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THE IMPACT OF FAMILY TRANSFORMATIONS ON REPRODUCTIVE BEHAVIOUR IN ALGERIA: A SOCIODEMOGRAPHIC STUDY

أثر التحولات الأسرية على السلوك الإنجابي في الجزائر: دراسة سوسيوديمغرافية

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ملخّص:

تهدف هذه الدراسة إلى الكشف عن دور التحولات الأسرية في إعادة تشكيل السلوك الإنجابي، الذي يتجلى في الانتقال من الأسرة التقليدية الممتدة إلى الأسرة الحديثة النووية وما صاحبها من تغيرات سوسيوديمغرافية لتفسير أسباب تراجع الخصوبة، ثم عودتها إلى الارتفاع النسبي، ثم استئناف مسارها التنازلي. اعتمدنا في ذلك على المنهج الوصفي التحليلي لبيانات عن المسح العنقودي متعدد المؤشرات (MICS 2019)، وبيانات البنك الدولي المستمدة أساساً من تعدادات 1966 و1977 و1987 و1998 و2008، بالإضافة إلى المسحين العنقوديين الرابع والخامس. وتوصلنا إلى أن تطور الخصوبة في الجزائر لم يكن مجرد تغير عددي في عدد المواليد، بل يمثل انعكاساً مباشراً للتحولات التي عرفها المجتمع الجزائري، حيث أسهم الانتقال التدريجي من الأسرة الممتدة إلى الأسرة النووية في إعادة تشكيل وظائف الأسرة، وتأثر قرار الإنجاب بكل هذه التحولات الأسرية.

الكلمات المفتاحية:

الأسرة، التحولات الأسرية، السلوك الإنجابي، الخصوبة.

Abstract:

This study examines the impact of family transformations on reproductive behavior by analyzing the transition from the traditional extended family to the modern nuclear family and the associated sociodemographic changes as factors in fertility decline, subsequent recovery, and renewed downturn. Employing a descriptive-analytical methodology, the study draws on data from MICS (2019), World Bank databases, national censuses (1966, 1977, 1987, 1998, 2008), and the fourth and fifth MICS surveys. The findings demonstrate that fertility changes in Algeria cannot be understood merely as quantitative processes; rather, they reflect fundamental social transformations. Specifically, the progressive transition from extended to nuclear family structures has redefined family functions and reorganized reproductive behavior around new socio-economic foundations.

Keywords:

Family; Family Transformations; Reproductive Behaviour; Fertility.

1. INTRODUCTION

Contemporary societies are undergoing profound transformations that are reshaping family structures, functions, and values. The Algerian family has been influenced by these broader changes, including rapid urbanisation, the expansion of educational opportunities, particularly for women, improvements in living standards, and increasing cultural openness. Together, these sociodemographic changes have contributed to shifts in attitudes towards marriage and childbearing, alongside a gradual transition from traditional extended-family arrangements towards predominantly nuclear household structures.

These transformations have occurred alongside significant changes in reproductive behaviour in Algeria, including a substantial long-term decline in fertility, a subsequent rebound after 2002, and a renewed decline after 2017. This evolving demographic context raises questions about the relationship between changes in family structure, marriage patterns, and fertility trends. Accordingly, this study addresses the following central research question: **To what extent are sociodemographic transformations, particularly changes in family structure and the timing of first marriage, associated with reproductive behaviour among couples in Algeria amid fluctuating fertility trends?**

The study is guided by the following hypotheses:

- **General hypothesis:** Sociodemographic transformations within Algerian families are associated with changes in reproductive behaviour.
- **H1:** The transition from extended-family arrangements towards nuclear household structures is associated with changes in couples' reproductive behaviour.
- **H2:** Delayed entry into first marriage is associated with changes in reproductive behaviour and may contribute to variations in period fertility levels.

Methodology

To examine these hypotheses, the study adopts a descriptive-analytical sociodemographic approach based on the secondary analysis of demographic data. The dataset draws on Algeria's National Population and Housing Censuses conducted in 1966, 1977, 1987, 1998, and 2008; successive rounds of the Multiple Indicator Cluster Surveys (MICS4, MICS5, and MICS 2019); and demographic indicators from the World Bank databases. These sources are used to examine changes in family structure, marriage patterns, and fertility over time and to explore the relationships between these demographic trends.

2. Theoretical And Conceptual Framework

2.1. Concepts

2.1.1. The Concept of the Family

Comte considers the family a fundamental unit of society and a primary social environment in which individuals develop and acquire their initial social experiences (Qalmin, 2018, p. 418).

In Islam, the family occupies an important position as a foundation of social life. This significance is reflected in the Qur'anic verse: "And Allah has made for you from yourselves mates, and has made for you from your mates sons and grandchildren, and has provided for you from the good things" (Qur'an, Surah An-Nahl, 16:72).

From a sociological and anthropological perspective, families can be classified according to their composition and living arrangements. Two commonly discussed forms are the extended family and the nuclear family.

A. The Extended (or Joint) Family

The extended family comprises a family unit that includes relatives beyond the nuclear family, such as grandparents, uncles, aunts, and other kin. These relatives may live in the same household or in separate but closely connected residences. This family structure is often associated with intergenerational support, shared responsibilities, cooperation, and the transmission of cultural values. In some contexts, authority may be concentrated in the hands of an older family member, although decision-making arrangements vary according to cultural, social, and economic circumstances.

The size and composition of an extended family may influence child-rearing practices and the distribution of parental responsibilities. However, the relationship between family structure and parenting styles is not necessarily uniform. The effects of family size and intergenerational relationships on children's behaviour depend on several factors, including family dynamics, parental practices, and the wider social environment.

B. The Nuclear (Conjugal or Simple) Family

The nuclear family generally consists of two spouses and their children living together as a separate household. It is commonly distinguished from the extended family by the absence of other relatives as members of the same immediate household. Family members are connected through social, economic, and legal relationships, although the precise composition of nuclear households may vary across societies and over time.

The expansion of nuclear households is often discussed in relation to urbanisation, industrialisation, geographical mobility, and changes in employment and housing patterns. These transformations may encourage couples to establish independent households rather than reside with members of the extended family. However, the relationship between socioeconomic modernisation and family structure is complex: nuclear households may continue to maintain strong economic, social, and practical ties with extended kin. Changes in household composition may also influence the organisation of childcare and parental responsibilities, depending on access to family support and institutional childcare services.

2.1.2. The Concept of Family Transformations

Social change refers to transformations in established patterns of social relationships, behavioural norms, and prevailing values within a society. As a fundamental social institution that interacts with other social systems, the family is influenced by these transformations. The pace of social change may vary, ranging from gradual developments to rapid transformations in modern societies. Such changes can affect family size, structure, functions, relationships, and the behaviour of family members (Aoufi, 2003, p. 139).

The Algerian family has experienced various transformations associated with broader social, economic, and cultural changes. Traditionally, the family played a central role in socialisation, transmitting values, moral principles, customs, traditions, and social norms across generations. However, family structures and functions have gradually evolved, particularly since the twentieth century, in response to changing socioeconomic conditions. Factors associated with these transformations include women's increasing participation in the labour market, changes in the roles and responsibilities of spouses, shifts in attitudes towards marriage, variations in divorce patterns, and the evolution of social values. Together, these developments have contributed to changes in family relationships and the emergence or expansion of different household and family arrangements.

Statistical data published by Algeria's National Office of Statistics (ONS) provide a basis for examining changes in household and family composition. These data can help identify the extent to which nuclear households have become more prevalent and how household structures have evolved in response to broader social and demographic transformations (ONS, 1998).

