Fertility in the Developed English-Speaking Countries outside Europe: Canada, United States, Australia and New Zealand

Jean-Paul SARDON*

In the countries of Europe, fertility has at best stabilized at below-replacement level, and sometimes well below this threshold. This is not the case in the non-European developed English-speaking countries where, despite the absence of any directly targeted family policy, fertility appears to be holding up more strongly than in Europe. What is the actual situation? We examine this question by reviewing not only figures for overall fertility, but also, where data are available, for order-specific fertility(1). We then attempt to explain what might be the origin of the discrepancies observed.

I. Developed English-speaking countries compared with Europe

To compare the fertility of the countries under study with Europe, Figures 1 and 2 present period and cohort fertility indicators for three sets of countries:

— The countries of what was once called Eastern Europe are shown on the left. Their governments often sought to influence fertility levels, including by means of repressive measures (Hungary, Czech Republic and Slovakia [formerly Czechoslovakia], Romania and GDR).

*Institut national d'études démographiques and European Demographic Observatory.
Translated by Roger Depledge.

(1) The database of the European Demographic Observatory (EDO), the sole source of our statistics, has detailed order-specific data for the United States only.

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— In the middle are a selection of Western European and especially Scandinavian countries (Luxembourg, Netherlands, Denmark, Finland, Norway and Sweden).

— The non-European developed English-speaking countries are on the right (Canada, United States, Australia and New Zealand), with higher fertility than most European countries. France is shown on the same graph, providing a direct illustration of the gap between countries.

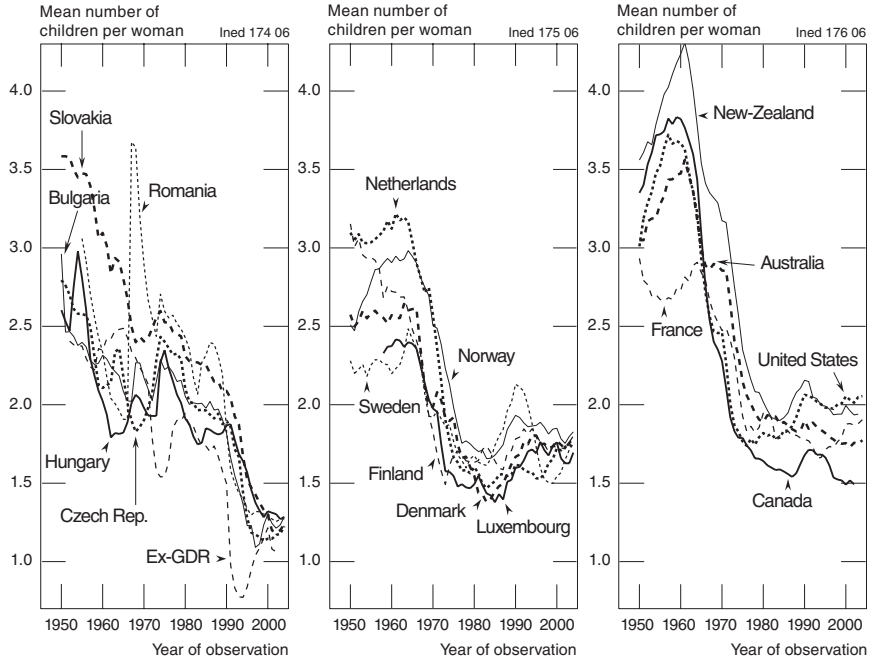

Figure 1.– Total Fertility Rate in selected developed countries.

Source: EDO.

Comparison of the graphs for Western Europe and the non-European developed countries(2) since the 1950s shows that couples behaved very similarly, especially as the baby boom came to an end (Figure 1). However, the boom occurred slightly earlier and was more marked in each of these English-speaking countries than in Europe. The maximum total fertility rate was over 3.5 children per woman in every case. It was even 4.3 in New Zealand, one child more than in the Netherlands, the European country where fertility was highest during the baby boom.

(2) Central and Eastern European countries followed a very particular path that reflects the alternating pattern of incentives and restrictions in family policy and access to abortion, often the only form of family planning.

Apart from this similar path, it seems that the fertility of the English-speaking countries of North America and Oceania has always been higher than that of European countries, though the gap has narrowed somewhat in recent decades. However, Canada is noticeable for its relatively low fertility, with a total fertility rate stabilizing in recent years at 1.5 children per woman, very close to the European Union average.

Examination of completed fertility (Figure 2) confirms the impression given by the period indicators. The distinctive feature of these English-speaking countries, i.e. markedly higher fertility than Europe, is even clearer here. However, the continual decrease in completed fertility among the post-war cohorts in Canada brings that country down to join the lowest countries in Western Europe. Since the end of the baby boom, Canada has moved apart from the other non-European developed English-speaking countries in this respect.

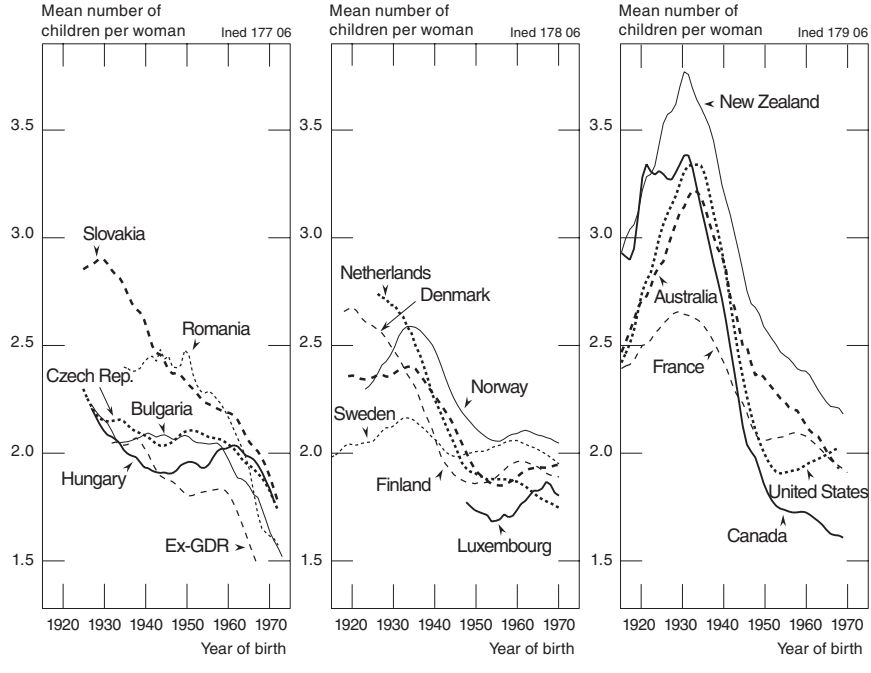

Figure 2.– Completed fertility in selected developed countries.
Source: EDO.

In general, the trends are very close to those of Western Europe, but the gap is much narrower now than a few decades ago. This may ultimately lead to the disappearance of these countries' current advantage over Scandinavia and France, as is already the case for Australia and more especially Canada.

Historically, higher fertility has been associated with earlier childbearing, so differences in fertility timing might possibly account for this gap. For the latest observation year available for a number of countries, Figure 3 plots total fertility rate (x-axis) against period mean age at childbearing. It shows that the link between these two variables, often visible in the time series of a given country, is totally absent when comparing a set of countries at the same date, due largely to the inherent cultural differences between regions. The former Communist countries have a lower age at childbearing and lower fertility, whereas the reverse is true for Western and Northern Europe. Southern Europe and the Germanic countries display fertility that is both low and late.

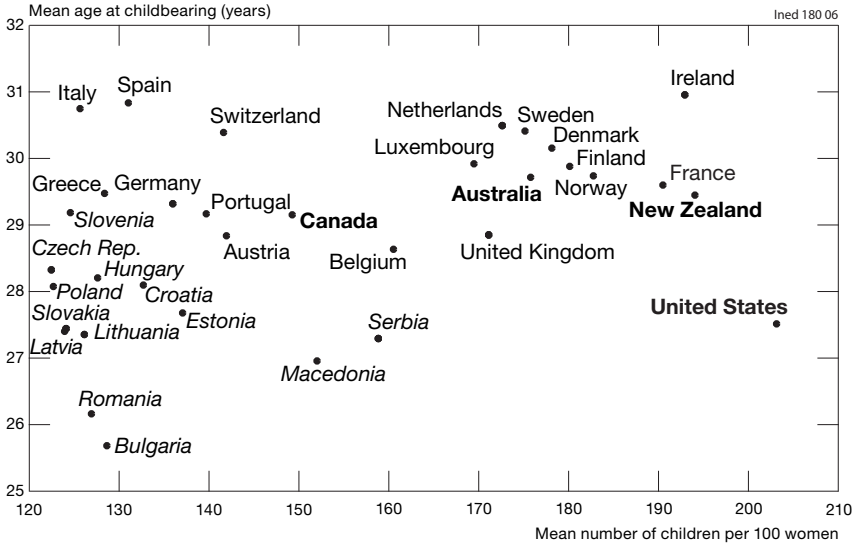

Figure 3.– Total fertility rate and mean age at childbearing in selected developed countries shortly after 2000.

