

Chapter 10

Explanations of the Past and Expectations of the Future of Fertility in Iran

Introduction

In this book, we have set out to contribute to knowledge of the determinants of the fertility transition, the movement of a country's fertility rate from a high level to a moderate or low level. We are fortunate in that in the case that we use, Iran, the decline is recent and it has occurred over a short period of time. The recency of the decline has meant that we were able to collect new data in the 2002 and 2005 surveys from the women who were at the forefront of the fertility transition. We were able to examine their behaviour and their motivations in great detail. In particular, in the 2005 survey, we obtained a full, month by month history of the women's contraceptive usage histories that covered the full period of the fertility transition. And we were able to relate these contraceptive histories to the changes in fertility in Iran across time.

The recency of the Iranian transition also enables us to benefit from the prior theoretical and empirical research undertaken by many other scholars relating to other countries. There is no shortage of plausible theories to explain fertility transition and the main theories have been reviewed in Chapter 1. Here we repeat the main theories and provide a summary assessment of the applicability of each one to the Iran fertility transition.

1. *Demographic transition theory*: fertility transition is a component of industrialization and urbanization with change in family structure from extended to nuclear.

As demographic transition theory is a very generally stated theory, it can be expected that the evidence will be mixed and this is the case for Iran. Confirming the theory, fertility has fallen faster in urban areas than in rural areas and in more developed provinces than in less developed provinces. Fertility has remained highest in the least developed of the provinces, Sistan and Baluchistan. Urbanisation and rural to urban migration were prominent across the period of the transition as was a degree of industrialization. The extended family no longer has a strong hold on young couples once married. In question of the theory, the falls in fertility in rural areas have been more dramatic than in urban areas and the province with the lowest

fertility, Gilan, has a largely agrarian economy. Furthermore, the differences in timing of the falls in urban and rural areas are very short. Also, as indicated in Chapter 8, much about family life has remained traditional, especially the practice of consanguinity. Overall, the ubiquity of the transition across the country in a relatively short time frame is counter to the expectation of gradual change inherent in demographic transition theory.

2. *Improvement in child survival*: sharp falls in infant and child mortality provide parents with the security that their children will survive to adulthood and there is therefore less need to have larger numbers of children in order to ensure the survival of at least a few of them.

The Islamic revolution led to the spread of a quality health care system across Iran and this substantially reduced the levels of infant and child mortality. Certainly, by 2000, couples could be assured that a child born was very likely indeed to be a child that grew to adulthood. A high level of child survival has to be a necessary condition of any fertility transition. There are no recorded cases of countries where fertility has fallen rapidly in the context of continuing high infant and child mortality. However, there are instances in which infant and child mortality has fallen but fertility remains high. In this sense, higher child survival is not an automatic or sufficient condition for fertility decline. While there had been early improvements in infant and child mortality and this would have provided parents with a sense of security that the few children that they had would survive, the speed of decline was so rapid that it could not have been explained simply by prior falls in child mortality.

3. *Demand theory*: Like any commodity, the demand for children falls when the costs exceed the benefits. Benefits fall as children are no longer needed for household production or to provide old age security. Costs increase with compulsory education and the social requirement to produce 'high quality' children. This includes wealth flows theory which postulates that the demand for children falls when the net flow of wealth changes direction from children to parents to parents to children.

Today, all Iranian children complete primary school and a high proportion complete secondary school. However, the costs to Iranian parents of achieving these educational ends are not high. On the other hand, there is no great evidence that having many children was a major economic asset to Iranian families prior to the fertility transition. Furthermore, there is little support for an argument that having fewer children freed up women to engage in paid employment (reduction of the opportunity cost) as paid employment remains uncommon for Iranian mothers. Thus, a simply stated demand theory is unlikely to have played a major role in the Iranian transition. More pertinent is the notion that Iranian couples began to invest in the 'quality' of a small number of children as distinct from a large number of children of 'lower quality'. When education becomes widespread, success of children in the education system emerges as a new motivation for parents. A successful child provides status and the potential for economic support in later life from sons or a

good marriage for daughters. Given that family resources are normally shared across all children, this implies that parents will demand a small number of children so that they can invest more in each child. This is not a simple cost-benefit equation. It is a strategy to maximize status and, perhaps, economic returns from the costs inevitably incurred in having children.