Sociological research also highlights differences between extended and nuclear families in terms of household composition, intergenerational relationships, and the distribution of roles and responsibilities. The transition between these family

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arrangements may be accompanied by changes in family values, child-rearing practices, and patterns of supervision and social support. However, such changes do not necessarily follow a uniform path, as family practices remain shaped by cultural traditions, economic circumstances, and the social context in which households operate (Ouadah-Bedidi & Saadi, 2014, p. 7).

2.1.3. The Concept of Reproductive Behaviour

Ronald Freedman conceptualises reproductive behaviour as encompassing decisions related to family formation, the desired number of children, the timing of childbearing, and the use of family planning methods. These decisions are influenced by a range of social, economic, cultural, and demographic factors (United Nations, 1987, pp. 9–12).

More broadly, reproductive behaviour refers to the attitudes, preferences, and decisions that shape individuals' and couples' childbearing practices, including their desire to have children, the number of children they intend to have, and the timing of births. It reflects the interaction of historical, social, economic, and cultural conditions that influence reproductive choices within a given society (Amzian, 2020, p. 204).

2.1.4. The Concept of Fertility

In demography, fertility refers to the actual reproductive performance of a population, commonly measured by the number of live births occurring within that population over a specified period. It is one of the three principal components of population change, alongside mortality and migration. Fertility plays a major role in determining population growth and age structure and has important implications for the social and economic characteristics of populations.

Fertility should be distinguished from fecundity, which refers to the biological capacity to reproduce. In contrast, fertility concerns actual childbearing, as reflected in birth statistics and demographic indicators. According to Amzian (2020, p. 204), fertility is discussed in relation to individuals' reproductive capacity and behaviour. For analytical precision, however, the biological capacity to reproduce should be distinguished from actual reproductive outcomes, as the latter are also influenced by social, economic, cultural, and demographic circumstances.

2.2. The Theoretical Approach to Family Transformations

Understanding the transformations experienced by the Algerian family requires a socio-historical examination of the traditional family model and the social values associated with it. Traditionally, the family played a central role in transmitting cultural norms, organising social relationships, and promoting cooperation and

solidarity among its members. This model was often associated with the extended family, in which several generations and related households maintained close social, economic, and residential ties. The sociological works of Pierre Bourdieu and Mustapha Boutefnouchet provide important perspectives for examining the structural and cultural characteristics of the Algerian family.

In his study *Sociology of Algeria*, Bourdieu examined social structures and cultural practices in Algerian society, including the organisation of traditional family and community life. The traditional family model was characterised in many contexts by hierarchical relationships between generations and by the authority of the family head, often the father or grandfather. Family organisation was closely connected to kinship relations, the transmission of property, and collective obligations. In some rural settings, marriage within the wider kinship group also played a role in maintaining family ties and preserving property within the group. Individual choices were consequently shaped, to varying degrees, by family expectations and the interests of the wider community (Bourdieu, 2010, pp. 94–99).

Research on the Algerian family has also highlighted the importance of patriarchal authority and patrilineal descent in traditional systems of family organisation. These arrangements influenced inheritance practices, the transmission of family property, and the distribution of roles and responsibilities among family members. In his discussion of changing family values, Triki (2017, pp. 83–84) addresses the relationship between collective norms, social solidarity, and transformations in the structure of the Algerian family.

Collectivism constitutes an important dimension of this traditional family model. Individuals are understood in relation to their family and community, while cooperation, mutual assistance, and collective responsibilities often take precedence over individual preferences. Economic activities and resources may also be organised around family needs and shared obligations, although practices vary according to local circumstances and socioeconomic conditions.

Socialisation plays a central role in the transmission of these values. From childhood, individuals acquire norms, behavioural expectations, and models of interaction through family relationships and the wider social environment. This process contributes to the continuity of cultural practices and family structures across generations. Nevertheless, socialisation does not necessarily produce complete conformity: individuals may reinterpret inherited values as educational opportunities, employment patterns, urbanisation, and changing social expectations reshape family life.

From this perspective, the transformation of the Algerian family can be understood as a gradual and uneven process involving changes in household composition, authority relations, gender roles, marriage practices, and the balance between collective obligations and individual aspirations. The movement towards nuclear households should therefore not be interpreted simply as the disappearance of traditional values. Rather, it reflects the complex interaction between inherited family structures and the changing social, economic, and cultural conditions of contemporary Algerian society.

3. Sociodemographic Factors of Family Transformations

3.1. Urbanisation and Place of Residence

Ibn Khaldun viewed urbanisation as part of the broader social and economic development of human communities. In his analysis, societies move beyond meeting their basic needs towards seeking greater comfort and more developed forms of social life. This process depends on cooperation and the development of increasingly complex social relationships.

In contemporary societies, urbanisation is associated with changes in living conditions, educational opportunities, employment patterns, and social relationships. The expansion of urban areas can provide individuals with greater access to education and diverse employment opportunities, while also influencing traditional family arrangements, social values, and patterns of economic dependence. These changes may contribute to a gradual shift towards greater individual autonomy and financial independence, although their effects vary according to socioeconomic circumstances and cultural context.

In Algeria, urbanisation may also be associated with transformations in marriage patterns and household composition. Changes in housing conditions, employment opportunities, and lifestyles can influence the timing of marriage and encourage some couples to establish independent households rather than live within extended-family arrangements. Such developments may also affect reproductive decisions, including the desired number of children and the timing of childbearing. However, the relationship between urbanisation and fertility is complex and cannot be explained by place of residence alone, as it is also shaped by educational attainment, women's employment, access to housing, economic conditions, and changing family aspirations.

Urbanisation should therefore be understood as an important sociodemographic factor associated with family transformations and reproductive behaviour. Examining differences between rural and urban populations can help clarify how living environments relate to marriage patterns, household structures, and fertility trends in Algerian society.

Table 1:

Shows the proportion of mothers in Algeria by educational level and place of residence in 2019:

Place of residence / Education	Urban	Rural
Educated	90.3	73.1
My mum	9.7	26.9
Total	**100**	**100**

Source: Compiled by the researcher , citing: Ministry of Health, Population and Hospital Reform et al., 2020, Multiple Indicator Cluster Survey [MICS] 2019, final report, Algeria, p. 127. (*) Data based on fewer than 25 unweighted cases.

The table confirms that educational attainment is more widespread among women in urban areas. Algerian statistics show a strong correlation between fertility and area of residence across various age groups, with fertility rates higher in rural areas than urban areas due to higher illiteracy rates among rural women.

3.2. Women's Educational Attainment

Differences in fertility levels may be associated with variations in educational attainment, as education can influence marriage patterns, reproductive preferences, and the timing of childbearing. The age at first marriage and the timing of the first birth are also shaped by cultural norms, socioeconomic conditions, and prevailing expectations regarding family formation.

For many young women and men, pursuing higher levels of education can postpone entry into marriage by extending the period devoted to academic and professional development. Education may also expand employment opportunities, strengthen economic independence, and encourage individuals to make more informed decisions about marriage and childbearing. In particular, women's educational attainment can influence their reproductive choices by broadening their aspirations and increasing their opportunities to participate in economic and social life.

Conversely, in contexts where access to education and employment opportunities is limited, marriage may represent a more immediate or socially expected life course for young women. However, the relationship between education and marriage timing varies across social and cultural settings. Women's educational attainment should therefore be considered an important factor in understanding family transformations and reproductive behaviour, alongside employment opportunities, household economic circumstances, access to reproductive health services, and prevailing social norms.

