

## PERSPECTIVE

### THE WESTERN FERTILITY DECLINE: REFLECTIONS FROM A CHRONOLOGICAL PERSPECTIVE

John C. Caldwell,<sup>†</sup> The Australian National University

The study of recent fertility trends in the West has been dominated by examinations of Europe. A better perspective on twentieth-century fertility movements can be gained by giving an equal emphasis to trends in the 'Offshoots' (USA, Canada, Australia and New Zealand). This paper focuses on the periods of rapid fertility decline and to a greater extent on the intervening periods of near-equilibrium. It is suggested that the 'late twentieth century compromise' is more stable than is suggested by reports on its internal strains, and that only massive government intervention could raise fertility.

**Keywords:** Demographic transition, fertility decline, below-replacement fertility, demographic theory, developed countries, 'baby boom'

Most of the discussion of the modern fertility decline has concentrated on Europe, largely because the whole continent has attained below-replacement-level fertility. This paper seeks to broaden the treatment by including the English-speaking countries of overseas European settlement. There will also be an attempt to gain greater historical insight by beginning the analysis in the 1920s. The fertility history of a number of countries will be compared in an effort to gain answers to three questions. What was the nature of very low fertility in the Depression of the 1930s? How can we include the 'baby boom' in any theory of demographic transition? Where does the transition go from now?

Maddison (2001, 2003) used the term 'Western Offshoots' for the English-speaking countries of overseas European settlement (USA, Canada, Australia and New Zealand), and this will be abbreviated to 'Offshoots' here. It is difficult to omit these countries from an examination of the Western fertility transition. Preceded only by France, they were leaders in the first transition, sharing that lead with only Britain and Belgium (Caldwell and Caldwell 2001: 94). They have also been among the leaders in subsequent changes in fertility movements. Consequently any attempt to explain those changes must allow for forces which impinge on the entire West. The balance of the West, as used in this paper and described here as 'Western Europe' includes Northern, Western and Southern Europe. Countries east of what was the

---

<sup>†</sup> Address for correspondence: Demography and Sociology Program, Research School of Social Sciences, The Australian National University, Canberra ACT 0200, Australia. E-mail: jack.caldwell@anu.edu.au.

Iron Curtain are excluded, not for Hajnal's (1965) reason that their family and marriage patterns have been distinct for centuries, but because in the 45 years following World War II a different economic system led to a distinctly different demographic regime with, for instance, few penalties for early marriage. The Offshoots also should not be excluded because of their comparative size. Of the whole West in 2005, the Offshoots (353 million people) made up 45 per cent of the total population, and Western Europe (433 million) 55 per cent. In contrast the Offshoots, averaging slightly higher real incomes (in parity purchasing prices, see Maddison 2003), contributed in 2000 52 per cent of the West's total gross domestic product.

Table 1 identifies the turning points in the twentieth-century fertility decline. Its concern is what happened after 1930, but, in order to place changes in perspective, data are provided for the 1920s as a kind of baseline. By 1920 fertility was falling in all of the West, with the possible exception of Greece where birth registration figures for the early 1920s are suspect. In order to use reasonably good single-year age data for all these countries, crude birth rates are employed. They are influenced by the populations' age structures and the age schedule for births, but they are not alone among fertility measures in suffering from such defects. Over the short run, such as when assessing turning points, their shortcomings are of little importance. Over the longer run this is not the case: in Australia the ratio of the crude birth rate to the total fertility rate ranged between 7.7 and 7.9 for much of the twentieth century, falling to under 7 in the baby boom and rising to over 8 in the late-twentieth-century fertility decline (McDonald, Ruzicka and Pyne 1987: 53). The case against the crude birth rate is that it is misleading with regard to the potential for long-range population growth, in that during fertility declines it is affected by the disproportionate number of potential mothers born a generation earlier. But in terms of current growth it is without rival.

Table 1 shows the trajectory of crude birth rates for all the Offshoots, England and Wales, and for selected countries of Western Europe (the latter constituting 84 per cent of the population of Continental Western Europe). In conformity with the decision to exclude the Eastern European countries with non-market economies, the 1951–1989 statistics for Germany are restricted to those of the Federal Republic. The rates for 1938–1950 are excluded for all countries because World War II and its immediate aftermath induced distortions which vary from country to country.

### **Fertility in the Depression of the 1930s**

In the Depression, fertility reached levels so low that they would not be equalled for another three or four decades. Indeed, during those decades the view of most demographers was probably that the Depression fertility levels were uniquely low, and that richer economies (with real per capita income doubling between the early 1930s and 1960) and well developed welfare states would never again experience the kind of misery that forced down fertility rates in the Depression. Easterlin (1976) explained higher subsequent fertility in terms of the emergence from the demographic and economic difficulties of the 1930s. The situation at that time is analysed in Table 2.

Fertility rates, although not propelled by any unusual crisis, fell consistently through the 1920s, as the Western demographic transition ran its course. This decline continued into the early 1930s not as a sudden slump but, in a majority of countries shown in Table 2, at a slower rate. It is surprising that this decline did not continue throughout the troubled decade but instead halted successively in different countries from 1933 onward without waiting for prosperity to return.