4. *Rising economic aspirations*: High economic aspirations are generated by modernization, globalisation, popular media and changes in the opportunity structure generated primarily by education. Both for countries and for households, a large number of children is seen as an obstacle to achieve economic betterment.

We consider that this theoretical argument has considerable power in the Iranian case. There were strong expectations on the part of the broad base of Iranian people that the Islamic revolution would bring them considerable economic reward. They perceived that Iran was a wealthy country (because of oil revenue) but that the distribution of wealth was inequitable. We have observed that fertility began to fall in the mid-1980s when economic conditions were poor. The strength of the fertility decline in these years (1986–1989), as we have observed, was masked to some extent by a marriage boom at the end of the Iran–Iraq war. By 1989, at the time of the revival of the family planning programme, fertility in Gilan and Tehran had fallen to 3.7 and 3.8 births per woman respectively. For Iran as a whole, fertility fell from 7.0 in 1984 to 5.3 in 1989. Thus, it is clearly evident that marital fertility was falling solidly in almost all provinces before the revival of the family planning programme (Abbasi-Shavazi and McDonald 2005). The difficulties that Iran has faced since the revolution (the Iran–Iraq war, economic sanctions, fluctuations in oil revenues, and inefficient organization of industrial production) have ensured that the economic realities that couples have faced since the revolution have fallen well short of the high expectations that people have developed. While basic needs are met in Iran to a very large extent, economic aspirations extend well beyond basic needs. In Chapter 8, we have shown that economic motivations were very strong in people’s statements about having a small number of children or in not having a large number. This is a very strongly held view across the country.

To the extent that social aspirations can be separated from economic aspirations, the study has found little evidence to support the theory that Iranian couples have reduced their number of children in order to seek enhanced social status. While it would be considered to be socially unacceptable in today’s Iran to have a very large number of children, moderate numbers such as three and four would not be considered as socially unacceptable, but most people do not have these numbers. Social status in Iran is variously defined. In many parts of Iran, religious participation is a component of social status. For women in urban areas, not easily able to pursue working careers, status is sometimes indicated by participation in ‘refined’ activities including music and art and familiarity with English literature. The number of children is not a strong determinant of participation in these activities.

5. *Gender equity theory*: As the status of women rises through education and changes in cultural values, women will gain more control over their own fertility. In advanced East Asian settings where fertility fell dramatically, education levels for women rose and age at first marriage increased substantially. Single women conventionally had long periods of paid employment before marrying. This enabled them to have a more equitable position in the family once they had married. In particular, their husbands were responsive to the desire on the part of wives to control their childbearing. It has also been argued that this result can occur even without an increase in women's status outside the family so long as her status within the family improves.

Like low levels of infant and child mortality, we would argue that higher levels of gender equity within the couple relationship are a necessary condition of fertility transition, but not necessarily a sufficient condition. Fertility falls only when women gain control over their own fertility. The study has shown that withdrawal is relatively commonly used in some cultural contexts in Iran in order to control fertility. And this practice seems to have a long history especially among the urban middle class in Tehran. Indeed, it may have become an integral part of the sexual practice of these couples. The practice of withdrawal implies a cooperative relationship between husband and wife. The extension of female education across Iran has contributed to a higher status for wives within the couple relationship. In rural areas, fertility control has been achieved primarily through female methods of contraception. That the use of contraception and the provision of family planning services to women were supported by religious leaders is also significant. Finally, the analysis in Chapter 9 found that freedom of mobility for women was associated with lower ideal family size and with use of contraception.

The family planning programme in rural areas was directed towards women. Improvements in women's education, increases in age at marriage, falls in the age gap between husbands and wives and improved status of women in the revolution all contributed to a capacity for women to make use of the programme. This was done with the support of husbands feeling economic pressure.

6. *Institutional change*: Changes in institutions such as education, government, gender and family, culture and the economy move in directions that favour lower fertility. A potentially important institutional change is the creation of a government-backed family planning program.