Note: The non-European English-speaking countries are in bold, Western European countries in roman, and Eastern European countries in italic.

Source: EDO.

On this plot, these English-speaking countries do not form a homogeneous group. Australia and New Zealand belong more with Western and Northern European countries, Canada is somewhere between Western and Southern Europe, and, most clearly, the United States stands apart with relatively high and early fertility. In 2001[3], its mean age at childbearing was one of the lowest among the developed countries (27.5 years), more than a year lower than Belgium, where childbearing is the earliest in all of Western Europe. On the whole, these developed English-speaking countries have a mean age at childbearing similar to that of the Western European countries where the mean age is lowest.

[3] The latest year for which we have births by age of mother.

II. Fertility over time

Although they form two separate groups many thousands of kilometres apart, fertility has followed a similar pattern in all these countries. They do have certain distinctive national features however. For that reason we will start by analysing the situation in each country[4], before taking a wider view.

Australia

In Australia, since the high point of 3.60 children per woman reached in 1961[5], the downtrend in the total fertility rate has rarely slackened. An initial stabilization at around 2.9 children per woman occurred in the latter half of the 1960s, and then fertility began to fall rapidly again. A further plateau, still sloping downward, was reached in around 1980. In recent years, fertility has stabilized at below 1.8 children per woman (Figure 4).

This relative stability of the total fertility rate since 1980 is in fact the result of two opposing trends: lower fertility below the age of 26 and higher fertility above 32 (Figure 5). Between those two ages, rates start by rising and then fall. Whereas the other trends reflect the situation at a given moment in time, since they occur at the same date, this inversion, occurring earlier with younger women, might well have a more longitudinal component.

Since the 1920s, fertility in Australia has gone through a number of phases (Figure 6). During the first phase, it fell in parallel with age at childbearing, which was falling slightly. But although the Depression accelerated the fall in the total fertility rate, the age at childbearing levelled off. The second phase began when fertility recovered in 1935. It continued with the baby boom, which peaked in 1961. At first, higher fertility rates did not change the mean age at childbearing, but with the end of the Second World War and the baby boom, it started returning to lower values. This trend continued during the third phase of declining fertility (with the exception of a few years) in the late 1960s. The fourth and current phase is characterized by a rapid and substantial rise in age at childbearing[6] and a moderate decline in fertility.

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[4] For social policy in the four countries, valuable data are to be found in the *Canada Country Summary*, *Australia Country Summary*, *New Zealand Country Summary* and *United States Country Summary*, Clearinghouse on International Developments in Child, Youth, and Family policies at Columbia University.

[5] Cf. Caldwell J.C. and Ruzicka L.T., 1978, "The Australian fertility transition", *Population and Development Review*, 4(1), pp. 81-103.

[6] Mean age at childbearing rose by 3 years in 25 years, to 29.7 in 2002.

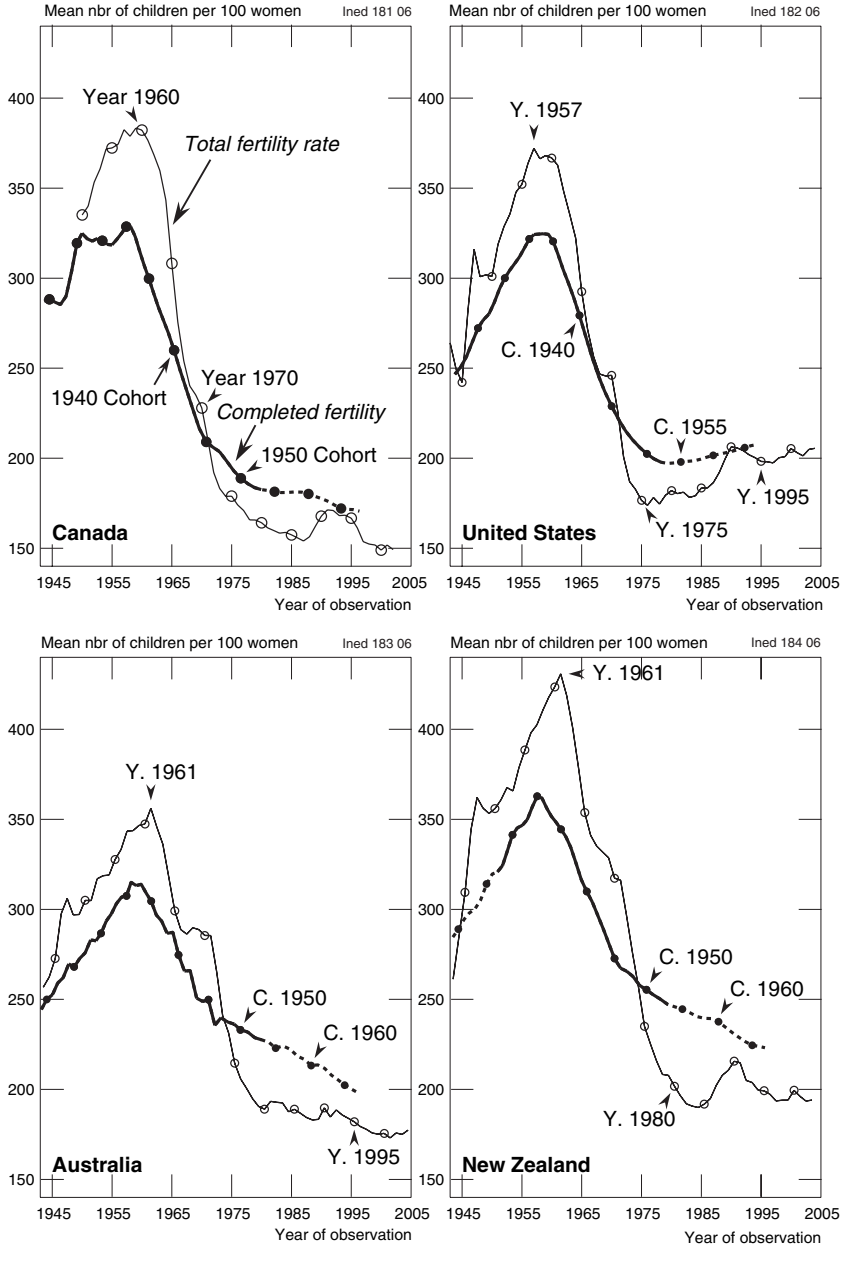

Figure 4.– Total fertility rate and completed fertility in non-European developed English-speaking countries.

Source: EDO.

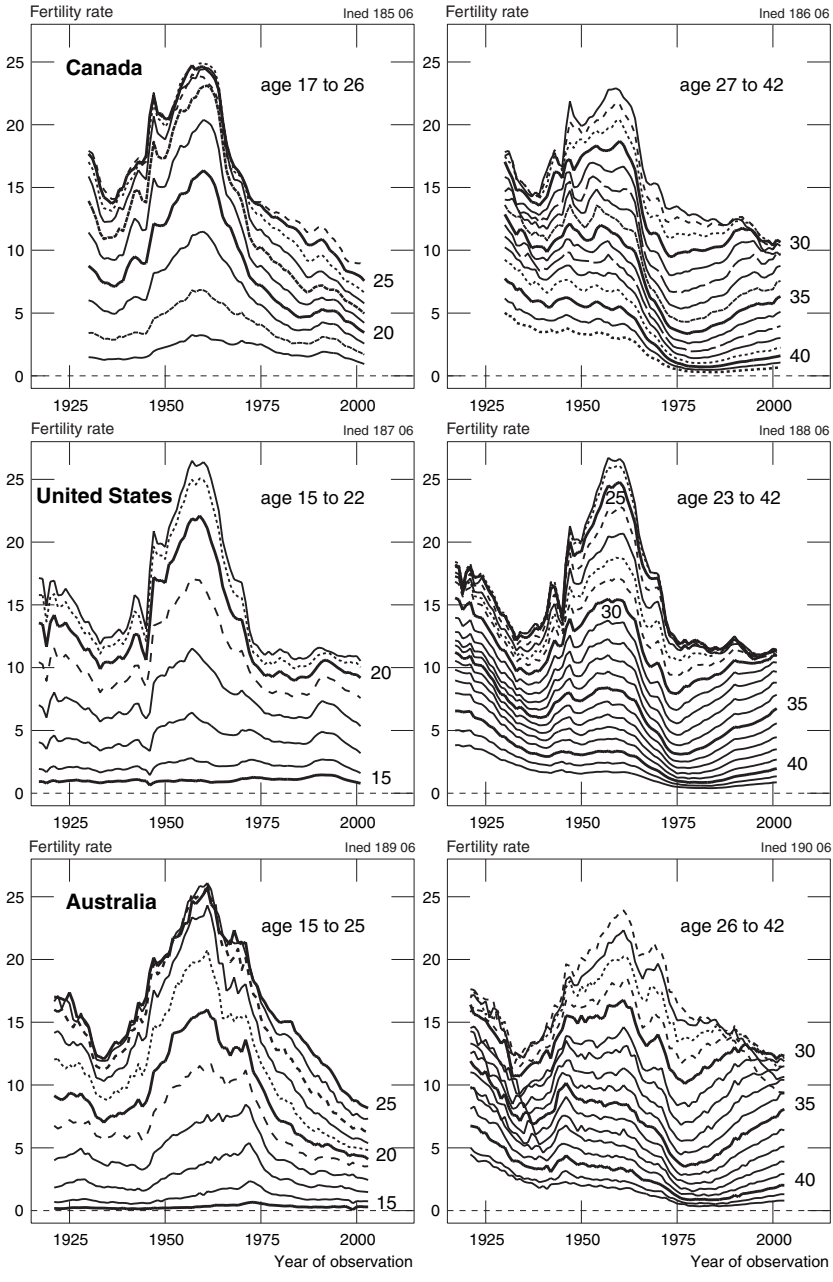

Figure 5.– Age-specific fertility rate (age in completed years).