**Table 1** Chronology of the Western fertility decline as measured by crude birth rates<sup>a</sup>

Country	CBR 1920	CBR 1929	Lowest Depression		Highest baby boom <sup>a</sup>		CBR 1990	Year <sup>b</sup> when same low/high of	
			CBR	Year	CBR	Year		Depres- sion	Baby boom
USA <sup>c</sup>	26.9	20.5	17.6	1933	24.2	1954	15.8	1966	1926
Australia	25.5	20.3	16.4	1934	22.9	1957	15.4	1976	1925
Canada	29.2	23.5	20.1	1937	28.2	1954	15.2	1966	1922
New Zealand	25.1	19.7	17.4	1935	27.1	1961	17.9	1977	1909
England & Wales	28.1	19.2	17.6	1933	20.1	1962	13.9	1969	1922
Sweden	23.6	15.2	13.7	1933	16.0	1964	14.5	1969	1928
Denmark	25.4	18.6	13.2	1934	18.4	1966	12.3	1976	1930
Netherlands	28.6	22.8	19.8	1937	18.4	1967	12.3	1965	— <sup>d</sup>
Belgium	22.2	18.1	15.0	1937	17.4	1959	12.4	1966	1932
France	21.4	17.7	14.7	1937	19.5	1951	9.8	1975	1921
Germany <sup>e</sup>	25.9	18.0	14.7	1933	18.3	1963	11.4	1970	1937 <sup>f</sup>
Austria	22.7	16.8	12.8	1937	18.8	1963	11.7	1974	1927
Italy	32.2	25.6	22.4	1936	19.5	1964	9.8	— <sup>g</sup>	— <sup>d</sup>
Spain	29.5	28.3	22.6 <sup>h</sup>	1937	21.7	1958	10.3	— <sup>g</sup>	— <sup>d</sup>
Greece	21.2 <sup>i</sup>	28.9	25.9 <sup>h</sup>	1937	18.7	1967	10.2	— <sup>g</sup>	— <sup>d</sup>

a 1938–50 rates omitted.

b Depression low first reached again/post-1945 high last previously experienced.

c Whites.

d Before 1938 always higher.

e Germany/West Germany/Germany.

f 1928 if 1930s omitted.

g Rates after 1950 below Depression low.

h Continued decline through 1930s.

i Refers to 1921.

Sources: Mitchell 1998a, b, 2003.

Some early demographers had expected fertility to fall. Willcox (1916: 12) wrote that if America's downward fertility trend persisted, in 150 years (i.e. 2066) the birth rate would reach not replacement level but zero. On the other hand, he also argued that it was declining mortality that was forcing the birth rate down, and this implied an eventual low-level equilibrium with probably stationary population. Dublin and

**Table 2** The effect of the 1930s Depression on crude birth rates

Country	Average annual decline in CBR		Years from 1929 to Depression low	Years until Depression low regained
	1920– 1929	1929 to Depression low		
USA	0.7	0.7	4	33
Australia	0.6	0.8	5	42
Canada	0.6	0.4	8	29
New Zealand	0.6	0.4	6	32
England & Wales	1.0	0.4	4	36
Sweden	0.9	0.4	4	36
Denmark	0.8	1.0	5	42
Netherlands	0.6	0.4	8	28
Belgium	0.5	0.4	8	29
France	0.4	0.4	8	38
Germany	0.9	1.2	4	37
Austria	0.5	0.5	8	37
Italy	0.7	0.5	7	— <sup>a</sup>
Spain	0.1	0.7	8	— <sup>a</sup>
Greece	0.9	0.4	8	— <sup>a</sup>

a Rates after 1950 below Depression low.

Source: Table 1.

Lotka (1925) showed that the 'true' or 'intrinsic' rate of natural increase in the United States in 1920 was not 1.1 per cent as the difference between birth and death rates showed, but just above 0.5 per cent, to which it would fall if the existing vital rates persisted. Thompson (1929: 968) drew on Dublin and Lotka's methodology to argue that the time was approaching when Northwestern and Central Europe would have no more births than deaths and that population growth in the United States and Australia would become stationary.

In an effort to mitigate the impact of the poverty of the early Depression years it became respectable for even governments to provide both education and services in contraception. Fryer (1967: 291 ff.) relates how, in these circumstances, the British Ministry of Health allowed local governments to enter the family planning field. Charles (1934) published a book with the revealing title *The Twilight of Parenthood* and began by charging that

The result is that the process of rationalizing reproduction has now produced a problem of the first magnitude. The prosperous classes of industrial nations, like other ruling castes in the past, have become victims of their own ideology. In seeking to mitigate poverty by pre-

venting the poor from reproducing they have moulded the destiny of a civilization which has lost the power to reproduce itself (Charles 1934: 2).

In 1938, in a chapter in Hogben's *Political Arithmetic*, Charles produced population projections for England and Wales showing the population falling from 41 million in 1935 to either 29 or 18 million in 2000 (in reality it was to be 52 million). Across the Atlantic, Davis (1937: 112) was proclaiming: 'the kind of reproductive institution inherited from the past is fundamentally incompatible with present-day society and hence can never catch up'.

But by the second half of the 1930s some demographers were interpreting the halting of fertility decline to show that the Depression was a special, perhaps one-off, demographic phenomenon. In England, where fertility rose modestly after 1933, Carr-Saunders (1936: 115–116) interpreted this reversal of the fertility trend to show that the severe crisis of the early 1930s meant not below-replacement family size but 'just a temporary postponement of marriage and childbirth'. It is hard to avoid the conclusion that he must have also believed that the underlying trend was towards stationary rather than declining populations. Glass (1940: 344) noted the recovery in fertility, but, drawing on R.R. Kuczynski's (1935) net reproduction rate, observed that, in the long term, fertility was still below replacement. At a 1944 conference Notestein addressed the situation of the countries here classified as the West, which he called 'Type 1: Incipient fertility decline', concluding:

In the interwar period their fertility was low and declining... In most of them fertility would have to rise substantially to forestall decline, and such measures will not be easily obtained, short of drastic government policies of a totalitarian kind (Notestein 1945: 42).

In Sweden, writings by Alva and Gunnar Myrdal had led to the 1935–38 Swedish Population Commission and the 1935–36 Special Census. The latter contained a question on women's work which was analysed to draw the conclusion that replacement fertility was endangered by the conflict between women's employment and their child-care work (A. Myrdal 1945: 407–408). G. Myrdal (1940), in his 1938 Godkin Lectures at Harvard University, said that the West must face the fact that the demographic choice was only between stationary and declining population.

*Déjà vu.* In the short run, for reasons that still largely evade us, they were all wrong. But half a century later their analyses and views are once again relevant. Accordingly, it is appropriate to note here that there is a suggestion in most of these writers that declining population could be headed off. Both Myrdals regarded the Swedish Population Commission as having been set up for this purpose, just as Glass and Grebenik regarded the 1943–48 British Royal Commission on Population. Most authors contributing to Hogben (1938) thought that more research could show the way. Even the apocalyptic suggestions from the United States that totalitarian measures might be needed (Notestein 1945: 42) or that the family might have to be replaced as the reproductive mechanism (Davis 1937: 112) seemed to suggest that disappearing populations were probably not the way of the future.

