

AUSTRALIAN POPULATION ASSOCIATION BORRIE LECTURE 2006

THE BABY BOOM IN NEW ZEALAND AND OTHER WESTERN DEVELOPED COUNTRIES

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The Baby Boom was undoubtedly one of the more emblematic events of the twentieth century. As it was a distinctly demographic phenomenon, it has been dissected by some of the most distinguished of demographers. Yet its greatest influence is not in demography, but in fields like marketing, pop-psychology, and even gerontology: the Baby-Boomers rather than the generation currently at reproductive ages are blamed for structural ageing. This paper questions aspects of Baby-Boom mythology. It asks how it has been measured: a 'boom' suggests numerical volume, yet instead we measure flows. It questions whether the hegemonic model of the boom – the American one that has effectively delineated its parameters in Europe, Australasia and Japan, both among demographers and in the popular media – really does apply to other countries. It also asks whether or not Western Europe's limited surges in births really qualify as booms in the strict sense of the term. Finally, it raises questions more in the field of the sociology of knowledge: the way the Baby Boom mythology has spread often in the face of counterfactual evidence.

This paper is a revised version of the Australian Population Association's 2006 Borrie Lecture.

Keywords: Baby Boom, Western developed countries, New Zealand, Australia, fertility trends, demographic change

The Baby Boom as a phenomenon

With due *gravitas*, on 1 January 2006 New Zealand's news media announced: 'The Baby Boomers have reached old age (60 years!!)'. This reinforced the fact that the Baby Boom still has a great deal of significance for us even today. That said, the image the media conjured up was one of a single, huge, but short-lasting population wave of grey-haired people, all demanding their pensions and instant hip-replacements at one moment, thereby creating the fiscal and social mayhem everyone had long feared, and doing so at an age five years below that at which they can take up the universal pension in New Zealand.

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So important has been the impending arrival of the Baby Boom at old age that already in the late 1980s New Zealand had justified its radical, neo-liberal restructuring on the future incapacity of the state to pay for the health and other needs of aged Baby Boomers. And most politicians argued that this wave would produce Domsday dependency ratios until mid-century and beyond, a claim even picked up by more serious media commentators (James 1991). Some of the more passionate advocates of restructuring even saw ageing in this sense as a population explosion starting immediately around 1990. At the same time they overlooked the Baby Blip, or echo to the Baby Boom as they call it in the United States, that was occurring around 1990, an event that in the media received the false appellation of a Baby Boom. In both New Zealand and Australia, and indeed across the Western Developed Countries (WDC)¹ any sudden upsurge in birth numbers tends to get called a Baby Boom.

The recognition of the significance of the Baby Boom does not stop with the media, politicians and the general public. The American demographer Philip Morgan in an article on the Baby Boom in the *Encyclopedia of Population* (2003) argued that 'No twentieth-century demographic phenomenon in the developed countries has attracted greater attention than the "baby boom" – the sustained post-World War II fertility increases in many developed countries that produced large birth cohorts...' It is important for my argument here that the phrase 'large birth cohorts' is stressed. But Morgan then went on to time-reference the advent of these large cohorts to the period 'mid 1940s to the mid-1960s', again a point of importance for my later argument (Morgan 2003: 73).

Notions about a singulate mega-wave that will wreak havoc on social policy sectors, and that was launched in the two decades 1940s to 1960s, are merely two of many inaccurate perceptions about the Baby Boom. Arguably, this is the most analysed generation ever, yet it still constitutes the quintessential urban myth. Its quasi-mythological features are probably better known than its reality, not just among people like advertisers, pop-psychologists, journalists and Treasury economists, but even among demographers who really should know better.

This paper will use New Zealand as its reference population, but it will be compared with other WDCs, particularly Australia². New Zealand and Australia are good benchmarks as they clearly had Baby Booms of rather significant proportions, in 1962 for New Zealand reaching peak Total Fertility Rates (TFR) of 4.3 births per woman for all ethnic groups combined, and 4.1 for the non-Maori, Pakeha, population alone³. Australia's peak was in 1961, with a TFR of 3.5.

It may be felt that New Zealand rates reflect the population composition: almost 30 per cent of all New Zealanders today are from non-European ethnic minorities, a figure close to the proportion of Americans who are Hispanic, African-American, Asian, African or Middle-Eastern, and both these countries are well above Australia in this regard. But as the statistics quoted above show, the much higher fertility of Maori at the Baby Boom (6.2 in 1962, Khawaja 1985: Table 80) had little impact on the overall figure, and this still holds true (Chandola, Coleman and Hiorns 2002; Pool and Sceats 2003; Frejka 2004 came to a similar conclusion for ethnic minorities in the United States) despite the fact that today Maori are 15 per cent of the total population as against seven per cent in 1961 and eight per cent in 1971.

Technically speaking, the New Zealand Baby Boom was entirely a Pakeha phenomenon: Maori fertility had been high for all of the twentieth century, but declined rapidly in the 1970s.⁴

While both Asian and Pasifika populations have grown, each to seven per cent of the total in 2001,⁵ they have done so in tandem, so that low Asian fertility more or less counterbalances high Pasifika rates; Asian proportions approximate those in Australia and the United States. Neo-Europes (Anglo-America and Quebec; Australasia) in general have higher proportions of their population belonging to non-European minorities than is the case in the United Kingdom or other European countries.

To re-evaluate the phenomenon of the Baby Boom, this paper focuses on two main issues.

- 1 *Measuring the Baby Boom.* What were its defining demographic characteristics, (looking beyond the *passé* argument of Marriage Boom versus Baby Boom)? What was its real size? How long did it last? And is the Baby Boom really made up of only one generation?
- 2 *Interpreting the Baby Boom.* Was it aberrant? Or, were the periods before and since deviations from what Sir John Marshall (Prime Minister, 1972) called 'New Zealand's Golden Age'? Were there antecedents for the Boom, especially in the Antipodes? To what degree was the Australasian and North American Baby Boom the same phenomenon as the European, even that of 'Mother England'?

