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The Islamic Republic of Iran's New Population Policy and Recent Changes in Fertility

Marie Ladier-Fouladi

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Author:	Marie Ladier-Fouladi
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Contact Information:	ladier@ehess.fr
Bio note:	Marie Ladier-Fouladi is Senior Researcher at the French National Center for Scientific Research (CNRS)/ CETOBaC (Centre d'Études Turques, Ottomanes, Balkaniques et Centrasiatiques) and professor of Political sociology and Population studies at the École des Hautes Études en Sciences Sociales (EHESS)
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Marie Ladier-Fouladi

The Islamic Republic of Iran's new population policy and recent changes in fertility

ABSTRACT-After dropping rapidly and steadily over two decades, fertility in Iran stabilized between 2001 and 2011 at around 1.9 to 2 children per woman, before starting to rise slightly between 2012 and 2016, then falling fairly quickly. This coincided with the implementation of the Islamic Republic's new population policy, with its aggressive and coercive measures, one of whose goals was to reverse the downwards trend in fertility. Given changes in proximate and remote determinants of fertility in Iran, and the decline in fertility since 2016, I assume that this new population policy triggered a reduction in intervals between births between 2012 and 2015, leading to a slight rise in the fertility of already married couples. The other latent objective of the Islamic Republic's new population policy is to drive Iran's population up to 150 million inhabitants in the near future. This is utopian given Iran's demographic dynamics, but it conceals the political and ideological goal of asserting Iran's demographic and geopolitical significance within the region, by drawing on a novel immigration policy to make up for its weak fertility.

Keywords: Populationist policy, Family Planning, Women, Fertility, Contraceptive, Marriage, Women's Education, National identity, Islamic Republic of Iran.

Introduction

Fertility in Iran, after falling steadily for 25 years, started rising slightly between 2012 and 2016, before falling again at a quickened pace. At first glance, this slight increase in fertility might appear to place Iran alongside Algeria (which went from 2.2 children per woman in 2002 to 3 children in 2014)¹ and Egypt (going from 3.1 children per woman in 2003-2005 to 3.5 in 2012-2014),² where, after falling for three decades—a drop viewed by these authors as in all likelihood attributable to the rise in age at marriage—fertility started moving upwards. Especially as the large generations born in Iran in the 1980s reached marrying and procreating age over the course of the past decade. However, Iran differs from these two countries in that, in 2010, the state reversed the neo-Malthusian policy it had introduced in December 1989, and opted for a new population policy which may be unhesitatingly described as populationist. Indeed, it was a matter of deploying all means possible to reverse changes in fertility, and especially to reach a target population of 150 million people,³ though within an unspecified timeframe. The supreme leader, Ali Khamenei, gave his firm personal support to this policy, enjoining the authorities to reconsider the policy of birth control, and calling on

¹ Ouadah-Bedidi, "Plus de doute",

² De Bel-Air, "Quand la fécondité"

³ It was a matter of virtually doubling Iran's population, which stood at 74 million inhabitants in 2010.

the clergy, with the assistance of the media, to employ all means possible to alert public opinion to the importance of this matter. In May 2014, deciding it was time to shift up a gear, the supreme leader drew up a strategic program set out in a decree of 14 articles, called “General policies for the population”, enacting the state’s new population policy, and instructed the three powers of the legislative, the executive, and the judiciary to implement it.

Despite all these measures, fertility, after increasing slightly for four consecutive years, has started to fall. So, what factors drove this short-lived uptick in fertility in Iran? In an attempt to provide some basis for responding to this question, this paper examines changes in fertility from 1967 to 2019. This analysis is supplemented by study of the main determinants of fertility to better pinpoint recent changes in fertility. To explain this trend, it then analyses the Islamic Republic’s new population policy, the scale and singularity of the measures taken not only to drive up fertility, but above all to influence the growth, composition, and distribution of Iran’s population.

I. Changes in fertility since 1967

Under the monarchy, the fertility of Iranian women was very particularly high (Figure 1). According to our own estimates based on adjusted birth data,⁴ in 1967, each woman gave birth to 7.8 children on average.⁵ This fertility rate then fell very slowly to a level of 6.8 in 1979. Thus during the 1960s and the 1970s, contrary to wide-spread opinion, demographic behaviors did not change rapidly.⁶ The delayed socio-economic development of the country had widely contributed to the preservation of traditional values. In accordance with the patriarchal traditions, the high level of fertility constituted a social norm, and women who had already been relegated to an inferior position because of their gender and were at their spouses' service, had to bear several children in order to raise big families. Fertility, then, was a guarantee allowing a woman to prolong her conjugal life, just as procreation and raising her children, by and large, constituted the entirety of the role of a woman and the source of her identity, without which she would be marginalized. The influence of these traditions was so important that the first Family Planning Program, implemented in 1967 (discussed later), despite substantial financial support and the involvement of several ministerial organizations, did not actually succeed.

Figure 1: Change in the Number of Births and Total Fertility Rates (TFR) in Iran Since 1967

Sources: Iranian civil registry organization and decennial censuses from 1966 to 2016 (Statistical Center of Iran); TFR: estimation by Marie Ladi er-Fouladi using indirect methods.

After the revolution, the Islamic Republic dropped its birth limitation campaigns and acted swiftly to abolish the law legalizing abortion.⁷ The first of these steps was justified on political grounds, the second on religious grounds. Indeed, family planning was considered by the new rulers as a project by “imperialists” to curb the developing countries’ dynamism, and thereby further their own interests. Nevertheless, the Islamic state did not thereby forbid the

⁴ For a detailed presentation of available statistical data and the indirect method of estimation of the total fertility rate please see Ladi er-Fouladi, “The Fertility Transition”, 192-198.

⁵ For the lack of appropriate statistical data, it is not possible to evaluate the trend of fertility by provinces, nor by urban/rural residence.

⁶ For further information on this topic please see Ladi er-Fouladi, *Population et politique*, 240-246.

⁷ Ladi er-Fouladi, *Population et politique*, 247.

use of contraceptives,⁸ which were clearly authorized in a *fatwa* issued by Ayatollah Khomeini in September 1979⁹.

In spite of the fact that there were no birth control campaigns, the total fertility rate, after a short period of stability between 1979 and 1985, took a very rapid downward course: dropping from 6.4 children per woman in 1986 to 5.3 in 1989 (a decline of 1.1 children in the space of only three years). However paradoxical this may seem, the fertility transition in Iran began under the Islamic Republic despite the political speeches and the *Sharia* laws which were obviously gender-biased.

Let us pinpoint that the Iraq-Iran war (1980-1988), contrary to what one might think, did not have a significant effect on the fertility decline. First of all because the Islamic Republic did not issue a decree of general mobilization and only the young single people conscripted for their military service (27 months for those carrying out their military service in the combat zones and 30 months for the others) and volunteers of all ages (supervised by the *Pasdaran*)¹⁰ were sent to the front. Moreover, married volunteers were given a 15-day leave every three months¹¹. Finally, the conflict affected the civilian population only marginally. The victims were mainly combatants aged 18-25, of urban and origin alike. Most of the fighting took place in the western and south-western border regions, which were deserted by the population.¹²

In December 1989 the Islamic Republic altered its position and adopted an energetic population policy (discussed later). Given women's motivation to control their fertility, the Iranian state's second population policy was, unlike the first, very favorably received and accelerated the drop in fertility. The most spectacular decrease occurred between 1986 (6.4 children) and 2003 (2 children), amounting to a decrease of nearly 70% in the space of 17 years, making the Iranian demographic transition one of the most rapid in history. But it should immediately be pointed out that the fall in fertility started prior to the energetic resumption of family planning by the Islamic Republic. Thus, we should not make the mistake and assume that the fertility transition has its origin in the Family Planning of the Islamic Republic. Fertility had already dropped by 1.7 children between 1978 and 1989. In fact, the scale of the decrease in the 1990s was primarily attributable to women. The family planning means provided by the Islamic Republic merely made it easier to act on their choice.

⁸ It should perhaps be pointed out that Islam is not opposed to the use of contraceptives.

⁹ In February 1980 Ayatollah Khomeini issued a *fatwa* in which contraception was authorized on two conditions: that the method employed did not impair the human organs, and that the husband agreed to its use (Ladier-Fouladi, "The Fertility Transition", 201.