### *The 'baby boom'*

Table 1 also identified the peaks of the baby boom. Fertility levels slowly eased up from the Depression low point, and there is no satisfactory way of assigning a starting point for the baby boom other than using that low point. The baby boom was not a phenomenon experienced with equal intensity, or indeed experienced at all,

**Table 3** The height of the baby boom

Country	Year	Highest CBR	Increase since Depression low	Highest quinquennial TFR <sup>a</sup>	CBR last at equally high level to baby boom peak	
					Year	Years since
USA	1954	24.2	6.6	3.7	1926	28
Australia	1957	22.9	6.3	3.4	1925	32
Canada	1955	28.2	8.1	3.9	1922	33
New Zealand	1961	27.1	9.7	4.1	1909	52
England & Wales	1962	20.1	2.5	2.8	1922	40
Sweden	1964	16.0	2.3	2.3	1928	36
Denmark	1966	18.4	4.8	2.6	1930	36
Netherlands	1967	18.4	— <sup>b</sup>	3.2	— <sup>b</sup>	— <sup>b</sup>
Belgium	1959	17.4	2.4	2.7	1932	27
France	1951	19.5	4.8	2.9	1921	30
Germany	1963	18.3	3.6	2.5	1928	45
Austria	1963	18.8	6.6	2.8	1927	45
Italy	1964	19.5	— <sup>b</sup>	2.5	— <sup>b</sup>	— <sup>b</sup>
Spain	1958	21.7	— <sup>b</sup>	2.9	— <sup>b</sup>	— <sup>b</sup>
Greece	1967	18.7	— <sup>b</sup>	2.4	— <sup>b</sup>	— <sup>b</sup>

a United Nations quinquennial estimates.

b Before 1938 always higher.

Sources: Table 1; United Nations 2003.

in all European countries. Tables 1 and 3 show that the Offshoots exhibited peaks of the crude birth rate in the range 23–28 and of the total fertility rate from 3.4 to 4.1. These are levels well above those found in Europe. In the Offshoots crude birth rates climbed from Depression depths to baby-boom heights by 6–10 points, well above most European experience except that of Austria, which is explained by that country's unusually low fertility level in the late 1930s. The baby boom was particularly a phenomenon of the Offshoots. In the Netherlands and Southern Europe post-1950 fertility was never above that of the 1930s. Indeed the 'first demographic transition' was still under way on the Mediterranean shores. France's fertility peaked early, probably because of strong and partly successful policy efforts to raise its birth rates from their historically low levels. Ironically, we have no way of defining the end of the baby boom except by its peak. That peak occurred in the Offshoots a decade after the end of World War II and in much of Europe almost two decades later.

A temporary recovery in the birth rate was expected after World War II, as had

been the case after World War I. This happened to varying extents, most conspicuously in those countries most affected by fighting on their soil, and occupation. What was unexpected was that subsequently fertility rates would remain high and even rise further. As Table 3 shows, it was to be 30 to 50 years before fertility levels again fell to the levels of the 1930s, and the fertility transition was resumed. No theory had predicted either the baby boom or 'baby bust'. Even now there is more explanation for the latter, in that the renewed fertility decline is in the tradition of classical demographic transition theory. Indeed, the baby boom was only seen as a distinct, and probably one-time, phenomenon once it was over and there emerged theories which proffered explanations. It was seen in retrospect to have been the last and most developed period of the 'breadwinner' system (see Esping-Andersen 1993; McDonald 2000). Indeed, more attention has been given to this system's passing, mostly by low-fertility theorists, than to its value for explaining the baby boom.

The roots of the breadwinner system go back for centuries but it reached its zenith with the Industrial Revolution. Its essential feature was a division in labour and place of activity between husband and wife, with the husband working outside the home for wages and the wife, and often children as well, involved in the home production of meals, clothing, house-care and child minding; in addition often doing 'outwork' production for factories. The wife's activities usually meant she worked longer hours than her husband without being able to claim as a right equal access to the money he earned. This was justified on the grounds that paid work was central to the survival of the family and it was men who tended to have the right skills or strength.

The golden age of the breadwinner system in the West was the first three decades after World War II. They were years of unprecedented prosperity with until about 1975 nearly full employment and rapid economic growth, partly fortuitous and partly the result of improved economic policies, which depended on a better understanding of fiscal changes and the electorate's pressure for a greater sharing of opportunities, a product of both depression and war. Young people could look forward to obtaining full-time and mostly permanent work as soon as they finished their education. This situation was buttressed by the development of welfare states (although to a lesser extent in the United States) that reinforced security by providing free or highly subsidized medical care and some financial support for bearing babies and bringing up children. Probably, as evidenced by the United States having such a conspicuous baby boom, the guarantee of quick and continuing employment rather than the welfare state was the most important element in sustaining the baby boom. It was also sustained by complementary factors. Since the nineteenth century, respect had been growing for women's performances as wife, mother and homemaker, as a complement rather than subordinate of the husband. This was to be increasingly ridiculed from the 1960s but that time had not yet come. The great expansion of the service sector of occupations had not yet taken place and jobs for women remained limited. So was their education because families still read the economy as demanding mostly males, and so sons were given priority in extended education. Many girls were doubtless happy that less pressure was put on them than on their brothers. Two other factors were important. First, in keeping with the breadwinner philosophy, men were usually paid more than women and given quicker promotion. During the 1950s and most of the 1960s this single income was sufficient to keep most families in reasonable comfort, certainly in greater comfort than had been possible ever before. Second, contraception was still far from perfect, and too much dependence

on a wife's earnings could see a family in trouble if a pregnancy stopped her from working, especially if as a result she lost her permanent job.