Measuring the Baby Boom: introduction

There are two measurement dimensions, only one of which I will develop. The first, which I will discuss at length, is measuring the characteristics of the Baby Boom at the time when it was being created: its quantum and tempo, its duration and the fertility rates that drove it. These are not just the TFRs, which are the measure normally used, but the force of reproduction within the childbearing ages.

But this measurement issue is often confounded with the second one: what were its determinants, especially its proximate demographic determinants. These are, first, rates, where the debate is between the significance of TFRs and age-specific fertility rates *per se* and nuptiality rates and their links to marital age-specific fertility levels; and, secondly, age-structural composition, which affects annual birth sizes overall, but not age-specific rates. Here Morgan again provides an agenda item for my paper. He asserts, supporting his case by reference to a decomposition exercise by Norman Ryder (reproduced in Morgan's article): 'it is clear that birth rates, not generation size, have been the key factor in the postwar upsurge of births' (Morgan 2003: 73).

Of course, this technical demographic issue of decomposing the proximate drivers of the Boom should be separated out from more subjective sociological questions. For example, if we accept that a generation acts collectively, not just in its biosocial behaviour, but also, as Ronald Lesthaeghe and Guy Moors have shown (1995), in norms and values, then we would expect that cohort effects would also extend to reproductive intentions.

I will not elaborate further on these technical or sociological issues. But this brief digression sets up the next section of my paper: how can we measure the dimensions of the Baby Boom? This then allows us to define it more precisely and, above all, to question when it started, when it finished and whether all WDCs really had Baby Booms.

Table 1 Australia and New Zealand, Total Fertility Rates (births per woman), selected years

Year	Australia	New Zealand
1936	2.2	2.3 ^a
1941	2.4	2.9
1946	3.0	3.5
1951	3.1	3.6
1956	3.3	4.0
1961	3.5	4.3
1966	2.9	3.4
1971	2.9	3.1
1976 ^b	2.1 ^b	2.2 ^b
1981	1.9	2.0
1986	1.9	2.0
1991	1.8	2.1 ^c
1996	1.8	2.0
2001	1.7	2.0

a Pakeha rates were just below exact replacement that year.

b The line marks the shift to sub-replacement fertility rates.

c Peak of a 'Baby Blip'.

Sources: Australia, ABS 2003; New Zealand, Statistics New Zealand (see note 2). In this and all other tables they cover all ethnic groups combined.

Measuring the Baby Boom: dimensions

This is perhaps the most important section of my paper as it provides the evidence-base for the argument developed in the next two sections. I look first at TFRs, then annual birth sizes and then age-specific data. From this analysis I make two deductions: (1) using Antipodean benchmarks, I suggest what are the different parameters and their mix that are the essential ingredients for a Baby Boom; (2) I then use this measurement to look at the duration of the Baby Boom. My question is this: did it finish in the 1960s, or earlier or later? This duration has been put forward by American demographers, as in the quotation from Philip Morgan above, and it is their delineation that has set the parameters for this event, and has entered marketing, the media and the popular discourse. But is the conventional wisdom correct for all countries?

Total Fertility Rates

Interest in this measure centres on two factors. First it is useful to look at levels, and secondly to look at patterns and trends. The rates for Australia and New Zealand are set out in Table 1. A general point is that New Zealand rates exceed the Australian, in part because of Maori fertility, but only to a limited degree. In 1945 when Maori rates were 6.5, Pakeha were 2.9, close to the national 3.0; in 1956, Maori rates were 6.9, but Pakeha 3.8, close to the national level 4.0; in 1966 the levels were 5.5, 3.2 and 3.4; by

1976, however, Maori rates were down to 3.0, and Pakeha 2.2, virtually the same as the national. The Maori fertility decline in the 1970s, from 5.0 in 1972 to 2.8 in 1978, is the most rapid for any national population anywhere, even exceeding the velocity of China's decrease. It is all the more surprising because New Zealand has never had mass family planning programs: it is the responsibility of the woman or couple (Pool 1991; Pool *et al.* 1999).

From a rates perspective Australia and New Zealand had shifted from very low fertility in the Depression of the 1930s, just below replacement for several years for Pakeha, into increasing fertility rates from the end of the 1930s. In both countries the departure of large numbers of troops offshore at the outset of World War II was followed months later by an upsurge in rates that is sometimes taken as the prelude to, or the onset of, the Baby Boom. By 1943 both countries had experienced rates above 2.5, as early as 1939 in the case of New Zealand. The return of troops was associated with another upsurge to 3.0 and above in 1946 and 1947.

Peak rates were seen around 1960, going above 4.0 in New Zealand. Around 1970 rates were still close to 3.0 or above, but then a steep decline occurred to just above replacement in 1976 and then below replacement by 1981. Both countries have been below replacement almost constantly since the late 1970s; the exception was the Baby Blip in New Zealand when, around 1991, rates briefly touched replacement.

If a run of years with TFRs at 3.0 births per woman is taken as an indication of sustained higher fertility, then certainly a Baby Boom had set in from about 1943. If the same logic is followed, then the Baby Boom ended only in 1974 in New Zealand, almost a decade later than in the United States.

What about the velocity of changes in the rates? Here the interesting point is that the build-up was arguably not much faster than the Bust, and certainly no shorter. It took from 1943 to 1947 to get under way properly; from 1970 to 1974 to enter the Bust.

So much for the Antipodes, but what about other WDCs? Data are provided in Table 2 for various countries in the commonly used WDC groupings. Those adopted here follow Esping-Andersen (1999), but divide his 'Conservative' into 'Continental' and 'Mediterranean'; he calls the 'Nordic' 'Social democratic', and 'English-speaking' 'Liberal'; Ireland is very difficult to classify (Pool and Sceats 2003).