Source: EDO.

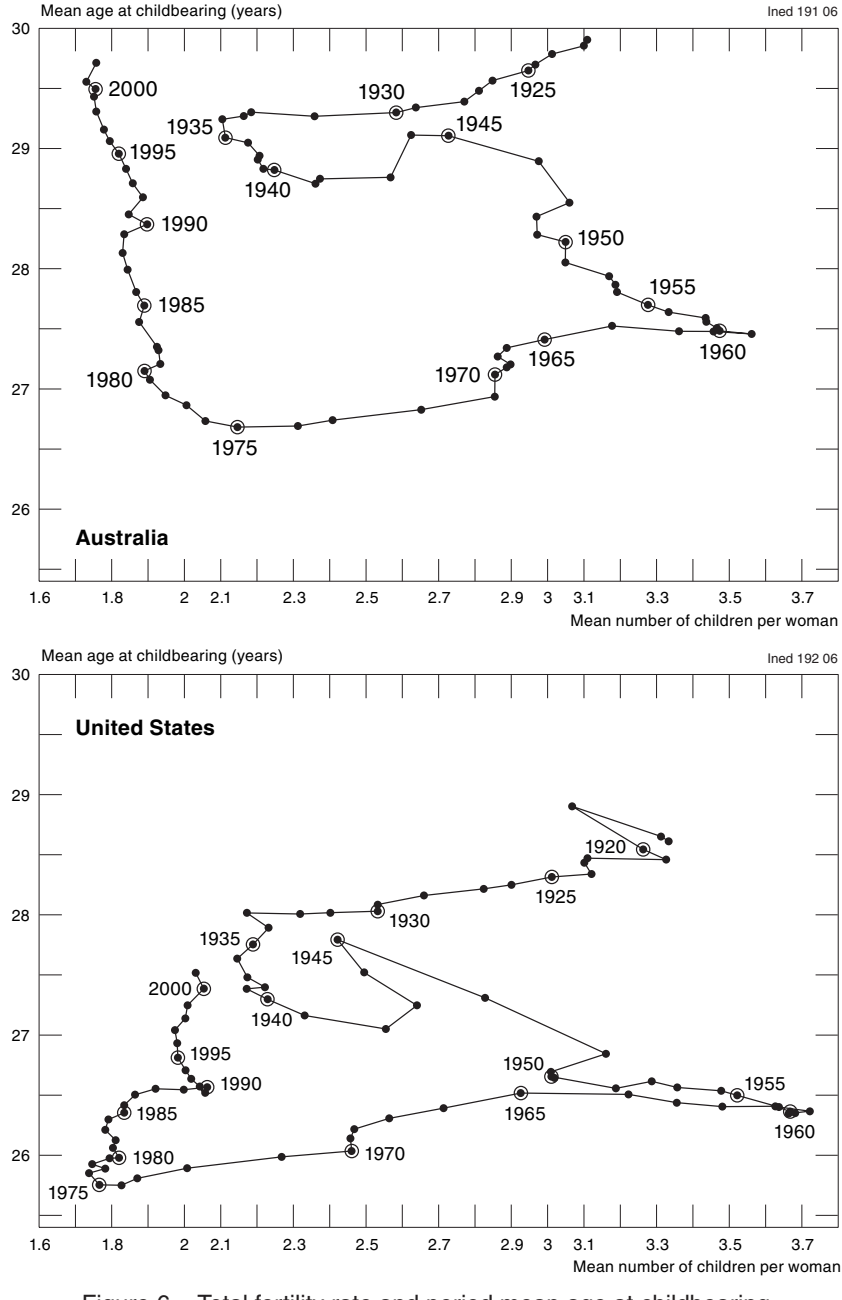

Figure 6.– Total fertility rate and period mean age at childbearing.

Source: EDO.

Analysis has shown that the fertility decline was largely due to first- and second-order births, since higher order fertility has remained practically unchanged[7]. This is likely to lead to a higher frequency of childless women and one-child families, and fewer families with three or more children. It was the high frequency of third- and higher order births that explained why Australian women had higher fertility than Europeans.

Since the end of the Second World War, Australian fertility remained consistently higher than French fertility, but that period seems now to be over. Since 1998, the total fertility rate has been higher in France and, although completed fertilities are virtually the same, the decline is faster in Australia. Some experts[8] consider that Australian fertility is higher than in most of Europe because it is easier for Australian women to reconcile work and family life than for women living in countries where equality between the sexes is high in public life but low in private life, forcing them to choose between having a child and continuing their careers.

There is very little debate in Australia about fertility because the key variable for the country's growth is immigration, and fertility is seen as a private matter. However, there is an emerging awareness that immigration cannot solve all problems, including future population ageing, and that fertility needs to be considered. Some observers would like to see the introduction of pro-family policies to prevent fertility from declining to the low levels seen in Europe.

Canada

Among the countries under study, from the end of the Second World War to the mid-1960s, Canada's fertility was second only to New Zealand's, though now it is by far the lowest. Since 1960, its decline has only been interrupted by a temporary rise at the end of the 1980s (Figure 4). Before seeking explanations, it is worth noting that this rise was seen in many other countries too: in North America, (United States), in Europe, (Norway, the Netherlands and West Germany), and even in Oceania (New Zealand). The US literature interprets this as an echo of the baby boom. It is considered to be due to a combination of previously postponed births occurring after the age of 30 and the arrival at these childbearing ages of the last big baby-boom cohorts[9]. Analysis by age-specific rates shows that this explanation is not really satisfactory, since the rise occurred at all ages at the same date (Figure 5). The cause must therefore be linked to the situation prevailing at that time.

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[7] Cf. Kippen R., "Trends in age-and parity-specific fertility in Australia", paper for IUSSP seminar, *International Perspectives on Low Fertility: Trends, Theory and Policies*, Tokyo, 21-23 March 2001.

[8] McDonald P., 2000, "Gender equity, social institutions and the future of fertility", *Journal of Population Research*, 17(1), p. 1-16.

[9] Pool I. and Sceats J., 2003, "Low fertility of the English-speaking countries", *Journal of Population and Social Security (Population)*, Supplement to Volume I, pp. 340-383.

This temporary fertility peak, particularly evident among younger women, was most certainly the consequence of a forward shift in the timing of births, after which there was a symmetrical dip and fertility resumed its usual trend. This temporary shift was a sharp one, as can be seen from the Figure 6 graph for the United States, since the peak is similar in the two North American countries. First the total fertility rate rose sharply for a few years while mean age at childbearing levelled off. Mean age then started rising again and the fertility rate reverted to the previous trend line.

Since neither of these countries introduced any family policies, the cause may be related to improvements in living conditions[10]. In both countries, as in a few others, per capita GDP rose sharply during the second half of the 1980s. It peaked at 20% above the 1980 figure in 1988-89 in Canada, and at 18% in 1989-90 in the United States[11]. During the following two years it fell 5 percentage points in Canada and only returned to its late-1980s figure in the second half of the 1990s. In the United States the GDP decline was restricted to a single year; the following year GDP returned to its 1990 level and then continued to rise.

The parallel movements of GDP and total fertility rates in these countries suggest that, at least in certain circumstances, there may be a link between the two. However, in Australia, GDP growth was close to that recorded in the United States and yet there was no temporary rise in fertility rates.

Low fertility in Canada may also be due to the fact that labour force participation among married women has risen considerably in the last twenty years and that more women hold full-time jobs than in other countries. Hence, in a country with no public childcare facilities and no parental leave (with the exception of the province of Quebec), women may be tending to opt for a career rather than a family[12].

New Zealand

In New Zealand, fertility has always been much higher than in the other countries under study, although the gap has considerably narrowed in the last quarter of a century, particularly compared with the United States. The country's post-war baby boom was the sharpest in the industrialized world. Not until the mid-1960s did the total fertility rate fall below 3.5 children per woman. This decline was then accelerated by low fertility among the Maori population, which began its demographic transition later[13] (Figure 4).