Ryder (1979) focused on American fertility. First of all he concentrated on the effect of ever-younger marriages, a tempo explanation, estimating that 'Fifty-eight percent of the rise in fertility, and fifty-five percent of the subsequent decline, would have occurred if the number of babies borne by women throughout their lives had remained fixed' (Ryder 1979: 360–361). Furthermore, 90 per cent of the rise in lifetime fertility that did take place was because few people any longer remained childless or confined themselves to a single child; parents continued reproducing until they had two or more. Why did this happen? It is likely that norms had not changed. Ryder (1979) argued that 'There is a constant temptation, which sociologists are not always resolute enough to resist, to observe a change in behavior, and then explain it by reference to changing values' (p. 361). The baby boom showed not a radical change in outlook – that was still to come – but the end of an era, with families in much better material shape than in the 1930s or even the 1920s. 'The steady rise in real income, together with increased governmental intervention which effectively transferred resources away from non-parents and toward parents, made feasible the almost universal adherence to a long-standing norm of proper behavior' (Ryder 1979: 361).

Others' explanations are essentially modifications and extensions of Ryder's propositions. His paper was partly a response to Richard Easterlin's Population Association of America presidential address which expanded on Easterlin's earlier formulations (Easterlin 1976). In that address Easterlin focused on job security after World War II, explaining it partly by the relative smallness of the cohort of males seeking work in the 1950s, a product of the low birth rates of the late 1920s and 1930s. They were fewer than their fathers' generation, many of whom had been unemployed for years. Easterlin was probably right in arguing that the small size of the postwar cohort entering the labour force helped to consolidate the ability of the economy to offer jobs for all, although it is quite possible that those economies were sufficiently strong to have absorbed even more recruits. The Offshoots all managed to employ not only their native-born but huge numbers of immigrants recruited on the grounds that there were labour shortages. Easterlin (1976, 1978) went further and postulated alternating swings of fertility as relatively large or small cohorts entered the labour market, predicting falling fertility after 1960 (which, of course, was already taking place), and, with the following generation, rising fertility after 1984. The rise did not occur, although this was more evident in most of the West than in the United States. This failure cast severe doubt on the alternating-cohort-size thesis, but that could never be tested because the world, or at least Western fertility norms and behaviour, changed.

Caldwell (1982) focused more on explaining the part of the baby boom's higher fertility that was attributed to earlier and near-universal marriage. He argued that in the West there had long been tension between the generations, with parents urging upon the young caution in marrying too early with only limited resources, or in starting sexual activity too early and being forced to marry prematurely. The economic need for delayed marriage diminished in the era of full employment. There were still prohibitions, although they were weakening, on cohabitation without formal marriage and with inadequate contraception, and hence early access to full sexual activity could most easily be obtained by early marriage. Such marriage was made easier by a decreasing need to rely on help from the older generation. Crouch (1999:

201 ff.), focusing on Western Europe, agreed that this break with the long tradition of both delayed and non-universal marriage, partly ordained by the older generations' caution, arose from richer societies offering few hindrances to entry into the labour force and little fear of job insecurity. He did, however, regard it as constituting a radical reversal to the long-existing 'European marriage pattern' which Hajnal (1965) had discerned. Crouch noted that the marriage change had not altered the breadwinner model, which he called the 'Fordist model', and he ascribed the marriage change to the growing wealth of Western countries. Nevertheless, he saw the new marriage pattern, perhaps prematurely, as a major break in European society and called it 'the mid-century compromise' (Crouch 1999: 201).

### **The Second Demographic Transition**

The mid-century compromise lasted no longer than 15 years after World War II. Although it represented the golden age of the Fordist or breadwinner system which itself began much earlier and suffered from Depression and War, the compromise contained the seeds of its own destruction. Nevertheless, while it endured, it was, unlike those of the 1930s or the last part of the twentieth century, a reproductively successful system. It began to decay – as measured by fertility decline – from the late 1950s or early 1960s (see Tables 1 and 4). It should be noted that there is close agreement with recent cohort analyses (Frejka and Sardon 2004; Sobotka (2004a, b). The cohort analyses are not constructed to provide exact dates of change; indeed they cut across period phenomena. Nevertheless, if we identify the average age at childbirth in each cohort, it is found that the fertility decline began in most of the selected countries in the 1960s and halted or almost halted in the 1980s.

However, what is significant is that fertility did not decline indefinitely. In many countries the total fertility rate ceased falling by 1975–80, often after no more than two decades. A new near-equilibrium was attained, albeit below the long-term replacement level. Fertility and mortality were changing only slowly, although natural increase would continue to change for some decades, usually diminishing. This balance incorporated the struggle between mothers working and being involved in child care and other domestic work. Despite the distress there are as yet no signs that the near-equilibrium of the last 30 years is, in the short term, unstable. If it changes it will probably be because of the need to do something about the inadequate care of children of working mothers. In the longer run the cause will probably be governments' fear of declining populations. Adequate intervention for the latter reason is unlikely to come soon in the Offshoots and Britain where natural increase is projected not to reach zero until well into the twenty-first century, and zero population growth will wait until an even later date, or perhaps never happen, because of continuing immigration. Clearly, decline may come much sooner in Central, Southern and Eastern Europe. The means of intervention are well known (McDonald 2000; Caldwell, Caldwell and McDonald 2002). We may well term the present situation 'the late twentieth century compromise', and the hypothetical future, characterized by drastic government intervention, 'the mid-twenty-first-century compromise'.

Table 1 shows that the fall in fertility from the baby-boom peak began somewhat earlier in three of the Offshoots than in most European countries. The exception is New Zealand where the later Maori fertility decline affects the chronology. Indeed, the beginning of the Offshoots' fall suggests that the mid-century compromise was

**Table 4 Post-baby-boom fertility decline according to United Nations quinquennial total fertility rate estimates and projections**

