

Chapter 4

Fertility Dynamics

Using Parity Progression Ratios*

Introduction

The cross-sectional or synthetic parity progression model provides an alternative to conventional age-based approaches to the study of fertility trends. Instead of examining births by age of mother, this method examines fertility trends according to the number of births that a woman has had already (parity) in association with the time since the most recent birth (Feeney 1983; Ni-Bhrolchain 1987; Feeney and Yu 1987; Rallu and Toulemon 1994; Hinde 1998). The approach allows an interpretation of time trends in fertility in terms of the number of births individual women are having. It has also been argued that analysis by parity facilitates interpretation of fertility trends because people make their decisions about having a child on the basis of the number of children that they already have rather than simply upon how old they are.

In this chapter, synthetic cohort parity measures are examined at the national level using the 2000 Iran Demographic and Health Survey, and at the provincial level using the 2005 Iran Low Fertility Survey for four selected low fertility regions. The chapter begins with an analysis of the progression to marriage. Marriage trends are considered in more detail in Chapter 5.

The Progression to First Marriage

The legal age at first marriage was lowered soon after the Islamic revolution. In apparent response, the proportion marrying at the youngest ages increased a little between 1975 and 1980 (Fig. 4.1). As the 1980s progressed, the spread of universal high school education for girls countered this trend such that there was a sharp drop in the (synthetic cohort) proportion of girls marrying by age 18, especially between 1980 (66%) and 1986 (49%). However, at ages 20 and over, marriage rates rose between 1987 and 1990 as part of a mini marriage boom following the end of the

*The material presented in this chapter are drawn from Hosseini-Chavoshi (2007) and appeared as Hosseini-Chavoshi et al. (2006). The detailed methodology is set out in these references.

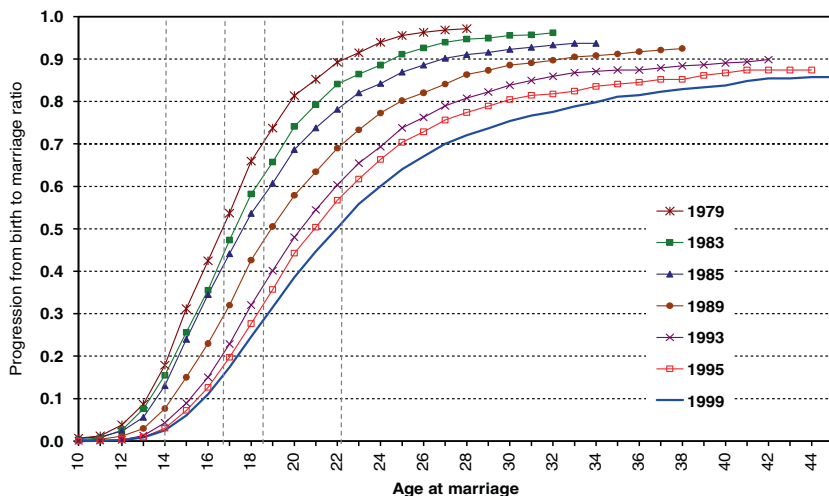


Fig. 4.1 Cumulative progression to first marriage for synthetic cohorts, Iran, 1981–1999, selected years (2000 Iran Demographic and Health Survey)

Iran–Iraq War. As discussed below, the increased rates of marriage in the last years of the 1980s served to hold annual fertility at a higher level than would otherwise have been the case during those years because births were brought forward in time.

During the 1990s, age at first marriage continued to increase gradually as more women pursued post-school education. Over the period from 1981 to 1999, the synthetic lifetime proportion ever marrying fell from 99% to 86%. It needs to be pointed out that, in a period when marriage is being delayed, this ‘lifetime’ measure will overstate the proportion of women that never marry. Based on preference data and observed proportions ever married for age cohorts, it can be argued that the lifetime percentage ever married for any actual cohort of Iranian women will be at least 95% for all Iranian women aged 20 and over in 1999. This means that, the effect of the timing distortion upon the synthetic proportion who ever marry was significant at the end of the 1990s. Underlining the complexity of these trends, however, it is expected that the coming to marriageable age of the very large birth cohorts of the early 1980s will lead to a further delay of marriage after 2000. This cohort will face both considerable economic problems due to competition in the labour and housing markets and considerable adjustment in the marriage market given the imbalances that will arise from huge shifts in the numbers in successive birth cohorts.