The salient points there are as follows. First, with the major exception of the United Kingdom, the English-speaking countries (ESCs) stand out as having much higher Baby Boom fertility than other groupings. The Netherlands stands out among other WDCs as being closest to the ESCs. If a rate of 3.0 or more for a protracted period is the criterion of a Baby Boom, then only the Netherlands and the neo-European ESCs would count. That said, Japan had a marked but very short 'Baby Boom', 1947–49, followed by a precipitous drop in crude birth rates, associated with the Eugenics Protection Law of 1948 (Muramatsu 1982). Secondly, the post-Baby Boom decreases are much more marked for the ESCs with the exception again of the United Kingdom, than is the case for the other WDCs, except for the Netherlands and Spain. The United States and Australia did not reach the high Baby Boom levels of Canada and New Zealand in the period 1955–65; the United States had a rapid decrease while for Australia this was more modest. If one looks at period changes, then the Antipodean ESCs drew out their rate decline longer than did North America, where spectacular decreases had occurred before 1970. Finally, Ireland's fertility trends were a function of a long-term trend towards the normalization of age-specific rates, and thus had nothing to do with a Baby Boom *per se* of the sort occurring elsewhere in the WDCs.

Table 2 Selected Western Developed Countries, average Total Fertility Rates^a

Country	1955–65	1965–75	1975–85	1985–95	Change ^b 1955–95
English-speaking countries					
Australia	3.3	2.7	2.3	1.9	-1.4
Canada	3.8	2.3	1.7	1.7	-2.1
Ireland	3.8	3.8	3.2	2.2	-1.6
New Zealand	4.1	3.1	2.1	2.1	-2.0
UK	2.7	2.3	1.8	2.0	-1.5
USA	3.5	2.3	1.8	2.0	-1.5
Continental (European) countries					
France	2.8	2.5	1.9	1.8	-1.0
Austria	2.7	2.3	1.6	1.5	-1.2
Belgium	2.6	2.1	1.6	1.6	-1.0
Germany (W.)	2.3 (2.4)	2.0	1.5	1.4	-0.9
Netherlands	3.1	2.5	1.6	1.6	-1.5
Japan	2.1	2.1	1.8	1.6	-0.5
Nordic countries					
Denmark	2.6	2.1	1.6	1.7	-0.9
Norway	2.9	2.5	1.8	1.9	-1.0
Sweden	2.3	2.1	1.7	2.0	-0.3
Mediterranean countries					
Italy	2.4	2.4	1.7	1.3	-1.1
Spain	2.8	2.9	2.3	1.4	-1.4

a Shaded cells show where TFRs are greater than 3.0.

b Absolute, births per woman, 1955–65 to 1985–95

Source: United Nations 2001.

The numbers of annual births

One would have assumed that, by definition, the sentinel features of a 'Baby Boom' would be the number of births occurring in a given time period, rather than the rates that produced these births. Morgan (2003: 73) defines a Baby Boom as follows: 'A baby boom, as a generic concept, is a large increase in the number of births relative to some previous year or average (i.e. an increase in birth cohort size)'. For politicians, the press and the public it is this dimension and the size of the attendant cohort flow that captures the imagination, not the rates; for policy and for markets it is the cohort flow as it reaches any life-cycle stage that is the critical factor, not the rate that contributed to the production of that cohort. The Baby Boom is no exception; its cachet as a phenomenon is its sheer volume and the impact that this is projected to have on the economy and society.

A peculiar aspect of the epistemology of the demographic analysis of the Baby Boom is the focus by researchers on the rates. Yet this draws attention away from the central issue of 'an increase in cohort size'. Thus I am going to depart from convention by looking firstly at annual birth numbers at the onset of the Baby Boom, during its course and immediately after, and then by comparing this period to years well before and well after the Baby Boom (1936 and 2001).

In this context it is worth noting that for New Zealand, although the Baby Boom occurred at the same time as heavy migration inflows, natural increase, driven by births, was by far the more important determinant of overall growth.⁶

The numbers in Table 3 reveal some interesting patterns. It provides data on selected years, and also shows the peak year for numbers of births. All countries had some sort of a peak immediately after World War II, and for some (England and Wales, Japan and the Nordic states) this was the highest peak in any year since 1941, and probably the highest ever, except for Austria (see Table note). For the remaining countries it was a secondary peak, a sort of overture to the Baby Boom, seen in Belgium and Italy in 1946; in the neo-Europes, Austria and the British Isles in 1947; in 1948 in Spain; 1949 in France; and 1950 in Germany. This upsurge in birth numbers, and the trough that followed, is normally attributed to several factors: obviously peace and the gradual restoration of normal life was the key causally more remote determinant. The proximate determinants are seen first in the return of troops (except in neutral Sweden; neutral Ireland is a bit of a puzzle) resulting in couples getting together for either marriage or conception, or both; and secondly a catch-up going back to births delayed during the 1930s Depression. This early part of the Baby Boom tended to have some rather different characteristics from the later, and quintessential, main period of the Baby Boom.

For most countries, the peak of the Baby Boom came in the early- to mid-1960s; the United States was to reach its zenith in 1961, New Zealand in 1962, and a run of countries thereafter. In 1964 England and Wales had numbers that came close to, but did not quite equal, the figure recorded for 1947. Australia and France were a little different in that they peaked in 1971. A secondary peak at this time was also seen in the other neo-Europes, New Zealand, the United States and Canada. Japan, which had peaked in 1947, went through a surge about 1971, undoubtedly because of secondary momentum effects: large parenting cohorts, born in the late 1940s, reaching parenting ages, and the attendant echo-effect. Spain was a curiosity, fluctuating and with a secondary peak around 1974, but followed by a crash from 1977 on. As Table 3 shows and as was noted above, some countries reached their highest peak immediately after the war, but these same countries still went through a secondary upsurge around 1960. Finally, Ireland peaked in 1980, after the Baby Boom had finished everywhere, again a factor pointing to a very different demographic history.

If we look at changes over time, as presented in Table 4, there is a clear distinction in growth patterns in the early period between the Depression and the height of the Baby Boom. With the exception of England and Wales, growth in annual numbers of births in the ESCs was far above what was seen in other WDCs. England and Wales was, in fact, very close to other north European countries, and very different from the Neo-Europes. Japan and the Mediterranean countries form a low or negative growth cluster.