¹⁰ The army of the Islamic Revolutionary Guards (called *Pasdaran* (guards)) was established by decree by Khomeini on May 6, 1979. Its missions are to ensure internal security, to "cooperate" with the armed forces, to train its officers from a moral, ideological, political and military point of view, and, under the supreme leader's oversight and with the consultative opinion of the government, to support all revolutionary movements by the oppressed worldwide. The outbreak of the Iran-Iraq war in September 1980 transformed the *Pasdaran* into an army in its own right. The *Pasdaran* are separate from the regular army but far better equipped than it is. Since the end of the war, they have progressively left their initial mission behind to spread their influence throughout the economic sphere. Nowadays they directly or indirectly control various fields in the Iranian economy (the petrochemical industry, the automobile industry, pharmaceutical companies, telecommunications, and agriculture). They also play a major role in culture, education, and the media (Ladier-Fouladi, *Iran Un monde*, 177-181, and Fauret, "Le corps des Gardiens".)

¹¹ According to our own estimates the annual number of births rose from 1,791,460 in 1980 to 2,255,558 in 1986 it then decreased slightly to 1,940,184 in 1988. Since then a quick decrease was recorded. In other words, during the period of war (1980-1988) the highest annual total number of live births was recorded. For a detailed presentation please see Ladiere-Fouladi, "The Fertility Transition", 194-195.

¹² For human losses due to the war please see Ladiere-Fouladi, *Population et politique*, 123-128.

The theocratic state simply supported women in their plans. But by creating the conditions for their success, it undeniably accelerated this downward trend in fertility.

Iranian women's motivation to control their fertility reflects a global change in society, working against a context that was highly favorable to reviving or maintaining the traditional values desired by the theocratic state, and charting a new course fundamentally redefining the situation of women. Especially as women, by playing a massive part alongside men in the revolutionary events, had become aware of their true position in the private and public sphere. It may even be supposed that in controlling their fertility women continued *their own* revolution. Thus between 2004 and 2012, fertility remained at a very low level (of around 1.9 children per woman on average).

As of this latter date the trend in fertility started going into reverse, rising from 1.9 children on average per woman in 2011 to 2.2 in 2015, and then falling to 1.9 children in 2018 and to 1.7 in 2019 (table 1). At first sight this rise might seem attributable to the arrival of the large generations born in the 1980s, who reached marrying and procreating age during this period. However, given the very serious economic crisis, structural problems in the Iranian economy based on extracting oil revenues, galloping inflation, difficulty in finding employment (especially for young graduates), and the high cost of accommodation in towns, it would have been logical for the generations to delay marrying and/or, at the very least, put off having their first child. This is confirmed by studies looking at the drop in fertility in Iran whose analysis is based on the synthetic parity progression ratio method¹³. The fairly low fertility rates of generations born between 1977 and 1991, aged between 15 and 29 in 2006 fit the forecasts of these three studies.

Table 1: Adjusted General Fertility Rates (Whole country)

Sources: Iranian civil registry organization and General Population Censuses from 1976 to 2016 (Statistical Center of Iran); TFR: estimation by Marie Ladier-Fouladi using indirect methods.

Furthermore, analysis of fertility rates by age group between 2011 and 2016 shows that fertility increased across all ages (Figure 2). Nevertheless, the increase in fertility among women aged 25-29 in 2016 (the generations born in 1987-1991) would appear to be higher than among women of the same ages in 2012. And these generations were those driving socio-cultural change in Iran during the 2000s¹⁴. In the same way, fertility declined across all ages, yet in 2019 the decrease in fertility is more significant among women aged 25-29, 30-34, and 35-39.

Figure 2: Age-Specific Fertility Rates (Whole country)

Sources: Iranian civil registry organization and General Population Censuses from 1976 to 2016 (Statistical Center of Iran); ASFR : estimation by Marie Ladier-Fouladi using indirect methods.

So, what factors contributed to the rise and then fall in fertility? It is generally accepted that social, cultural and economic progress indirectly influence fertility. In order to answer this question, it therefore seemed important to examine fertility trends in Iran in the light of developments in these fields over the past 40 years. To do so, a number of proximate determinants (age at first marriage, contraception, breastfeeding, abortion) can be analyzed,

¹³ Hosseini-Chavoshi, McDonald, and Abbasi-Shavazi, "The Iranian Fertility"; Hosseini-Chavoshi and al. "Fertility, Marriage, and Family Planning"; McDonald and al., "An assessment of recent".

¹⁴ Ladier-Fouladi, *Iran Un monde*, and *La République islamique d'Iran*.

which are in turn dependent on more ‘remote’ socio-economic determinants (infant mortality, literacy, labor force participation, urbanization, etc.) Because of data restrictions, we shall consider here only the factors that are most meaningful in terms of fertility.

1. Women’s age at first marriage

Age at marriage is a factor that is particularly important in societies where fertility outside marriage is non-existent. In the absence of annual data about marriages by age, the only way to estimate mean age at marriage is based on the proportions of single women (having never married) by age, as counted during decennial censuses. While this provides indications about changes in age at first marriage, the data is not such as to allow sufficiently detailed examination to apprehend this trend. For this reason, this analysis is supplemented by analysis of changes in recorded marriages and divorces, focusing on the large generations born in the 1980s.

Although the Islamic Republic lowered the minimum legal age at which women may marry,¹⁵ the mean age at first marriage of women kept rising, due to longer studies and the modernization of family aspirations. It rose from 19.7 years in 1976 to 24 years in 2016 (table 2). Being a national mean, the figure was in fact even higher in cities where it exceeded 25 years of age. Especially as nowadays, primarily in Iranian great cities, a new category of couple is appearing, in which a young unmarried woman and a young unmarried man cohabit, as is widespread in the western world.¹⁶

Table 2: Female Proportions Single and Mean Age at First Marriage. Urban and Rural

Sources: General Population Censuses from 1976 to 2016. Statistical Center of Iran

However, we observe that the proportion single women aged 15 to 24 in urban sectors and aged 15 to 29 in rural sectors, after steadily rising for three decades, has dropped from 2006 to 2016. This may be explained in part by the impact of state campaigns promoting marriage at very young ages (discussed later). All the more so, because of the decrease in the proportions of single women aged 15-29 in rural sectors (from the generations born in the 1990s), the mean age at first marriage dropped over one year, going from 23.8 years in 2006 to 22.7 years in 2016. These young women may have been more receptive to these campaigns. Especially as in 2006 the proportions of single women aged 25-29 peaked at a higher level in rural sectors, at 26.5%, than in urban sectors, at 22.7%.

To check the impact of state campaigns promoting marriage at very young ages, we shall now look at changes in marriages recorded in the civil registry. It should be stated that since the 1980s civil registers provide complete coverage of marriages and divorces.¹⁷

The large generations born in the 1980s reached marrying age in the mid-2000s, and there is an observable slight increase in the marriage rate between 2005 and 2011 (figure 3). Subsequently, the marriage rate started dropping rapidly, going from 10.9% in 2012 to 6.7%

¹⁵ In 1974, this age was fixed at 18 for girls and 20 for boys. After the revolution, it was lowered to the age of puberty: about 9 for girls and 15 for boys.

¹⁶ Azad Armaki and al. “Living together”.

¹⁷ Ladier-Fouladi, *Population et politique*.

in 2018. Conversely, the divorce rate started rising again as of 2006, going from 12.1 per 100 marriages in 2006 to 31.9 per 100 marriages in 2018 (figure 4). For the lack of appropriate statistical data, particularly regarding data about marriages by single age, it is not possible to go further in analysis and check our hypothesis.

Figure 3: The Crude Marriage Rate per 1,000 Population (whole country)

Sources: General Population Censuses from 1976 to 2016. Statistical Center of Iran and Iranian vital Registration Organization.

Figure 4: Number of Divorces per 100 Marriages (Whole country)

Source: Iranian Vital Registration Organization.

Insofar as the change in marriages and divorces, particularly over the past 10 years, contrasts with the upwards trend in fertility, it may be deduced that the rise in fertility is mainly for couples who are already married.

2. Contraceptive practice

For the 1970s, 1980s and 1990s, contraceptive use can only be estimated from the Family Planning Service statistics. Those do not include women using traditional methods of contraception and those who procure contraceptives on the open market. A Family Planning Program, was implemented by the government in April 1967, when *an hoc* department was created within the Health Ministry. The government measures stipulated that several ministerial organizations, as well as a section of conscripts (*sepahe behdasht*, the health army), were to help this department achieve its principal goal: to reduce the number of births. However tradition held such sway at this time that the monarchical government's family planning policy (1967-1977) failed to meet its minimum targets¹⁸. It consisted in attracting at least 500,000 women between 1968 and 1972 to practice contraception on a regular basis. But in May 1970, the results of a new study on the demographic situation indicated an average number of 7 children per woman, a birth rate of 48%, and a mortality rate of 16%.¹⁹ According to the same source the vast majority of women did not consult for family planning until they already had a large family: thus they were stopper rather than spacers. Moreover, the same source found that it was through unfamiliarity with modern contraceptives, ignorance or fatalism that women went beyond their preferred family size (which was 3 to 5 children depending on socio-economic category). According to another survey conducted in 1971 in Isfahan, the mean age of acceptors was 32 and they had five children on average, while four was the preferred family size.²⁰ It should be stressed that in Iran (like other developing countries), the road to family planning has encountered many other obstacles: the lack of facilities and trained personnel, cultural traditions... The legalization of abortion in 1976 in spite of the opposition of some religious leaders, suggests furthermore that the first years of operation of the family planning were not satisfactory ones.²¹ Regardless of these obstacles, the government opted for a proactive change in its population policy to bring the annual growth rate down to 1% within the space of 20 years.

