbanization in Algeria appears to be accelerating faster than the rate of population growth, which was about 1.5% annually in 2007 but increased to 2.5% in 2009. In 1980, over 8 million Algerians lived in urban areas; by 2007, that number had more than tripled to 21 million—about 64.5 percent of the population. The Mediterranean coast is the most urbanized region, though it constitutes only 12 percent of the country’s total land mass.
Urbanization is associated with crowded housing conditions, and Algeria's average household size has grown from an average of 6.7 people in 1977 to 7.0 in 1995 (figure 15). And a more recent estimate indicates that Algeria has only 4 million housing units for 33 million inhabitants—a ratio of 8.25 residents per household. The shortage of housing appears to be greater for adults. The average number of children under age 15 per household was 2.8 in 1995, the average number of adults 4.2, with an average of 3.2 people sharing a bedroom and 2.7 people occupying each room. These statistics suggest the extreme difficulty that young adults face when attempting to establish their own autonomous households, leading to an increase in multiple generations of families sharing the same dwelling. The growing number of unmarried women—and men—also may be contributing to crowding, as women continue living with their families of origin rather than relocating to a new home with a spouse.

This housing crisis has affected fertility in two ways. First, it discourages young couples from marrying until they are almost 30 years old, thereby reducing fertility. For example, in 1992 married women living with their spouse in an independent dwelling had postponed marriage at least 2–3 years longer than women who shared a dwelling with their in-laws. Second, it puts pressure on these couples to have fewer children, especially if they are still trapped within the already crowded confines of their parents’ or in-law’s homes.

**Religion**

The argument that religious precepts or Islamist policies held back fertility reduction in Algeria is not supported by available data. In fact, Algeria’s fertility decline and the increase in women’s age at marriage actually increased during the 1990s, the height of the country’s Islamist movement.

Algerian religious leaders have participated in development of family planning policies since the early post-Independence era. In 1968, the ministry of public health solicited guidance from the Conseil Supérieur Islamique on the question of birth spacing. The Council’s fatwa was liberal in its support for birth spacing as a reasonable choice to protect the interests of mothers and children and in its awareness of the risk women might take in acting to control the timing of childbirth. Declaring birth spacing to be practiced at the discretion of those concerned, the fatwa requested that any government action on birth spacing focus on raising healthy babies rather than limiting births. In 1982, a second fatwa was issued in support of further government action to provide birth spacing. These edicts contradict the commonly held
stereotype that Islamic precepts are incompatible with or hostile to family planning, particularly when framed in the context of safeguarding the health of mother and child. More recent analyses have also affirmed that Islamic law does not prohibit the use of contraception.  

**Women’s Labor Force Participation**

Women who work in the formal labor market have, on average, fewer children. What relationship, if any, exists between these two phenomena? To the degree individual choice exists, decisions regarding marriage, childbearing and formal work are mutually interdependent, and tend to be made contemporaneously, in Algeria no less than elsewhere. Moreover, these decisions are made within an economic context—with very real opportunities and constraints—that affects individual outcomes. Therefore, any discussion of the impact of women’s labor on fertility is incomplete without consideration of the country’s larger political economy.

From Independence through the 1970’s, the Algerian state promoted industrialization as a way to expand wealth while also strengthening the social status quo. Population growth reached its peak in the 1970’s—at a time when three-quarters of the population was under the age of 30. At that time, Algeria was held up as an example for the entire Arab world, thanks to its development model. It boasted powerful heavy industry and generous social benefits; universal schooling and free health care and medicines; an advanced code of workers’ rights; subsidized consumer prices; and improving urban infrastructure. In 1984, the New Family Code gave women the legal right to work outside the home. Algeria even used its windfall from oil profits to champion equality for developing nations.