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[10] In attempting to understand the factors that influence fertility variations, it is important to bear in mind that some European countries also recorded a similar peak at the same time.

[11] Source: OECD.

[12] O'Hara C., 1999, *Comparative Family Policy: Eight Countries' Stories*, Canadian Policy Research Network Study No. F/04.

[13] See Jackson N.O., Pool I. and Cheung M.C., 1994, "Maori and non-Maori fertility: convergence, divergence, or parallel trends?", *New Zealand Population Review*, 20(1-2), pp. 31-57. See also Johnstone K., Baxendine S., Dharmalingam Q., Hilcoat-Nalletamby S., Pool I. and Paki Paki N., 2001, "Standard country report: New Zealand", *Fertility and family surveys in countries of the ECE region, Economic studies* 10s, United Nations, New York and Geneva.

In the late 1960s, the authorities introduced a system for capitalizing family benefits which enabled women to receive a lump sum in advance to buy a home. The effect of this measure on fertility appears to have been marginal, producing only a slight slowdown in decline, less pronounced than what was observed at the same time in Australia. Since the late 1970s, the total fertility rate has been below replacement level, except during a few years around 1990.

The increase in fertility in the 1980s involved all ages, as in Canada: a temporary rise in rates among the youngest women and an equally temporary rise among the oldest. Unlike Canada, where the fertility rise lasted three years, in New Zealand it continued somewhat longer. Furthermore, above the age of 32, rates did not fall: the only perceptible trend is a stabilization or reduction in the rate of increase. This rise in fertility indicators may perhaps be related to the general improvement in economic growth during the 1980s, subsequently interrupted by a downturn in the 1990s[14].

In recent years, fertility rates followed a similar pattern to those in Australia, described above. The decline in rates among younger women continues, as does the rise among those over 33.

The graphical summary of these changes (not reproduced in this article) resembles that for Australia, but with a few important differences. The amplitude of variation of the total fertility rate is greater in New Zealand (2.4 children per woman) than in Australia (1.8). The clearest difference shows up in the last two decades: mean age at childbearing rises in parallel in the two countries, but is associated with a slight reduction in the total fertility rate in Australia, whereas in New Zealand this rate has remained fairly stable with a few oscillations.

United States

Fertility patterns in the United States[15] are rather distinctive, especially when compared with France. After a much more marked baby boom[16], the total fertility rate fell below that of France from the mid-1960s. The fertility of American women then varied in parallel with that of Frenchwomen until the curves diverged in the early 1980s. In the United States, the total fertility rate then suddenly rose to near replacement level and has remained at about 2 children per woman since then. In France, fertility rose in a similar manner about ten years later (Figure 1).

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[14] In New Zealand, annual per capita volume GDP growth rose from 0.5% in the 1970s to 1.7% in the 1980s, and fell to 0.7% in 1990-1998.

[15] Although we use the fertility data calculated by the EDO for all countries, the fertility rates for American women from 1917 to 1946 come from Heuser R.L., 1976, *Fertility Tables for United States Birth Cohorts by Color: United States, 1917-1973*, Publication no. (HRA) 76-1152, United States Department of Health, Education and Welfare, Public Health Service, Health Resources Administration, National Center for Health Statistics, Rockville, Maryland.

[16] Cf. Taeuber I.B., 1967, "Demographic transitions and population problems in the United States", *The Annals of the American Academy of Political and Social Science*, 369, pp. 131-140.

The relatively sharp rise in American fertility in the 1980s is virtually without equivalent, except perhaps for Luxembourg and Norway, where the total fertility rate is nevertheless well below 2 children per woman (Figure 1). This rise is mainly due to the rise in fertility rates among women under 30, and particularly among those under 20. It followed a slight upward movement observed since the second half of the 1970s and led to a very small increase in completed fertility, approaching replacement level among women born in the mid-1960s.

Broken down by birth order, the figures show that the rise affects all birth orders, but less so as birth order increases. There were two phases. From 1976 to 1985, the rise in fertility affected all first- and second-order births, with a slight reduction in third-order births and above, and from 1985 to 1990, it concerned all birth orders. Following this rise, the gap between the period and cohort rates disappeared, as if after successive rises and falls in age at childbearing the timing of cohort fertility was about to stabilize.

In fact, the situation is more complex. Although the mean age at childbearing is now increasing more slowly among the cohorts, it is nevertheless still moving upward. It may well be that the closing of the gap between the period and cohort rates was merely temporary, to judge from the ongoing fertility decline among younger women and the continued and slightly accelerating increase in fertility among older women in recent years to make up for the postponement of births at earlier ages (Figure 5). These variations, showing continued postponement of childbirth to even later ages, are likely to create a new gap between the total fertility rate and completed fertility.

The plot of fertility in the United States varies considerably from those of the other non-European countries. Yet the period data reveal the same phases as in Australia, though following a slightly different pattern (Figure 6). The decline in the total fertility rate ends in 1975, some five years earlier than in the other countries under study, and, most strikingly, the rate starts rising again in the final phase, whereas it continues to decline in Australia and stabilizes in New Zealand.

Overview

In the four countries under study and in the European countries other than those of the former Communist bloc, the rise in fertility rates from the end of the Second World War until the mid 1950s[17] was accompanied by an increase in cohort completed fertility and a lower mean age at childbearing. This can be seen from the fact that in all these countries the period fertility rate is higher than the cohort rate. Starting in the early 1960s, the situation reversed: period fertility fell rapidly, marking not only the end of the trend towards earlier fertility but a reversal of that trend. At the same time, fertility intensity also fell.

[17] Mid-1960s in Europe.

The baby boom was much more marked in the countries under study than in Europe, with variations from one country to another. It peaked slightly earlier in North America (1957 in the United States and 1959 in Canada) than in Australia and New Zealand (1961). Similarly, the decline in fertility that followed appears to have occurred in two phases that were more distinct in the Southern Hemisphere countries. The latter half of the 1970s was a period of slowdown in all countries however, varying in length and intensity from one country to another. This slowdown or stabilization also appears to have affected all the market-economy European countries at around the same time, to judge from the selected Western countries shown in Figure 1.

The fact that this slowdown lasted longer in Australia and New Zealand helped to widen the gap with fertility in North America. It was also from this point that developments in the four countries diverged. First the rapid fall in the total fertility rate came to an end a little earlier in North America, although in Canada it continued to fall less sharply. In the 1970s, when the rate stopped falling, the curves started to diverge noticeably. In the United States, where fertility was lowest, the total fertility rate moved back up to equal and overtake New Zealand which, except for a few years in the early 1980s, had consistently been the most fertile of the non-European developed English-speaking countries. Conversely, the Canadian total fertility rate continued to fall, except for a temporary rise at the start of the 1990s. Consequently, whereas until the mid-1970s the two countries' curves were close and synchronized, since then they have been totally different, even though the rise in total fertility in the late 1980s affected them both. In 1976, the total fertility rate in each country was 1.74 children per woman, but by 2002 it was only 1.49 in Canada and 2.01 in the United States, where it went on to exceed 2.05 by 2004.

In the Southern Hemisphere, where New Zealand's fertility was much higher than Australia's, the delayed demographic transition of the Maori population caused the two countries to converge rapidly, with a fertility of 1.9 children per woman at the start of the 1980s. Since then there has been some divergence. In New Zealand, after a temporary rise in the latter half of the 1980s[18], fertility has appeared to settle at between 1.9 and 2.0 children per woman. In Australia, however, fertility has continued to fall relatively slowly and stabilized at the end of the 1990s at around 1.75 children per woman.

Among all these English-speaking countries, it is in Canada that the level of fertility gives most cause for concern. Since 1997, the total fertility rate has been roughly 1.5 children per woman, some 30% below the replacement level of 2.1. As a result, the base of the population pyramid is shrinking, with the number of births in recent years one-third less than the average size of the mothers' generation[19].

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[18] Observed also in Canada and the United States.

[19] The total fertility rate, despite its name and the units in which it is expressed, is not really a measurement of fertility but rather of the extent of generation replacement. See Calot G., 2001, "Mais qu'est-ce donc qu'un indicateur conjoncturel de fécondité?", *Population*, n° 3, p. 325-327.

In the United States, on the other hand, generation replacement has been more or less assured for the last fifteen years or so. This is due to the country's highly distinctive fertility timing, which differs from the other countries under study and those in Europe. After the baby boom, the fertility of young American women quickly returned to the previous level and has remained virtually stable since then (Figure 5). Everywhere else, fertility rates have continued to fall as births are further postponed. As a result, in most countries, the rise in fertility after 30, as women make up for the delay in family formation, at best offsets the fall among younger women; in the United States, this rise is due mainly to higher cohort fertility, which, combined with stable fertility among younger women, caused the total fertility rate to rise. The reduction in fertility among women of age 20 and below recorded since the mid-1990s may be a sign of the delayed childbearing found elsewhere in the world. But it is still rather early to be sure, since the reduction is too slight.