Progression to the First Birth (from Marriage)

Studies in developing countries (Westoff and Akinrinola 2001) show that around 2% of women are infertile and do not progress to their first child during their reproductive life. The results for Iran as a whole from IDHS 2000 (Fig. 4.2) show that the lifetime progression from marriage to the first birth fell across time from

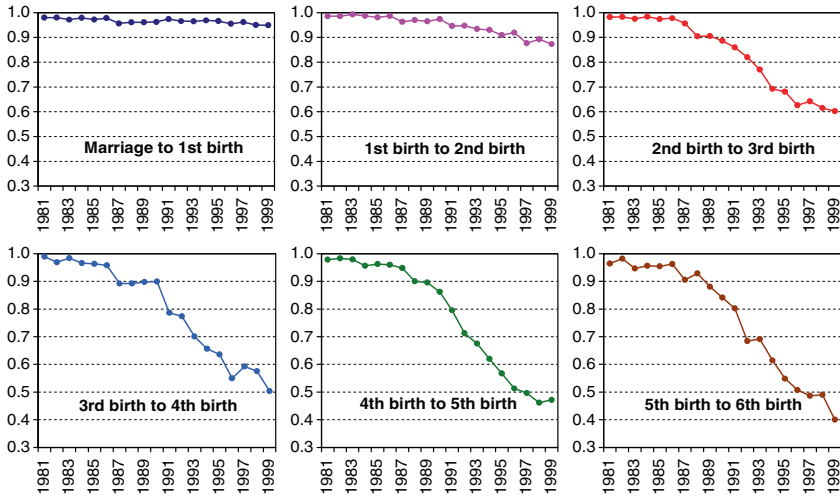


Fig. 4.2 Lifetime parity progression ratios, synthetic cohorts, Iran, 1981–1999 (2000 Iran Demographic and Health Survey)

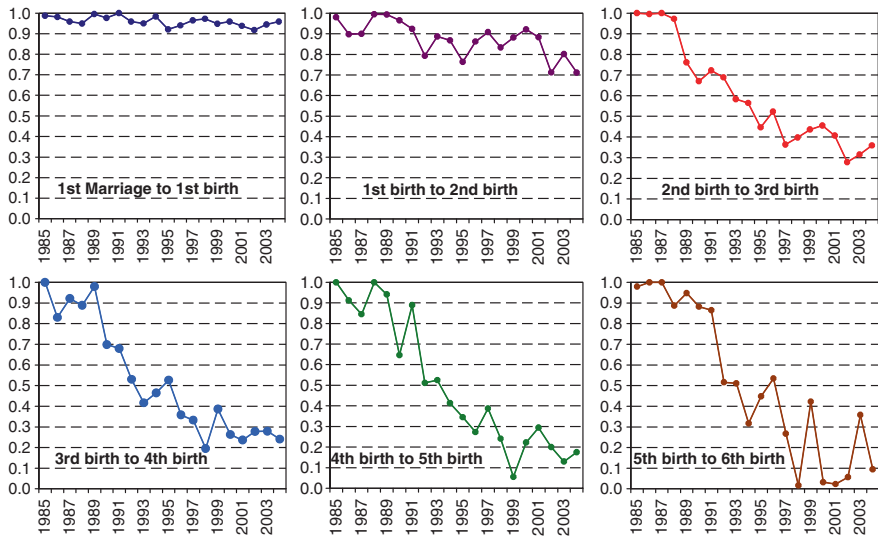


Fig. 4.3 Lifetime parity progression ratios, synthetic cohorts, four selected low fertility regions, 1981–1999 (2000 Iran Low Fertility Survey)

98% in 1981 to 95% in 1999, still at a high level at the end of the period. Hence, there was little change across time in the propensity to have a first birth. The same was true for the four low fertility provinces (Fig. 4.3). Thus, it can be concluded that fertility decline in Iran and even in the low fertility provinces has not been a consequence of married women opting to have no children.

For Iran, as a whole, there is also little evidence of delay of the first birth. Figure 4.4 indicates that more than 90% of women had had a first birth during the first 5 years after marriage and that there was little variation in this pattern across time. However, it is evident that, at the national level, a new trend towards a short delay of the first birth within the first few years of marriage emerged between 1996 and 1999. This trend is very much stronger for the low fertility regions (Fig. 4.4, right panel) indicating that this may be an emerging trend across Iran in the future. Consistent with this trend, during the 1990s, use of contraception within the first birth interval increased from 3% to 20% (Abbasi-Shavazi et al. 2009). Moreover, during the 1980–1999 period, the results from the 2005 ILFS show that ever use of contraception within the first birth interval in the four low fertility provinces increased from 14% to 41%, and this increase has an association with age at marriage and education levels, as well as with urban or rural area of residence (see Chapter 7). This is a direction to be expected in a low fertility society where economic aspirations are high, economic opportunities for many young people are constrained, and age at marriage remains relatively early.