Algeria’s economy has been in a state of emergency since the last 1980’s. At that time, oil revenues began to decline, while the country simultaneously took on high levels of indebtedness to international creditors. Finally, in 1994 the International Monetary Fund (IMF) worked with Algerian leaders to initiate a structural adjustment program. One concern was that structural adjustment policies might have adverse effects on positive social outcomes such as fertility decline, which would undermine an important social objective of development. A second concern was that the fertility decline could slow down because of economic problems that were unrelated to structural adjustment. However, this appears not to have been the case, as fertility levels continued to decline during this period.

Despite this intervention of the IMF, Algeria suffered a decade-long economic decline, and was plunged into an era of political and social instability, with violent confrontations between the military regime and Islamists. As a result, by the mid-2000’s, Algeria had fallen in esteem, due to its high rates of unemployment and low rates of economic productivity.

Algeria’s economy remains dependent on the oil industry with over 60 percent of State revenues from oil taxes. When Algeria had a centrally planned economy, the public sector provided most jobs. Since the 1980’s, the country has moved away from this model and towards a new approach of economic and social reforms to promote private sector development and economic growth. While public sector is still the main source of new job creation, its share of the job market is shrinking.
In 2000, 23 percent of total employment was in the public sector, compared to only 18 percent, five years later.109

Algeria is the Arab country—with the exception of Iraq and Palestine—with the highest rates of unemployment, affecting 30 percent of the labor force (3 million people). The vast majority of the unemployed are under 30 years of age, which is the average age at which couples marry. Seventy percent of Algerians are under 30 years of age; this group represents a demographic force that will continue to put pressure on the Algerian economy and society for decades to come.

In addition, while the proportion of women in the population has remained constant, their share of the labor force rose by almost 50 percent, and the female participation rate increased by 70 percent, though this figure is still lower than that of men. Further, job prospects for women have also improved, owing to explicit government policies to facilitate their participation.110 Despite the increase in women’s formal employment, gender equality in the Algerian labor force remains elusive, possibly because of the influence of the country’s oil economy;111 as oil production tends to reduce the number of women in the labor force.

Forty years ago, it was rare to find Algerian women working outside the home.112 Until the 1960s, the majority of women who worked were employed in agriculture,113 but this rate began to decline as the economy modernized. Women’s participation in the paid labor market increased, albeit slowly, as industrialization proceeded. In 1977 only 2.61 percent of Algerian women participated in the paid labor force.114 In the late 1990’s the rate was still low—only 8 percent.115 But by 2008, the rate had increased to 70 percent, as noted above.

Nevertheless, high rates of unemployment persist. Macroeconomic shocks, such as low labor productivity, also contributed to unemployment rates. Persistently low productivity threatens the country’s ability to overcome unemployment; unless this changes, the collateral impacts of unemployment on key determinants of fertility (delayed age at marriage, contraceptive prevalence) might continue to affect the life choices of young couples and married women.

### Education and Women’s Employment

In economies which offer opportunities for women’s formal employment, families can make different decisions about allocation of resources. When families know that girls will be able to earn their own income, they tend to invest more in their education and their health.116 Higher family expectations contribute to increases in female school enrollment and literacy. The pursuit of formal work is also driven by women’s personal aspirations. Women who earn income may enjoy a greater degree of personal autonomy, and so might feel incentivized to postpone childbearing, a choice whose consequences include lower parity during their lifetime.

During the early years of Algeria’s industrialization, women possessing higher levels of education were more likely to participate in the formal labor market, even while they remained a minority in the overall Algerian workplace.117 In Algeria today, highly educated women are actually more likely to be unemployed than highly educated men.118 The likelihood of being unemployed actually increases with
education. In 2005, secondary school and university graduates had the highest rates of unemployment. This phenomenon might be due to skills mismatch, and/or to the fact that young people, by definition, are more likely than their elders to be unemployed. Another explanation is that highly educated women are likely to spend more years in school, which helps to further postpone their entry into marriage and childbearing; these women may be eager, once their educations are complete, to begin families and remain at home to raise them. This scenario is not uncommon in the Western context, and may also apply to the Algerian one, though further research is needed to clarify this.
Like other countries in the MENA region, Algeria has undergone a demographic transition, but Algeria’s fertility decline defies conventional explanations. Despite inauspicious starting conditions—a high total fertility rate, reluctant policy environment, and delayed implementation of a national family planning program—Algeria has surpassed some of its neighbors in fertility reduction.