Table 2:

Shows the average age at marriage for both sexes by educational level for the year 2019:

Age at marriage / Level of Education	Women	Men
No education	26.6	32.2
Preparatory	27.3	30.6
Primary	23.2	33.7
Secondary	24.4	34
Secondary	24.9	33.5
University	27.0	34.1
No answer	*	*
Total	**27.1**	**33.9**

***Source**: Compiled by the researcher , citing: Ministry of Health, Population and Hospital Reform et al, 2020, Multiple Indicator Cluster Survey [MICS] 2019, final report, Algeria, p. 127. (*) Data based on fewer than 25 unweighted cases.*

Algeria has witnessed a substantial expansion of educational enrolment at various levels, particularly following independence, when the state adopted policies aimed at providing free and compulsory education. These developments have contributed to improvements in educational access and attainment across the population, particularly among women.

The expansion of educational opportunities has also been associated with changes in the age at first marriage, especially among women. Access to secondary and higher education has extended the period devoted to academic training and professional preparation compared with previous generations. Furthermore, women's educational advancement has contributed to expanding their employment

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opportunities, strengthening their economic independence, and increasing their participation in professional and leadership positions across different sectors of society.

The available data indicate a positive association between women's educational attainment and the age at first marriage. The reported average age at marriage rises from 23.2 years among women with primary education to 27 years among university graduates. This pattern suggests that longer educational trajectories may be associated with later marriage. However, this relationship should also be considered in relation to other factors, including employment opportunities, socioeconomic circumstances, and changing social expectations.

These developments are also relevant to the analysis of reproductive behaviour. Changes in educational attainment and marriage timing may be associated with shifts in the timing of first childbirth and fertility patterns among younger women. The fertility indicators presented in Figure 1 can help illustrate these demographic trends, although their interpretation requires attention to the specific age groups, indicators, and reference periods covered by the data.

3.4. Women's Employment

Women's employment is an important sociodemographic factor that may be associated with reproductive behaviour. As discussed by Spencer, participation in demanding professional occupations may create challenges in balancing employment and childcare responsibilities, potentially influencing decisions about family size and the timing of childbearing (Ben Zayed, 2019–2020, p. 16).

In Algeria, the relationship between women's educational attainment, labour market participation, and fertility presents an important area of demographic investigation. Although women's access to education has expanded considerably, their participation in the labour market has remained relatively limited. This gap between educational attainment and economic integration may affect women's career opportunities, economic independence, and decisions concerning marriage and childbearing. For some women, limited employment opportunities may increase the likelihood of prioritising family responsibilities, whereas for others, barriers to employment may contribute to postponing marriage or childbearing because of economic uncertainty.

These relationships are complex and should not be interpreted as evidence that women's employment patterns directly determine fertility trends. In particular, Algeria's fertility rebound after 2002 cannot be attributed solely to women's limited labour market participation without further empirical evidence. A more

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comprehensive analysis should consider additional factors, including changes in the age at first marriage, household income, housing conditions, access to reproductive health services, and changing family preferences. Examining these factors together would provide a more balanced understanding of the relationship between women's employment and fertility trends in Algeria.

Table 3:

Shows the average age at marriage in Algeria by women's employment status for the year 2013:

Employment status	Average age at marriage
Employed	30.1
Not in employment	26.3

Source: Compiled by the researcher, citing: Ministry of Health, Population and Hospital Reform et al, 2020, Multiple Indicator Cluster Survey [MICS] 2019, final report, Algeria, p. 127.

These indicators can also be examined through the theoretical perspective of social mobility. For some women in Algeria, pursuing higher education and professional advancement may be associated with postponing marriage until they achieve greater financial independence and consolidate their professional and social positions. However, the extent of this relationship should be established through empirical data, particularly regarding the average age at first marriage among female university graduates and employed women.

These aspirations may also intersect with broader transformations in family structure, including the shift from extended-family arrangements towards nuclear households, particularly in urban settings. In this context, decisions concerning marriage, childbearing, and household formation may increasingly reflect individual aspirations, employment prospects, housing conditions, and the rising cost of living. Establishing financial stability before starting a family may therefore become an important consideration for some couples.

Furthermore, the direct and indirect costs of raising children, including housing, education, healthcare, and everyday living expenses, may influence couples' decisions about the desired number of children and the timing of childbirth. Nevertheless, these decisions are also shaped by cultural expectations, family support networks, access to childcare, and personal preferences. The relationship between social mobility, marriage timing, family structure, and fertility should therefore be understood as multidimensional rather than as a uniform process affecting all women and families in Algeria.

3.5. The Cost of a Child

In his theory of the cost of children, the demographer and economist Harvey Leibenstein argues that decisions about childbearing can be examined through a cost–benefit framework. From this perspective, parents consider both the expected benefits of having children and the costs associated with raising them when making decisions about family size. Leibenstein distinguishes between direct costs, such as expenditure on food, clothing, healthcare, and education, and indirect costs, which include the time, effort, and economic opportunities that parents may forgo because of childcare responsibilities. These opportunity costs may be particularly significant for women when childcare responsibilities limit their participation in paid employment or opportunities for professional advancement (Falahi, 2018–2019, pp. 80–81). This approach provides an economic perspective on reproductive behaviour, although childbearing decisions are also shaped by cultural norms, emotional considerations, and social expectations.

Women's employment conditions, earnings, and career prospects may also influence their fertility preferences. In societies characterised by low fertility, attitudes towards voluntary childlessness and the postponement of childbearing may vary according to gender, educational attainment, employment status, and stage of life. Such differences may partly reflect the unequal distribution of childcare responsibilities and the potentially greater professional and economic costs that motherhood imposes on women. At the same time, women who remain childless may face stronger social expectations or stigma than men, particularly in contexts where motherhood is closely associated with women's social roles.

Recent research by Badolato and Hayford (2026), based on data from the United States, examines similarities and differences between men's and women's fertility goals, including their intentions to have children, postpone childbearing, or remain childless. Their findings indicate that fertility intentions vary by gender, age, and existing number of children, highlighting the importance of considering both men's and women's perspectives when analysing reproductive behaviour. These findings also suggest that fertility preferences cannot be understood solely in terms of financial costs; they must be examined alongside gender roles, anticipated parenting responsibilities, and individual life-course considerations. However, since this study focuses on the United States, its findings should not be directly generalised to Algeria without supporting local evidence.

3.6. State Population Policy and Family Institutional Frameworks

Algeria's fertility trends should be examined in relation to the country's population policies, public health programmes, and family legislation. These institutional developments have shaped the context in which individuals and couples make decisions about marriage, family formation, and childbearing. Three important milestones are particularly relevant.

1. Family planning and public health initiatives

Family planning programmes have contributed to the institutional provision of reproductive health services in Algeria. The Public Health Protection and Promotion Act (Law No. 85-05 of 16 February 1985) established a legal framework for public health protection and promotion. Maternal and child health services have also provided an institutional setting for reproductive health care and family planning. However, the specific chronology of the national family planning initiative, the introduction of birth-spacing services, and the provision of free modern contraceptives should be established through official health policy documents before these measures are attributed to a particular year. Their potential relationship with fertility trends should be examined alongside changes in marriage patterns, socioeconomic conditions, and reproductive preferences.

2. The enactment of the Family Code in 1984

The Algerian Family Code was enacted under Law No. 84-11 of 9 June 1984. It established a statutory framework governing marriage, family relations, and related legal matters. The Code should be considered within the broader context of changes in household composition and family organisation in Algeria. Nevertheless, it would be too strong to conclude that the legislation itself institutionalised residential autonomy for newly married couples or directly caused the transition from extended to nuclear households. Such changes also depend on housing availability, urbanisation, employment, geographical mobility, and evolving social expectations.