Rindfuss and Morgan (1983) found that in several Asian countries romantic marriage has increased and arranged marriage has decreased, and that couples married through romantic marriage were less likely to delay their first child as compared with those married through an arranged marriage. They argued that less delay in progression to first birth was associated with the increased sexual interest and activity among partners of a romantic marriage, and increased likelihood of conception, compared to partners in an arranged marriage. In Iran however, Abbasi-Shavazi et al. (2009) found an increase in the proportion using contraception before first pregnancy. Although, there was no information on love marriages in this study, the authors argued that the weight of the evidence examined was supportive of an alternative explanation, an Iranian–Islamic one. This explanation posits an idealized Islamic family morality supported by powerful institutions, personified in Iran by the state/religion nexus. In this arena, the state has focused on encouraging early

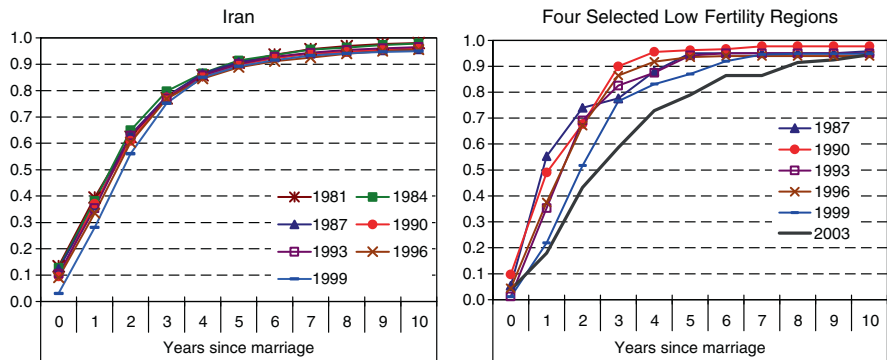


Fig. 4.4 Cumulative parity progression, synthetic cohorts, marriage to first birth, Iran and four low fertility provinces, 1981–2003, selected years (2000 Iran Demographic and Health Survey; 2005 Iran Low Fertility Survey)

marriage and provides resources for doing so. As a result individuals turn to birth control early in marriage to conform to early marriage expectations while postponing parenthood. This explanation sees the new behaviour as conservative, maintaining earlier marriage than would be expected without state/religious influence.

Further, the increase in contraceptive use prior to the first child in recent years is compatible with the program implemented by the Ministry of Health by which newly married couples are required to attend marriage counselling sessions prior to first marriage. The program provides them with comprehensive knowledge and information about contraception and health and social aspects of motherhood and fatherhood. This program aims to educate couples about delaying their first child.

In general, despite this emerging delay of the first birth, it can be concluded that delaying the first child did not contribute significantly to fertility decline in Iran up to the year, 2000.

Progression to the Second Birth

Lifetime progression to the second birth for Iranian women (Fig. 4.2) was very high in the early years of the revolution (99%), fell slowly to 1990 (97%) and then more sharply in the 1990s to 87% in 1999. Similar results are observed for the low fertility provinces in Fig. 4.3. Lifetime progression to the second birth for women in the four selected provinces was very high during the period 1985–1989 (around 99%), fell slowly, though with some fluctuations, to around 92% in 1990, and then with some yearly fluctuation fell to around 88 by 1999. However, after 1999, in the low fertility provinces, the lifetime percentage progressing to a second birth fell sharply to around 70% by the period 2002–2004. It is not suggested that 30% of women in these provinces will not progress from the first to the second birth. Instead, this trend reflects a substantial increase in the interval between the first and the second birth.

In what is probably one of the most significant findings of this chapter, Fig. 4.5 shows the onset of a very substantial delay of the second birth. For example, the proportion of Iranian women having their second birth within 3.5 years of their first birth fell from 81% in 1981 to 72% in 1990 and then to 34% in 1999. The difference between the 1981 and 1999 figures in the third year after the first birth (47% points) is much wider than the corresponding difference in the 10th year after the first birth (12% points). This means that what is being observed here is wider spacing of the interval between the – first and second births, rather than a ‘stopping at one’ pattern. Thus, for any real cohort, the percentages of women who stop at one may not be as high as 13% for Iran as a whole or 30% for the low fertility provinces. On the other hand, the results of the 2002 Iran Fertility Transition Survey on preferences of women confirm an emerging trend in some parts of the country (Abbasi-Shavazi et al. 2003; 2004). Note that in the province of Gilan the tendency to have one child only has been high even for those who