III. Cohort fertility

Fertility profile

The distribution of age-specific fertility rates for selected cohorts born ten years apart provides a perfect illustration of the changes in birth timing in the four countries under study[20] (Figure 7). In Australia for example, for women born between 1930 and 1940, the age at childbearing decreased, and the mode fell from 25 to 23 years[21]. However, higher fertility among the young did not compensate for lower fertility among older women, due to the lower frequency of high-order births. As the post-war generations were born, change accelerated. Fertility fell sharply at the ages where it had been highest, and then, for the cohorts born in the 1950s, timing changed noticeably. Births were postponed until beyond the age of 25, thereby raising fertility rates among women over 30. The entire birth distribution thus shifted to later ages. As the phenomenon became more marked with each succeeding cohort, the mode rose from 27 to 30 years between the 1960 and 1970 cohorts.

Many developed countries followed a pattern rather like Australia's, but the United States differs quite noticeably from the 1960 cohort onwards. With that cohort, the trend towards increasingly postponed childbearing ceased. Nowhere else has there been stability over so long a period. This may mean that, at least for the time being, American women have adopted new fertility behaviour.

[20] Frejka T. and Sardon J.-P., 2004, *Childbearing Trends and Prospects in Low-Fertility Countries. A Cohort Analysis*, European Studies of Population, Vol. 13, Kluwer Academic Publishers.

[21] From 24 to 22 in the United States, where childbearing occurred rather earlier.

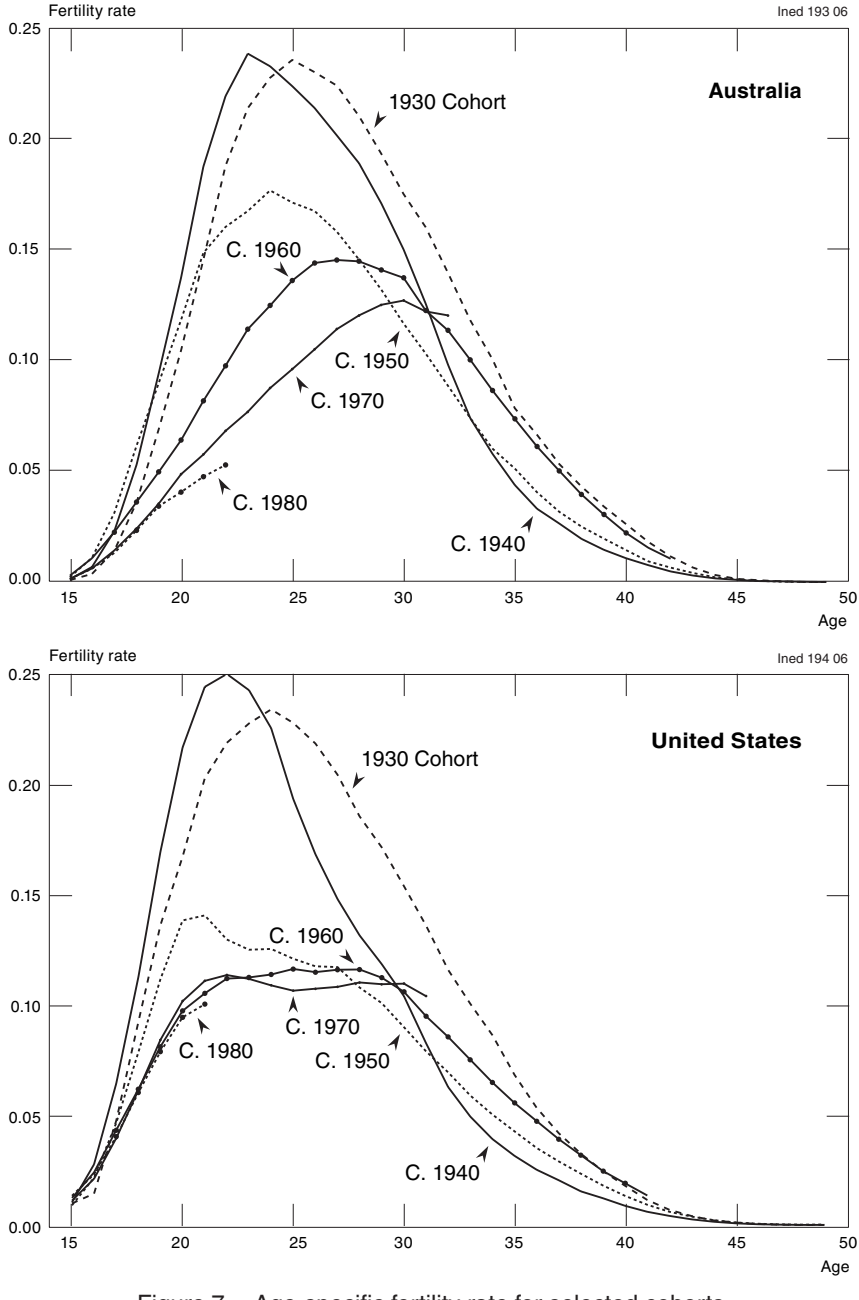

Figure 7.– Age-specific fertility rate for selected cohorts.

Source: EDO.

Although the general shifts we describe above apply to each of the other three countries (Australia[22], Canada and New Zealand), certain local characteristics are also observed. New Zealand women's slower decline in fertility before the age of 20-22 tends to accentuate their number of early births compared with Australia. Canada displays a sharper fall in over-25 fertility rates between the 1930 and 1940 cohorts, and a reduction in rates among women born in the 1940s that is closer to that of the United States than that of Australia.

One distinctive feature of fertility in the United States is the high fertility of teenage girls still observed among the most recent cohorts, unlike the trend in other countries. The distribution of age-specific rates for the 1970 cohort is even bimodal, as if the population comprised two quite different sub-populations. In this respect, American fertility comes close to what is seen in the United Kingdom, where teenage fertility remains a serious problem. To a lesser extent, Canada appears to have experienced a similar situation, which came to an end among women born in the 1950s.

Estimated completed fertility

Since women in all these countries, except the United States, spread their childbearing over longer periods in succeeding cohorts, and the modal values are falling, it is instructive to examine fertility intensity for these cohorts, whose childbearing lives are not yet over.

The gap between fertility reached at the same age in successive cohorts provides a way of assessing whether the cumulative gap compared with a given cohort, in this case 1950, is likely to be made up. In Australia, it would appear fairly clear that completed fertility is likely to fall (Figure 8). The gap between successive cohorts seems unlikely to be made up, even if we discount the 1950 cohort, whose fertility intensity (2.32 children per woman) may be thought a rather ambitious target. It looks as if completed fertility will continue to decline, at least up to the cohorts of women born in the 1960s. These women's fertility will probably fall below replacement level.

New Zealand will see a similar development, but completed fertility is likely to fall to strict replacement level rather later, because of the high fertility of the women born in 1950 (2.5 children per woman). Completed fertility for the 1968 cohort is still over 2.2 children per woman.

In these two countries, especially New Zealand, despite the ever longer postponement of childbearing – until around age 28 – compared with previous cohorts, women born up to 1960-65 will probably mostly make for this delay, though without reaching the completed fertility of the 1950 cohort. For younger cohorts, given the greater cumulative shortfall of 0.8 to 0.9 children at the age of 27-28, it is increasingly unlikely that they will make up for the delay.

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[22] See also Jain S.K. and McDonald P., 1997, "Fertility of Australian birth cohorts", *Journal of the Australian Population Association*, 14(1), pp. 31-46.