3. The 2005 amendment to the Family Code

The Family Code was amended and supplemented by Ordinance No. 05-02 of 27 February 2005. The reform modified several provisions concerning marriage, divorce, spousal rights and obligations, and the protection of children. Among the changes was the removal of the provision that explicitly established the husband's duty of obedience in the previous version of the Code. These amendments represented an important development in the legal framework governing marital relations. However, their implications for women's actual autonomy and participation in reproductive decision-making should be assessed in relation to social

practices, access to resources, and the distribution of decision-making power within households.

Taken together, these policy and legislative developments provide an institutional context for analysing fertility change in Algeria. Their effects should not be treated as automatic or independent of broader demographic, economic, and cultural transformations.

3.7. The Effects of Sociodemographic Changes on the Family

The transition from extended-family arrangements towards nuclear households, together with changes in education, employment, urbanisation, and family legislation, may reshape family values, relationships, and mechanisms of social control. However, these transformations do not necessarily produce the same outcomes across all Algerian households. Their effects can be examined through several interrelated dimensions.

3.7.1. Social Individualism and Changes in Family Solidarity

The relationship between individualism, urbanisation, and family solidarity has been widely discussed in the sociology of social change. From this perspective, urban and industrial environments may encourage greater emphasis on individual aspirations, personal autonomy, and independent household organisation. Geographical mobility and the physical separation of relatives may also alter the everyday forms of mutual assistance and social control traditionally associated with extended-family networks.

Nevertheless, the growth of individual autonomy does not necessarily imply the disappearance of family solidarity. Support between generations may continue through financial assistance, childcare, shared responsibilities, and frequent contact, even when relatives live in separate households. In Algeria, the relationship between urbanisation, individual aspirations, and kinship solidarity should therefore be understood as a process of adaptation rather than a uniform decline in family cohesion.

3.7.2. Changes in Patriarchal Authority and the Status of Women

Sociodemographic transformations, particularly the expansion of education and women's participation in professional life, may contribute to changes in traditional patterns of authority within the family. In some households, relationships between spouses have become more oriented towards dialogue, consultation, and shared decision-making, although the extent of this change varies according to social, economic, and cultural circumstances.

The increasing educational attainment of women may strengthen their capacity to participate in decisions concerning household expenditure, children's education, employment, marriage, and family planning. Legal reforms, including the 2005 amendment to the Algerian Family Code, have also modified the formal framework governing marital relations. Nevertheless, changes in legislation and educational opportunities do not necessarily translate into equal decision-making power in every household.

These developments are relevant to the study of reproductive behaviour because decisions about the timing of childbirth, desired family size, and the use of family planning methods may be shaped by the relative autonomy of spouses and the extent to which reproductive decisions are negotiated jointly. Triki (2017, pp. 83–84) may provide a relevant theoretical contribution to this discussion, provided that the cited pages substantiate the claims concerning changing family authority and women's status.

4. Family Transformations

Sociodemographic changes have contributed to significant transformations in family structure, relationships, and values. These changes may be associated with shifts in reproductive behaviour, including decisions concerning marriage, the timing of childbirth, and desired family size.

4.1. Changes in Traditional Family Structure: From the Extended to the Nuclear Family

Algerian families have experienced gradual structural transformations since independence, influenced by urbanisation, educational expansion, changing economic conditions, and geographical mobility. One notable development has been the growth of nuclear households, consisting primarily of parents and their children, alongside the continued existence of extended-family arrangements. These changes may reflect a gradual shift towards greater household autonomy and individual decision-making, although family solidarity and intergenerational support remain important in many contexts.

The relationship between family structure and reproductive behaviour is complex. Household size, living arrangements, access to family support, and the economic responsibilities associated with raising children may all shape couples' reproductive decisions. However, the extent to which the transition towards nuclear households has influenced fertility patterns in Algeria requires empirical examination using demographic and household data.

Table 4:

The evolution of nuclear families across various national censuses from 1977 to 2008:

Years	1977	1987	1998	2002	2008
Proportion of nuclear families	59.4%	58.8%	66.9%	71.5%	75%

Source: Compiled by the researcher, citing: Ouadah-Bedidi, Z., & Saadi, N. 2014 ، ***Algeria: Women and Families between Law and Reality*** (Working Paper No. 214). National Institute for Demographic Studies (INED),p 7.

The data indicate an increase in the proportion of nuclear families in Algeria, from 59.4% in 1966 to 66.9% in 1998 and 75% in 2008 (source to be verified). This trend reflects the social and economic transformations experienced by Algerian society, including urbanisation, rising educational attainment, and improvements in housing conditions, which have contributed to the decline of the extended family in favour of the nuclear family (Ouadah-Bedidi & Saadi, 2014, p. 68).

This structural shift is associated with changes in reproductive behaviour, as nuclear families tend to have fewer children, longer intervals between births, and greater involvement in family planning. These changes have been facilitated by women's increased access to education, their growing participation in the labour market, and their greater autonomy in making reproductive decisions (reference to be added).

Although the proportion of nuclear families remained relatively stable between 1977 (58.8%) and 1987 (59.4%), the period following 1998 witnessed a demographic paradox: fertility rates recovered while the proportion of nuclear households continued to increase, reaching 75% in 2008. This seemingly counterintuitive trend may be interpreted in light of Bongaarts' framework for understanding fertility determinants and the distinction between the timing and the quantum of fertility (Bongaarts, 1978, 1982). The severe housing shortages and security constraints during Algeria's *Black Decade* in the 1990s may have contributed to the postponement of first marriage, thereby temporarily reducing period fertility (reference to be added). Consequently, the post-2000 fertility rebound may partly reflect a realignment in the timing of childbearing (tempo) rather than a substantial increase in the desired completed family size (quantum). Couples who had postponed marriage and childbearing may subsequently have accelerated their reproductive trajectories after marriage and the establishment of independent households. This interpretation, however, requires empirical confirmation through data on age at first marriage, age-specific fertility rates, and completed fertility.

This demographic trajectory also highlights the importance of intermediate fertility determinants within Bongaarts' analytical framework (Bongaarts, 1978, 1982). Economic recovery and state housing programmes may have contributed to changes in marriage patterns (see Table 3), while changes in contraceptive prevalence may have influenced the subsequent recovery in fertility (see Table 4). These relationships should be examined alongside other demographic, social, and behavioural factors before causal conclusions can be drawn.

Following independence, the Algerian family underwent profound structural transformations, including a reduction in household size and the increasing prominence of the modern nuclear family, particularly in urban areas. This family model is characterised by greater residential independence and the concentration of responsibilities within the immediate marital unit, while traditional kinship ties have gradually weakened (Ouadah-Bedidi & Saadi, 2014, p. 68). The shift from collectivism towards greater individualisation within the family can be attributed to several material, social, and economic factors, the most notable of which are the following:

- **Changes in housing patterns (from large extended-family homes to independent flats):** The transition towards independent housing has facilitated the formation of separate households and strengthened the residential autonomy of nuclear families (Ouadah-Bedidi & Saadi, 2014, p. 68).
- **Changes in the nature of work (from collective agricultural labour to paid industrial employment):** The decline of traditional forms of collective production, particularly in rural areas, and the expansion of individual wage employment have weakened customary forms of productive cooperation. These changes have encouraged a shift away from collective economic interests towards individual decision-making and the pursuit of the interests of the nuclear family.

4.2. Family Transformations Affecting Marriage in Algerian Society

One of the most significant transformations affecting marriage in Algerian society is the postponement of first marriage, which has important implications for the timing of childbearing and reproductive behaviour. This phenomenon has become a major concern for researchers, as it reflects a combination of social, economic, and cultural changes, including rising educational attainment, women's increasing participation in the labour market, housing constraints, and changing attitudes towards marriage and family formation (Sharqi, 2014, p. 112).

