

Explaining the Declines

We may start with the simple proposition that fertility declined in Japan, South Korea, and Taiwan because (i) families wanted fewer children than they would have had if they had not acted to limit family size, and (ii) they were able to and did act accordingly. This formulation focuses attention on numbers of surviving children and on decision-making within families, and the assumptions are made that the “rational choice” model (32) is appropriate and that families were acting voluntarily.

The excess of surviving children reflected two quite different influences (33). Declining mortality substantially increased numbers of surviving children before fertility began to decline (34). Japanese women reaching prime childbearing ages during the early 1930s averaged about 4.6 surviving children per woman on reaching age 50 (20). Women in Taiwan reaching prime childbearing ages during 1930 to 1955 averaged about 4.7 surviving children per woman on reaching age 50 (35, 36). Although we do not have comparable figures for earlier periods, these values almost certainly represent a significant increase over earlier levels. Data from recent South Korean censuses suggest that average numbers of surviving children at age 50 rose from about 3.0 per woman for women reaching prime childbearing ages circa 1920 to about 4.6 children per woman in prime childbearing ages circa 1950 (37).

The second reason for the excess of surviving children was changing circumstances within and beyond the family that shifted costs and benefits of different numbers of surviving children in favor of smaller numbers (38–40). The shift reflects a complex of interrelated influences, changes in family structure, the spread of education, rise of nonfarm employment, the development of labor and capital markets, and monetization of the economy (41, 42). Before fertility decline, each of the three countries was a peasant agrarian society, characterized by low output, periodic subsistence crises, low nonfarm employment, and relatively undeveloped labor and capital markets. The family system (43–45) gave the older generation control over household resources and the marriage of children and therefore the power to demand labor services from children. These features led to a reliance on family labor and so created a demand for larger rather than smaller numbers of surviving children.

The beginnings of economic development increased demand for nonagricultural labor and stimulated the development of labor markets. Given that numbers of surviving children had been increasing and were more than sufficient to continue the family, the older generation was inclined to welcome the employment of some children in the emerging nonfarm sector, for this was likely to increase family income through remittances and provide a hedge against rural subsistence crises. As educated children stood better chances for such employment, and as the early years of primary school (at least) occurred before children had substantial labor value, the older generation was also inclined to have their children take advantage of emerging educational opportunities.

In time these developments changed both the nature of relations within the family and the social and economic environment in which it functioned. Education of children and the possibility of their departing for nonfarm jobs weakened the authority of the older generation (41, 43–45). Education reduced the labor value of children in various ways. Economic development increased agricultural productivity and diminished the need for labor, whereas emerging labor markets and monetization of the economy made it easier and less risky to engage nonfamily labor. When these developments had run their course, farm employment had shrunk to a small fraction of total employment. The labor value of children, low in the emerging nonfarm sector to begin with, declined in the farm sector as well.

The huge gap between the numbers of surviving children families wanted and the

numbers they would have had in the absence of family limitation left no serious doubt that family limitation would be adopted. It does not however, explain why the fertility declines began when they did. The changes that explain the declines developed over many decades and would not at first have been perceived. Once perceived, they would have to have been sustained for a period of time to be confirmed as more than erratic fluctuation, and when confirmed would be acted on only if judged sufficiently drastic,

There is considerable uncertainty regarding the magnitude, time span, level, and duration of increase that would be necessary to provoke a family limitation response. Thus, even the most satisfactory explanation of fertility declines will not necessarily explain why declines began when they did. By analogy, knowing that earthquakes are caused by the shifting of tectonic plates does not give an investigator the ability to predict when an earthquake will occur (46).

We have no very satisfactory explanations for the time of onset of the declines in Japan, South Korea, and Taiwan beyond that they began when the pressures favoring them became sufficiently strong to provoke behavioral response. The instigating conditions may be entirely different from the prevailing condition of excess numbers of surviving children (47) and are more likely to be identified from historiographic or ethnographic than from statistical evidence. The economic dislocations of the great depression are obvious candidates for Japan, whose decline began during this period. The governments of South Korea and Taiwan both developed active family planning programs to promote the idea of family planning and the use of contraception. The activities of these programs are natural candidates for instigating fertility decline. Taiwan's fertility decline began during the mid-1950s, however, and it is generally agreed that the family planning program could have had a significant effect only after its expansion in 1963 (48). South Korea's decline began in the early 1960s, and although the South Korean government initiated the national family planning program in 1962, a recent study concluded that the role of the program in the onset of fertility decline "was probably negligible" (23).

Once initiated, the rate of fertility decline reflects the rate at which the relevant influences change and the time required for families to identify and adopt acceptable means of family limitation. Although it is plausible that the relatively rapid fertility declines in Taiwan and South Korea were due, in part, to their national family planning programs, evidence of this is more limited than one would like. The essential difficulty is insufficient understanding of how fertility levels respond to influences unrelated to the family planning program.