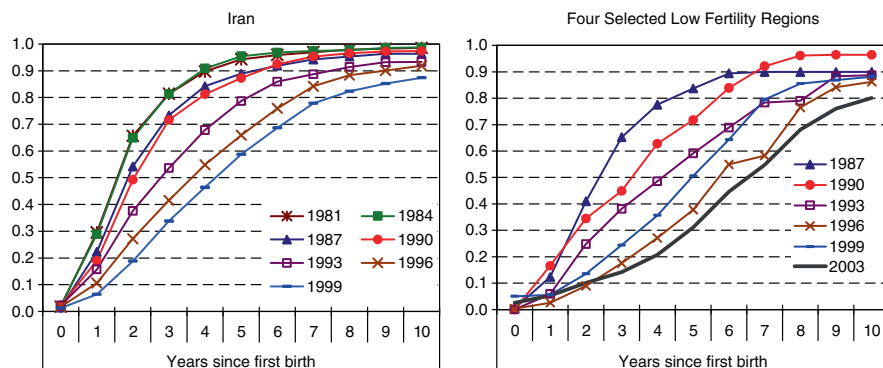


Fig. 4.5 Cumulative parity progression, synthetic cohorts, first birth to the second birth, Iran and four low fertility provinces, 1981–2003, selected years (2000 Iran Demographic and Health Survey; 2005 Iran Low Fertility Survey)

married before the 1980s. The level has increased from around 18% to around 22.5% for recent cohorts (see Chapter 8).

Progression to the second birth is very slow in the low fertility provinces. In 2003, only 30% progressed to the second birth within 5 years after the first birth and the 50% mark was reached after 7 years. These are extraordinarily long birth intervals. This can be explained by the fact that most Iranian women are still quite young when they have their first birth and the family economy not very advanced. The Iranian solution to this problem is to delay the second birth to an extent hardly observed in any other country. The continued lengthening of the interval to the second birth would have had the effect of forcing down the annual fertility rate as births were postponed to a future time (a timing or tempo effect). The longer birth intervals do not cost Iranian families as much as they would in some other countries (Groat et al. 1976; Jones 1984; Hoem 1993; Evans 1996; Anderson 2000), because of the low labour force participation rate for women in Iran (Mehryar and Farjadi 2000; Mahmoudian 2006).

The timing of the widening of the second birth interval corresponds closely with the reintroduction of the nationwide family planning program in Iran. Prior to 1990, there is little evidence of a change in the interval between the first and the second birth suggesting that this was not an explanation of the movements in fertility from the mid 1970s to the late 1980s.

Progression to the Third Birth

It is with progression to the third birth that we begin to observe the substantial changes in the quantum of fertility. In the early 1980s, the synthetic lifetime measure shows that 96–97% of women in Iran who had had a second child continued

to the third. By 1999, this had fallen to 60% (Fig. 4.2). The results of the Iran Low Fertility Survey in Fig. 4.3 also show that during 1985–1987 almost all women in the four provinces who had a second child continued to have the third child but this figure had declined to around 56% in 1984, before it fell to around 30% during 2002–2004.

The trend over the period closely mirrored the trend in the total fertility rate (see Chapter 3) – high in the early 1980s, a slow decline to 1990 and more rapid decline thereafter. It is very evident that ‘stopping at two’ is the central story of fertility decline in Iran. It is also evident that this new pattern had commenced prior to the reestablishment of the family planning program. Thus, the family planning program can be considered to have facilitated and accelerated a pattern of behaviour that had become established in parts of the society in the mid 1980s. Abbasi-Shavazi et al. (2003) based on analysis of the 2002 Iran Fertility Transition Survey proposed that the economic aspirations of the population were raised by the revolution but the failure of household economic outcomes to meet expectations had become clearly evident by the mid 1980s.

In addition, it was evident to parents by the mid 1980s that their children would have better opportunities for education and social advancement in the new society if the parents were able to support their children through education. Stopping at two must have been seen by parents as a strategy to improve their own economic outcomes and the educational opportunities of their children (Abbasi-Shavazi et al. 2004). The interesting question becomes what means of fertility control did women use to stop at two before the reestablishment of the family planning program? This will be addressed in Chapter 7.

The annualised cumulative progressions (Fig. 4.6) indicate another very interesting trend not evident from age-based analyses. The emergence of ‘stopping at two’ seems to have been preceded by a long-term trend towards wider spacing of the second and third births, a trend that continued through the early 1980s when fertility rates

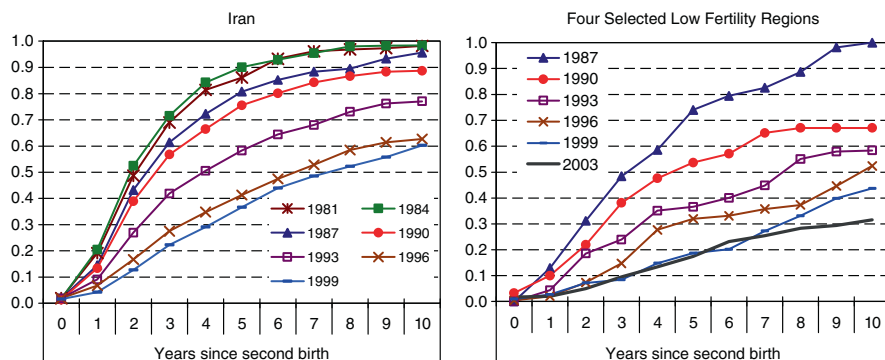


Fig. 4.6 Cumulative parity progression, synthetic cohorts, second birth to the third birth, Iran and four low fertility provinces, 1981–2003, selected years (2000 Iran Demographic and Health Survey; 2005 Iran Low Fertility Survey)