Socioeconomic and cultural conditions influence fertility primarily through a set of intermediate variables that directly affect reproductive outcomes. Bongaarts (1978) developed a quantitative framework for analysing the proximate determinants of fertility, identifying four principal factors: marriage or sexual union, contraception, induced abortion, and postpartum infecundability. These determinants help explain how social and behavioural conditions influence observed fertility levels by affecting exposure to the risk of conception and the probability that a pregnancy will result in a live birth.

Marriage or sexual union determines the extent to which women are exposed to the possibility of conception within a union. Contraceptive use reduces the probability of pregnancy, while induced abortion affects the relationship between conception and live birth. Postpartum infecundability, which is often prolonged by breastfeeding and the associated suppression of ovulation, can increase the intervals between successive births (Bongaarts, 1978). These mechanisms operate alongside biological factors and broader socioeconomic conditions to shape observed fertility levels.

4.2.1. Rising Age at First Marriage

Age at first marriage is a significant demographic indicator because it records the timing of entry into a first marital union, an event that generally occurs only once in an individual's life. The mean age at first marriage is therefore widely used to assess changes in marriage timing among men and women. It is also an important variable in the analysis of reproductive behaviour, particularly in societies where childbearing remains closely associated with marriage.

In Algeria, where marriage constitutes an important context for childbearing, postponement of first marriage may contribute to changes in fertility patterns by delaying the beginning of the period during which couples are likely to have children. As Sharqi (2014, p. 112) discusses in relation to delayed marriage, this phenomenon can be associated with both constraints and individual choices. Its demographic implications depend on the extent to which delayed marriage is followed by changes in the timing and number of subsequent births.

A later age at first marriage may shorten the period available for childbearing, particularly when women and couples wish to have children within marriage and do not fully compensate for the delay by having children at shorter intervals. However, postponement of marriage does not necessarily lead to lower completed fertility in every case, as subsequent reproductive behaviour, access to reproductive healthcare, and individual family-size preferences also play important roles (Bongaarts, 1978).

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Table 5:

Trends in the average age at first marriage for women (in years) by place of residence in Algeria since independence:

Census or survey	Rural areas	Urban areas	Total
1966	17.8	19.2	18.3
1969–1971	18.8	20.6	19.3
1977	19.8	23.1	20.9
1987	22.3	24.9	23.7
1992	24.6	26.9	25.9
1998	26.8	28.0	27.5
2002	29.1	30.0	29.5
*2008	-	-	30

Source: Vallin, J., & Ouadah-Bedidi, Z. 2012. Declining fertility and socio-economic transformations in Algeria, Working Papers No. 185, Paris, France: National Institute for Demographic Studies (INED). p. 35. * RGPH2008.

The table illustrates a substantial increase in the mean age at first marriage in Algeria, from 18.3 years to 29.5 years, representing a rise of 11.2 years over the period under consideration. This change reflects the profound demographic and social transformations experienced by Algerian society, particularly the transition from relatively early marriage to later marriage.

The mean age at first marriage has consistently been higher in urban areas than in rural areas. In urban settings, it increased from 19.2 years to 30 years, while in rural areas, it rose from 17.8 years to 29.1 years. These differences may be associated with urbanisation, rising educational attainment, and women's increasing participation in education and the labour market, particularly in cities. The urban–rural gap widened from 1.4 years in 1966 to 3.3 years in 1977, before gradually narrowing to 0.9 years in 2002. This convergence suggests that the postponement of marriage progressively extended to rural areas, potentially reflecting the wider dissemination of education and changes in socioeconomic conditions.

According to Beladjdal and Shaadou (2021), the evolution of marriage patterns in Algeria is closely related to broader social and economic transformations. Several factors may help explain the increase in the mean age at first marriage.

Economic and occupational constraints. Unemployment, economic uncertainty, difficulties in securing stable employment, and housing shortages can delay marriage by limiting young people's ability to establish independent households. These constraints may be particularly significant in contexts where marriage is associated with financial stability and access to suitable housing (Beladjdal & Shaadou, 2021).

Educational attainment and changing attitudes. The expansion of education has contributed to the postponement of marriage, particularly among women, as longer periods of study may delay entry into the labour market and the establishment of independent households. At the same time, changing aspirations and greater emphasis on personal development and financial autonomy may influence decisions regarding the timing of marriage (Beladjdal & Shaadou, 2021).

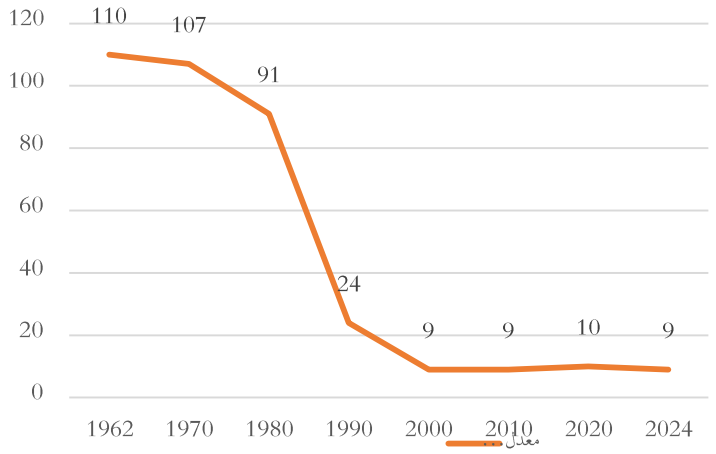
The implications of women's employment. Women's increasing participation in the labour market has contributed to changes in family roles, expectations, and attitudes towards marriage. Greater access to employment and financial independence may enable women to exercise more autonomy in deciding when to marry. However, the relationship between female employment and marriage timing is complex and should not be interpreted as a direct or universal causal relationship.

Taken together, these economic, educational, and social factors may help explain the decline in early marriages, defined in the cited study as marriages occurring before the age of 20 (Beladjdal & Shaadou, 2021). Nevertheless, the magnitude of this decline should be established using the relevant demographic statistics.

These findings suggest that the postponement of first marriage has become an important feature of demographic change in Algeria. In a context where childbearing remains closely associated with marriage, a later age at first marriage may shorten the period available for reproduction and thereby influence fertility levels. This relationship is consistent with demographic transition approaches, which associate changes in marriage timing and family formation with broader socioeconomic development. However, the effect on completed fertility depends on subsequent reproductive behaviour, including the timing and spacing of births and the number of children couples ultimately have (Bongaarts, 1978).

Furthermore, postponement of first marriage does not automatically imply a shorter duration of marriage for every individual, nor does it necessarily result in lower completed fertility. Its demographic consequences depend on the relationship between marriage timing, reproductive intentions, and subsequent childbearing patterns.

Figure 1: Fertility rate among adolescent girls (number of births per 1,000 women aged 15–19)



Compiled by the researcher based on World Bank Group Data (2024),

Adolescent Fertility Rate (births per 1,000 women aged 15–19) for Algeria. Available at:

https://data.worldbank.org/indicator/SP.ADO.TFRT

The adolescent fertility rate in Algeria has declined markedly over the past decades, with a particularly sharp decrease from the 1980s to the late 1990s. According to World Bank data, the rate fell from approximately 71 births per 1,000 women aged 15–19 in 1980 to 9.4 in 1999 and 8.7 in 2000 (World Bank, n.d.). This decline reflects the combined influence of demographic, educational, and socioeconomic transformations, including the expansion of female education, the postponement of marriage, and changes in reproductive behaviour. The development of family-planning policies also formed part of the broader transformation of fertility patterns in Algeria. However, the relative contribution of each factor cannot be established from the fertility trend alone.