During its pretransition phase, Algeria had one of the highest crude birth rates in the world, nearly 50 per 1,000. The fertility transition began in 1965–70, before any significant government support for or investment in population control or family planning and before significant external donor funding became available. Since then, profound changes in the traditional family model have led to 64 percent decline in the total fertility rate in recent decades, from 6.76 in 1980 to 2.41 in 2006.

The factors that most contributed to Algeria’s fertility decline were increased age at first marriage, increased contraceptive use, and expanded female education. These factors exerted their strongest influence during different phases of the fertility transition—a phased phenomenon resulting from sociocultural and economic changes in the country.

Increased age at marriage was most influential early in the fertility transition. Later, use of contraceptives among married women contributed more to fertility decline. The average age at first marriage for Algerian women is now nearly 30; their preferred form of contraception is oral contraceptives.

Increased age at marriage can be attributed to greater female education. Women who receive at least primary education delay childbearing and consequently experience lower rates of lifetime fertility. Almost all Algerian women enroll in primary school, more than 80 percent completing it. And more than 86 percent of women enroll in secondary school.

Increased age at marriage is also influenced by macro-level economic changes, such as unemployment, urbanization and the related housing shortage. Couples who are unable to establish their own households because of the housing shortage delay marriage and therefore childbearing. And with so many living in cramped quarters with parents and in-laws, couples are inclined to voluntarily reduce family size as well.

Although Algerian women’s demand for children remains strong, their ideal number of children is decreasing. A shift from the large family model to that of the smaller nuclear unit is probably partly in response to strained living conditions created by unemployment and the housing shortage, as well as more subtle sociocultural changes. Nationally Algeria’s model is not yet at two children per couple, as there remains variation between rural and urban norms and behavior. But the ideal number of children has decreased. Younger Algerian women prefer
around 3.5 children, older women prefer 4 children.

Islam has not constituted an obstacle to sociodemographic change in Algeria. But entrenched cultural attitudes present other obstacles to women’s development. Declining fertility does not imply improvement in the conditions or quality of women’s lives. Despite enormous advances in primary education and literacy, the struggle against illiteracy and gender inequality is far from over.

Overall, Algeria’s fertility decline is best understood in terms of changes in behavior, especially the delay in age at first marriage, the increase in contraceptive use, and—to a certain degree—the negative effects of the economic crisis manifested in the housing shortage and unemployment.
References


This paper draws on a review of secondary data sources, including analyses of published statistical surveys (table 2). The three official national censuses after Independence were conducted in 1966, 1977, and 1987. Some vital statistics gathered during the pretransition colonial era are also available but known to be unreliable; nevertheless, some sources do refer to national censuses conducted in 1948 and 1954. The first national multifocal fertility survey in Algeria, the Etude Statistique Nationale de la Population, Resultats de l’Enquete Fecondite, was conducted in 1970. Sources also draw on data from a second survey, Enquete Nationale Algerienne sur la Fecondite, conducted in 1986. A 1988 comparison of the data from these two surveys demonstrated that the data sets were consistent in structure, nuptiality, and fertility. The Algeria Maternal and Child Health Survey, conducted within the framework of the Pan Arab Project for Child Development in 1994, is another well-validated data source in the literature.