Country	Period	Highest estimate		Replacement fertility reached <sup>a</sup>	Zero natural increase reached	1995–2000 TFR		Duration of steep decline (years)
		Period	TFR			TFR	% decline from baby boom high	
USA	1955–1960	3.71	1970–1975	–	2.05	45	1975–1980	20
Australia	1955–1960	3.41	1975–1980	2040–2045	1.77	48	1985–1990	30
Canada	1955–1960	3.90	1970–1975	2025–2030	1.56	60	1980–1985	25
New Zealand	1955–1960	4.07	1970–1975	2035–2040	1.97	52	1980–1985	25
United Kingdom	1960–1965	2.81	1970–1975	2030–2035	1.70	40	1975–1980	15
Sweden	1960–1965	2.32	1965–1970	1995–2000	1.56	33	1975–1980	15
Denmark	1960–1965	2.59	1970–1975	2005–2010	1.75	32	1975–1980	15
Netherlands	1960–1965	3.17	1970–1975	2020–2025	1.60	50	1975–1980	25
Belgium	1960–1965	2.66	1970–1975	2010–2015	1.60	40	1980–1985	20
France	1960–1965	2.85	1975–1980	2025–2030	1.76	38	1990–1995	30
Germany <sup>c</sup>	1960–1965	2.49	1970–1975	1970–1975	1.34	46	1990–1995	30
Austria	1960–1965	2.78	1970–1975	1975–1980	1.36	51	1985–1990	25
Italy	1960–1965	2.50	1975–1980	1995–2000	1.21	52	1995–2000	35
Spain	1965–1970	2.92	1980–1985	2005–2010	1.19	59	1995–2000	30
Greece	– <sup>d</sup>	– <sup>d</sup>	1980–1985	1995–2000	1.30	– <sup>d</sup>	2000–2005	– <sup>d</sup>

a Nearest following quinquennium.

b When within 5 % above or below 1995–2000 level.

c Germany (West and East Germany) at all dates.

d Fertility continuing to fall throughout whole period to 2000.

Source: United Nations 2003.

becoming unstable even before the contraceptive revolution of the 1960s. The cause was almost certainly the beginning of the crisis wrought by the problems of more and more young mothers being in the workforce. Nevertheless, the movement was at first slow and the massive fertility decline did not occur until the new, effective and easily used antinatal technology of the early 1960s became available. The new methods included oral and other hormonal contraception, the Lippes loop and other subsequent intra-uterine contraceptive devices, better and more clearly legal sterilization, and the beginning of better and more accessible abortion. These technical advances had been encouraged by the Third World 'population explosion', but the new methods first were taken up massively by the developed world, and ultimately were the means of a 40 per cent fertility decline among both developed and developing-country populations. The contraceptive revolution met a need, but it also provoked and accelerated further change. Couples could now plan for both wife and husband to spend most of their lives in the workforce, with a good chance of them being able to cope with the one or two children they planned to have. They could commit themselves to long-term financial obligations such as meeting substantial payments for costly purchases like houses and cars. Of course, these commitments would in turn determine the couple's efforts to restrict family size. The new more effective contraception also allowed young adults to indulge in sexual activity, often with one continuing partner, without having to marry. Not only did the new contraception make such behaviour more common, but, because it was not followed by dire reproductive and financial consequences, it made it more acceptable. Norms of morality followed scientific breakthroughs.

Explanations for the fertility decline are plentiful, and overlap. Easterlin (1976) explained it in terms of alternating cohort relative size. By the late 1960s the swollen cohorts of the early baby boom were competing for jobs in an increasingly competitive and insecure labour market. The labour market was to become still more insecure but unemployment on a serious scale waited until the mid-1970s, years after the beginning of the fertility decline.

A major contribution to the debate came with the Second Demographic Transition theorists who held that the individual had broken free from the constraints not only of society but of family. Ariès (1980) argued that those of the generation born after 1940 were the rebellious ones, who grew up to find that the new contraception allowed them to postpone both childbearing and marriage so that they could focus on furthering their own education and experience before that of their children. The child's role has changed: 'before our very eyes it is diminishing' (p. 650). On balance Ariès was pessimistic, but this growth in individualism was fêted by those who coined the term 'Second Demographic Transition', notably Lesthaeghe and van de Kaa (Lesthaeghe 1977; Lesthaeghe and van de Kaa 1986; Lesthaeghe and Wilson 1986; van de Kaa 1987, 2003). They pointed to movements parallel to the fertility decline such as the decline and postponement of marriage, the rise of divorce and the widespread practice of cohabitation, and the increase in births outside marriage. Van de Kaa saw an origin in World War II, especially in countries that suffered from invasion and occupation (1987: 7–8). Lesthaeghe emphasized the rise of secularism and the escape from societies strongly influenced by Catholicism and Christian Democrat governments. This is where the inclusion of the Offshoots in the analysis is important because none of them were occupied, none have Catholic majorities, and none had influential religious political parties. Yet their fertility declines were among the

earliest to start and were just as great (but from a higher base, see Table 4). And the other social changes were not precursors or determinants of fertility decline. Indeed, if social non-conformism, and lack of respect for institutions and employment structures, are taken into account, individualism in the Offshoots peaked during the late 1960s and early 1970s and has receded ever since under the whiplash of market economics.

The major competing theory is that which has a strong backbone in economic determinism, and is fully set out by McDonald (2000). This theory pictures the breadwinner family structure as having arisen out of the Industrial Revolution with the husband bringing home wages from work outside the home to be shared – or partly shared – with his wife and children, who toiled at home in the domestic production of food, clothing, household maintenance and child care. In advanced economies the system was first modified in the last third of the nineteenth century by restricting family size in response to children being at least partly withdrawn from the domestic labour force and being rendered more expensive by mass schooling. The system reached its zenith in the 1945–65 period when men were still paid much more than women so that it was financially efficient for women to devote themselves to household production. Their role, as a counterpart to that of their husbands, was not regarded as a humble one, either by the press or by most of the wives. So well did the system work that most couples could afford more children than had been the case for many years.

But the breadwinner system and society led to their own destruction. It was not a collapse that would come immediately. There was some pressure for wives to work, arising from the fact that the ever-earlier marriage ages of both men and women meant that the savings needed to set up a household could no longer be adequately accumulated before marriage. It was full employment and the progressive setting-up of the welfare state that made it safe to marry early, and it was the female employment that was partly provided by the new welfare systems that added to the jobs available to wives. This was only part of the great expansion of the service sector of the economy that offered employment to women. Other parts of government and the educational sector expanded as never before. Equally important was the growth in the private service sector selling travel, accommodation and insurance, and meeting a host of the other new needs of the growingly affluent society. The United States was not an exception in the provision of welfare except in that the provision was not universal. Its private welfare services expanded hugely, so that its employment in the health sector rivalled that of welfare states.