For the period following the Baby Boom to the dawn of the twenty-first century, the decreases were relatively low in the neo-Europes, and Australia alone of all coun-

Table 3 Annual births (000s) immediately before, during and after the Baby Boom

Country	1941	1946	1951	1956	1961	1966	1971	1976	Peak year since 1941
English-speaking countries									
Australia	134	176	193	212	240	223	276	228	1971
Canada	264	344	381	451	478	388	362	359	1959
Ireland	57	68	63	60	60	62	68	68	1980
New Zealand	38	47	45	51	58	60	64	55	1962
England & Wales	579	821	678	700	811	850	783	584	1947
USA	2513	3289	3751	4163	4268	3606	3556	3168	1961
Continental (European) countries									
France	520	840	823	803	835	860	879	720	1971
Austria	135	111	103	116	132	129	109	87	1963 ^a
Belgium	101	153	142	150	158	151	142	121	1964
Germany	n.d.	922	1106	1138	1314	1318	1013	798	1964
Netherlands	182	284	228	231	247	240	227	177	1946
Japan	2277	–	2138	1665	1589	1361	2001	1833	1947 ^b
Nordic countries									
Denmark	71	96	77	77	76	88	75	65	1946
Norway	46	71	61	64	63	67	66	53	1946
Sweden	100	133	110	108	105	123	114	98	1945
Mediterranean countries									
Italy	938	1021	860	874	924	999	911	806	1964
Spain	511	582	564	605	651	668	672	677	1964 ^c

a Austria's level was higher in 1939–41 than before or after.

b The level in 1947 was very high, 2.697 million.

c The number in 1964 was well above those for adjacent years.

– = No data.

Source: Observatoire démographique européenne (see note 2). Their series relates to all countries and not nations, and thus there are data for each United Kingdom entity. Only 'England and Wales' is used here.

tries on the table actually went through a slight increase in numbers. Canada and England and Wales both had lower numbers, corresponding more with other WDCs than with the remaining ESCs. In contrast, France, the Netherlands and the Nordic countries had less marked declines than Canada, England and Wales or the remaining European countries. The German-speaking and Mediterranean countries had the most extreme fall-offs.

The low fall-off of most neo-Europes is explained by the fact that they benefited

Table 4 Trends (%) of annual births between given years

Country	(1)	(2)	(3)	(4)
	1961/1936	2001/1961	1946/1941	1976/1971
English-speaking countries				
Australia	207	103	131	83
Canada	209	70	129	99
Ireland	–	97	119	0
New Zealand	207	95	124	86
England & Wales	136	73	142	75
USA	199	94	131	89
Continental (European) countries				
France	133	92	162	82
Austria	150	55	82*	80
Belgium	123	72	151	85
Germany	–	56	–	77
Netherlands	144	82	156	91
Japan	76	74	–	92
Nordic countries				
Denmark	115	87	126	85
Norway	150	90	154	99
Sweden	118	87	133	86
Mediterranean countries				
Italy	96	58	109	88
Spain	106	62	114	101

(1) From the Depression to the central point of the Baby Boom, 1936–61, and (2) from the Baby Boom to the twenty-first century, 1961–2001; (3) at the onset of the Baby Boom, 1941–46, and (4) at its tail-end, 1971–76. Calculated as (Year t+n/Year t)*100.

– = No data.

Source: As for Table 3.

both from migration and from the momentum effects of cohort flows coming from the early Baby Boom itself, so their populations grew overall and at the parenting ages. Australia’s population growth was the most extreme: it doubled in this period.

The onset of the Baby Boom, over the five-year period from 1941 to 1946, was more marked in England and Wales and some European countries, especially those badly affected by fighting, than was the case in the neo-Europes. For reasons that are unclear to me, Austria had had extremely high birth numbers in 1939–41, and thus their numbers actually fell over the postwar period. Finally, in every country except Austria, the growth in numbers at the onset of the Baby Boom was more rapid than the fall-off at the end, using the quinquennium 1971–76 as our example.

Early childbearing and rapid spacing

A focus on TFRs as the reference issue for the Baby Boom has meant that another widely recognized feature has not been accorded the significance it deserves: the fact that childbearing was concentrated at early ages. Here age 25 years is taken as the dividing line. The Early Total Fertility Rate (ETFR) is the fertility rate (TFR) occurring below age 25. The Force of Early Reproduction (FER) is equal to $ETFR/TFR$. When this is 35 per cent or more, meaning that 35 per cent or more of childbearing occurred to women aged less than 25 years, the FER is designated as showing a 'high force'.

The FER has the normal disadvantage of any relative ratio, being as much affected by age-specific fertility below 25 years as by age-specific fertility above that age. To demonstrate this point I can cite New Zealand. In 1960 its ETFR ($5 \times [ASFR(15-19) + ASFR(20-24)]$) was 1.6 births per woman, representing 39 per cent of the TFR; in 1980, early childbearing constituted 41 per cent of the TFR, yet the ETFR was only 0.9.

In order to look at the effects of using ratios rather than rates we can cite the absolute index, the ETFR. At the peak of the Baby Boom, ETFRs were much higher in the neo-Europes than was the case in Europe or Japan: at 1.3 live births per young woman, Australia was the lowest-rating neo-Europe; the rates were 1.5 for Canada, 1.6 for New Zealand and 1.7 for United States. The ASFRs below 25 years at the height of the Baby Boom in New Zealand and the United States actually exceeded the TFR seen in some European countries today. The closest European countries were Austria and Denmark at 1.1, and the rest varied between 0.6 and 0.9.

In contrast, by 1980 the ETFR in the neo-Europes had dropped off far more rapidly than it had in the European countries, so that by that date most WDCs, European or neo-European, fell into a narrow range between 0.6 and 0.7. The United States and Spain were at 0.8 (but by 1986 Spain had plummeted to 0.4), and New Zealand was a little higher than this 0.6–0.7 at 0.9. Below the norm were Germany and the Netherlands at 0.4, and France at 0.5.