The Iranian fertility tradition was accompanied literally by revolutionary institutional changes. In the early years of the Islamic revolution, pronatalism and the abandonment of the family planning program led to a temporary increase in fertility for the country as a whole. The increases were highest in the more remote and least developed provinces. In Sistan and Baluchistan, the total fertility rate approached ten births per woman in these years. In the central provinces and the city of Tehran, fertility continued to fall in the early 1980s and pre-revolution levels of contraceptive usage were maintained. Most importantly, however, the revolution led to two major institutional changes that were fundamental to future fertility decline:

universal education for women including adult literacy programs and the development of a national health system that provided access to basic health resources to all Iranians. These provided the foundation for the implementation of the national family planning program in 1989.

We do not argue that the family planning program itself provided the motivation for smaller family size, however, it most definitely allowed women to implement their desires to control the number of children that they had. Fertility would probably have fallen in the major urban areas without the family planning program but the evidence in this book shows that the program had a huge impact on fertility levels in rural areas. Contraceptive use in most rural areas was and still is dependent upon the national delivery system through the Ministry of Health. The family planning program would not have been the success that it was, however, without the prior extension of the national health system across the country and without the greater autonomy provided to women through the national education system. The strong support provided to the family planning program by religious leaders both at the national and the local levels was a further important element in its success. Another important institution in our story is the Ministry of Health and Medical Education. The Ministry officials who ran the family planning program provided a program that was flexible and responsive to local cultural preferences. While prevalence rates for contraception use are very high in most parts of the country, the method mix varies across cultures fairly considerably, and this has been an important explanation of the high prevalence rates.

Finally, as discussed in Chapter 2, the family planning program was the end result of a change in population policy in the mid-1980s. Iranian demographers and public health officials were prominent at the time in convincing the government and the religious leaders that very high population growth was not in the nation's economic interests and the poor economic conditions in the mid 1980s helped in the reception of this message. The change in population policy also provided broad social permission for couples to control their fertility even though the family planning programme was not yet in place.

While these institutional changes were necessary conditions for the speed of the fertility decline, the very speed of adoption of contraception when it was made available in 1990 is indicative of a pent-up demand for contraception. As argued above, we suggest that this pent-up demand was a result of the divergence between economic aspirations and economic reality in the 1980s.

7. *Diffusion and ideation*: Fertility falls because of the spread of the idea that small families are better than large families. It is the idea that is important, not any structural or institutional changes behind the idea. Small family size is simply a good idea that has found its time and place.

Fertility falls with diffusion of the idea that limitation of the number of children in a family will enhance the family's economic wellbeing and improve the opportunities for advancement of the fewer children that the family has. Also, to use contraception effectively, people must know where to get it and how to use it. Thus, diffusion is also a necessary element in fertility transition. By mobilizing various government organizations and the mass communication

network, the family planning program succeeded in diffusing ideas throughout the entire country about the value of small families and about methods of family limitation. The creation of an accessible national health system in the 1980s made it possible, from 1990, for the revived family planning programme to have a rapid impact, especially in rural areas.

Furthermore, the official program introduced by the government in 1989 enjoyed the support of religious leaders. Local religious leaders promoted family planning through the mosques.

An unusual feature of the Iranian fertility transition was the emergence of a very long interval between the first and the second birth. Spacing of births was promoted by the government program but not very long spacing of births. Furthermore, long spacing is evident in urban areas where the effect of the government program was not as strong. The adoption of long intervals between births seems to have been a spontaneous response to relatively early first births and the economic difficulties that faced young couples.

These ideas were only diffused across society, however, because there had been institutional changes that enabled this to happen: the change in population policy, the development of the national health system and the improvements in literacy of women. The ideas were enthusiastically adopted also, we would argue, because of the economic conditions that people faced in the latter part of the 1980s. Finally, increased levels of gender equity within the family meant that these ideas could be discussed in women's groups and between husband and wife.

8. *Tempo effects*: Delay of the first birth through delay of marriage or use of contraception before the first birth and wider spacing between births accelerate the speed of fertility decline because births are pushed out into the future.