What was fundamental? Basic was the growth of real income doubling in the Offshoots between 1950 and 1978 and multiplying by 2.6 during that period in Western Europe (Maddison 2003). This permitted the development of the consumer society, tempting both husbands and wives to maximize their incomes. The new economy demanded educated employees, especially once the computer came into widespread use. In this setting the women's movement encouraged female education, employment and independence. Inevitably, women's employment and maternal functions clashed markedly.

These forces were sufficient to begin the dismantling of the breadwinner system. Falling fertility rates were evidence of this, and the first falls occurred, especially in the Offshoots, before the end of the 1950s. Nevertheless, the steepest falls took place in the 1960s and early 1970s, as the new contraceptives became widely available,

and as Western society became sceptical about the moral value of high reproductive levels or even any reproduction.

What overall conclusion regarding the Second Demographic Transition can be drawn from a chronological and comparative study? The full participation and even chronological leadership by the Offshoots in the fertility decline renders implausible its origin in the legacy of World War II or in the rise of secularism. One can be almost as sceptical about the central importance, or the continuing development, of individualism. The timing of the Second Demographic Transition makes it more difficult to ignore the role of the birth control revolution. That revolution might not have had such a great impact if there had not already been disintegrative pressure on the breadwinner system. As it was, the new or improved technologies helped set the timing and did even more to determine the steepness of the fertility decline. But their impact was greater than this. The new certainty of being able to determine the timing of childbirth – certainly if there was access to abortion and willingness to undergo it – did much to change society. It meant that couples could plan the wife's work with greater confidence. The breaking of the connection between sexual activity and pregnancy made it easier to postpone marriage and childbearing. It made it possible for a young woman to cohabit with a man without fearing disaster, and, probably largely for this reason, made society less apprehensive and condemnatory of cohabitation. Certainly, individualism among both females and males was enhanced.

In both the Offshoots and Northwestern Europe the fertility decline had bottomed out by the 1980s. This would not be the case in Southern (and Eastern) Europe until the end of the twentieth century. Since then the concern has been not about declining fertility but about low fertility; in all but the United States below-replacement fertility. The Offshoots' fertility is above that of most of Western Europe, but this has been the case at least since World War II. At the peak of the baby boom, TFRs in the Offshoots were about one-third above the Western European average (Table 4). The position at the end of the century was more complex. The Offshoots' fertility actually declined proportionately more than did that of Northwestern Europe apart from the Netherlands, and about the same amount as that of Central and Southern Europe. Even after such steep declines, fertility in the United States and New Zealand remained uniquely high at around replacement level while Australia and Canada were within the Northwestern European range but above that of Central and Southern Europe.

Fertility in much of Northwestern Europe and the Offshoots has now been in a low-level equilibrium for more than 30 years, and in Central and Southern Europe for a decade or more. Whatever the strains of combining motherhood and employment are, they are at present being accommodated, albeit often with pain. There is no sign of fertility levels decisively shifting downward (or upward).

### *Measures of individualism*

The original presentations of Second Demographic Transition theory (e.g. van de Kaa 1987; Lesthaeghe 1995: 17) stressed other measures of conjugal and reproductive change as precursors or parallels of fertility decline. However, the fertility decline, as Table 1 showed, began for most countries between the late 1950s and the mid-1960s, following closely on the heels of the birth control revolution. What, then, was the timing of the other movements, and what does that timing imply?

Formal marriage was entered later, if at all, and became more subject to divorce. The move towards later marriage for women and men began as early as 1968–69 in

Sweden and Denmark, and as late as 1981 in Spain, but mostly clustered in the 1970s with the change in male and female trends occurring at approximately the same time. This upward movement had not played itself out by the end of the century and there were signs that the asymptotic level for women might average around 30 years, with men's ages somewhat higher still.

Part of the upward trend in marriage age can be attributed to early cohabitation. By 1998 cohabitation among 16–29-year-olds ranged between 35 and 70 per cent in Northern Europe and the Offshoots but around 10 per cent in Southern Europe. The Mediterranean family really was different. Cohabitation levels were not ascertained early enough to provide trend data, so we have to resort to the registration of births outside marriage, which is unsatisfactory because pregnancy with the decision to go through to a birth is often a reason for cohabiters to marry. Ex-nuptial birth rates reached 10 per cent early in Sweden, in the 1960s in Denmark and Belgium, in the 1970s in the Offshoots and most of the rest of Northern and Central Europe, and near the end of the century in Southern Europe. Divorce rates had long been higher in the United States. Elsewhere they passed the level of 20 per hundred marriages in the 1970s and ultimately reached 40 per hundred marriages in most countries. In Denmark and Sweden those levels were reached in the late 1960s and early 1970s, while levels were lower and later in Southern Europe. It is more surprising that at the end of the century divorce rates were generally still climbing except in Denmark where a plateau seemed to have been reached as early as 1982, and in the Offshoots, Britain and France where there were appearances of plateauing in the 1990s.

What is important is that all these changes had beginnings after or in the late stages of the contraceptive revolution of the 1960s; that revolution appears to have been of fundamental importance to all movements.

### **A brief summary of Western fertility history**

Western fertility was in near-equilibrium before about 1870, except for an earlier decline in France. England's fertility levels were much the same in the nineteenth century as they had been in the sixteenth century (Wrigley and Schofield 1981: 530). The first major decline occurred in the late nineteenth century, arising from changes in the family economy brought about by the Industrial Revolution and triggered by mass schooling.

The fertility decline was vaguely expected to stop at about replacement level with most couples having two children. There are some signs that this was likely to happen with a slackening of fertility decline in the late 1920s and an approach to replacement fertility (Keyfitz and Flieger 1968). The Great Depression then intervened and forced some postponement of marriage and maternity so that most annual and some cohort fertility rates fell below replacement level. Even the annual rates soon stopped declining, evidence perhaps that most couples were still aiming at a minimum of two children. With the onset of richer and securer times in the post-World War II years, cohort completed fertility rates climbed to over three in the Offshoots and to well above replacement in Europe. This was probably a stable state for prosperous breadwinner societies. But it was not to persist. This time, from roughly the beginning of the 1960s, a combination of better birth control and more mothers entering the workforce impelled another decline of fertility to a lower level. Even this decline lasted only 15–20 years, ending at a cohort fertility level ensuring only a slow popula-

tion decline in the Offshoots and much of Northwestern Europe. An accommodation had been reached between work and childbearing that was likely to be changed only by massive state intervention to raise fertility.