Table 5 presents the FER for Australia and New Zealand. They provide useful benchmark populations, as both had early childbearing, New Zealand notably so. In passing I should note that the effects of the very high level of early childbearing of Maori and Pacific Peoples (an ETFR of 2.3 births per woman) on overall levels was very slight: in 1970, when early childbearing was reaching its apogee, the ETFR for Pakeha was 1.3, and that for the total population barely above that at 1.4. Table 5 gives the percentages and also notes the peak age-specific fertility rate in each selected year.

The FER in Australia reached 35 per cent in 1951 a bit ahead of New Zealand, and they both continued this pattern until 1981, beyond the end of the Baby Boom. The peak ASFR remained at 20–24 for New Zealand longer than for Australia, but for the total population New Zealand crossed to a peak ASFR of 30–34 years a little later than Australia, 2002 in fact. The peak ASFR for Pakeha reached 30–34 years one year earlier than was the case for Australia.

Table 6 presents data on selected WDCs. Almost all the ESCs at some stage in the Baby Boom had high levels of early childbearing, and this continued into the 1990s except for Australia. This finding supports the conclusion of Chandola *et al.* (2002) that the ESC 'age-specific fertility patterns display a marked "bulge" in women under age 25 ... [this heterogeneity is] related to differences in the timing of births by marital status, and its magnitude is related to the proportion of births outside marriage' (Chandola *et al.* 2002: 181). Austria, Belgium, France and the Nordic countries

Table 5 Australia and New Zealand, 1936 to 2001, Force of Early Reproduction (FER): Per cent of Total Fertility Rate occurring at ages less than 25 years (ETFR/TFR), and age group with the highest age-specific fertility rate (ASFR), selected years^a

Year	Australia		New Zealand	
	%	Age group with highest ASFR	%	Age group with highest ASFR
1936	30	25–29	28	25–29
1941	31	25–29	28	25–29
1946	30	25–29	27	25–29
1951	35	25–29	33	25–29
1956	38	20–24	36	20–24
1961	38	20–24	39	20–24
1966	38	25–29	41	20–24
1971	40	25–29	44	20–24
1976	39	25–29	45	20–24
1981	35	25–29	40	25–29
1986	30	25–29	34	25–29
1991	26	25–29	31	25–29
1996	23	25–29	29	25–29
2001	22	30–34	26	25–29 ^b

a Shaded cells show when the force of early reproduction exceeds 35 per cent. Age group 20–24 is italicized where it is the age group with the highest ASFR.

b In 2002 the modal age group in New Zealand became 30–34 years; for non-Maori this had occurred in 1998. For the Australian national population this first occurred in 1999.

Sources: ABS 2003; Statistics New Zealand (see note 2).

also had higher Baby Boom levels. Austria seems to have had consistently extreme levels, being exceeded only by the United States. At the opposite pole are Japan, the Netherlands and Spain, plus Ireland alone among the ESCs. In Ireland’s case this is a continuation of a longstanding pattern.

An interesting point is that the pattern of early childbearing continued until 1981, well after the Baby Boom had finished. This was a residual effect of the Baby Boom caused by the fact that around 1980 a major shift to late childbearing was taking place. Those couples who were having babies were more representative of the old regime, especially in some cases that of the late Baby Boom. The net result is that around 1981 there was thus a hiatus, a decrease in the number of births, as the timing of parenting changed dramatically. This was a mirror image of what had occurred at the onset of the Baby Boom when there were residual effects of the Depression regimes of later childbearing. A more marked reversal of the Baby Boom and early Baby Bust pattern is seen today in the early twenty-first century as childbearing occurs later and later on average.

Table 6 Force of Early Reproduction (ETFR/TFR). Selected WDCs, Baby Boom, Baby Bust and 1990s^a

Country	1960	1970	1980	1990s
English-speaking countries				
Australia	39	38	33	24
Canada	39	36	35	29
Ireland	16	21	20	31
New Zealand	39	41	41	30
UK	37	40	41	30
USA	49	46	45	41
Continental (European) countries				
France	32	35	38	21
Austria	40	43	49	33
Belgium	35	39	41	26
Germany	30	34	33	24
Netherlands	19	25	25	13
Japan	28	25	22	16
Nordic countries				
Denmark	42	32	35	19
Norway	34	41	39	23
Sweden	35	36	35	22
Mediterranean countries				
Italy	25	32	32	18
Spain	21	24	30	15

a Shaded cells show when the force of early reproduction exceeds 35 per cent.

Sources: TFRs, United Nations 2002; ASFRs, United Nations (various years). Country sources noted in Pool *et al.* 2007.

Not only did first childbearing occur at early ages, but also the Baby Boom saw the shortening of subsequent birth intervals. Here I will quote work by Janet Sceats starting in the 1970s. Her life-table analyses on Ottawa in Canada (Sceats 1978) were then applied to data from a survey on the Manawatu in New Zealand conducted by Andrew Trlin and Paul Perry.⁷ Her analysis of Manawatu data showed even shorter birth intervals in New Zealand than in Canada (Sceats-Pool 1978; Sceats 1981).

The 1995 national sample, *New Zealand Women: Fertility, Employment and Education* (NZW: FEE), a survey that was given associate membership in the Fertility and Family Surveys, included cohorts born as early as 1936, who started their childbearing before the introduction of the pill, thus allowing us to look at pre- and post-pill family formation and contraception. Sceats was thus able to repeat her analysis on a large national sample confirming that the Manawatu data were indeed representative of

New Zealand-wide Maori and Pakeha patterns of early timing and short birth intervals. Moreover, it showed not only that the later part of the baby boom had earlier childbearing than the early part, but that spacing became even more shortened. At the same time, progression to higher parities dropped off significantly. Thus the later part of the Baby Boom, from the late 1960s, was a period in which the dynamics of family formation differed from its earliest years immediately after World War II.

Finally, a cross-comparative analysis by Morgan, Sceats, and others, showed that New Zealand had closer intervals than did the United States. Further work also demonstrated that New Zealand and American intervals were more contracted than were European intervals (Sceats 1999; Morgan *et al.* 2001).