The expansion of girls' education has contributed to changes in women's life trajectories and the timing of marriage. Increased educational opportunities have enabled more young women to pursue academic qualifications and professional

aspirations before establishing a family. These changes have coincided with a substantial rise in the average age at first marriage. Ouadah-Bedidi and Vallin (2003) documented an increase in the mean age at first marriage among Algerian women from approximately 18.3 years in 1966 to 27.6 years in 1998. This transformation has reduced the proportion of adolescent girls entering marriage at an early age and, consequently, their exposure to childbearing within marriage. In a context where births outside marriage remain relatively uncommon, delayed marriage is particularly important in explaining the decline in adolescent fertility.

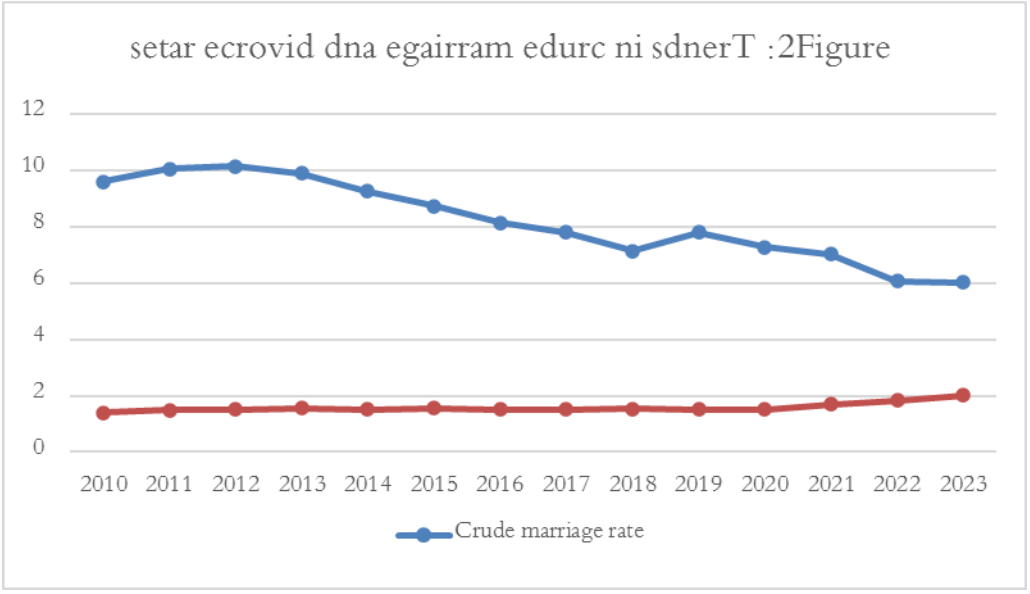
The decline continued during the 1990s, a period marked by political instability and insecurity commonly known as the *Black Decade*. Difficult living conditions and economic uncertainty may have further contributed to the postponement of marriage and family formation. Nevertheless, these circumstances should be understood as possible additional influences within a longer-term transition already under way, rather than as the sole explanation for the decline. The continued fall in adolescent fertility during this period is consistent with the cumulative effects of later marriage and broader socioeconomic changes (Ouadah-Bedidi & Vallin, 2003; World Bank, n.d.).

The decline in adolescent fertility also reflects transformations in family structure, urbanisation, and the economic conditions surrounding the establishment of a household. Rising housing costs, employment difficulties, and the financial responsibilities associated with marriage may encourage young adults to postpone family formation. At the same time, greater access to education and reproductive-health information, together with family-planning services, can support more deliberate decisions concerning the timing of childbirth. These factors provide a broader context for understanding the long-term decline in adolescent fertility, although their individual effects require further empirical investigation.

Despite the overall downward trend, Algeria's adolescent fertility rate experienced a temporary increase during the 2000s and early 2010s, reaching approximately 10.5 births per 1,000 women aged 15–19 in 2016 (World Bank, n.d.). This increase should be interpreted as a fluctuation within the broader demographic transition rather than as evidence of a reversal in the long-term trend. Although the recovery in socioeconomic conditions following the crisis of the 1990s may have influenced marriage and family formation, the available fertility data alone do not establish that a delayed wave of marriages or the expansion of housing and employment programmes caused this increase. Similarly, the hypothesis that variations in the size of successive adolescent cohorts contributed to the observed

fluctuation would require corroboration using age-specific population data and marriage statistics.

Following the 2016 increase, the adolescent fertility rate resumed its downward trajectory, reaching approximately 8.6 births per 1,000 women aged 15–19 in 2024 (World Bank, n.d.). This corresponds to approximately 9 births per 1,000 women when rounded to the nearest whole number. The decline continued through the COVID-19 pandemic period, although the available data do not establish the extent to which the pandemic itself contributed to this development. Overall, the evolution of adolescent fertility in Algeria illustrates a profound and sustained demographic transformation associated with the postponement of marriage, the expansion of female education, and broader socioeconomic changes. The low rate recorded in 2024 confirms the continuation of this long-term downward trend, while indicating that adolescent childbearing, although relatively uncommon, has not disappeared entirely:



Source: Prepared by the researcher, citing: Office National des Statistiques (ONS),2024, Démographie Algérienne 2023, Algiers.

The graph illustrates a temporary increase in fertility during the 2014–2017 period, followed by a renewed downward trend. This fluctuation can be examined in relation to changes in marriage patterns, the age structure of the female population, and broader socioeconomic transformations. The increase in fertility appears to coincide with a rise in the crude marriage rate from 2011 onward, suggesting that the

formation of new families may have contributed to the increase in childbearing during this period. Since marriage remains closely associated with fertility in Algeria, variations in nuptiality constitute an important factor in explaining changes in reproductive behaviour (Ouadah-Bedidi & Vallin, 2003; Ouadah-Bedidi, 2012).

Another factor to consider is the age structure of the female population. Women born during the 1980s progressively entered their twenties and early thirties during the 2000s and 2010s, overlapping with the ages at which childbearing is generally most concentrated. The presence of relatively large cohorts of women in these age groups may therefore have influenced the number of births recorded during the period. However, establishing the extent of this demographic effect requires age-specific fertility rates and population estimates, since the crude number of births and the total fertility rate are influenced by different demographic mechanisms (United Nations, 2024).

The socioeconomic context may also have played a role in shaping marriage and fertility decisions. Economic uncertainty, difficulties in accessing employment, and the costs associated with establishing an independent household can influence the timing of marriage and parenthood. Nevertheless, the suggestion that the financial difficulties experienced by female university graduates encouraged them to marry during this period should be treated as a hypothesis rather than an established explanation. Demonstrating such a relationship would require evidence on employment status, educational attainment, age at marriage, and fertility behaviour. More generally, the postponement of marriage and the increasing economic demands of family formation have been identified as important dimensions of Algeria's broader demographic transition (Ouadah-Bedidi, 2012).

From 2017 onward, the graph indicates a decline in fertility alongside a decrease in the crude marriage rate, while the crude divorce rate continues to rise. This combination suggests a broader transformation in family formation and reproductive behaviour. The decline in marriage may have reduced the number of new unions in which births were likely to occur, while changing expectations regarding family size and the timing of parenthood may have reinforced the downward trend. However, the simultaneous rise in divorce and decline in fertility does not, by itself, demonstrate a direct causal relationship between the two. Divorce may affect family trajectories, but its contribution to national fertility trends must be assessed alongside marriage patterns, age-specific fertility, and other socioeconomic factors.