¹⁸ Ladier-Fouladi, *Population et politique*, 240-246.

¹⁹ Moore, Asayesh and Montagne, "Population and Family Planning".

²⁰ Liberman, Gillespie and Loghmani, "The Isfahan Communication Project".

²¹ *Official Bulletin of Iran*, No. 9272, 27 October 1976.

Despite having considerable financial means (the budget allocated to family planning rose from \$500,000 in 1968 to \$15 million in 1974), only 11% of married women between the ages of 15 and 44 followed a birth control program in 1977,²² the last year the policy was in operation.²³ Under these conditions, fertility only dropped very slowly, and, on the eve of the 1979 revolution, each woman was still giving birth to 7 children on average.²⁴

As mentioned earlier, after the Islamic Republic was established in 1979, birth limitation campaigns were halted, but dispensaries and health centers thus continued to distribute contraceptives free of charge,²⁵ even though the choice was limited due to the introduction of austerity measures in the wake of an economic embargo against Iran and the high cost of the Iraq-Iran war (1980-1988). Contraceptives were also on sale in pharmacies at affordable prices. Additionally, the health centers (*khaheh behdâsht*) set up in rural zones as of 1982, one of whose missions was to look after the health of mothers and children, played a crucial role in distributing information and raising awareness about contraception.

In fact this period was notable for the lack of any coherent population policy. However, this did not prevent fertility dropping again. After briefly stabilizing (1979-1985), the figure started to decline as of 1986, falling more rapidly than before. Within the space of three years between 1986 and 1989 and despite the absence of any birth limitation campaign, the fertility rate dropped by 1.1 children.

According to family planning statistics, the number of requests for contraceptives received by dispensaries, often by women from a modest background, kept on rising.²⁶ No information is available about the age, motive, or number of children of mothers who contacted planning family centers. However, the upward trend in the number requesting contraceptives indicates that an increasing number of women were motivated to control their fertility.²⁷

At the end of the war in (on August 1988), the Islamic Republic, which was supposedly pronatalist, committed itself to a policy overtly in favor of birth control.²⁸ On 7 November 1988, Ayatollah Khomeini in his "Charter of Brotherhood" spoke of the necessity of discussing the "the stand to be taken relative to family planning: should family limitation be encouraged or only birth spacing?"²⁹ A media campaign was then launched to explain why the implementation of family planning was essential. Religious guides and experts were also questioned and the opinions of a number of them, in favor of or in opposition to birth control,

²² In the absence of appropriate data, contraceptive practice during this period can only be assessed using family planning statistics, which only include the number of married women between the age of 15 and 44 who "accepted" family planning. For detailed information see Aghajanian, "Population change in Iran".

²³ Aghajanian, "Population change in Iran" and "Population Policy".

²⁴ Ladier-Fouladi, "The Fertility Transition".

²⁵ It should be stated that at this period Iran produced no means of contraception and so had to import them. In this regard, let us recall that the first contraceptive pill was produced in the United States in 1960. It was then authorized in countries across Europe and Asia during the 1960s. Then, other modern and medical contraceptives were produced and marketed in the 1970s and the 1980s, still in the United States and Europe. Consequently, the monarchical government within the framework of its Family Planning was logically forced to import them. Indeed, it was not until the end of the Iraq-Iran war that some Iranian pharmaceutical and parapharmaceutical companies eventually began to produce some contraceptives thanks to collaboration at the international scale. Contraceptive pills are, for example, produced by *Abouriahan* Company and *Iran Hormon* Company, and condoms were first produced in Iran in the early 1990s by *Keyhan Bod* Company followed by *Hiva Pad Pars* Company.

²⁶ Ladier-Fouladi, "The Fertility Transition", 202.

²⁷ Ladier-Fouladi, *Population et politique*.

²⁸ The first seminar on population and development was held on 10 September 1988, barely a month after the cease-fire with Iraq.

²⁹ "Charter of Brotherhood of Imam Khomeini", The daily newspaper *Keyhan*, 7 November 1988: 1.

were widely circulated in the newspapers.³⁰ Finally, in December 14, 1988, *Hojjat-ol eslam* Moghtadaï, the spokesman for the High Judicial Council and a member of the Association of teachers of Muslim law at the theological school of Qom, solemnly announced that, from the point of view of Islam, there were no obstacles to family planning.³¹ In the beginning of 1989, the Ministry of Health, Hygiene and Medical Education (MHHME) was invited to swell its Family Planning Department, in order to steer the new population policy aimed at reducing the annual growth rate from 3.2% to 2.3% in the space of 20 years.³² years the annual rate of population increase to 2.3%.

Presently, the MHHME requested United Nations Population Fund (UNFPA) to meet its needs for maternal and child health services as well as family planning.³³ Before putting its program in place, the Ministry of Health conducted a KAP (Knowledge, Attitude and Practice) survey on 9,000 married women aged 15-44, in 1989. According to the results, 28% of women (31% in the towns and 21% in the countryside) used a modern means of contraception (oral contraceptive, condom, IUD) and 22% (31% in cities and 10% in villages) used a traditional contraceptive (rhythm or periodic abstinence, withdrawal, breastfeeding, postcoital douche), i.e., 50% of women (64% in towns and 31% in the countryside) were using either modern or traditional methods of contraception.³⁴ These percentages of contraceptive users during a period when there was no active family planning program (1980-1989) reveal that the women were already motivated to control their fertility. Let us recall that the decline in fertility had started already in 1986, a full three years before adopting of the Family Planning Program by the Islamic Republic in December 1989.

In 1991, two years after an extremely active family-planning programs policy had been implemented, a new KAP survey conducted once again by the Ministry of Health, showed that 45% of these married women aged 15-44 were current users of modern contraceptive method (pill, condom, tubal ligation, or IUD). This sharp rise is mainly due to rural women (42%) who have now drawn very close to urban users (47%). So sharp a progression in the space of only three years highlights the motivation of women. The conditions that work in favor of birth control - social, cultural and economic developments - existed before the government took its stand and officially supported family planning. The new policy merely fell into step with a movement that was already under way and, by smoothing the route, accelerated the fertility decline.³⁵

According to the results of the IDHS survey, in 2000 nearly 74% of married women aged 15-49 used a contraceptive, with 56% using a modern contraceptive and 18% a traditional contraceptive.³⁶ The IDHS survey for 2010 found the proportion of women using modern contraceptives unchanged at 56%.³⁷ Additionally, according to the results of this same 2010 survey, the use of contraceptives increased with age. Lowest contraceptive usage was found among married women under 20 while married women aged 20-29 were opting for reliable and reversible methods.

As of 2012 family planning centers started cutting back the contraceptives they offered,

³⁰ The daily newspaper *Keyhan*, 30 November, 1,3,4,6,7,8 December 1988.

³¹ The daily newspaper *Keyhan*, 14 December 1988.

³² This was later revised down to ten years: The daily newspaper *Keyhan*, 9 September 1991.

³³ *An Analysis of Population*.

³⁴ Malek Afzali, "Population and Family Planning" and *An Analysis of Population*.

³⁵ *An Analysis of Population*.

³⁶ *Iran Demographic and Health*.

³⁷ Hosseini-Chavoshi and al. Fertility, Marriage, and Family Planning"

before withdrawing all contraceptives in 2013 (discussed later). Obviously, putting an end to the free distribution of contraceptives, especially by health centers in rural and peripheral zones, together with the closing of information programs, had a significant impact on women's fertility. Admittedly, contraceptives were still available in pharmacies, particularly in towns, but given the serious economic crisis, spiraling cost of all products, and development of an informal market in medicines, it may be readily imagined that contraceptives were on sale at prices that far exceeded what poor families could afford. It is most likely that these circumstances have led to an increase in unintended pregnancies and hence to an increase in unwanted births, not to mention the health problems that women from disadvantaged classes encountered in controlling their fertility, especially as in Iran, it will be remembered, abortion is forbidden except in the event of therapeutic abortion on grounds certified by three doctors.