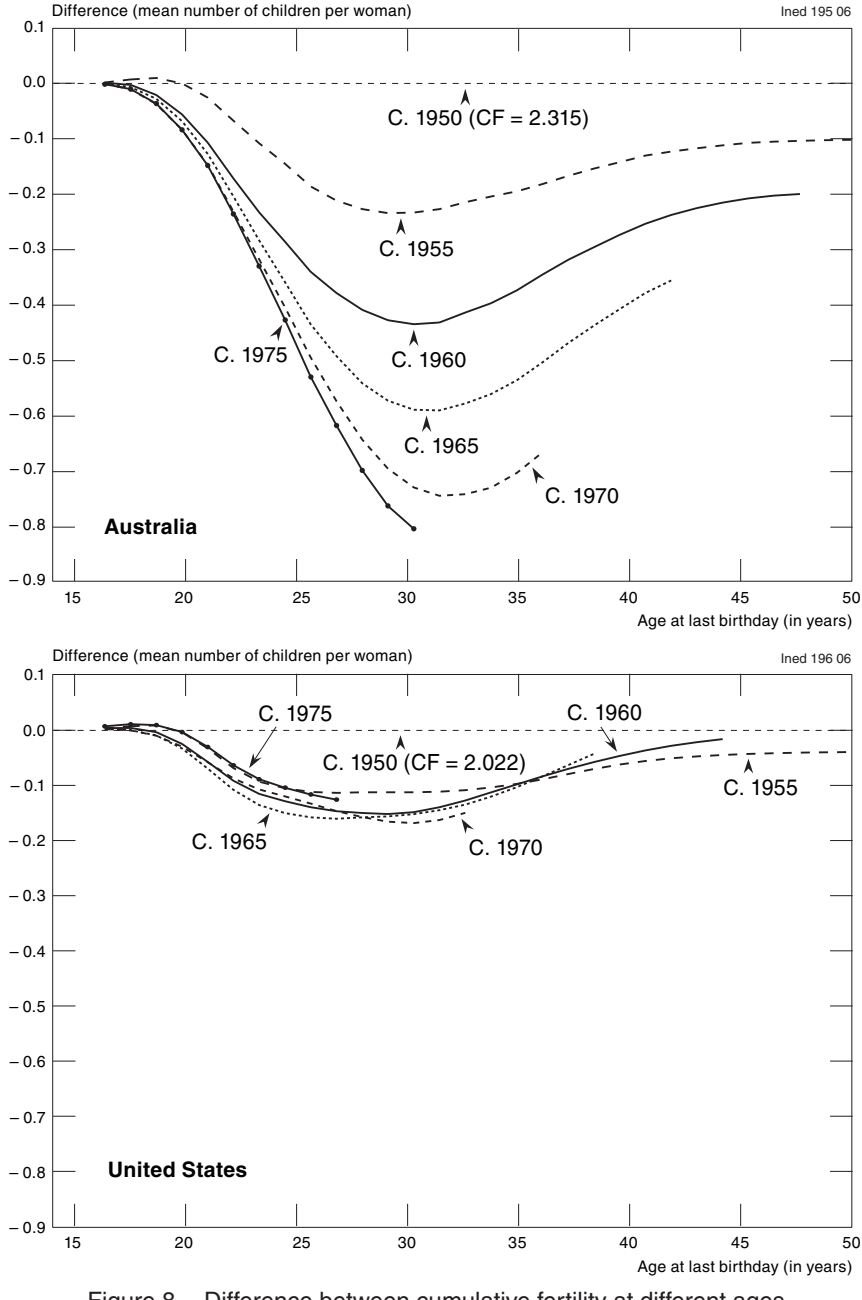


Figure 8.– Difference between cumulative fertility at different ages for cohorts born in 1955-1975 compared with the 1950 cohort.

Note: CF indicates the completed fertility of the 1950 cohort.

Source: EDO.

Oddly, the changes in timing for Canadian cohorts follow the same pattern. However, the discrepancy is only half as large, although the completed fertility of the 1950 reference cohort, 0.5 children below the Australian figure, is well below replacement level. Though completed fertility for women born in 1960 is likely to be close to that of women born five years earlier, it looks as if the subsequent cohorts have little chance of making up their current delay, even compared with the 1955 cohort. For example, for the 1968 cohort completed fertility is likely to be approximately 1.7 children per woman.

In the United States, the situation is totally different, as we saw earlier. Only women born in 1955 posted a slight decline in completed fertility, and examination of cumulative fertility shows that a reduction in the completed figure is not to be expected even for the generations born around the mid-1970s. The trend is rather towards an increase in completed fertility back to replacement level.

Whereas in Europe only French and Norwegian women still have completed fertilities of two or more children, this is true for three of the four English-speaking countries under study.

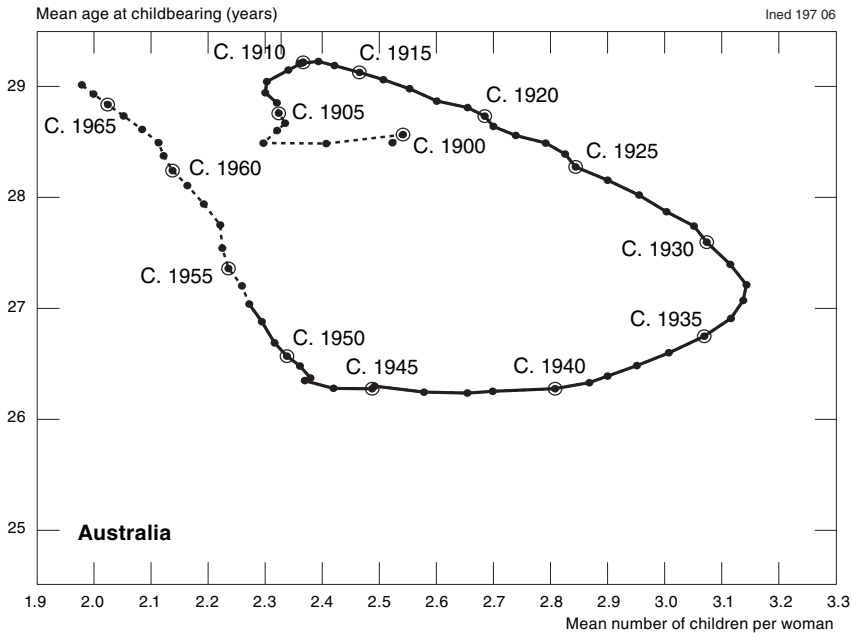
Overview

Plotting completed fertility against mean age at childbearing provides an overview of cohort fertility over more than half a century (Figure 9). The graph reveals which cohorts appear to have initiated new behaviour and shows successive phases.

In Australia, starting with women born during the First World War, there are three phases. From cohorts 1914 to 1932, completed fertility rises considerably as age at childbearing declines. The curve turns with those born in 1933, beginning a second phase where completed fertility falls rapidly – by 0.7 children per woman across fifteen cohorts – and mean age at childbearing continues to decrease as family size is reduced. The third phase begins with those born after the Second World War, with completed fertility falling more slowly and births being postponed to later ages.

In New Zealand, the phases are similar, although the second phase begins slightly earlier, since the decline in completed fertility begins with the 1931 cohort, compared with the 1933 cohort in Australia.

In North America, particularly the United States, the changes are more regular and more gradual across cohorts, so that it is hard to single out any pivotal cohorts. However, the changes in fertility behaviour seem to have occurred at around the same date in all of these countries. Note that the trend to higher completed fertility among more recent cohorts is a distinctive feature of American women.



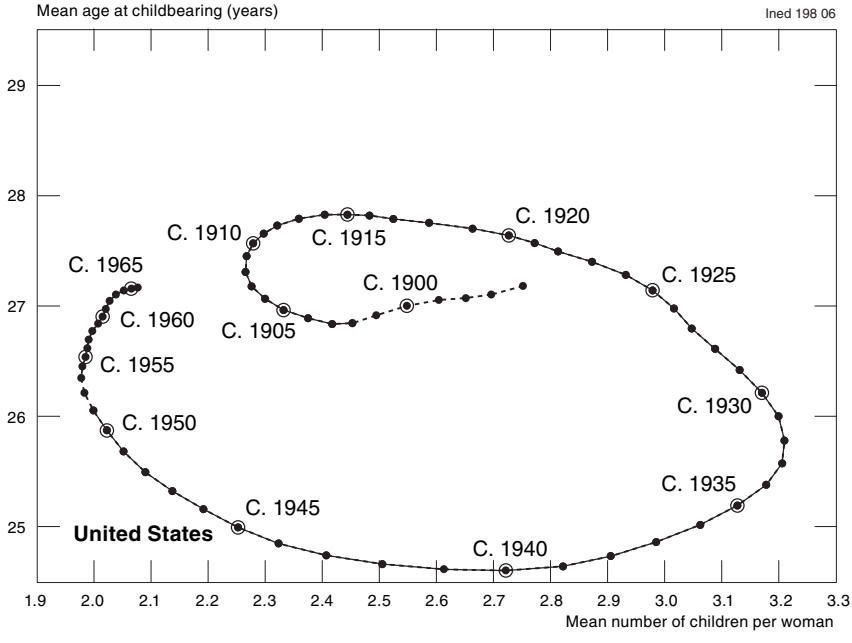


Figure 9.– Completed fertility and cohort mean age at childbearing for the 1896-1967 cohorts.

Source: EDO.

IV. Distinctive fertility pattern in the United States

High immigration, especially of Hispanic origin, is sometimes given as a reason for the upturn in fertility that has brought the US total fertility rate to a higher level than in other developed countries[23]. The national rate, it is true, conceals a wide diversity in fertility between communities of origin, and women from Central America have noticeably higher fertility than other ethnic groups.

The 1998 total fertility rate of 2.1 children per woman[24] was the weighted mean of rates that ranged from 2.9 for Hispanic white women to 1.8 for non-Hispanic white women[25], including 2.2 for non-Hispanic black women, 2.1 for Native Americans and 1.9 for Asians and Pacific islanders. With continuing immigration from Central America, Hispanics are the fastest-growing minority. The proportion of women of Hispanic origin has more than doubled in a quarter of a century: they were only 6.2% of the total female population of the United States in 1980, compared with 9.9% in 1994 and 13.4% in 2004. The significant rise in the total fertility rate might therefore partly reflect this increase.

Rapid calculations on the basis of observed fertility levels in 1998 and the variation in the relative size of the various communities[26] from 1980 to 2004 show that the change in the proportion of Hispanic women only accounted for a fertility increase of 0.05 children per woman, whereas the total rate rose four times as much during that period. Admittedly, the assumption that the fertility gap between communities did not vary from 1980 to 2004 is rather crude, but for the effect of Hispanic population growth to come close to the increase in the total fertility rate, this gap would need to have more than doubled in the last twenty-five years. One may rather suppose that it has narrowed.