The COVID-19 pandemic may have further influenced these developments by disrupting employment, mobility, social interaction, and plans for marriage and childbearing. International evidence indicates that the pandemic and the uncertainty surrounding it affected reproductive intentions and fertility patterns in several countries, although the magnitude and direction of these effects varied across contexts (United Nations, 2021). In Algeria, the extent to which the pandemic contributed to the post-2017 decline should therefore be assessed against the longer-term downward trend that preceded it.

Rising living costs, housing constraints, and the increasing participation of women in higher education and employment may also contribute to the postponement of marriage and parenthood and to preferences for smaller families. These factors operate alongside changing aspirations and the broader socioeconomic conditions in which couples make reproductive decisions. Nevertheless, their specific contribution to the observed decline cannot be quantified without additional evidence on household circumstances, women's employment, and desired family size.

Finally, the relative improvement in the crude marriage rate after 2022 does not necessarily imply an immediate recovery in fertility. Marriage and childbearing do not always occur simultaneously, and changes in reproductive behaviour may emerge with a time lag. Furthermore, the crude marriage rate alone cannot explain fertility trends, just as a rising divorce rate cannot independently account for declining births. A more comprehensive interpretation therefore requires the joint examination of the crude marriage and divorce rates, the total fertility rate, age-specific fertility rates, and the age structure of the female population.

Overall, the graph suggests that Algeria's recent fertility trajectory reflects the interaction of nuptiality patterns, demographic change, and socioeconomic constraints. The temporary increase observed during 2014–2017 appears within a broader transition toward lower fertility, which resumed after 2017. The subsequent decline, despite some improvement in the marriage rate after 2022, underscores the importance of distinguishing short-term fluctuations from structural changes in reproductive behaviour.

4.2.2. Shorter duration of marriage:

Early marriage increases the likelihood of having more children, given the extended duration of the biological window for childbearing; whereas, conversely, a later age at marriage inevitably shortens this period, which is reflected in lower actual fertility rates for women. The duration of a woman's marriage has a direct impact on the number of children she has, particularly if she falls within the biologically fertile age range (15–49 yearsdur

4.3. Recent shifts in fertility:

These shifts have led to demographic rationalisation and a decline in reproductive capacity (reproductive behaviour), resulting in smaller family sizes and a limit on the number of children; this is what we shall address in the following section.

5. The impact of family changes on shifts in reproductive behaviour in Algeria:

The relationship between family transformations and changes in reproductive behaviour can be examined through Arsène Dumont's theory of social capillarity, which links fertility patterns to individuals' aspirations for social mobility and upward advancement. According to this perspective, the desire to improve one's social position encourages individuals to invest in education, professional development, and material advancement. In this context, having many children may be perceived as a constraint on achieving these aspirations, encouraging couples to postpone parenthood or limit the number of children they have. Conversely, where opportunities for social mobility are more limited, the incentives to restrict fertility may be less pronounced (Karbait, 2022–2023, p. 27).

Applied to the Algerian context, this theoretical perspective helps explain how socioeconomic development, educational expansion, and changing individual aspirations have contributed to the transformation of reproductive behaviour. The increasing importance attached to educational attainment, professional achievement, and improved living standards has encouraged a more deliberate approach to marriage and childbearing. Rather than considering children primarily in terms of their number, contemporary reproductive decisions increasingly involve considerations of household resources, parental responsibilities, and the capacity to provide children with appropriate educational and developmental opportunities. These changes reflect a gradual shift towards planned parenthood and a greater emphasis on the conditions under which children are raised.

Family transformations have also contributed to this evolution. The gradual weakening of traditional extended-family arrangements and the increasing prevalence of smaller household structures have altered the social and economic context of childbearing. In extended families, children could be regarded as contributors to household activities, sources of support for parents, and a means of maintaining family continuity. In contrast, in smaller and increasingly urban households, raising children entails substantial financial, educational, and caregiving responsibilities. Consequently, decisions concerning family size have become more closely associated with household income, housing conditions, parental aspirations, and the resources available for children's development (Al-Sabouni, 2015).

These developments also reflect changing attitudes towards the social value of children. The transition from a predominantly quantitative orientation towards family size to a greater emphasis on the quality of child-rearing does not necessarily imply that the value attached to children has diminished. Rather, it suggests that parents increasingly seek to reconcile the desire to have children with the objective of providing them with better living conditions, education, healthcare, and opportunities for social advancement. In this sense, reproductive behaviour may be understood as increasingly shaped by the interaction between personal aspirations, family responsibilities, and economic constraints.

In Algeria, these changes must also be considered in relation to the postponement of marriage, the expansion of female education, women's participation in employment, and the rising costs associated with establishing an independent household. Such developments have contributed to the reorganisation of family life and the reconsideration of the timing and number of births. Research on marriage patterns and fertility in Algeria provides a broader demographic context for understanding these transformations (Beladjdal & Shaadou, 2021; Amzian, 2020).

Nevertheless, the application of Dumont's theory should not be interpreted as establishing a direct or exclusive causal relationship between social mobility aspirations and declining fertility. Reproductive behaviour is influenced by several interconnected factors, including marriage patterns, access to contraception, employment opportunities, housing conditions, public policies, and prevailing cultural norms. Dumont's theory therefore provides a useful interpretative framework for understanding the relationship between changing aspirations and fertility decisions, while the specific contribution of each factor in Algeria requires empirical investigation.

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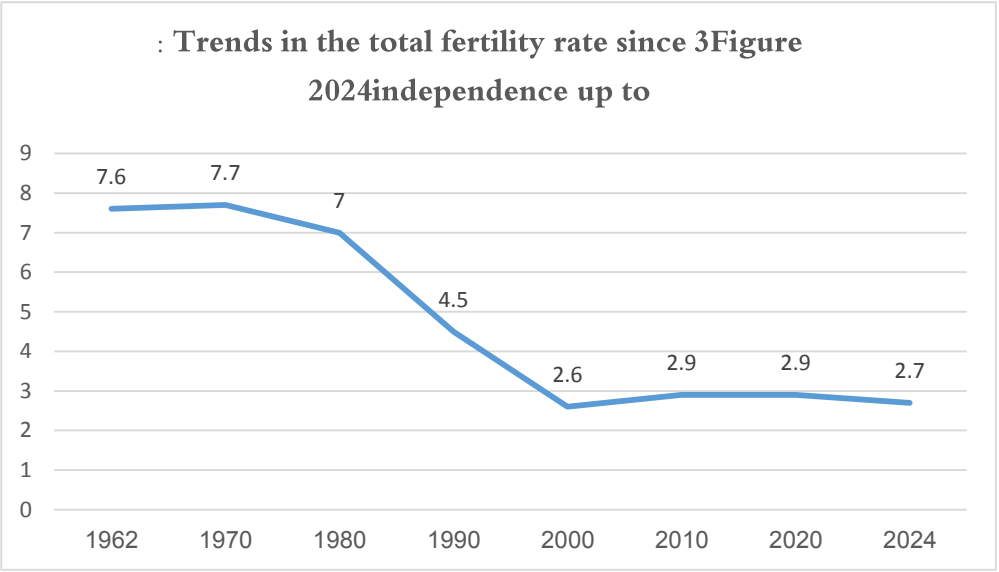


Figure 3: Trends in the total fertility rate since independence up to 2024

Source: Prepared by the researcher, citing: World Bank, *Fertility rate, total (births per woman, Algeria, 2025. (Indicator: SP.DYN.TFRT.IN).* World Development Indicators. From: https://data.worldbank.org/indicator/SP.DYN.TFRT

The timeline shows that fertility trends in Algeria have gone through notable phases:

- **High-Fertility Phase (1962–1980):** Characterised by high fertility resulting from the need to compensate for population losses following independence, improved health conditions, the introduction of free healthcare, and the expansion of maternal and child protection services. The fertility rate stood at 7.6 children per woman in 1962 and 7.7 in 1970, before falling slightly to 7 children in 1980. This high level reflects characteristics of traditional Algerian society based on the extended family, early marriage, and the view that many children constitute economic and social strength. According to demographic transition theory, this phase marks the beginning of the shift from high mortality to low mortality whilst fertility remains high.