3. Women's Education

The social keystone of this important transformation was unquestionably the progress in young women's schooling starting in the 1980s. As a result of the policy of the monarchic government that privileged the large cities at the expense of the rural and peripheral regions, an important part of the population, in particular women, could not gain access to education. According to the General Population and Housing Census, in 1966, among women of reproductive age (15 to 49) only 15% were literate (34% in urban and 2% in rural areas). Ten years later, by 1976, a large majority of women aged 15-49 still remained illiterate.³⁸ The literacy rate of women aged 15-49 was 28% (50% in urban and 8% in rural areas). Given that an inverted relationship has frequently been observed between fertility and female literacy levels, ie. the higher the latter, the lower the former, the low level of women's education accounts for the high level of their fertility during 1960s and 1970s.

Following the revolution, despite shortcomings in the organization of schooling and literacy, especially in the early 1980s, the expansion of education was particularly beneficial to women whose access to schools rose at an accelerated pace. Thus female literacy rates rose constantly, from 49% of women aged 15-49 (65% of them in urban and 27% in rural areas) in 1986, to 87.4% (92.1% in urban and 76.5% in rural areas) in 2006 and finally up to 92.7% (95.4% in urban and 84.5% in rural areas) in 2016.³⁹

Most importantly is the significant increase in the education achievement of women aged 15-49. In 1976, only 8.7% of them had completed secondary education (16.7% in cities and 1% in rural areas) and 1.5% had succeeded in pursuing their studies at the university (2.9% in urban areas and 0.1% in rural areas). In 2016, 37.6% of women aged 15-49 had graduated from secondary school (39.5% in the urban sector and 31.3% in the rural sector), but more noticeable is that 28.9% of them (33.8% in cities and 11.5% in rural area) earned a university degree.

The indisputable progress of women's schooling reveals the profound transformation of Iranian society. It is one of the main causes of demographic change, particularly regarding the delay of age at first marriage and the decline in fertility in recent decades. The recent reversal of fertility trends is thus in contradiction with such a socio-cultural context where the predominant family model is that of the small nuclear family (one to three children) that now prevails among all social strata in all regions (table 3).

³⁸ *The 1976 General Population Census.*

³⁹ *The 1986 and 2016 General Population Census.*

Table 3 : Total Fertility Rates in Iran. All Women and Iranian Women by Province

Source: Elham Fathi, *Prospects for fertility in Iran from 2016 to 2018 (Tchashm andazi bar barvardar iran az sal-e 1395 ta 1398)*, 2019, Statistical Center of Iran, Tehran, 14 p.

TFR: estimation by Elham Fathi using direct methods.

II. Implementation of a populationist policy

The slight increase in fertility may thus be explained by the Islamic Republic's ambitious new population policy, which we shall now examine. Mahmoud Ahmadinejad (the president of Iran from 2005 to 2013) was the first to question the Islamic Republic's neo-Malthusian policy, declaring to parliament in December 2006, "two children are not enough, Iran's population needs to reach 120 million people."⁴⁰ This declaration triggered lively public debate, including on television. Demographers and economists in particular were opposed to this policy, pointing out the socio-economic consequences that might stem from rapid demographic growth. Faced with these criticisms, and in the absence of the supreme leader's public support on this point, Ahmadinejad preferred not to insist, especially as he had to devote his energy to another issue, of equal importance for his populist policy and his regional ambitions, namely the resumption of the nuclear program.

After being controversially re-elected in June 2009, with the firm backing of the supreme leader, he resumed his offensive against the birth control policy, and in April 2010 declared in a TV interview that "our country has the capacity to reach a population of 150 million people."⁴¹ Somewhat surprisingly, he did not hesitate to target clerics, indirectly criticizing their silence on the subject of birth limitation. Since it was Khomeini who gave his approval for the implementation of family planning, the clerics did not approve of Ahmadinejad's position. It was not until the intervention of Khamene'i in 2011, who clearly gave the green light to adopt the new population policy in order to increase the number of births, that they finally accepted this turnaround.

In September 2009, Ahmadinejad had taken specific the measure of creating a savings plan (an investment account) called the "Fund for the future of our children". The government would pay 1 million *touman* (the equivalent of €559 in 2010) into each account opened for all newborns as of March 21, 2010 (the first day in the Iranian calendar). Payments into this fund were to continue up until the child's eighteenth birthday, on the one hand by the government regularly contributing the equivalent of €67 per year, and on the other by the parents, who the government encouraged to pay in the equivalent of €13 monthly.⁴² Admittedly, this project ran into opposition from MPs opposed to this expensive measure who cut it from the 2011 government budget. But the point to note here is Ahmadinejad's firm intention to deploy such means to reverse the trend in fertility. He was also behind other measures to counter the demographic policy in place.

⁴⁰ It will be remembered that Iran had a little over 70 million inhabitants in 2006 according to the census results.

⁴¹ It will be noted that it is no longer a matter of 120 million inhabitants but of 150 million. Source: *Khabaronline* (Iranian information agency), January 26, 2011, <http://www.khabaronline.ir/news-125864.aspx> (accessed February 3, 2011).

⁴² Source: *ILNA* (Iranian Labor News Agency), April 7, 2010, <http://www.ilna.ir/> (accessed April 10, 2010).

Incentives

1. Encouraging Iranians to marry and found families very young

In autumn 2009, Ahmadinejad decided to take major steps to accelerate the application of a law called the “law to facilitate the marriage of young people”, passed at the beginning of his first term in 2005. While this law was intended to facilitate marriage for young people in general, he expressly recommended marriage at a precocious age during a November 2010 meeting in tribute to the “actors and benefactors of marriage”, declaring: “for me, the ideal age for women to marry is between 16 and 18, and for men between 19 and 21.”⁴³ Ahmadinejad went on to state that “we need to move towards simple marriage and support it. I believe a simple and dignified marriage has priority over employment and housing issues.”⁴⁴ The expression “simple marriage” was used by the head of government to mean a marriage celebrated by an inexpensive ceremony and a dowry of primarily symbolic value, for example 14 gold coins in the name of the 14 Shiite immaculates.⁴⁵

Ahmadinejad thus proposed launching an initiative to conduct propaganda for “simple” early marriage. To this end, the minister for the interior set up a foundation called the “National foundation for marriage” within the ministry’s department for women’s affairs.⁴⁶ This foundation was tasked with coordinating all state activities for the marriage of young people, supporting bodies whose activities consisted in facilitating marriage, and helping set up new structures to monitor these goals.

To assess the impact of this measure it is necessary to carry out a field survey, which is not possible under current conditions in Iran. Nevertheless, as mentioned earlier, it is legitimate to assume that this measure, at least at the beginning, when these financial incentives seemed significant, have encouraged young people from disadvantaged strata, particularly in rural sectors, to get married.

2. Direct redistribution of subsidies

The reform to the subsidy system introduced in December 2010, called “targeting subsidies”, may constitute an indirect incentive. It was a matter of removing energy subsidies (for petrol, diesel, kerosene, mains gas, and electricity) and offering these products at the international market price, while introducing compensatory measures to redistribute part of the revenue thus generated to the most disadvantaged households. Thus as of December 2010, each household member, irrespective of age and sex, received 81,000 *toman* in compensation every two months (the equivalent of €54 in 2010).⁴⁷ By June 2011, 72 million Iranians (nearly 96%

⁴³ It will be remembered that in 2006, the mean age at first marriage for women was 23.7, and for men 26.5.

⁴⁴ Source: ILNA (Iranian Labor News Agency), November 20, 2010, <http://www.ilna.ir/> (accessed December 11, 2010).

⁴⁵ In 2010, fourteen gold coins was worth about 4,823,000 *toman* (the Iranian currency). As the minimum monthly wage was fixed at 274,500 in 2010, the monetary value of this dowry corresponded to less than two years of salary.

⁴⁶ Source: website of the Iranian ministry of the interior, November 7, 2010, <http://dolat.ir/detail/329144> (accessed November 29, 2010).

⁴⁷ It will be noted that since 2012, the Iranian currency has steadily lost its value against the Euro and US dollar. In autumn 2019, one euro was worth 13,400 *toman*, bearing in mind that the minimum wage plus various allowances including family allowance for a married person with two children was fixed at nearly 2,200,000

of the total population) had signed up. By 2016, the figure had increased to a little over 77 million people (still nearly 96% of the total population), with the subsidies now being monthly (45,000 *toman*, or €27).

In the absence of adequate data, it is not possible to analyze the correlation between this policy and the fertility trend. It appears, however, clear that at the beginning of the 2010s, when the cost of living was not as high as in recent years, these subsidies seemed to constitute additional income, and for those who were unemployed a sort of unemployment benefits. Hence, given that each Iranian citizen could receive this subsidy irrespective of age and gender, it may be considered an indirect incentive, particularly for the most disadvantaged, to make up their minds about having more children so as to receive additional subsidies.