Marriage boom, or juvenescence of marriage?

In 1953 the British demographer John Hajnal talked about a 'marriage boom', a theme that was taken up by a number of prominent demographers. Citing these studies, the Australian demographer Peter McDonald reviewed this question in detail, and cross-comparatively, and came up with some very measured conclusions (McDonald 1975: *passim*, esp. Chap. 6). Thus there is no need for me to reiterate this issue much further here except to make a few brief remarks.

First, and here I draw on McDonald, one has to distinguish between two cardinal factors determining first marriage: the probability of ever-marrying and the age at marriage. Secondly, the 'marriage boom' occurred across numerous developed countries, in the neo-Europes starting as early as the end of the Depression, and increasing rapidly early in the war, producing a mini-Baby Boom a few months after the troops had gone overseas. In New Zealand, for biomedical reasons outlined by Pison and Couvert (2004), this was also associated with a rise in rates of twinning.

The couples marrying in the war and early postwar catch-up were often older persons born as early as before World War I, but who had delayed marriage because of the Depression and/or war. But, coterminously, there was also a decrease in the age at marriage that inflated the rates, most extremely so in the United States. That said we must not forget that the Baby Boom was a period in which marriage for women at some time in their reproductive span became almost universal. In this regard, McDonald also shows that rates of ever-marriage by age 30 years were highest in New Zealand among the 10 WDCs he looked at (McDonald 1975; see also for New Zealand, O'Neill 1985).

Thirdly, McDonald also shows that some of the changes were artefacts of population composition and related factors, notably marriage squeezes (McDonald 1975; see also Jackson and Pool 1994: esp. Chap. 5 for New Zealand).

Table 7 uses the census data on never-married for New Zealand. It shows how deviant the Baby Boom was in terms of age at marriage; in fact the proportions never-married at ages 20–24 years were even lower than in the 1870s in a pioneer period of extremely high fertility. It reports both Total and Non-Maori data to show how little impact Maori have on the overall pattern. These are self-reported census data so may upwardly bias the proportions of those who claim to be married but are really in consensual unions (Pool 1992).

By the latter part of the Baby Boom, however, two major changes were occurring that were to alter the dynamics of family formation once and for all, but that become confounded with, and perhaps determined, the demise of the Baby Boom. First, of course, by the early 1960s the pill had been introduced and both Australian and New

Table 7 Per cent of women never-married at age 20–24 years for non-Maori and total populations, 1936–2001

Year	Non-Maori	Total
1936	72	70
1945	60	59
1956	43	43
1966	39	39
1976	38	37
1986	64	65
1996	77	79
2001	81	82

Source: New Zealand Census data.

Zealand women adopted it very rapidly, initially in order to replace barrier methods. The pill had a major effect on fertility, although as Gigi Santow has argued the ‘fertility collapse was facilitated, although not produced, by the introduction of the pill, particularly in North America and Australasia’ (Santow 1989: 225). That said, in New Zealand the pill was not readily available to single women until later in that decade, and was at first used more to limit family size than to delay childbearing. In the 1970s in New Zealand there was a massive shift to tubal ligation and vasectomy for limitation, and the pill was increasingly used for timing of first birth and spacing (Pool *et al.* 1999). But the pill’s introduction meant more than the availability of a new and more efficient contraceptive technique; it was a factor of great importance for the whole nexus of values surrounding reproduction and family life, as Michael Murphy (1993) has argued (see also Pool *et al.* 1999; Pool *et al.* 2007).

Secondly, and without suggesting causality, the pill was also associated in time with the switch to cohabitation. Certainly better contraception meant that for the first time marriage and reproduction became functionally separated. But the 1960s, and especially the 1970s, saw a major shift in New Zealand and in numerous WDCs between marriage and cohabitation as the preferred first union. The net result was that in New Zealand the probabilities of entry into first union by 20, 25 or 30 years remained almost unchanged but that by the late 1970s the vast majority of these unions involved cohabitation (Pool *et al.* 2007).

This changeover to cohabitation shows up in Table 8 for New Zealand and other WDCs. For all cohorts the probability of entering any sort of union by age 25 years remained relatively high, although a noticeable drop-off occurred in the Mediterranean countries. The form the union took, however, differed by country. For earlier cohorts in all countries, the probability of being married by age 25 years was high, but only in the Mediterranean countries and Belgium did this probability remain relatively high (more than 50 per cent for those cohorts that have reached 25 years).

Thus the pill and associated improvements in contraceptive technology gave greater control over conception, and in the process changed totally the traditional linkages that had operated between marriage and childbirth, the ‘nuptiality valve’ of

Table 8 Partnership formation: cumulative percentage of female respondents, by cohort, who by age 25 years were in a first partnership (P) of any sort; or were in a first marriage (M) without any prior partnership, selected WDCs^a

Country	Birth cohort ^b											
	1941–45		1946–50		1951–55		1956–60		1961–65		1966–70	
	P	M	P	M	P	M	P	M	P	M	P	M
English-speaking countries												
Canada	79	77	82	74	78	58	81	49	74	32	–	–
New Zealand	85	76	82	68	85	54	89	38	85	25	(85)	(20)
Continental (European) countries												
France	–	–	85	68	86	63	84	48	82	33	(76)	(16)
Austria	84	70	83	60	84	45	78	31	81	23	(74)	(14)
Belgium	–	–	–	–	89	80	88	73	(76)	(59)	–	–
Netherlands	–	–	–	–	85	65	84	53	82	31	(71)	(21)
Switzerland	–	–	76	56	73	38	74	25	74	17	(67)	(16)
Nordic countries												
Denmark	–	–	–	–	–	–	–	–	78	8	(73)	(7)
Finland	75	65	77	60	81	35	81	17	(78)	(9)	–	–
Norway	81	70	82	54	84	37	81	22	–	–	–	–
Sweden	–	–	88	17	85	8	84	6	84	6	–	–
Southern European countries												
Greece	–	–	–	–	79	68	78	58	81	58	75	46
Italy	–	–	79	76	76	72	67	62	62	55	(41)	(36)
Portugal	–	–	78	67	80	70	76	68	74	61	64	50
Spain	–	–	75	73	76	73	78	73	70	61	(53)	(43)

a (P) – (M) = consensual cohabitation. Parentheses are used where cohorts had not yet reached 25 years of age.

b The actual birth years vary marginally around the reference groupings used here.