In advanced East Asian countries, fertility fell in the context of substantial increases in age at first marriage. Later marriage produced an immediate, tempo effect upon period fertility rates as births were pushed out into the future. This is not a feature of the early years of the Iranian fertility transition as delays in age at marriage were modest. In this regard, the Iranian transition was more like the transition in Indonesia where increases in age at marriage were also modest in the early years. Because of its relatively conservative Islamic orientation, there have been limits in Iran in the extent to which age at first marriage can rise. The cultural constraint that women should marry at a relatively early age combined with the expectation that couples should have their first birth as soon as possible within marriage meant that tempo effects deriving from delay of the first birth were initially small. However, since the mid 1990s, age at marriage has been rising more rapidly and, as we argue below, there are good reasons to believe that it will rise even more in the future. Also by the late 1990s, there was evidence of a new trend for the first birth to be delayed within marriage (Hosseini-Chavoshi et al. 2006; Hosseini-Chavoshi 2007). Thus, a tempo effect arising from delay of marriage and the first birth has been building up as the transition has progressed.

An earlier tempo effect, however, derives from the widespread adoption of a substantial interval between the first and the second birth that emerged very early

in the transition and gained strength thereafter. This had followed a tempo effect working in the opposite direction when a post-war marriage boom initially slowed down the fertility transition in the late 1980s. The juxtaposition of these two tempo effects working in opposite directions would have pushed period fertility downwards in the 1990s at a faster rate than otherwise would have been the case.

Concluding Remark

This study has involved a decade of research on the Iran fertility transition. The two specific data collections undertaken as part of the study were designed to consider the various possible theoretical explanations of the transition. It is apparent from the discussion in this chapter that no one theory provides a sufficient explanation of the transition. Indeed, most of the theories have had some applicability. We would argue that there are certain necessary conditions for a fertility transition to occur. These include the achievement of low levels of infant and child mortality, institutional changes that provide access to contraception and access to economic opportunity at least for the next generation, diffusion of the idea that limiting the number of children in the family will enhance the family's economic wellbeing and improve the opportunities of each child, and the establishment of communication between husband and wife to a level that provides the wife with the opportunity to exercise control over her own fertility. All of these necessary conditions were met in Iran.

If these necessary conditions are in place, then government and community support for family planning especially through an efficient and accessible national family planning program will accelerate the speed of the transition as it certainly did in Iran. It also seems inevitable that any fertility transition will be associated with tempo effects that will force period fertility down more rapidly than otherwise. These tempo effects will be associated with delay of the first birth and wider spacing between the births.

Finally, while the initial stages of the transition may be associated with limitation of births that would have been considered 'excess' even in the context prior to transition, the fall of fertility to replacement level must be associated with strong motivations to limit the number of births to two, or three if the desired gender composition of the children has not been achieved. This motivation can be sold to people through family planning propaganda and this was done to some extent in Iran. The motivation may derive from the emergence of life alternatives for women, notably the opportunity to pursue a career outside the household. This does not seem to have been important in the case of Iran. We conclude that, first and foremost in Iran, this motivation has an economic basis, the failure of economic reality for most Iranian households to come close to matching their economic aspirations.

Very low fertility (period total fertility below 1.5 births per woman) occurs when a tempo effect is so strong that fertility falls temporarily to this level or when a preference emerges for a one-child family. Tehran City and two provinces in Iran,

Gilan and Mazandaran, had fertility rates below 1.5 in 2006, with Gilan being as low as 1.2. A number of other provinces were approaching very low fertility with levels of 1.6 or 1.7 births per woman. These include Markazi, Isfahan, East Azerbaijan, Hamadan, Semnan and Ghazvin. These are all majority Persian provinces in the developed north of Iran. There is little doubt that these very low period fertility rates are artificially low because of tempo effects, however, even in 2002, a substantial minority in Gilan province expressed a preference for one child. This gives rise to the question as to how much lower Iranian fertility will fall. This question is taken up in the final section of the book.

The Future

Will fertility in Iran rise again in the near future, will it level off at the current level, or will it decline further? In what follows, we argue that Iran will experience further fertility decline during the coming decade. Necessarily the speed of the decline will be slow compared to the past decades. We will also speculate about the possibility of rising fertility in the future.