Coercive and aggressive measures

1. Halting the distribution of free contraceptives

In parallel to these incentives - and taking advantage of a speech by the supreme leader during a meeting with senior state policymakers in July 2012 in which he emphasized that “if the population control policy continues, the population will grow progressively older and the population will ultimately decline”⁴⁸ - Ahmadinejad blocked the family planning budget for the purchase of contraceptives as of August 2012.⁴⁹ In 2013, following recommendations by the supreme leader, the family planning centers’ budget was drastically reduced. Consequently, these centers definitively halted the distribution of free contraceptives, and stopped offering vasectomies and tubal ligatures as of 2013. As mentioned earlier, contraceptives were admittedly still on sale in pharmacies, but given the serious economic crisis and soaring inflation (which rose from 16% in 2014 to 27% in 2018),⁵⁰ their price rose steadily, making them unaffordable for disadvantaged classes. Additionally, since this date, pro-government media (including newspapers, radio, television) together with clerics during Friday prayers have started a systematic offensive against contraceptives, alerting public opinion to the often very dangerous side-effects for women’s health.

The suspension of free distribution of contraceptives affects in particular the families from the disadvantaged and modest strata who until then could benefit from the various services of the family planning centers to control or program the calendar of their fertility. Again, in the absence of appropriate data, we can merely assume that this aggressive measure has affected fertility and possibly caused unwanted births and consequently a slight increase in the fertility of married couples.

2. Criminalization of vasectomy and tubal ligatures

In July 2014, the Iranian parliament passed a law forbidding practices such as vasectomy for men and tubal ligatures for women, laying down sanctions for any doctors infringing these

toman (about €165 Euros). Source: *Eghtesâd* News (economic news) economics newspaper, June 25, 2019, <https://www.eghtesadnews.com/> (accessed June 27, 2019).

⁴⁸ Source: office of the supreme leader, July 24, 2012, <http://farsi.khamenei.ir/> (accessed July 29, 2012).

⁴⁹ Source: *Khâneh mellat*, August 4, 2012, <https://www.icana.ir/Fa/News/202711/> (accessed August 7, 2012).

⁵⁰ According to estimates by the Iranian Central Bank.

provisions.⁵¹ Additionally, it was henceforth forbidden to campaign in favor of contraceptive practices, and any person using state or public means to such an end was liable to a fine of between 2 and 5 million *tomans*, in accordance with article 19 of the Islamic criminal code.

While according to the latest available data, in 2010 nearly a third of married women used tubal ligation, a frequency, which we can assume has remained stable since, the criminalization of this practice is likely to have influenced fertility. In the absence of adequate figures it is impossible to confirm this hypothesis. However, it seems legitimate to formulate the hypothesis that, by depriving women of this radical contraceptive practice, the risk of unintended pregnancies has increased and, as a result, the number of births, also unwanted, tends to increase, since abortion is prohibited in Iran.

3. Employment priority to married men with children

Among the fifty articles of a draft law called “Population and transcendence of the family”, parliament passed one which gives employment priority in both the public and private sector to married men with children, followed by married men without children, and lastly married women with children. In the absence of married applicants, it is possible to employ qualified unmarried individuals, men first, then women.⁵² Given that the evolution of the main determinants of fertility in Iran is contributing to birth control, we assume that this discriminatory law targeting singles, especially women, has influenced the behavior of married couples and young singles.

Given the severity of the economic situation in Iran and the high rate of unemployment, young couples are likely to have changed their family project and young men and women may have decided to marry in order to increase their chances of accessing stable employment. It is possible that couples in particular have reduced the interval between marriage and the first birth or between births if they had already a child. Of course, until now no data available allows to prove this hypothesis. However, in the current state of knowledge of the social and economic situation of the country, it seems to be the most likely explanation of the slight increase in fertility between 2012 and 2016. Since then, the worsening economic conditions, mainly due to US sanctions, having significantly reduced the government’s ability to continue both its coercive and incentive measures has led to a continued decline in marriages and, therefore, the decline in births and fertility.

The singular nature of the Islamic Republic’s new population policy

Unlike the first two population policies, the objective of the third one in place since May 2014 is not only to encourage population increase, on the pretext of the threat of an ageing population due to birth control and the drop in fertility, but also to govern the population by recommending political measures to control it and to decide on its composition and distribution. As this was deemed a strategic plan for the Islamic Republic, the three powers - the legislative, the executive, and the judiciary - cannot modify it without the supreme leader’s agreement, and must additionally do all they can to carry it out.

⁵¹ Under this law, any medical team carrying out vasectomies or tubal ligatures is liable to imprisonment of 2 to 5 years. Source: *Bashgah-e khabarnegaran javan*, November 1, 2017, <https://www.yjc.ir/fa/print/6304342> (accessed November 5, 2017).

⁵² Source: *Entekhab* (Iranian information agency), July 12, 2017, <https://www.entekhab.ir/fa/print/354> (accessed July 15, 2017).

The 14 articles of this decree called “General population policies” are drawn up in equivocal terms which may give rise to different applications depending on the context. For example, the target of reaching a population of 150 million is not specifically stated, but the first article stipulates that it is necessary to “promote the dynamics, growth, and youthfulness of the population by an increase in fertility which should be above the replacement threshold”, without specifying the level of fertility targeted. According to certain policymakers, the figure is three children, while for others it is five to six children. Article 2, among others, insists on the need to remove obstacles to reducing age at marriage. Yet no practical indications are given. Several of the decree’s articles refer to the need to cover the costs associated with pregnancy and maternity, for infertility treatment for men and women, and for nutritional and health needs; to including lessons in public schooling about founding families and the merits of so doing; to developing the culture of respect for the elderly and creating the requisite conditions for ensuring their health and their care by the family; and so on and so forth. While six articles seem to focus on demographic considerations, six others reveal the ideological tenor of the recommendations: promoting and institutionalizing the Islamic and Iranian way of life to counter undesirable aspects of Western lifestyles; reinforcing the components of (Iranian, Islamic, and revolutionary) national identity; creating new settlement zones, particularly in the islands along the coasts of the Persian Gulf and the Gulf of Oman; managing emigration and immigration in concert with general population policies; promoting consensus and social integration across the territory, in particular in the border zones and among Iranian expatriates; and encouraging Iranian expatriates to return and invest in the country and thereby benefit from their possibilities and capabilities.⁵³

Indeed, being well aware that the predominant family model in Iran is to marry late and have a small nuclear family, the Islamic Republic’s policymakers also know that the prospect of reaching a target population of 150 million Iranians in the near future is utopian. This, to my mind, is why the decree never explicitly mentions this target, while nevertheless hinting at the idea of peopling the entire territory by means other than raising the Iranian fertility rate.

The first means could be expatriate Iranians, estimated by to the authorities between one and two million, as mentioned in article 12 of the decree. In this decree, the objective of the Islamic Republic is to encourage expatriates not only to return to their country but also to invest their capital . However, given that the majority of these expatriate Iranians oppose the Islamic regime, assuming they agree to return to Iran, they might instead end up causing political unrest for the regime. This is why it is unlikely that this policy will not be the priority of the regime.

While mention is made of managing immigration and emigration in compliance with general population policies (article 11) - without any practical indications on this matter - it may be supposed that the Islamic Republic could envisage including within the Iranian population the couple of million Afghans living in Iran as refugees and/or as “undocumented” migrants.⁵⁴ Especially as since 2014 Afghans enlisted by the Revolutionary Guards (*Pasdaran*) as militiamen (called *Fatemiyoun*) to fight alongside the Syrian army have received Iranian

⁵³ Source: office of the supreme leader, May 20, 2014, <http://farsi.khamenei.ir/> (accessed May 25, 2014).