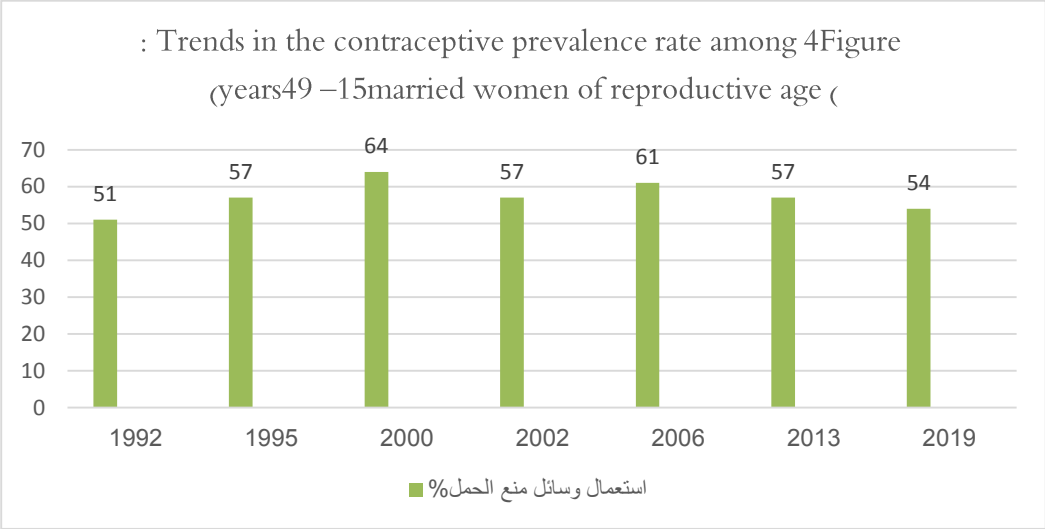
- **Phase of Rapid Fertility Decline (1980–2002):** This phase saw a sharp decline in fertility from 7 children in 1980 to 4.5 in 1990, then to 2.4–2.6 children per woman in 2002. The fertility paradox is explained by Bongaarts' 'catch-up fertility' (tempo effect). Socioeconomic and security constraints in the 1990s temporarily postponed marriages. Post-2000,. This underscores the primacy of Bongaarts' intermediate variablesm,This was due to the expansion of education (particularly for girls), the rise in marriage age, widespread use of family planning, improved health services, urbanisation, and the shift from extended to nuclear families. The "Black Decade" (1990–2002) also contributed to this decline due to the

security and economic crisis and postponement of marriage and childbearing. This phase reflects the beginning of a shift in family values toward rational family planning and a focus on child quality rather than quantity.

- **Phase of Temporary Rise and Stabilisation (2002–2017):** After fertility reached its lowest level in 2002, the rate rose gradually to around 2.9 children per woman, then stabilised between 2014 and 2017 at around 3.1 children. This can be attributed to improved security and economic conditions, expansion of housing programmes, rising incomes, and catching up on marriages and births postponed during the crisis years. Furthermore, the persistence of family values encouraging childbearing contributed to a temporary rise without a return to previous levels; the rate remained close to replacement level, reflecting a phase of relative stability.
- **Phase of Renewed Gradual Decline (2017–2024):** From 2017 onwards, the fertility rate began to fall again, from 3.1 to around 2.7 children per woman in 2024. This is attributed to the continued rise in women's educational attainment and labour market participation, delay in marriage age, rising cost of living, and preference for smaller families and investment in children's education. Economic pressures and the COVID-19 pandemic have also contributed to postponement of marriage and childbearing, reinforcing the downward trend and confirming the shift in reproductive decisions toward economic and professional stability considerations.

5.1.Use of contraception

use



Source: World Bank,2025, *World Development Indicators: Contraceptive prevalence, any method (% of married women aged 15–49), Algeria, (SP.DYN.CONU.ZS).* https://data.worldbank.org/indicator/SP.DYN.CONU.ZS?locations=DZ

The evolution of contraceptive use in Algeria between 1992 and 2019 can be divided into two main phases. Contraceptive use peaked at 64 per cent in 2000, as a result of successful family planning programmes and socio-economic and security conditions that encouraged family planning, coinciding with the lowest level of total fertility (2.6 children per woman). The subsequent decline in use to 54 per cent in 2019 does not reflect declining awareness, but is linked to stabilisation of social conditions, delay in marriage age, and couples' desire to have children during the remaining period of fertility, as confirmed by MICS4 and MICS5 results. This reflects the flexibility of Algerian women's reproductive behaviour and their adaptation to family and social changes.

6. *CONCLUSION*

-Validation of H1 (Residential Cohabitation): The nuclearisation of Algerian households reflects a structural transformation in residential arrangements rather than necessarily indicating a complete breakdown of extended-family ties. The persistence of intergenerational solidarity and support networks may have mitigated the immediate effects of household nuclearisation on fertility behaviour.

-Validation of H2 (The Tempo Effect): The post-2002 recovery in fertility may be interpreted, in part, as a temporary catch-up effect following the postponement of marriage and childbearing during the socioeconomic and security crises of the 1990s. This interpretation suggests a shift in the timing of births (the *tempo effect*) rather than necessarily an increase in the total number of children desired by couples (the *quantum effect*). However, confirming this hypothesis requires evidence from cohort fertility and age-specific fertility data.

-Bongaarts' Proximate Determinants of Fertility: The long-term decline in fertility can be examined in relation to delayed marriage and changes in contraceptive use, both of which influence exposure to the risk of conception. Conversely, the post-2002 recovery may partly reflect changes in marriage patterns and the timing of childbearing. The hypothesis that a temporary decline in contraceptive use contributed to this recovery requires additional empirical evidence and should not be assumed from fertility trends alone.

-The Female Labour Market Paradox: The expansion of compulsory education under the 1976 education legislation contributed to the broader sociocultural conditions underlying changes in women's life trajectories and reproductive behaviour. Nevertheless, women's labour-force participation remained limited, potentially reducing the extent to which employment-related opportunity costs influenced childbearing decisions. The relationship between female

employment and the post-2002 fertility recovery remains a hypothesis that requires further investigation using labour-market and demographic data.

-Legislative and Institutional Transformations: Algeria's family-planning initiatives, the 1984 Family Code, and its 2005 amendment formed part of the institutional context in which family structures and gender relations evolved. These developments should be examined alongside changes in marriage practices, housing conditions, and women's social and economic opportunities. Although the 2005 amendment introduced significant changes to family law, its specific effects on household nuclearisation and reproductive autonomy require separate legal and empirical assessment.

Overall, the Algerian experience demonstrates that changes in reproductive behaviour cannot be explained by a single factor. Rather, fertility trends reflect the interaction of marriage patterns, household structure, contraceptive practices, educational expansion, labour-market conditions, and institutional change. Distinguishing temporary fluctuations in the timing of births from long-term changes in completed family size is essential to understanding the country's demographic transition.

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