Continuing Fertility Decline

Several reasons justify further fertility decline in Iran during the coming decade, 2010–2020. First, provincial as well as rural and urban differences in fertility are still evident in Iran and we can expect these differences to narrow. Indeed, with the single exception of Sistan and Baluchistan where fertility remained above three births per woman in 2006, the trend data suggest that fertility in all provinces of Iran will soon fall below 2.0. The cultural (religion and ethnicity) and socio-economic (education, level of economic development) and political factors that explain relatively higher fertility in Sistan and Baluchistan will remain pertinent and fertility may well remain above 3.0 in this province over the next decade. It is instructive to remember, however, that fertility in Sistan and Baluchistan in the early 1980s approached ten births per woman.

Second, the continued process of urbanisation is another reason that lower fertility can be expected in the future. In 2006, around 68% of the population were living in urban areas and it has been estimated that, by 2020, around 75% of the population will live in urban areas. Urbanization will increase aspirations of couples for a better life but they will face the higher costs of housing in urban areas. This will in turn modify the reproductive behaviour of women in favour of smaller families and fewer children. Further, as Chesnais (2000: 126) argued, the impact of globalization on social life in other countries should not be ignored. No specific country or region can be seen in isolation from other countries in the exchange of ideas and culture today. However, Iran is less open to such influences than many other countries.

Third, the level of education continues to increase. Children of all social classes, including the poor, have access to education, and the educational differences in the society will be reduced further in the future. The level of education of young women has increased over the last two decades and women are now more educated than men (Abdollahyan 2004). This has resulted in increased gender equity within the household in Iran and women have the major role in fertility decision-making. Although the level of female employment is still low, given the rising expectations of Iranian women (Shadi-Talab 2005), it is likely that women's labour force participation will increase in the future. This result, however, is contingent upon there being sufficient jobs to absorb the very large numbers of young people recently entering the labour market.

Fourth, age at marriage for women is increasing significantly as a result of the increases in women's education. There is also economic pressure on new couples to have a job and house before they marry and the opportunities to achieve this are reducing as the large cohorts enter the labour and housing markets in urban areas. This is likely to delay marriage even further. Attitudes towards marriage have also changed and even traditional families do not consider marriage as the only option for their children. There is also a sex imbalance in the marriage ages in Iran, that is, the number of women in the marriage ages is higher than the number of men. This is because the number of men in the older cohort who were born immediately before the revolution is much smaller than the number of women in the next younger cohort who are the babies of the early post-revolution baby boom. Brides will be much less in demand and hence a lower proportion may marry or they will marry men more their own age. Again, later marriage is a likely outcome.

Fifth, for men in particular, as the decade progresses, the very large, post-revolutionary birth cohort will experience a highly competitive labour market. This will mean that they will need to invest even more in job searching and the building of their own human capital through education and work experience (Salehi-Isfahani 2008; Salehi-Isfahani and Egel 2007). These young cohorts are already experiencing very high levels of unemployment. In the 2006 Census, the unemployment rate was 30.7% for males aged 15–19 and 20.5% for males aged 20–24. This now comes together with the impact of the global economic recession that has seen oil prices fall dramatically. It is difficult to envisage in these circumstances how many from the very large cohorts of young men will be able to attain incomes adequate for them to marry and have children. The difference between economic aspirations and economic reality will become even wider.

Sixth, the higher status of women in Iran will also tend to have a negative effect on fertility in the future. This is in line with the 'gender equity' argument made by McDonald (2000) and supports Dyson's (2002) hypothesis that one of the main factors of the fall of fertility in developing countries is that 'women become more like men'. Shadi-Talab (2005) has also noted that "Iranian girls gradually practice democracy within the family, and patriarchal power is slowly diminishing. Although, attitudinal change is a very slow process, the interaction between education and changes in norms and values is observable in the share of girls' participation at universities from the most deprived provinces and far from their home town."