⁵⁴ In 2016, 1,242,332 Afghans were counted during the general population census (Statistics Center of Iran). This figure included Afghans recognized as refugees or documented migrants. But according to the ministry of the interior’s bureau for foreigners and immigrants, nearly 2 million Afghans were living illegally in Iran in 2011. This latter figure corresponds to estimates by the Afghan ministry of emigration of the number of Afghans living in Iran in 2019: “at least 2,340,000 Afghans live in Iran either with or without documented status”. Sources: 2016 General Population and Housing Census, Statistics Center of Iran; website of the Iranian ministry of the interior August 29, 2011, <http://bafia.moi.ir/> (accessed September 9, 2011); interview of the Afghan minister of immigration by the Turkish Anadolu information agency, February 20, 2019 <https://www.aa.com.tr/fa> (accessed February 25, 2019).

nationality for themselves and their family. So it is very likely that by Iranian expatriates the government refer to these Afghans recently naturalized. In this regard, let us remember that the naturalization procedure for Afghans and other combatants is paradoxically managed by the Foundation of Martyrs and Veterans Affairs, which was finally legalized by the Parliament in the framework of the Sixth Development Plan on January 16, 2017. According to Article 102 of the law, the granting of citizenship and residence to persons referred to in this Article is in accordance with the rules of the law prepared by the state-major general of the armed forces in cooperation with the Ministry of Foreign Affairs and the Ministry of the Interior and approved by the Supreme Council of National Security within three months.⁵⁵ As confirmed by *Hojatol eslam* Sayed Mohammad-Ali Shahidi Mahalati, the Director of Foundation of Martyrs and Veterans Affairs: speaking of naturalization of Afghans, in an interview with the daily newspaper *Javan*, he said that the Supreme Leader shared with him the following: “If tomorrow the defenders of the sanctuary head to Afghanistan and the Taliban learn that they went to Syria to fight, they will slaughter them all. It is our duty to protect them. For this reason it is imperative to grant them the Iranian nationality and that the Foundation takes care of them.”⁵⁶

This mass policy of taking in migrants and integrating them may also concern Shiite militia recruited by the *Pâsdârân* in Afghanistan and in Pakistan (called *Zeynabiyoun*) and fighting alongside the Revolutionary Guards in Syria. This practice by the *Pasdaran* seems fairly close to the spirit of the 2014 decree, and suggests that were immigrant populations included in the Iranian population, the prime beneficiaries would be Shiites. Furthermore, these recommendations are for border zones, thus peripheral regions peopled mainly by Sunnis. Insofar as these zones - particularly those bordering Afghanistan and Pakistan to the east and Iraq and Turkey to the west - seem porous, with intense regular two-way circulation of populations from the same ethnic, linguistic, and religious groups, the state appears determined to curb these flows. In light of this, article 13 of the decree calling to “reinforce the components of (Iranian, Islamic, and revolutionary) national identity and promote consensus and social integration across the territory, in particular in the border zones and among Iranian expatriates” takes on its full meaning. The objective is above all to provide Iran with a large population, but additionally one who adheres to the values of the Islamic Republic defined as the components of national identity.

It is most likely that the Islamic Republic follows this path, since coercive and incentive policies do not seem to have had a lasting significant effect on the fertility trend, and where the economic crisis aggravated with the hardening of American sanctions, by asphyxiating the country’s economy, prevents the Islamic regime to getting close to its objective. For all these reasons, the new population policy of the Islamic Republic may be defined as populationist.

Conclusion

Changes in the main determinants of fertility tend towards controlling fertility, therefore, to my mind, the uptick in fertility is essentially attributable to couples who are already married. Since Iran’s leaders are well aware that the circumstances are not propitious and the socio-cultural context not conducive to the idea of large families, they have repeatedly taken new steps to reverse the trend and obtain rapid, tangible results. For example, in April 2019 the Iranian parliament passed articles 27 to 30 of the “Population and transcendence family” draft

⁵⁵ Source: Fars News (Iranian information agency), January 16, 2017, <http://fashnews.ir/fa/print/51548/> (accessed January 19, 2017)

⁵⁶ Source: Daily newspaper *Javan*, 12 March 2017, 9.

law, which were intended as incentives. Under these laws, the government is to grant parents additional allowances and financial assistance for each birth as of their third child, and to introduce the mechanisms needed by young infertile couples to benefit from all pro-fertility treatments up to 2 years after marrying.⁵⁷ The passing of these laws at the time when the re-imposition of US sanctions (in November 2018) meant the Iranian state was encountering insurmountable obstacles to sell oil, and thus found itself in serious financial straits, seems far from coherent.⁵⁸

The other – latent - objective of the new policy is to boost population growth to reach 150 million inhabitants. The idea, as formulated in the 2014 decree, of peopling border zones with Iranian expatriates, who may be these recently naturalized Shiite Afghan and Pakistani militiamen, reveals the ambitious political and geostrategic objective - far removed from any purely demographic reasons - behind the country's new population policy. With an Iran of 150 million inhabitants, the Islamic Republic hopes to acquire a “demographic weapon” to wield influence in the region. It would indeed be a dissuasive weapon that would be crucial for a regime engaged in structural disputes with its immediate neighbors and with the West, and one cannot fail to note a coherence between this populationist direction and Iran's ambitions for regional hegemony.

Will it fulfill these objectives? It is still too early to say. Especially that the COVID-19 pandemic has completely changed the situation. Thus we need to await more recent observations to assess the impact and capacity of the Islamic Republic's new population policy to achieve its ambitious objective.

⁵⁷ Source: IRNA (press agency of the Islamic Republic), April 8, 2019, <http://www.irna.ir/fa/NewsPrint.aspx?ID=83269873> (accessed, April 11, 2019).

⁵⁸ According to Iranian policymakers, in 2018 Iran exported over 2.5 million barrels of oil per day prior to the reintroduction of US sanctions. After the reintroduction of sanctions, the topic became too politically and strategically sensitive, and the Iranians do not provide any figure for the number of barrels of oil exported per day. Observers estimate it to stand at between 300,000 and 650,000 bpd. Interview of Francis Perrin, a researcher at the IRIS (Institut de relations internationales et stratégiques) by daily newspaper *La Croix*, June 27, 2019, <https://www.la-croix.com/Economie/Monde/LIran-exporte-toujours-petrole-doit-desormais-sen-cacher-2019-06-27-1201031782> (accessed June 27, 2019).

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Table 1: Adjusted General Fertility Rates (Whole country)

Age Groups	2011	2014	2015	2016	2017	2018	2019
15-19	0.032	0.036	0.037	0.035	0.034	0.031	0.028
20-24	0.085	0.096	0.098	0.095	0.092	0.084	0.074
25-29	0.092	0.103	0.106	0.102	0.100	0.090	0.080
30-34	0.080	0.090	0.092	0.090	0.087	0.079	0.070
35-39	0.061	0.069	0.070	0.068	0.066	0.060	0.053
40-44	0.030	0.033	0.034	0.033	0.032	0.029	0.026
45-49	0.004	0.005	0.005	0.005	0.005	0.004	0.004
TFR	1.9	2.2	2.2	2.1	2.1	1.9	1.7

Sources: Iranian civil registry organization and General Population Censuses from 1966 to 2016, Statistical Center of Iran; TFR: estimation by Marie Ladier-Fouladi using indirect methods.

**Table 2: Female Proportions Single and Mean Age at First Marriage.
Urban and Rural**

Age Group	1976	1986	1996	2006	2016
	Total				
15-19	65.7	63.8	81.4	82.3	78.5
20-24	21.4	25.4	39.3	49.2	43.4
25-29	6.8	9.3	14.7	23.8	23.5
Mean age at first marriage	19.7	19.9	22.0	23.7	24.0
Urban					
15-19	69.5	64.8	83.0	84.4	82.5
20-24	26.1	26.7	38.7	50.4	46.8
25-29	9.2	10.4	13.8	22.7	24.5
Mean age at first marriage	20.2	20.1	21.9	23.7	24.1
Rural					
15-19	62.0	63.3	79.1	78.1	67.7
20-24	16.4	23.8	40.2	46.4	34.0
25-29	4.3	7.7	16.4	26.5	20.4
Mean age at first marriage	19.1	19.7	22.1	23.8	22.7

Sources: General Population and Housing Censuses of 1976, 1976, 1986, 2006 and 2016, Statistical Center of Iran.