were at their highest. For example, based on the 1975–1979 cross-sections, 54% of women had moved from their second to their third birth by the end of the second year; for the 1980–1984 cross-sections, at the height of the high fertility, 49% had done so. This percentage then declines further in subsequent years. This may mean either that couples were already attempting unsuccessfully to stop at two or that they were indeed attempting to widen the interval between the second and third birth.

Movement to the third birth has been slower among women in low fertility regions for all birth cohorts as shown in the right panel of Fig. 4.6. For the 1987 cross-sections, before the revival of the family planning program, 30% had moved from their second to their third birth by the end of the second year, but less than 8% had done so since 1999. More importantly, the life time progression to the third birth in the low fertility provinces fell from near 100% in 1987 to 30% by 2003.

Progression to the Fourth and Higher Order Births

The phenomenon of ‘stopping at two’ from 1986 onwards extends to higher parities in the sense that, if a woman already had more than two children, there was an increased tendency across time to stop at whatever her parity was (Figs. 4.2 and 4.3 and Table 4.1). Between 1986 and 1990, largely before the impact of the family planning program, the tendency to stop increased as parity increased for Iranian women. This pattern was accentuated between 1990 and 1999 with the family planning program in operation.

Table 4.1 Life time parity progression ratios, synthetic parity cohorts, ever married women, Iran and four selected low fertility provinces, 1981–2003

Parity progression	Lifetime percentage progressing										
	1981	1983	1986	1988	1990	1992	1995	1997	1999	2001	2003
Iran (national level) ^a											
Marriage to 1st	98.0	97.2	97.8	96.1	96.3	96.6	96.6	96.2	94.9		
1st to 2nd	98.6	99.3	98.7	97.0	97.4	94.8	90.9	87.6	87.4		
2nd to 3rd	98.2	97.5	97.8	90.5	88.7	82.0	68.1	64.2	60.3		
3rd to 4th	98.9	98.4	95.8	89.3	89.9	77.4	63.6	59.3	50.3		
4th to 5th	97.9	97.9	96.0	90.1	86.2	71.2	56.7	49.7	47.2		
5th to 6th	96.4	94.6	96.2	92.8	84.1	68.4	54.9	48.7	40.1		
Combined four selected low fertility provinces ^b											
Marriage to 1st			98.1	94.9	97.7	95.9	92.1	96.5	94.8	93.8	94.5
1st to 2nd			89.7	99.5	96.5	79.3	76.4	90.7	88.1	88.3	80.1
2nd to 3rd			99.5	97.3	67.1	68.9	44.7	36.3	43.6	40.7	31.6
3rd to 4th			83.0	88.8	69.8	53.0	52.6	33.2	38.6	23.6	27.9

^a2000 Iran Demographic and Health Survey.

^b2005 Iran Low Fertility Survey.

Figures 4.7 and 4.8 confirm the strong cross-sectional pattern of stopping at whatever parity a woman had at the time. The largest shift occurs in the early years of the family planning program (between 1990 and 1993) suggesting that there was a considerable unmet need for contraception that was satisfied with enthusiasm as soon as this option was provided. The cumulated proportion of women having a fourth birth during 1985–1988 was between 90% and 99% but this figure fell to less than 50% for the whole country by 1999.

Lifetime progression to the fourth birth in the late 1980s in the low fertility regions was almost the same as observed at the national level, and around 90% of women progressed to their fourth birth. However, after 1990, lifetime progression to the fourth birth is much lower among women in the low fertility provinces than at the national level being, for example, 70% at the national level compared with 40% in

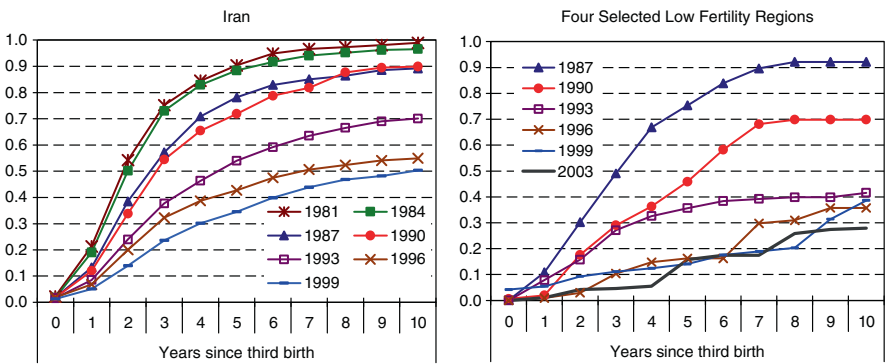


Fig. 4.7 Cumulative parity progression, synthetic cohorts, third birth to the fourth birth, Iran and four low fertility provinces, 1981–2003, selected years (2000 Iran Demographic and Health Survey; 2005 Iran Low Fertility Survey)