Furthermore, United States statistics distinguish births occurring in the white and black communities, making it possible to calculate the fertility of these two sub-populations. The total fertility rate rose from 1976 to 1979 in both groups: the rise was slightly greater in the black population, whose fertility was slightly higher (Figure 10). But the rise was only temporary in the black population. A second rise was recorded from 1985 to 1990, again greater but temporary in the black population: five years later total fertility had returned to its earlier rate in the black population, whereas it had stabilized in the white population.

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[23] Cf. Bean F.D., Cushing R.G. and Haynes C.W., 1997, "The changing demography of United States immigration flows: patterns, projections, and contexts", *Migrations and Refugees: Politics and Policies in the United States and Germany*, p. 121-152. See also Fix M., Passel J.S., Enchautegui M.E. and Zimmerman W., 1994, *Immigration and Immigrants: Setting the Record Straight*, Washington D.C., Urban Institute, VII, 104.

[24] The figure cited here differs from that given on the graph because this study was carried out before the revised Intercensal Population Estimates were available. The 2000 census revealed that the population had grown faster than expected, and annual population figures were revised upwards, thus reducing the total fertility rate.

[25] In 2004, Hispanic fertility was apparently 2.45 children per woman, compared with 1.86 for non-Hispanic white women. That year the completed fertility of women aged 40-44 was respectively 2.43 and 1.9 children per woman.

[26] We assumed the population comprised only two groups: Hispanics and Whites.

Since the rise in fertility from 1985 to 1990 cannot be explained by Hispanic immigration, other causes need to be found. Given that there were no changes in family legislation, it may be that the improved economic situation in the 1980s, although much less significant[27] than in New Zealand, was an incentive for couples to enlarge their families or have their children earlier, as in some countries in Europe. Furthermore, in the United States, unemployment, especially among the young, is lower than in Canada, for example; this probably produces greater confidence in the future, making it easier to start a family sooner, especially since in other countries, including Canada[28], the youngest cohorts are growing poorer. In Canada the average income of young people was lower at the end of the 1990s than at the start of the 1980s.

Essentially, the major difference between the United States and the other countries is the fact that, quite apart from the current fertility level, childbearing occurs much earlier. This is due, at least in part, to the fact that the postponement of births, typical of fertility changes in the developed countries in recent decades, is much less marked in the United States. After the steep decline that followed the baby boom, from 1960 to the early 1970s, fertility among women under 25 seems to have stabilized since the mid-1970s at a much higher level than in Europe[29].

To explain this gap between fertility in Europe and the United States, a number of authors mention the greater place of religion in America. To the extent that fertility correlates positively with the importance given to religion, the simple fact that a higher proportion of the population holds strong religious values is enough to explain higher fertility. In an analysis based on the results of surveys of religious practice[30], T. Frejka and C. Westoff[31] estimate that European fertility would be 13% to 14% higher than it is now if Europeans had attitudes to religion similar to those of Americans.

One may speculate whether the increase in fertility in the United States since the mid-1970s might have been facilitated by the slight rise in religious observance from 1981 to 2000 noted by the authors. Only extensive research into the relationship between fertility and religion could settle the point. In Italy, for example, the rise in religious observance, greater in the last twenty years of the twentieth century than in the United States, did not prevent the stagnation of the total fertility rate and continued decline in completed fertility. Indeed, despite noticeable differences in attitudes to religion, the total fertility rate was higher in France in the first half of the 1970s.

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[27] Annual per capita volume GDP growth in the United States went from 2.1% in the 1970s to 2.3% in the following decade and 2.0% during 1990-98.

[28] Bélanger A. and Ouellet G., 2002, "A comparative study of recent trends in Canadian and American fertility", in A. Bélanger (ed.), *Report on the Demographic Situation in Canada, 2001,* Statistics Canada, Cat. No. 91-209-XPE, Ottawa, pp. 107-136.

[29] By the age of 25, American women born in 1975 had had 0.82 children on average, like those of the 1959 cohort, compared with 0.35 for Frenchwomen (0.76 for the 1959 cohort).

[30] European Value Survey, 1999-2001.

[31] Frejka T. and Westoff C.F., 2006, "Religion, religiousness and fertility in the U.S. and in Europe", *MPDIR Working Paper*, WP 2006-13, 25 p.

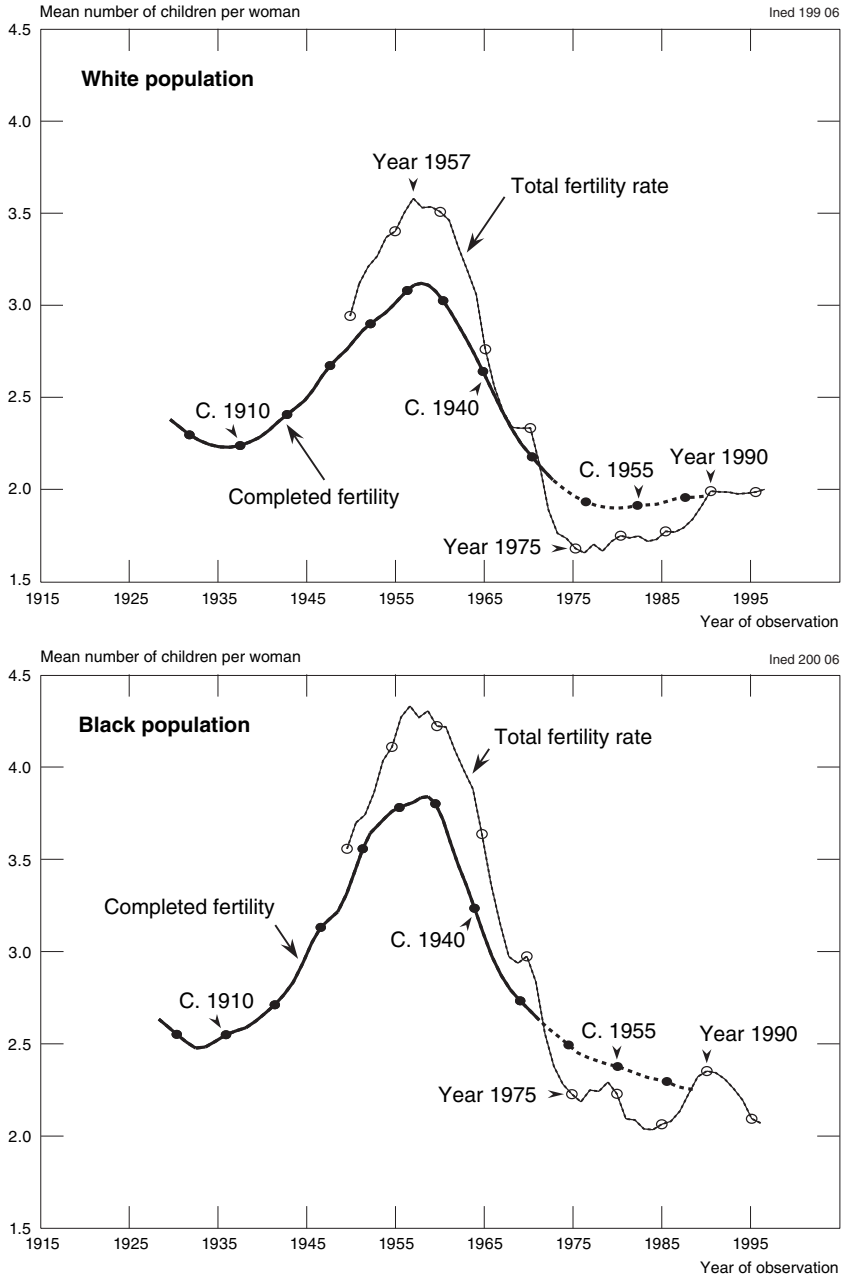

Figure 10.– Total fertility rate and completed fertility in the United States.

Note: The dotted line shows estimated completed fertility based on frozen 1996 rates.

Source: EDO.

Comparing recent fertility trends in the United States and Canada, other authors note additional factors, alongside the major difference in religious practice between the two countries, that may also be related to the lesser secularization of American society. They include the lower use, for reasons of cost, of medical contraceptive methods and sterilization. This is revealed in a higher proportion of unwanted pregnancies[32], even though induced abortion is slightly more frequent in the United States[33]. Unwanted births represented 30% of total births in 1994[34]. However, since some of these were just poorly planned births, this proportion in no way indicates the lower fertility to be expected if couples were in full control of their fertility.

This non-exhaustive set of explanatory factors illustrates the complexity of research into the causes for fertility differences between countries.

V. Conclusion

The fertility behaviour of the non-European developed English-speaking countries shows a number of similarities. Despite their geographical separation, these countries would appear to share a common culture and not just a language. They are also countries that have been much more open to immigration than European countries have been on average. A "pioneer" mentality has sometimes been put forward to explain the distinctive features of the non-European developed English-speaking countries compared with the European countries from which their populations originate.