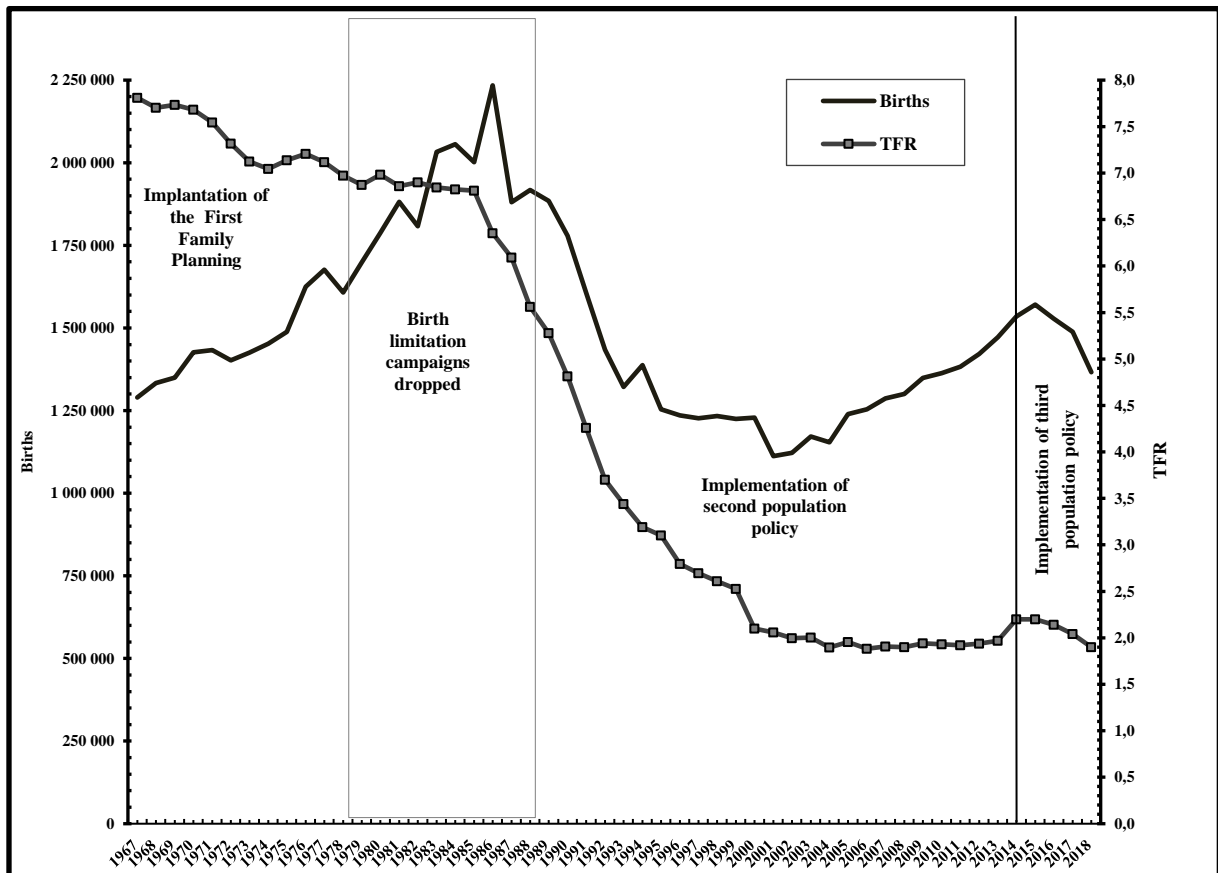
Table 3 : Total Fertility Rates in Iran. All Women and Iranian Women, by Province

Provinces	2016		2017		2018	
	TFR Iranian women	TFR All women	TFR Iranian women	TFR All women	TFR Iranian women	TFR All women
Whole country	2.09	2.07	1.95	1.97	1.74	1.77
East Azerbaijan	2.07	2.07	1.92	1.92	1.71	1.71
West Azerbaijan	2.25	2.24	2.12	2.12	1.94	1.93
Ardebil	2.15	2.15	2.05	2.05	1.83	1.82
Esfahan	1.77	1.86	1.64	1.74	1.41	1.52
Alborz	1.59	1.67	1.40	1.52	1.18	1.32
Ilam	1.81	1.81	1.74	1.73	1.54	1.53
Busher	2.14	2.18	1.97	2.03	1.68	1.76
Tehran	1.64	1.70	1.51	1.60	1.33	1.44
Chaharmahal & Bakhtiari	2.38	2.38	2.23	2.23	1.97	1.97
South Khorasan	2.76	2.75	2.58	2.59	2.41	2.41
Razavi Khorasan	2.59	2.60	2.40	2.42	2.12	2.15
North Khorasan	2.45	2.45	2.24	2.24	2.10	2.10
Khuzestan	2.62	2.61	2.56	2.56	2.29	2.29
Zanjan	2.14	2.14	1.99	1.99	1.79	1.79
Semnan	1.55	1.61	1.41	1.48	1.21	1.29
Sistan & Baluchestan	3.65	3.66	3.46	3.53	3.30	3.40
Fars	1.89	1.93	1.74	1.80	1.53	1.61
Qazvin	1.83	1.87	1.67	1.72	1.47	1.54
Qom	2.26	2.23	2.11	2.21	1.82	1.95
Kurdistan	2.01	2.01	1.84	1.87	1.66	1.66
Kerman	2.14	2.16	2.02	2.06	1.81	1.88
Kermanshah	1.86	1.86	1.71	1.71	1.55	1.55
Kohgiluyeh & Boyer Ahmad	2.22	2.22	2.11	2.12	1.81	1.81
Golestan	2.46	2.46	2.27	2.30	2.03	2.06
Gilan	1.35	1.35	1.26	1.26	1.10	1.10
Lorestan	2.18	2.18	2.08	2.08	1.87	1.87
Mazandaran	1.50	1.51	1.39	1.39	1.21	1.22
Markazi	1.68	1.72	1.51	1.56	1.28	1.34
Hormozgan	2.44	2.46	2.26	2.31	2.09	2.16
Hamadan	2.05	2.05	1.91	1.91	1.71	1.71
Yazd	2.55	2.67	2.32	2.47	2.01	2.20

Source: Elham Fathi, *Prospects for fertility in Iran from 2016 to 2018 (Tchashm andazi bar barvari dar iran az sal-e 1395 ta 1398)*, 2019, Statistical Center of Iran, Tehran, 14 p.

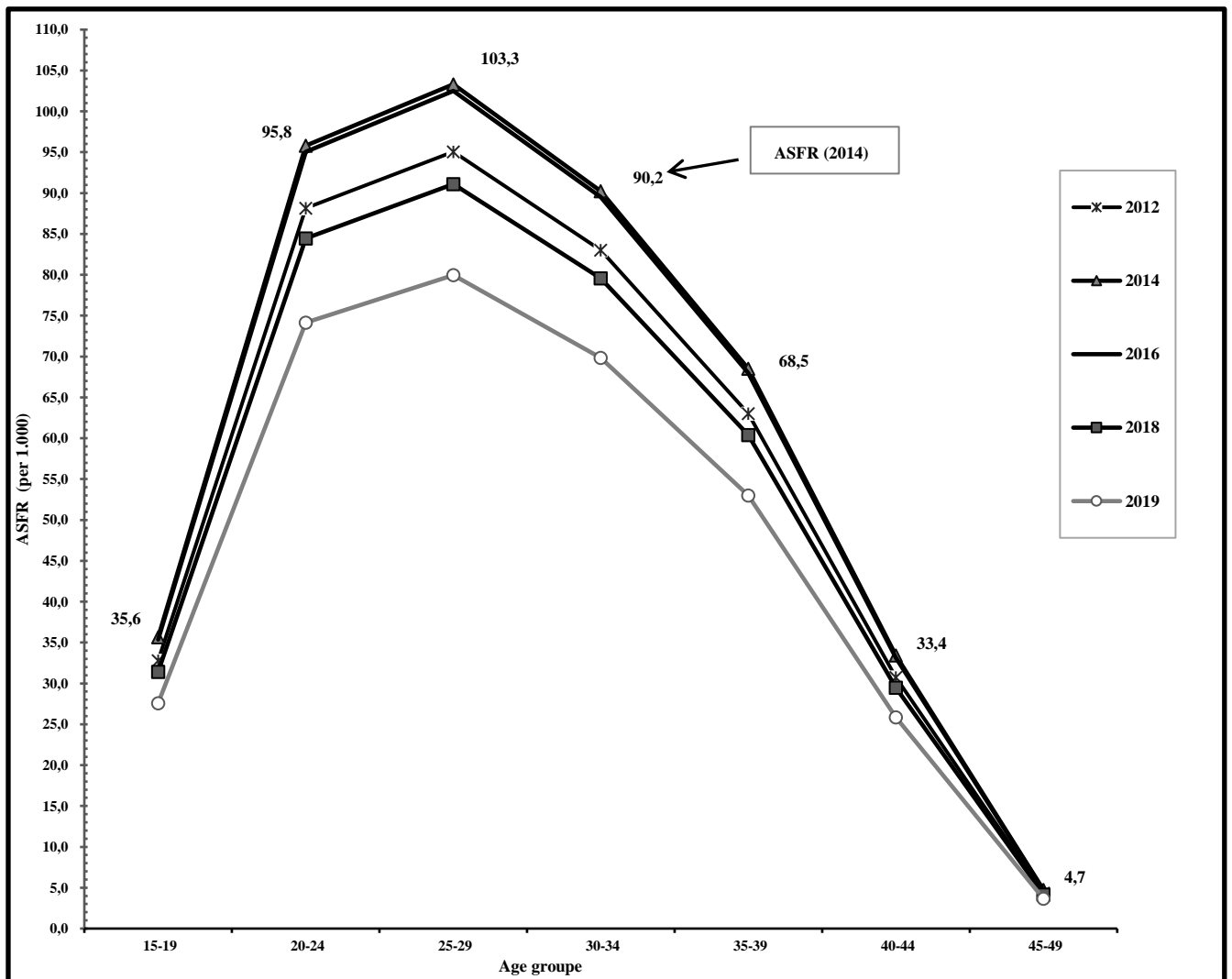
TFR: estimation by Elham Fathi using direct methods.