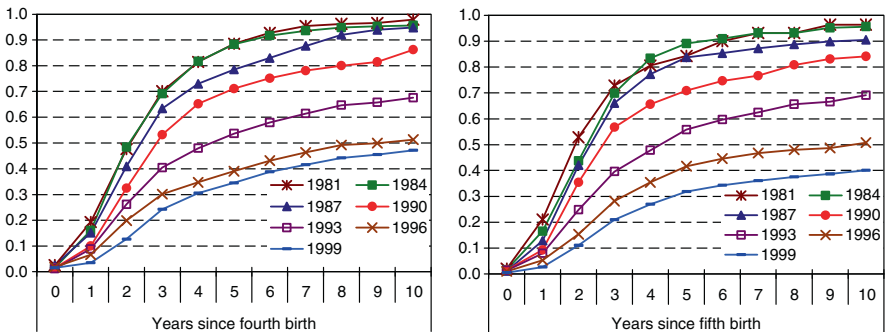


Fig. 4.8 Cumulative parity progression, synthetic cohorts, fourth to the fifth birth and fifth to the sixth birth, Iran, 1981–1999, selected years (2000 Iran Demographic and Health Survey)

the low fertility regions for the 1993 birth cohort. By 2003, the cumulated progression to the fourth birth had fallen to as low as 20% in the low fertility regions.

By 2003, in the low fertility regions, the rates of progression to the third and fourth births were as low as the equivalent progressions in countries of Europe that have very low fertility rates (Italy, Spain, Austria) and well below those European countries such as France and Sweden that have moderately low fertility. That what was happening was stopping behaviour rather than spacing behaviour is indicated by the fact that the fall in lifetime parity progression ratios is very similar to the fall by the third year after the previous birth. Thus, the lifetime parity progression ratios for all births beyond the second birth are unlikely to be affected much by delaying of these births.

From a theoretical perspective, it is evident that stopping behaviour was very strongly cross-sectional. Stopping was not a phenomenon that emerged gradually with successive cohorts, for example, through increasing levels of education. The demand for contraception was simultaneous across women of all ages. Consistent with this, it has been found that ideal family size does not vary much according to the age of the woman. Older women and younger women both state low fertility ideals (Chapter 8). This supports the explanation that the decline in fertility was motivated through families wishing to change their own economic circumstances and the educational opportunities for their children. It also shows the important impact of the widespread provision of family planning services through the public health system.

Synthetic Lifetime Parity Distributions and Average Parities

As summary measures, the implied completed parity distributions and the lifetime average number of children ever born to the synthetic parity cohorts were calculated (Table 4.2 and Fig. 4.9).

In these calculations, the cumulated proportion ever married to age 49 is projected using the closest available actual probabilities for the ages for which data were not available. For example, for the year 1981, the actual probabilities of first marriage to age 30 are used, but for age 31 the actual probability from 1982, and for age 32 the probability from 1983 are used, and so on. The shift in the implied (synthetic) completed parity distribution is truly remarkable – from 86% to just 4% having six or more children in a period of less than two decades and from 9% having three or fewer children to 78.5%.

Finally, as shown in Figure 4.9, the average lifetime parity for synthetic cohorts provides a very similar trend to the total fertility rate derived from age-based measurement. As far as the survey results are concerned, this is the expected result as both measures are driven very largely by changes in the annual number of births.

Table 4.2 Implied completed parity distribution and life time average parity, Synthetic parity cohorts, Iran and four selected low fertility provinces, 1981–2003