– = No data.

Source: Pool and Sceats 2003.

history, as Engelen and Kok (2003) so aptly called this phenomenon. The effects of this ‘valve’ had virtually disappeared in the later years of the Baby Boom and, although declines and delaying in marriage still covaried with fertility patterns, the correlation was much weaker. In New Zealand this meant, *inter alia*, that ex-nuptial fertility ratios increased significantly, but that the age distribution of ex-nuptial childbearing moved up equally significantly, signalling that high proportions of these births were to cohabiting couples. The NZW:FEE survey provides robust evidence in support of this argument (Pool *et al.* 2007).

Interpreting the Baby Boom

If one looks at longer-term trends in fertility rates (Pool *et al.* 2007) it becomes evident that the Baby Boom was an aberrant period, as Paul Demeny (2005) and Jacques Valin (2002) have both argued. For New Zealand a long-term, more-or-less continuous decline in TFR spanned the period 1880 to 1940, a duration of 60 years; the Baby Boom lasted for 30 years more-or-less, and since then, and for a longer period, fertility has been at sub-replacement or close to it.

By the same logic the periods before or since are not deviant and the Baby Boom is not the norm. This point is not as tautological as it might seem at first, at least not if one shifts the focus from quantitative analysis to perceptions. Many commentators on family life, particularly those favouring so-called 'family values', see the Baby Boom as one in which these patterns reached their zenith, and the large families of the day as the outcome of family life that was functional and caring, and satisfactorily performed its obligations to the society: reproduction, socialization and social cohesion. Many aspects of family life since then, and particularly some of its more manifest forms such as divorce and cohabitation, are seen as linked to social disorder and dysfunction. The family is often seen as breaking down, and with it the entire society (Patricia Morgan 2004). This involves wider issues beyond the scope of the present paper (see Pool *et al.* 2007). But certainly the narrower demographic parameters show that the Baby Boom was a departure from long-term trends.

The Baby Boom resembles no other demographic trend in the twentieth century. In fact, it is necessary to go back to before 1880 in New Zealand and Australia to see any sort of antecedent, and even then it is not a perfect model. In New Zealand in the 1870s, estimated TFRs approached 7.0 live births per woman, and marital fertility was close to the levels seen in some of the biosocial model populations that demography uses conventionally, such as the Hutterites and eighteenth-century Quebec. As in the early Baby Boom most childbirth was within marriage; this did not preclude premarital conception but that would be followed by a nuptial birth after a precipitated marriage. This was probably far less common than in the 'Mother Country' of that day for the simple reason that marriage of young women was early and almost universal. This occurred on average, however, at a slightly higher age than was the case in the Baby Boom. The precondition normally cited for these patterns of pioneer nuptiality, a surplus of males,⁸ was absent in the Baby Boom, yet marriage rates were as high as they had been in the pioneer period, but at even earlier ages.

In one sense, however, the pioneer period was only a partial antecedent. Fertility was higher in the Baby Boom than before or since in the twentieth century, but its rates fell well below those of the pioneer period, a difference among Pakeha of about 3.0 live births. This difference was due, of course, to the fact that between these two periods there had been an increasing resort within marriage to traditional and barrier methods of contraception, albeit of limited efficacy.

What also seems to have emerged from this analysis is that the Baby Boom went through three waves, not the one wave that seems to be the perceived model in the media, although not all countries necessarily passed through all phases. There was a first phase that, using Second World War terminology, could be called the 'phoney' Baby Boom. It started sometimes in the early 1940s and certainly immediately after World War II. But its drivers were different to a degree from what were to become the trademarks of the Baby Boom properly speaking: many couples marrying and child-

bearing in the 'phoney Baby Boom' were at higher ages, and there was a catch-up of postponed marriage and delayed parenting.

The main part of the Baby Boom started a year or two later, 1947 or 1948 in New Zealand. This was the prototypical period of increasing TFRs almost everywhere, and larger and larger birth cohort sizes in most countries. But in most countries earlier and earlier marriage and childbearing marked this second phase.

A third phase seems to have got under way in the 1960s. For those countries that entered fully into this stage, TFRs decreased but, importantly, birth cohort sizes remained high and even peaked, while early marriage and family formation intensified and birth intervals declined in duration. Strangely enough the United States, the poster-child for the Baby Boom, did not participate in this except for the FER. Moreover, its peak TFR was high, but not as high as those of Canada and New Zealand. It fell 0.6 of a birth below New Zealand.

But even after the Baby Boom had closed off in those countries that engaged enthusiastically in the third phase, and indeed in some others, there was a whiplash effect into the 1980s. Reproduction continued to be concentrated at earlier ages until such time as the new regime of delayed childbearing started to get under way.

From the evidence I have presented it is not clear that all countries actually had Baby Booms in the full sense of early childbearing and close spacing, high TFRs and inflated annual number of births. We can certainly dismiss Ireland: its dynamics were unique and had very different historical determinants, while it went against the general trend in the post-Baby Bust period: when most WDCs were showing increasing ASFRs at older ages, at 30–34 years, Ireland's were going down. But what about the rest of the European countries, or Japan, for each had elements of a Baby Boom, but were their surges of births true Baby Booms?

In the way that it has been defined here, a Baby Boom, properly speaking, is really a neo-European phenomenon. Britain looks more like its continental European counterparts, with low TFRs at the peak period. On the continent Austria meets the criterion of higher FER, but not a TFR that reaches a level of 3.0. For the TFR, in contrast, the Netherlands certainly meets the criterion of level but does not experience elevated FER. On both these criteria it is perhaps Norway that comes closest to the neo-European ESCs, yet its peak TFR is still well below theirs. The decline after the boom was also more marked in the ESCs than in the remaining WDCs with the exception of the Netherlands, while among ESCs, Britain had a lower decrease. Even the neo-Europes seem to have differed from one another. Above all, there was a marked difference between the Australasian and the North American patterns: Canadian and United States Baby Booms seem to have been shorter.