Figure 1: Change in the Number of Births and Total Fertility Rates (TFR) in Iran Since 1967



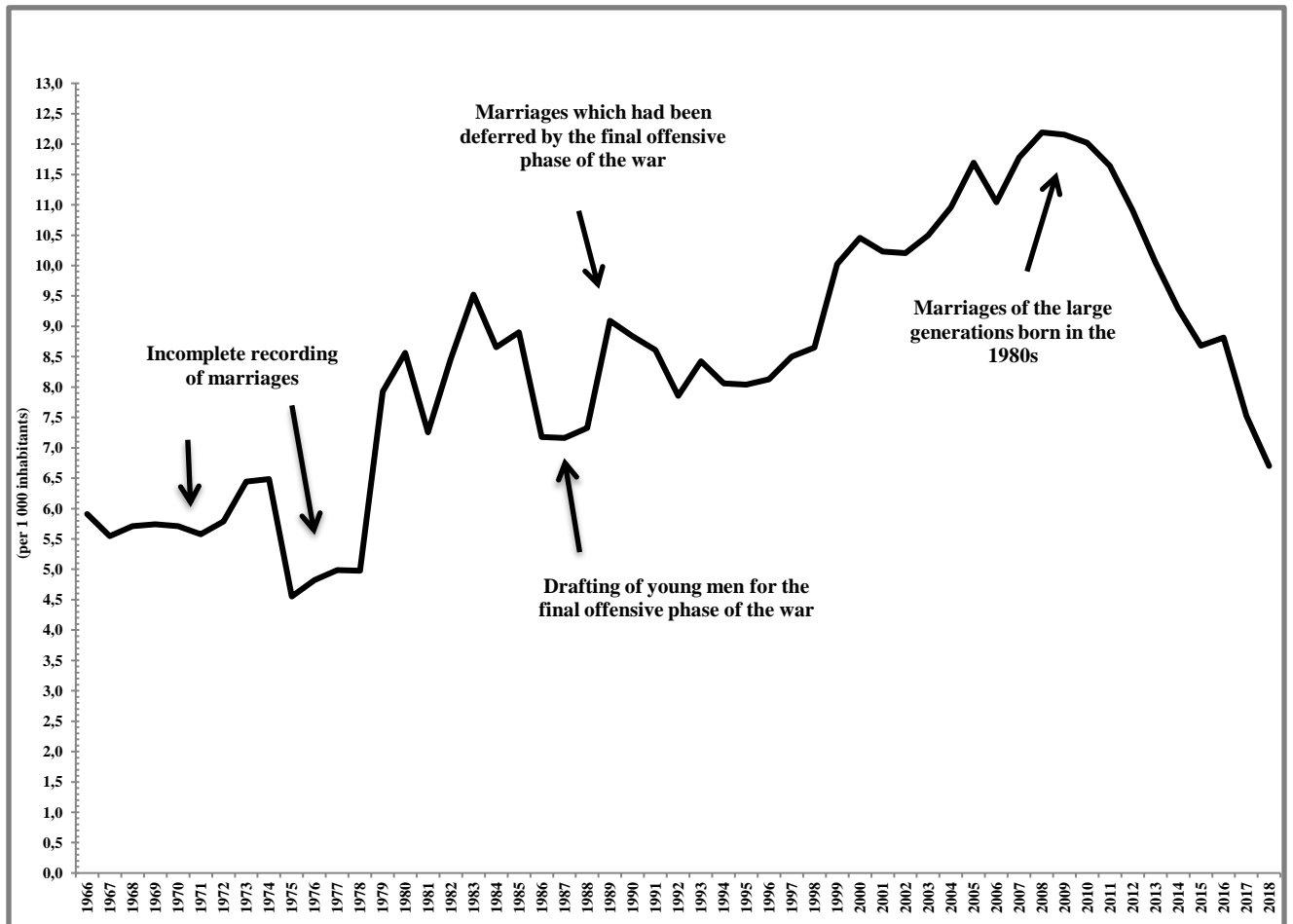
Sources: Iranian civil registry organization and General Population Censuses (Statistical Center of Iran); TFR: estimation by Marie Ladier-Fouladi using indirect methods.

Figure 2: Age-Specific Fertility Rates (Whole country)



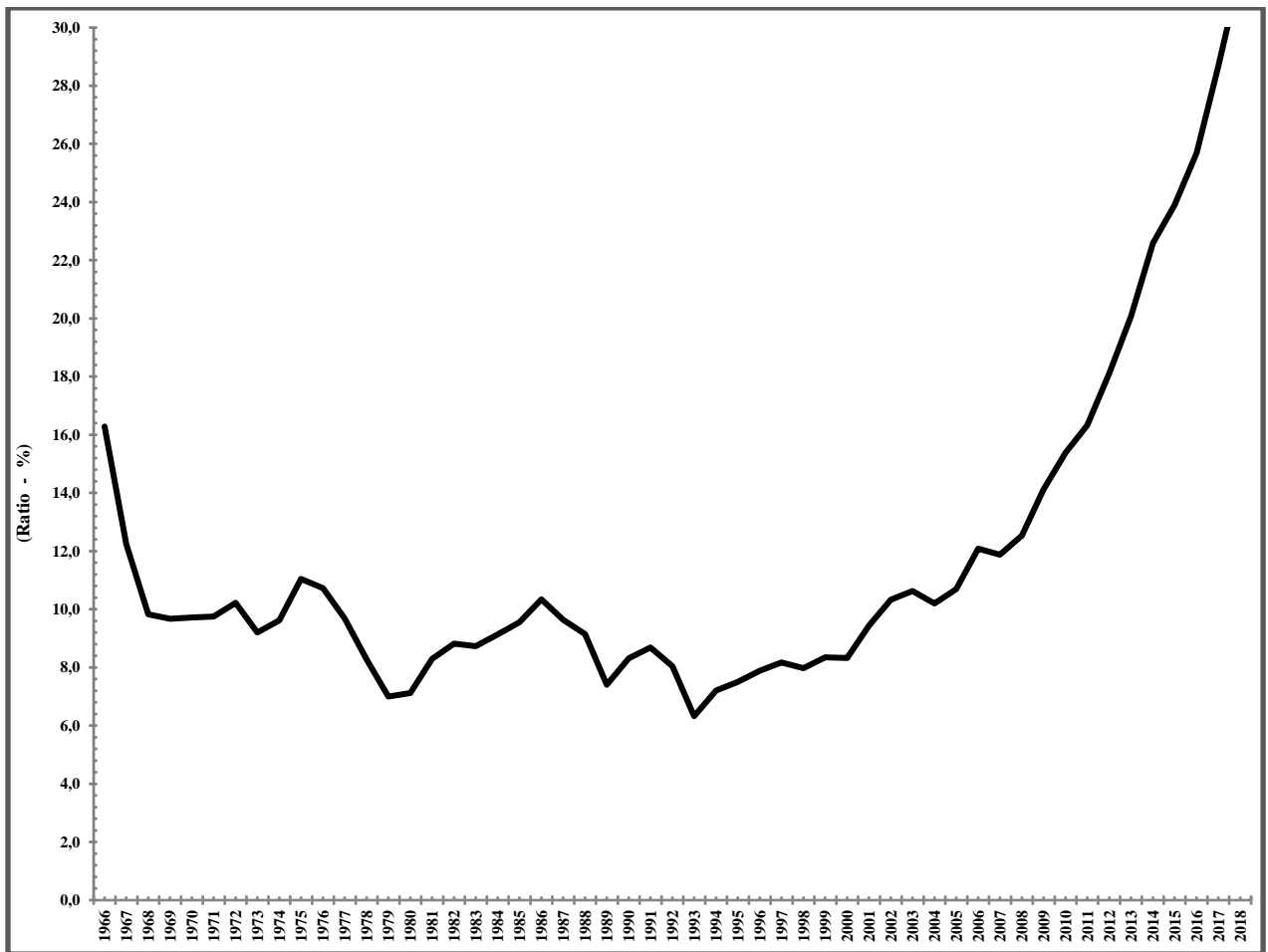
Sources: Iranian Vital Registration Organization and General Population and Housing Censuses (Statistical Center of Iran); ASFR: estimation by Marie Ladier-Fouladi using indirect methods.

Figure 3: The Crude Marriage Rate per 1,000 Population (Whole country)



Sources: Iranian Vital Registration Organization and General Population and Housing Censuses from 1966 to 2016. Statistical Center of Iran.

Figure 4: Number of Divorces per 100 Marriages (Whole country)



Source: Iranian Vital Registration Organization.