Parity progression	Lifetime percentage progressing											
	1981	1983	1986	1988	1990	1992	1995	1997	1999	2001	2003	
Iran (National level) ^a												
0 (Non-marriage)	2.9	3.8	6.8	8.1	5.4	10.1	12.6	14.3	14.2			
0 (Within marriage)	2.0	2.7	2.0	3.6	3.5	3.1	3.0	3.3	4.4			
1	1.4	0.7	1.2	2.6	2.4	4.5	7.7	10.2	10.3			
2	1.7	2.3	2.0	8.1	10.0	14.8	24.5	25.8	28.3			
3	1.0	1.5	3.7	8.3	7.9	15.3	19.1	18.9	21.3			
4	1.9	1.9	3.4	6.9	9.7	15.0	14.4	13.8	11.4			
5	3.2	4.7	3.0	4.5	9.7	11.7	8.5	7.0	6.1			
6+	86.0	82.4	77.9	57.8	51.3	25.4	10.3	6.7	4.1			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Average parity	6.9	6.7	6.4	5.4	5.3	3.9	2.9	2.6	2.4			
Four selected low fertility provinces ^b												
0 (Non-marriage)			13.2	12.8	2.0	11.7	6.2	10.1	8.4	3.7	18.1	
0 (Within marriage)			1.6	4.4	2.2	3.6	7.4	3.1	4.7	5.9	4.5	
1			8.7	0.4	3.4	17.5	20.4	8.0	10.3	10.6	15.4	
2			0.4	2.3	30.4	20.9	36.5	50.1	43.2	47.3	42.4	
3			12.9	8.9	18.7	21.8	14.0	19.1	20.5	24.8	14.1	
4			5.5	0.0	15.3	12.0	10.2	5.8	12.2	5.4	4.8	
5			0.0	8.0	3.3	6.1	3.0	2.7	0.4	2.2	0.5	
6+			57.7	63.1	24.7	6.5	2.4	1.0	0.3	0.1	0.3	
Total			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Average parity			4.9	5.3	3.8	2.5	2.1	2.1	2.1	2.1	1.7	

^a The 2000 Iran Demographic and Health Survey.

^b The 2005 Iran Low Fertility Survey.

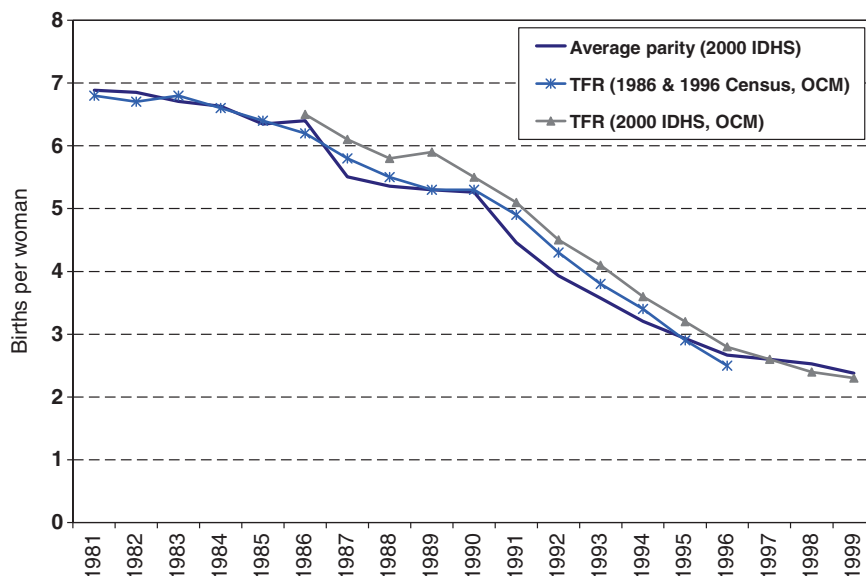


Fig. 4.9 Average lifetime parity for synthetic cohorts (Abbasi-Shavazi and McDonald 2005 [Own Children Method applied to the Iran 1986 and 1996 Censuses and the IDHS]) compared with the total fertility rate (2000 Iran Demographic and Health Survey), Iran, 1981–1999

Decomposition of Fertility

Figure 4.10 shows a decomposition of the change in the annual lifetime fertility between 1981 and 1999 into changes in the progression to marriage and the progression to each successive birth. The top line, labelled ‘Woman’s birth to marriage’ shows the change in period lifetime fertility that would have occurred if only the probabilities of progression to marriage had changed with no change from 1981 in any of the other progressions. The second line labelled ‘Marriage to first birth’ then adds the additional effect of changes in the progression from marriage to first birth. Successively, other progressions are added with the final line, when progression from the fifth to the sixth birth is added, showing the actual trend in annual lifetime fertility.

The figure shows that the change in the timing of marriage on its own would have reduced the annual lifetime fertility from around 7 births to 6 births over the whole period. Changes in progression from marriage to the first birth reduce the total fertility only slightly to 5.8, and changes in progression to the second birth reduce fertility a further 0.5 births per woman to 5.3. The progressions from birth to marriage, to first birth and to second birth are the changes where timing effects will be playing a part as described earlier. Nevertheless, these trends are unlikely to turn upwards in the foreseeable future, that is, the timing effects are not likely to be short-term. Further back in time, however, the trends for these progressions display a very interesting short-term timing effect. In the final years of the 1980s, the years