The populations of these countries are also heterogeneous; they comprise minorities, some of whom are indigenous. The influence of these minorities varies considerably however, depending on the proportion of the total population that they represent. It is small in Australia, where Aborigines make up only 2% of the total population, but more noticeable in New Zealand, where Maori births account for 22% of the total (Europeans 66%). In the United States, the situation is more complex since there are a number of minorities. In addition to non-Hispanic, non-Latino Whites (67% of the population[35]) and the black community (13%), the population also includes Asians (4%) and Hispanics (13.5%).

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[32] It must not be forgotten that the proportion of people below the poverty threshold and the proportion of illiterates is higher in the United States than in Europe, and that the country suffers from inadequate sex education and poor access to reproductive health centres. Cf. Jones E. F., Forrest J. D., Henshaw S. K., Silverman J. and Torres A., 1989, *Pregnancy, Contraception, and Family Planning Services in Industrialized Countries*, New Haven, CT/London, Yale University Press.

[33] Bélanger A. and Ouellet G., 2002, *op. cit.* See also Frejka T. and Kingkade W., 2003, "United States fertility in international comparison: an exploration to aid projections", United States Census Bureau Conference, *The Direction of Fertility in the United States*, Washington D.C., pp. 51-143.

[34] See Frejka T., 2004, "The 'curious high' fertility of USA", *Population Studies*, 58(1), pp. 88-92.

[35] Total White population: 81%.

In Canada, the proportion of indigenous peoples in the population is very low, as in the United States. The main distinction is between French-speaking Quebec and the English-speaking provinces. However, fertility varies considerably from one province to another. In 2003, it was 1.32 children per woman in Newfoundland and Labrador, and 1.86 in Saskatchewan. It also varies within the English-speaking community. In the same year, to take only the most populated provinces, the fertility rate ranged from 1.40 in British Columbia to 1.49 in Ontario and 1.74 in Alberta, compared with a national average of 1.53. In Quebec, fertility declined sharply in the 1970s and 1980s, making it by far the least fertile province. At present, fertility in Quebec, at 1.48 children per woman, is close to that of neighbouring Ontario. Consequently, the contrasts in fertility are no longer between Quebec and the English-speaking provinces.

The relatively favourable position of these countries compared with many European countries appears paradoxical, especially to a European observer, since the higher fertility levels are in no way related to ambitious and generous family policies. On the contrary, except for Canada, these countries are the only ones in the industrialized world not to grant paid maternity leave to all mothers.

The impression that fertility in the non-European developed English-speaking countries is higher than in old Europe appears to have been more justified in the past, even the recent past, than by current trends. These countries' fertility advantage appears to be waning. Total fertility rates and completed fertility are close to those of the most fertile European countries. The distinctive feature of the United States is not so much its total fertility rate as the regular increase in women's completed fertility, which is the only such increase to be observed among the developed countries other than Denmark.

Analysis of the situation in the countries of the New World and some others, especially in Scandinavia, suggests that fertility is linked to early childbearing. Although the link is sometimes contradicted by international comparisons, it remains the case that within a given cultural area with the same level of development and similar policies[36], fertility does appear to be linked to early childbearing. Might this offer a way of raising fertility in certain European countries, by encouraging or enabling couples to start their families rather earlier? It is hard to say, but anything that helps to integrate young people, whether in terms of employment or housing, and reduce their economic insecurity, is necessarily a move in that direction. But confidence in the future may well depend on an improvement in the economic and social situation.

[36] Anderson G., 2004, "Childbearing developments in Denmark, Norway and Sweden from the 1970s to the 1990s: A Comparison", *Demographic Research*, Special collection 3, article 7, 17 April 2004, MPDIR, Rostock.

SARDON Jean-Paul – **Fertility in the Developed English-speaking Countries outside Europe: Canada, United States, Australia and New Zealand**

The fertility of the English-speaking populations of North America and Oceania has, it would seem, always been higher than that of Europe, despite the absence of any directly targeted family policy. However, in recent decades the gap has tended to close and these countries are now at the level of the most fertile European ones. In these countries, as in Europe, the period after the Second World War saw a baby boom followed by a decline in fertility. Their baby boom was more marked and earlier than the European one. It peaked in 1957 in the United States, 1959 in Canada, and 1961 in Australia and New Zealand. The postponement of births to later ages took a particular path in the United States. After the baby boom, the fertility of young American women quickly reverted to its earlier level and has remained fairly stable since. Conversely, in other countries, fertility rates have pursued their decline due to the ongoing trend towards delayed childbearing. Consequently, in most countries, the rise in fertility after the age of 30 as older women start to found a family has at most compensated for the decline before that age. In the United States, this rise, due mainly to higher cohort fertility, has pushed up the total fertility rate. Within this group of countries, Canada is distinguished by relatively low fertility. The total fertility rate has stabilized in recent years at 1.5 children per woman, a figure close to that of the European Union as a whole.

SARDON Jean-Paul – **La fécondité dans les pays anglophones développés hors d'Europe: Canada, États-Unis, Australie et Nouvelle-Zélande**

Les populations anglophones d'Amérique du Nord et d'Océanie ont, semble-t-il, toujours eu une fécondité plus élevée qu'en Europe, en dépit de l'absence de toute politique visant à intervenir de manière directe dans la sphère familiale. Cependant, depuis quelques décennies, l'écart a tendance à se réduire, ces pays se retrouvant aujourd'hui au niveau des pays européens les plus féconds. Dans ces pays, comme en Europe, la période écoulée depuis la seconde guerre mondiale a été caractérisée par le baby-boom et le recul de la fécondité qui lui a succédé. Le baby-boom y a été plus marqué et plus précoce qu'en Europe. Il a atteint son maximum en 1957 aux États-Unis, en 1959 au Canada, et en 1961 en Australie et en Nouvelle-Zélande. L'ajournement des naissances et leur report à des âges toujours plus élevés a suivi des modalités particulières aux États-Unis. En effet, après le baby-boom, la fécondité des jeunes femmes américaines a rejoint très rapidement son niveau antérieur, et elle est restée à peu près stable depuis. Au contraire, partout ailleurs, le recul des taux de fécondité s'est poursuivi sous l'effet de l'ajournement continu des naissances. De ce fait, dans la plupart des pays, la hausse de la fécondité au-delà de 30 ans, consécutive à la récupération des naissances ajournées, a au mieux contrebalancé le recul aux âges jeunes; aux États-Unis, cette hausse, qui provient avant tout d'une augmentation de l'intensité de la fécondité des générations, entraîne une progression de l'indicateur conjoncturel. Dans cet ensemble, le Canada se distingue par une fécondité relativement faible; l'indicateur conjoncturel s'est stabilisé depuis quelques années à 1,5 enfant par femme, soit une valeur très proche de celle de l'Union européenne dans son ensemble.

SARDON Jean-Paul – **La fecundidad en los países anglófonos desarrollados no europeos: Canadá, Estados Unidos, Australia y Nueva Zelanda**

Las poblaciones anglófonas de América del Norte y Oceanía siempre han tenido, aparentemente, niveles de fecundidad más elevados que los observados en Europa, a pesar de la ausencia de políticas familiares. Sin embargo, desde hace varias décadas, las diferencias han tendido a reducirse. En la actualidad, el nivel de fecundidad de estos países es similar al registrado en los países europeos más fecundos. Tanto en estos países como en Europa, el periodo posterior a la segunda guerra mundial se caracteriza por el baby-boom y la disminución posterior de la fecundidad. Sin embargo, el baby-boom fue más marcado y más precoz que en Europa, alcanzando su máximo en 1957 en Estados Unidos, en 1959 en Canadá y en 1961 en Australia y Nueva Zelanda. El aplazamiento de los nacimientos a edades cada vez más elevadas ha seguido una trayectoria particular en Estados Unidos. Después del baby-boom, la fecundidad de las jóvenes americanas volvió muy rápidamente a su nivel anterior y se ha mantenido prácticamente estable desde entonces. En todos los demás países, la disminución de las tasas de fecundidad se produjo porel retraso continuo de los nacimientos. Por consiguiente, en la mayoría de países, el aumento de la fecundidad entre las mujeres mayores de 30 años, debido a la recuperación de los nacimientos aplazados, contrarrestó la disminución de la fecundidad en edades jóvenes, en el mejor de los casos. En Estados Unidos, tal aumento, causado por un aumento de la intensidad de la fecundidad entre generaciones sucesivas, provocó un aumento del índice sintético. En este grupo de países, Canadá destaca por tener un nivel de fecundidad relativamente más bajo; el índice sintético se mantiene estable, desde hace unos años, en 1,5 hijos por mujer – un valor cercano al observado en el conjunto de la Unión Europea.

JEAN-PAUL SARDON, Observatoire démographique européen, 2bis rue du Prieuré, 78107 Saint-Germain en Laye, Cedex, tel.: +33 (0) 1 39 10 25 00, e-mail: sardon@ined.fr