There appears at present to be a demographic equilibrium in spite of justified complaints by mothers and, to a lesser degree, fathers about balancing labour-market and domestic work, having to put their children into care, or not having enough time with them. These strains are offset by higher joint incomes and the consequent ability to play a fuller role in the consumer society, to keep up with the Joneses, and to ensure that one's children keep up with the Joneses' children. The fertility decline has halted. The proportion of women in the labour force at any one time seems to be levelling off at around 45 per cent. The differential by sex in the level of education has disappeared. The divorce rate appears to be levelling off.

The larger context of this paper is the assertion that the Industrial Revolution brought a decline in the value of home production and a swift fall in the value of children once near-universal education was introduced. Most parents still wanted at least two children, as is apparently still the case (see Bongaarts 2002). Nevertheless, because of high mortality rates at the beginning of the twentieth century, net reproduction rates up to 1945 were below (or just above) unity in France from 1850, England and Wales from 1911, Belgium from 1920, and Sweden from 1925 (Keyfitz and Flieger 1968). In one sense, it was the baby boom that allowed the Second Demographic Transition.

Married women's participation in work outside the home rose, starting at low levels, and climbed almost linearly from 1950. It is probable that the major influence shaping that climb was the rate of growth in the service or tertiary sector of the economy. That was determined by two forces: the growth of real incomes, and the reduction of the workforce in the primary and secondary sectors of the economy with technical advances and greater use of inanimate energy resources. It can be argued that the desire of women to work partly encouraged the growth of the tertiary sector, and this may have been of marginal importance. A supplementary force was the women's movement, justifying mothers working and having their children in care. The women's movement had two other effects. It fought, largely successfully, for equal pay between the sexes, thus lowering what the husband's wage might otherwise have been and raising the wife's relative earnings so that, in order to share the increasing offerings of the consumer society, both had to work. It also portrayed childlessness as a possible option for a woman.

Three conclusions are of overriding importance. The first is widely accepted: that the fundamental reason for the second fertility decline was not a growth in individualism but the increasing number of mothers working. Second, the antinatal revolution of the 1960s, both in new birth control technology and in changing attitudes on the worthiness of reproduction, largely determined when the fertility decline occurred and helped form the nature of subsequent society (see Caldwell 2001). Third, the decline was transient and largely over in the Offshoots and Northwestern Europe within 20 years, that is by the early 1980s. Since then these countries have experienced what might be called the late-twentieth-century compromise, with remarkably stable fertility rates. There may be strains in this compromise, but they are not great enough to overthrow it. The whole low-fertility picture is rendered clearer by including the Offshoots in the examination of the second demographic transition in the West, largely because, although their historical experience was distinctly different

from that of Europe, their demographic movements were similar. Indeed, chronologically they were often at the cutting edge.

The suggested answers to the original questions are as follows.

First, without the Depression, Western fertility would probably have stabilized at or above replacement level and would subsequently have risen slowly with economic growth. But it was almost inevitable that the demographers writing in the early Depression should have seen current fertility trends as the continuation of the fertility transition and not a reaction to a transient crisis.

Second, the baby boom showed that, in societies that can control reproduction, fertility may well rise as real incomes do so. If mothers' entry into the workforce had remained constant at the levels of the early 1950s, there might have been no 'Baby Bust'. Fertility may yet rise moderately as the lesson is learnt on how to accommodate maternity with employment outside the home. Where this adjustment by the state, employers and families is most advanced is probably indicated by both relatively high fertility and female labour force participation. This is probably the explanation of the otherwise startling positive correlation in OECD countries between such participation and fertility reported by Morgan (2003: 594–597).

Third, fertility over the last 20 years has remained remarkably level. This aspect of the 'late-twentieth-century compromise' may well not be broken. There is a temptation to take the United States' replacement-level fertility as evidence that greater wealth will bring about the same reproductive situation in all countries. The current levels of fertility in moderately rich Australia, and, especially Canada, suggest that such a conclusion could be incautious. Governments may intervene in an attempt to raise fertility, but the cost may be greater than liberal economic policies would tolerate (McIntosh 1981, 1983; Caldwell *et al.* 2002).

### Acknowledgments

Assistance has been received from Tim Adair, Wendy Cosford, Vanessa McGrath and Milisa Haberschusz.

### References

- Ariès, Philippe. 1980. Two successive motivations for the declining birthrate in the West. *Population and Development Review* 6(4): 645–650.
- Bongaarts, John. 2002. The end of fertility transition in the developed world. *Population and Development Review* 28(3): 419–443.
- Caldwell, John C. 1982. An explanation of the continued fertility decline in the West: stages, succession and crisis. Pp. 233–266 in J.C. Caldwell, *Theory of Fertility Decline*. London: Academic Press.
- Caldwell, John C. 2001. The globalization of fertility behavior. Pp. 93–115 in R.A. Bulatao and J.B. Casterline (eds), *Global Fertility Transition*. Supplement to *Population and Development Review* 27.
- Caldwell, John C. and Pat Caldwell. 2001. Regional paths to fertility transition. *Journal of Population Research* 18(2): 91–117.
- Caldwell, John C., Pat Caldwell and Peter F. McDonald. 2002. Policy responses to low fertility and its consequences: a global survey. *Journal of Population Research* 19(1): 1–24.
- Carr-Saunders, Alexander M. 1936. *World Population: Past Growth and Present Trends*. Oxford: Oxford University Press.