Commenting on gender equality in Iran, Mir-Hosseini (2002: 95) observed that “no political tendency can ignore the new generation of women who have come of age during the life of the Islamic Republic and who are demanding equal opportunities and rights on all fronts. Women are now a force that must be reckoned with” (see also, Kian-Thiebaut 2002: 56–73). On the other hand, the competition for jobs among young people in Iran is and will continue to be very strong and it may well eventuate that societal forces move to limit women’s capacity to compete so as to favour jobs for young men. The discriminatory structure of employment both horizontally (limited job opportunities) and vertically (obstacles to job promotion and lower wages for women) is a challenge facing women’s economic participation in Iran.

Seventh, as Caldwell et al. (2000) have argued, the contributions of governments to population control in Asian countries have been very important. The very large, post-revolutionary baby boom has already started having children. Even with low fertility, this will lead to a considerable increase in the number of births compared to recent years. Because of this ‘echo effect’, the Iranian Government has indicated that it shall maintain the family planning program. Population and family planning is still being taught as a compulsory unit to all university students. Considerable effort is concentrated on the improvement of health, the expansion of reproductive health services, as well as the reduction of fertility in rural areas and the provinces with high fertility. These programs have not only affected the attitudes of childbearing women, but also have shaped the fertility attitudes and behaviour of the young generation. In a counter direction, as observed in Chapter 1, President Ahmadinejad has raised the issue of low fertility as an obstacle to Iran’s advancement as a nation and has commented that Iran could accommodate double its present population size. This political debate will be ongoing in the coming decade but, as observed in other countries, once low fertility norms have been established, it is very difficult for governments to reverse them. Women who were interviewed in the Iran Fertility Transition Survey (Abbasi-Shavazi et al. 2003) indicated that they would not increase their fertility even if the government provided incentives to do so.

A desire for small family size is a widely held ideal among Iranian women. The ideal family size of Iranian women is concentrated on two children. The results of the 2002 Iran Fertility Transition Survey conducted in the four selected provinces of Gilan, West Azarbaijan, Yazd and Sistan-Baluchistan showed that the majority of women, on average, desired only two children. Surprisingly, in Gilan province, around 24% of women aged 20–29 and around 18% of women aged 40–49 indicated one child as their ideal number of children (Abbasi-Shavazi et al. 2003). We have argued in Chapter 4 that the widespread adoption and implementation of a two-child family norm is the essential story of fertility decline in Iran.

Eighth, the effectiveness of family planning methods is another factor supporting fertility decline. According to the Iran Demographic and Health Survey, the contraceptive prevalence rate was around 72% in 2000. There exists a small gap between the level of CPR in rural and urban areas. However, a significant proportion of pregnancies (around 33%) were still unintended. Of these, around 18% were unwanted and 15% were mistimed (Abbasi-Shavazi et al. 2004). With the continued improvement of the quality of family planning services, the level of

unwanted pregnancies is likely to be reduced, and thus, fertility might be expected to decline further. Current patterns of behaviour mean that many Iranian women complete their fertility before age 30 at which ages, sterilisations are generally not available. This can mean an increased risk of having an unwanted pregnancy and abortion. However, where abortions are difficult to obtain and if sterilization is not accepted or widespread at younger ages, contraceptive failure or non use could remain high and the level of unwanted births may not fall as expected.

Ninth, the long-held cultural beliefs that women should marry early and that they should have the first baby soon after marriage no longer hold much force. Age at marriage has been rising strongly in recent times and, as argued above, can be expected to continue to rise. The Iran Low Fertility Survey showed that 40% of couples in Tehran City in 2005 began their marriages using contraception in order to delay the first birth.

Tenth, when most women want to have two children, a tempo effect can temporarily reduce the annual fertility rate below two. The emergence of below replacement fertility in many parts of Iran is no doubt associated with a tempo effect. The question then becomes: how long will this tempo effect last? There is little scope for further delay of the second birth but there is considerable scope for further delay of the first birth. Given the severe economic competition facing the large cohorts now aged between 15 and 24, there is a strong likelihood that first births will be delayed particularly in urban areas. This might be through increased age at marriage or through delay of the first birth within marriage. This would keep fertility below replacement level for the next decade or so and it is more than likely, over the next decade, Iran will enter the ranks of countries having a very low fertility rate.

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