The legacy of the Baby Boom

The Baby Boom legacy is vast and is composed of both tangibles and intangibles. The sheer quantum of the legacy is surprising in that it was a short deviation in history. But in part its high profile may be a factor of cohort size *per se*: with more members born into this generation there are simply more people to ruminate on their own significance, problems and achievements.

The tangible effects are both demographic, and social and economic. The inflated sizes of these different cohorts have meant that they have exerted pressure on both

policy and markets. They also have produced echo effects (Morgan 2003), such as the New Zealand Baby Blip. Eventually as they move into older age this will lead to momentum ageing, although structural ageing, for which Baby Boomers are unfairly blamed, is due more to post-Baby Boom declines in fertility.

But the intangibles are perhaps more important. The Baby Boomers' own commentators cite things such as attitudes, values and a radical new approach to social institutions. But it is rather more that in the great debates over social change it is not the Baby Boomers who are seen as shaping value-systems, but the whole social ambience of that time as it was played out by the parents of the Baby Boom, the 'Golden age': easier access to housing, a universalistic social security system in New Zealand, a more equal spread of incomes, a value system which may have been paternalistic and patriarchal but was also highly pronatalist. In fact the somewhat higher fertility seen in New Zealand and the United States today may even be due to nostalgia for this era, and the social ambience that accompanied it. Such a retrospective effect (what are called the effects due to 'social apprenticeship' in fertility regimes of different sorts) has been reported in a rigorous, multilevel, multiregional, statistical analysis across Western Europe by Testa and Grilli (2006). Their conclusion is that the most important determinant of differentials in ideal family sizes for cohorts currently at reproductive ages is the reproductive rate of the generation immediately ahead of them.

Towards a conclusion

I do not have an overarching empirical conclusion; I hope that my paper has had a series of minor conclusions that have unfolded as I have proceeded through it. Instead, I have suggested that the Baby Boom, as revealed once it is subject to detailed empirical analysis, is not the neat and clear model that both media commentators and professional demographers conceptualize when the term is used. It was not one wave. It is doubtful whether the first part was a true Baby Boom, but rather more a catch-up: a bigger and better version of what had occurred after World War I and the Spanish 'flu. It certainly went on, at least in the Antipodes and elsewhere, beyond 1963 or 1964, dates that have assumed almost urban-myth proportions. The United States the poster child may, in fact have been a somewhat deviant case. Or is it because our focus on TFRs, rather than the volumes of births the TFRs actually produced, obscured our vision?

This analysis of the Baby Boom then raises a very important set of related epistemological questions. Why in a subject that reifies statistical empiricism have we allowed ourselves to see one and only one defining model? What is the source of this model? It seems to be the United States. This in turn leads to a wider epistemological problem. In demography, in most social sciences in fact, the conventional wisdom tends to be formulated in America, based around American experiences that may not have general application, and then to flow out from there to the rest of the world. This is not to accuse the United States of being intellectually dictatorial; it is an accidental hegemony due purely to the sheer size of the United States, and the vast investment it has made in research, even in the social sciences.

My conclusion is that we must also increase our investment, not in the material aspects of research, but far more in intellectual capital. We are far enough away from Europe and America to have some degree of independence. The tyranny of distance

that is so fearful for many Australasians also has an advantage of giving us a lag period in which we may be able to question and critique the conventional wisdom emanating from more powerful European and American research centres.

Notes

- 1 Defined as all of Europe west of the Hajnal line (Gdansk to Trieste), including Iceland and the Mediterranean peninsula countries (including Greece), and the neo-Europes (Anglo-America and Quebec; Australasia), plus Japan.
- 2 Natalie Jackson, University of Tasmania kindly compiled the data on Australia which I cite here. I wish also to acknowledge the assistance of Jean-Paul Sardon (INED) of the Observatoire démographique européenne who generously made available the data used here for numerous WDCs, and Mansoor Khawaja and Bill Boddington from Statistics New Zealand who provided me with New Zealand data. I also draw on Pool *et al.* 2007 who were sent data from the agencies listed in the references under 'Unpublished Data'.
- 3 I will refer to this group as Pakeha. In the Baby Boom this was an ethnic group mainly of European descent, but later was to include Pacific Peoples, Asians and others who today make up about 15-16 per cent of the total population.
- 4 The registration of Maori births had been legislated as far back as 1913, but in earlier years in particular there had been underregistration. Using indirect estimation techniques I have re-estimated Maori birth and other reproduction rates for the period back as far as the late nineteenth century. But there remains some difficulty in tracking exact details as age-specific data on Maori were not collected until 1962, and there appears again to have been a slight undercount in the first year in which age of mother was a required detail (Pool *et al.* 2007: Chaps 6, 7 and 8; Table 7.1 gives indirect estimates for 1956 and 1961 that are higher than the directly computed rate for 1962).
- 5 Nine per cent in 2006 census provisional data. As Asians have low fertility this intercensal growth gives further strength to the argument I am making on the fact that minority fertility has not caused 'high' New Zealand rates.
- 6 It constituted 83 per cent in the quinquennium 1946-50, 71 per cent (1951-55), 82 per cent (1956-60), 75 per cent (1961-65), 97 per cent (1966-70), and 61 per cent in the five years 1971-75, the heaviest period of inflow since 1871-75, exactly 100 years earlier. In 1976-80 natural increase dropped, but there was a net outflow. Growth was thus low but positive.
- 7 Unfortunately neither Canada nor New Zealand joined the World Fertility Survey so Sceats was reliant on regional surveys.
- 8 This issue of the male surplus is discussed in detail in Pool *et al.* (2007). At best it was an enabling mechanism for universal marriage among pioneer women, but was not a determinant. By 1900 when there was still a surplus, Pakeha women had adopted patterns of later marriage and lower proportions marrying.

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