- Charles, Enid. 1934. *The Twilight of Parenthood*. New York: Norton.
- Charles, Enid. 1938. The effect of present trends in fertility and mortality upon the future population of Great Britain and upon its age composition. Pp. 73–105 in L. Hogben (ed.), *Political Arithmetic: A Symposium of Population Studies*. London: Allen and Unwin.
- Crouch, Colin. 1999. *Social Change in Western Europe*. Oxford: Oxford University Press.
- Davis, Kingsley. 1937. Reproductive institutions and the pressure for population. *Sociological Review* 29(3): 289–306.
- Dublin, L.I. and A.J. Lotka. 1925. On the true rate of natural increase. *Journal of the American Statistical Association* 20(September): 305–339.
- Easterlin, Richard A. 1976. The conflict between aspiration and resources. *Population and Development Review* 2(3–4): 417–457.
- Easterlin, Richard A. 1978. What will 1984 be like? Socioeconomic implications of recent twists in age structure. *Demography* 15(4): 397–432.
- Esping-Andersen, Gøsta. 1993. Post-industrial class structures: an analytical framework. Pp. 7–31 in G. Esping-Andersen (ed.), *Changing Classes: Stratification and Mobility in Post-Industrial Societies*. London: Sage.
- Frejka, Tomas and Jean-Paul Sardon. 2004. *Childbearing Trends and Prospects in Low-fertility Countries: A Cohort Analysis*. Dordrecht: Kluwer.
- Fryer, Peter. 1967. *The Birth Controllers*. London: Corgi.
- Glass, David V. 1940. *Population: Policies and Movements in Europe*. London: Frank Cass.
- Hajnal, John. 1965. European marriage patterns in perspective. Pp. 101–146 in D.V. Glass and D.E.C. Eversley (eds), *Population in History: Essays in Historical Demography*. London: Edward Arnold.
- Hogben, Lancelot (ed.) 1938. *Political Arithmetic: A Symposium of Population Studies*. London: Allen and Unwin.
- Keyfitz, Nathan and Wilhelm Flieger. 1968. *World Population: An Analysis of Vital Data*. Chicago: University of Chicago Press.
- Kuczynski, Robert R. 1935. *The Measurement of Population Growth: Methods and Results*. London: Sidgwick and Jackson.
- Lesthaeghe, Ron J. 1977. *The Decline of Belgian Fertility, 1800–1970*. Princeton: Princeton University Press.
- Lesthaeghe, Ron J. 1995. The second demographic transition in Western countries: an interpretation. Pp. 17–62 in K.O. Mason and A.-M. Jensen (eds), *Gender and Family Change in Industrialized Countries*. Oxford: Clarendon.
- Lesthaeghe, Ron and Dirk J. van de Kaa. 1986. Twee demografische transitities. Pp. 9–24 in D.J. van de Kaa and R. Lesthaeghe (eds), *Bevolking: Groei en Krimp*. Deventer: Van Loghem Slaterus.
- Lesthaeghe, Ron and Chris Wilson. 1986. Modes of production, secularization, and the pace of fertility decline in Western Europe, 1870–1930. Pp. 261–292 in A.J. Coale and S.C. Watkins (eds), *The Decline of Fertility in Europe*. Princeton: Princeton University Press.
- Maddison, Angus. 2001. *The World Economy: A Millennial Perspective*. Paris: Organization for Economic Co-operation and Development.
- Maddison, Angus. 2003. *The World Economy: Historical Statistics*. Paris: Organization for Economic Co-operation and Development.
- McDonald, Peter. 2000. Gender equity, social institutions and the future of fertility. *Journal of Population Research* 17(1): 1–16.
- McDonald, Peter, Lado Ruzicka and Patricia Pyne. 1987. Marriage, fertility and mortality. Pp. 42–61 in Wray Vamplew (ed.), *Australian Historical Statistics*. Sydney: Fairfax, Syme and Weldon.
- McIntosh, Alison C. 1981. Low fertility and liberal democracy in Western Europe. *Population and Development Review* 7(2): 181–207.
- McIntosh, Alison C. 1983. *Population Policy in Western Europe: Responses to Low Fertility in France, Sweden and West Germany*. Armonk, NY: Sharpe.

- Mitchell, Brian R. 1998a. *International Historical Statistics: The Americas, 1750–1993*. Fourth Edition. London: Macmillan.
- Mitchell, Brian R. 1998b. *International Historical Statistics: Africa, Asia and Oceania 1750–1993*. Third Edition. London: Macmillan.
- Mitchell, Brian R. 2003. *International Historical Statistics: Europe, 1750–2000*. Basingstoke: Palgrave Macmillan.
- Morgan, S. Philip. 2003. Is low fertility a twenty-first century demographic crisis? *Demography* 40(4): 589–603.
- Myrdal, Alva. 1945. *Nation and Family: The Swedish Experiment in Democratic Family and Population Policy*. London: Kegan Paul, Trench and Trubner.
- Myrdal, Gunnar. 1940. *Population: A Problem for Democracy. The Godkin [Harvard] Lectures, 1938*. Cambridge MA: Harvard University Press.
- Notestein, Frank W. 1945. Population – the long view. Pp. 36–57 in T.W. Schultz (ed.), *Food for the World*. Chicago: Chicago University Press.
- Ryder, Norman B. 1979. The future of American fertility. *Social Problems* 26(3): 359–370.
- Sobotka, Tomáš. 1994a. *Postponement of Childbearing and Low Fertility in Europe*. Amsterdam: Dutch University Press.
- Sobotka, Tomáš. 1994b. Is low fertility in Europe explained by the postponement of childbearing? *Population and Development Review* 30(2): 195–220.
- Thompson, Warren S. 1929. Population. *American Journal of Sociology* 34(6): 959–975.
- United Nations. 2003. *World Population Prospects: The 2002 Revision, Vol. 1, Comprehensive Tables*. New York.
- van de Kaa, Dirk J. 1987. Europe's second demographic transition. *Population Bulletin* 42(1): 1–59.
- van de Kaa, Dirk J. 2003. Second demographic transition. Pp. 872–875 in P. Demeny and G. McNicoll (eds), *Encyclopedia of Population*, vol. 2. New York: Macmillan.
- Willcox, Walter F. 1916. The nature and significance of changes in birth and death rates in recent years. *Publications of the American Statistical Association* 15(113): 1–15.
- Wrigley, E. A. and R. S. Schofield. 1981. *The Population History of England, 1541–1871: A Reconstruction*. London: Edward Arnold.