### Table 2 | Demographic Surveys in Algeria

<table>
<thead>
<tr>
<th>Report Title</th>
<th>Source</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Étude Statistique Nationale de la Population</td>
<td>National Commissioner for Censuses and Statistical Surveys</td>
<td>1970</td>
</tr>
<tr>
<td>Enquête Sociodémographique: la régulation des naissances, Association Algérienne pour la Recherche Démographique, Économique et Sociale</td>
<td>Direction Generale du Plan et des Études Économiques</td>
<td>1967</td>
</tr>
<tr>
<td>Enquête Nationale sure la Fécondité</td>
<td>Centre Nationale d’Études et d’Analyses pour la Planification</td>
<td>1989</td>
</tr>
<tr>
<td>Algeria 1992 Maternal and Child Health Survey</td>
<td>National Office of Statistics (Algiers) and Pan Arab Project for Child Development/League of Arab States</td>
<td>1994</td>
</tr>
</tbody>
</table>
End Notes

1 Central Intelligence Agency 2009.
2 Pierre and Quandt 1996.
3 Pierre and Quandt 1996.
5 World Bank. 2007.
6 World Bank. 2007.
7 World Bank. 2007.
8 World Bank 2007.
10 Tabutin and Schoumaker 2005.
11 Tabutin and Schoumaker 2005.
12 Tabutin and Schoumaker 2005.
14 Tabutin and Schoumaker 2005.
15 Vallin 1978.
16 Kouaouci 1993a and b.
17 Vallin 1978.
18 Vallin 1978.
19 Kouaouci 1993b.
20 Kouaouci 1993a and b.
21 Vallin 1978.
22 Pierre and Quandt 1996.
23 Lee 1998.
24 Lapham 1972.
27 Lee and others 1998. A fatwa is a religious edict.
29 Lapham 1972; Tahar 1999.
30 Lee and others 1998.
31 Ladjali 1984.
33 Tahar 1999, p. 64, translated by Robbyn Lewis.
34 Tahar 1999, p. 64, translated by Robbyn Lewis.
35 Tahar 1999; Lee and others 1998.
38 Eltigani 2001.
40 Kouaouci 1993a and b; Courbage 1996; Tabutin and Schoumaker 2005.
42 Kouaouci 1993.
44 Eltigani 2001.
45 Westoff 1992; Kouaouci 1993a and b.
50 Roudi 1995.
51 Unmet need for contraception is defined as the proportion of currently married women who do not want any more children but are not using any form of family planning (unmet need for contraception for limiting) or currently married women who want to postpone their next birth for two
years but are not using any form of family planning (unmet need for contraception for spacing).
54 Population Council 1994
57 Ouada-Bedidi and Vallin 2001
58 Tahar 1999.
59 Tahar 1999.
60 World Bank 2007.
61 Dabash and Roudi-Fahimi 2008.
64 Ayad and Kumar 1995.
67 Tabutin and Schoumaker 2005.
68 Tabutin and Schoumaker 2005.
69 Hessini 2007.
71 Hessini 2007.
72 Hessini 2007.
73 There were approximately 8,196,000 females aged 15-49 in Algeria in 2000 (United Nations data accessed May 8, 2009, from http://data.un.org/Default.aspx). The 2000 total fertility rate was 2.67, and the crude birth rate was 21.6 births per thousand women of reproductive age. Based on the crude birth weight, we can estimate that approximately 177,000 births occurred each year. Extrapolating from these estimates, if 14,373 abortions were performed in 2000, and there were 177,000 births that year, then approximately 8 percent, or 1:12.5, pregnancies in Algeria ended in abortion. This falls slightly lower than Hessini’s (2007) estimate of 1:10 for the MENA region.
74 Dabash and Roudi-Fahimi 2008. Unmet need is defined as the proportion of married women who prefer to avoid a pregnancy but are not using contraception.
75 Chelala 1998.
76 Hessini 2007.
77 Tabutin and Schoumaker 2005.
78 Hessini 2007.
79 Hessini 2007.
80 Hessini 2007.
81 Hessini 2007.
83 Tabutin and Schoumaker 2005.
84 Tabutin and Schoumaker 2005.
85 des Forts 1998.
91 Central Intelligence Agency 2009.
92 Central Intelligence Agency 2009.
94 Courbage 1995.
95 Central Intelligence Agency 2009.
96 Courbage 1995.
97 Courbage 1995.
100 Tabutin and Schoumaker 2005.
102 Ladjali 1984.
103 Guend 1993.
104 Martin 2008.