An authoritative study of Taiwan concludes that fertility decline "was to a large degree a result of the reduced fertility of (i) couples practicing program methods and (ii) couples who began in the program and then shifted to nonprogram methods or some combination of the two over time," but goes on to say that "It is possible that in the absence of the program other means would have been used by this large number of couples to reduce their fertility; there is no way of definitely proving or disproving this point" (49).

The situation in China was similar in some respects, but different enough to require separate discussion (50). Numbers of surviving children increased rapidly and to much the same levels as in Japan, South Korea, and Taiwan (51-54). China before fertility decline was a peasant agrarian society, with a family structure (7) that gave the older generation the power to secure the labor services of their children, making at least modestly large numbers of children desirable. In the two decades after the 1949 revolution there were extremely rapid improvements in educational attainment (55). The power of the older generation was weakened, but was supplanted to a considerable extent by that of the party and administrative organs, rather than devolving to the younger generation. The prohibition of migration to urban areas (56) and stagnation in rural areas

(57) prior to the rural economic reforms in 1979 (58) severely curtailed opportunities for nonfarm employment. The collectivization of agriculture (59) created incentives for larger numbers of surviving children (56).

These considerations suggest no strong impetus for fertility decline, yet fertility in China declined far more rapidly than fertility has ever declined anywhere in the world (60). There is little doubt that the instigating condition for the decline was the “later-longer-fewer” policy for restricting family size introduced in the early 1970s. This policy advocated later marriage, longer intervals between births, and fewer children altogether (61). Although there was little lengthening of birth intervals, age at marriage increased and total fertility decreased very substantially during the years the policy was in effect (62).

The extraordinary rapidity of the decline suggests that the later-longer-fewer policy encountered little resistance in most of the country, and this suggests a widespread judgement by rural families either that numbers of surviving children were too high or that the marginal value of family sizes over two or three children was low. We do not understand satisfactorily why this influences that operated in Japan, South Korea, and Taiwan.

It must not be forgotten, finally, that the large average numbers of surviving children in families circa 1970 were an historical anomaly. It may be more than coincidence that the 1970s fertility decline came to an end when total fertility fell slightly below three children per woman which, in combination with the low mortality that had been achieved (64), meant an average of perhaps 2.5 surviving children per woman. This was only slightly less than the 3.0 surviving children per woman of prerevolutionary times.

In 1979, the later-longer-fewer policy was supplanted’ by the one child per family policy (61, 65). The apparent lack of impact suggested by Fig. 1 is misleading and illustrates the necessity of more focused fertility measures (27, 60, 62). Figure 2 shows period parity progression ratios for progression from first to second birth for China as a whole and for eight subpopulations (66). Investigators use this statistic to determine the proportion of women who, having had a first birth, go on to have a second, on the basis of rates at which women with one child at the beginning of any given year have second births during that year (30, 60, 62, 67).

The magnitude and timing of the 1979 to 1984 declines show beyond reasonable doubt that they were instigated by the one-child policy. The cessation of the declines corresponds to the “open a small hole” modification of the one-child policy, which in effect allowed rural families with a single female child to have another, and which was caused by peasant resistance to the one-child policy (68). The low level reached in 1984 was maintained in some areas, but there was a fairly rapid increase in other areas during 1984 to 1987. The reversal in 1987 was almost certainly a response to some change in national policy, but we know little of the change.

The pattern of fertility levels in the 1980s suggests substantial resistance to further decline, a marked contrast to the 1970s, with a balance finally being struck between peasants and the state. The rapid economic development engendered by the 1979 economic reforms radically changed the situation in much of the countryside, bringing into play some of the antinatalist influences that operated in Japan, South Korea, and Taiwan.

We have no very satisfactory answer to the question of why the fertility declines ceased at the levels they did in Japan, South Korea, and Taiwan; the question for China is premature. Pretransition fertility levels represented a balance between economic benefits and costs of different numbers of surviving children. Economic costs remain and increase after the transition, but economic benefits largely disappear, and there is no obvious way of balancing the non economic benefits against the economic costs. The recent

experience in Japan (69) suggests that, in East Asia as in the West, substantial proportions of women are willing to forgo childbearing altogether. It is possible that the desire for children may be largely satisfied by a single child, and there is no obvious reason why families should adjust their behavior to achieve long-term population replacement. It might be considered remarkable that total fertility in developed countries has remained as close to replacement level as it has.

It has not been possible to consider developments at other than the national level here, but families are specifically located in space as well as time, and spatial patterns are arguably as important as changes over time (70). The problems of explaining a unique historical event may be considerably ameliorated merely by spatial disaggregation, effectively multiplying the number of cases by several orders of magnitude. The gains of disaggregation in space go far beyond this multiplication, however, because human behavior is spatially patterned (71).

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Fertility Decline in East Asia

Page 1518

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