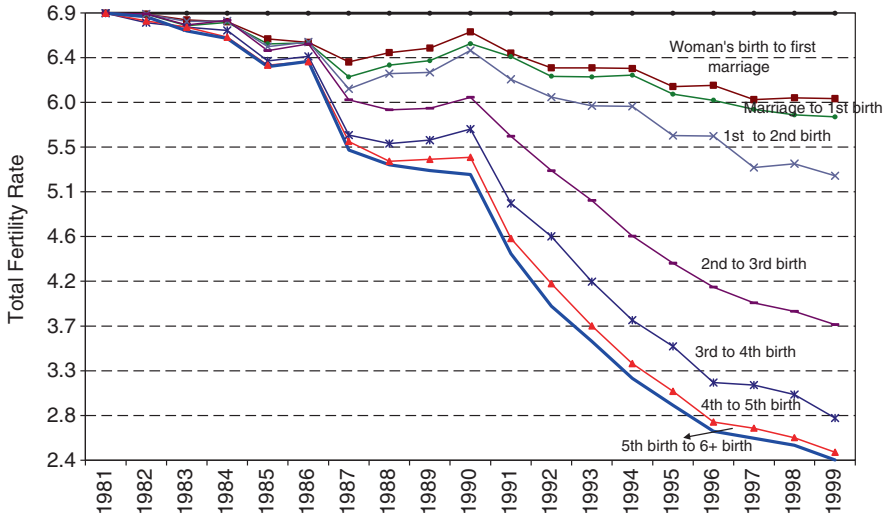


Fig. 4.10 Decomposition of the 1981–2004 declines in fertility in Iran across the progression to marriage and each successive birth (2000 Iran Demographic and Health Survey)

immediately following the end of the Iran–Iraq War, the annual progression to marriage had the effect of increasing fertility (by about 0.2 births per woman) and there was also a small upward impact from the progression from the first to the second child. These timing effects produced a kink (a flattening) in the decline of synthetic lifetime fertility between 1987 and 1990. This accentuated the apparent fall in fertility from 1990 onwards. This observation could not have been made using conventional age-based measures of fertility and shows the explanatory power of the parity progression model.

As would be expected, by far the largest impact on annual lifetime fertility is caused by the fall in progression from the second to the third birth. This commences effectively from 1988 and becomes increasingly larger with time. It accounts for a fall of around 1.6 births per woman in total. The fall in progression from the 3rd to the 4th birth is evident as early as 1984 as the first real sign of the impending fertility decline. Its effect gradually increases to 1987, levels off between 1987 and 1990 but then becomes increasingly more significant from 1990 onwards. Similar conclusions apply, at a lower level of significance, for the progression from the 4th to the 5th birth. The falls in these three progressions, from the second to the fifth birth, are most unlikely to be temporary and therefore reflect an irreversible fall in the quantum of fertility. They indicate the stopping behaviour that is central to the fall in Iran’s fertility rate.

While, cessation of childbearing at parities two and above clearly has played the major role in the decline of Iranian fertility from 1986 to 2000, the emergence of very low fertility in the low fertility provinces seems to have been driven in large measure by substantial increases in the intervals between marriage and first birth and between the first birth and the second birth.

Discussion

The analysis in this chapter has shown that fertility in Iran fell so rapidly because women who had two or more children decided at much the same time to stop having any more children. There were some early signs of a desire to stop at two in the early 1980s that appear to have been largely unsuccessful but there was more success from 1986 onwards and considerably more success when the nationwide family planning programme was put in place. Fertility at parities two and over fell substantially in the early 1990s. Subsequently, family planning was also used to delay the second birth to a point where the interval between the first and second birth in Iran is extraordinarily long. Caldwell et al. (1992, p. 219) found that African fertility decline also occurred at all ages, although the speed of the decline was not as sharp as in Iran's fertility decline. This is a different picture from that identified by Knodel (1977, p. 232) as characterizing the early years of the European and Asian fertility transitions. In his analysis of fertility decline in Europe during the second half of the nineteenth century and a decade in the Asian fertility transition (mostly after 1955), he found that declines were usually nonexistent below age 25, small but increasing with age thereafter, and large only after age 40.

Finally, in recent years, especially in the low fertility provinces, there is evidence of a delay of the first birth within marriage. Delays of the first and second births would have had the effect of lowering annual even more than would have been the case if only a 'stopping at two' phenomenon was in place. The combination of the delay of first and second births and the avoidance of births beyond the second produced the spectacular decline in Iranian fertility.

The analysis indicates that the motivation to limit births was evident before the recommencement of the family planning programme in 1990 but that it was the family planning programme that enabled vast numbers of Iranians to implement their motivation to limit the number of their children. There are strong pointers from this analysis that economic motivations were paramount, that economic aspirations exceeded the capacity of families to meet their economic goals and that families considered that limiting the number of their children would assist them in meeting their goals for themselves and for their children.

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