



THE AUSTRALIAN
NATIONAL UNIVERSITY

DEMOGRAPHY AND SOCIOLOGY PROGRAM

RESEARCH SCHOOL OF SOCIAL SCIENCES

Cross-National Trends in Childlessness

Donald T. Rowland

Working Papers in
Demography

No. 73

1998

Abstract

This paper is intended to provide a comparative and historical setting for the discussion of childlessness and its implications in later life. The aim is to compare and explain trends through time in the proportions childless in Western Europe and in some other developed countries, especially the United States and Australia. The experiences of birth cohorts of women born between 1900 and 1940 are the main focus. The paper looks first at trends through time in the total proportions childless, then examines explanations of trends, including married versus unmarried childlessness and voluntary and involuntary causes.

A draft of this paper was presented at the International Association of Gerontology, World Congress of Gerontology, Adelaide, August 1997. It was written as a chapter for Pearl Dykstra and Vaughan Call (eds.): *Ageing Without Children*. I am very grateful to Pearl Dykstra for comments and to her and other colleagues in the *Ageing Without Children Project*, together with Gordon Carmichael (ANU) and L. Toulemon (INED), for references and statistical materials.

Cross-National Trends in Childlessness

Donald T. Rowland
Population Studies Program,
Department of Sociology, Faculty of Arts
The Australian National University
Canberra, ACT 0200

Introduction

Childlessness has recently emerged as a key factor causing low birth rates and raising the prospect of population decline in more developed countries. Between 10 and 20 per cent of the 1950s generation in western European countries will never have any children. Nevertheless, they will not equal the level of childlessness in generations born in the early decades of the twentieth century. Childlessness is a concern from the point of view of implications for the maintenance of societies, but it is also important because of consequences for individuals, including circumstances in old age.

People's experiences of marriage and the family have a lasting influence on their life chances. Today, many of the aged in more developed countries have few close relatives, which brings to the fore questions about their access to support. In the 2020s similar concerns about the adequacy of personal resources will confront the 1950s generation, as its more recently confirmed level of childlessness continues to shape its destiny.

This chapter is intended to provide a comparative and historical setting for the discussion of childlessness and its implications in later life. The main aims are to compare and explain trends through time in the proportions childless in Europe and in some other developed countries. The situation in less developed countries is documented elsewhere (Poston and Baochang,

2 DONALD T. ROWLAND

1983; Spencer, 1983). The focus of the chapter is the experiences of birth cohorts - groups with the same years of birth - born between 1900 and 1940. They comprise the older population of the late twentieth and the early twenty-first centuries. Further information on other cohorts shows similarities and contrasts with the past and future aged.

Most of the chapter is about female populations, referring mainly to the total childless women, single or ever married. In older generations, childlessness among married men does not differ appreciably from that of their wives. The main divergence between the childlessness of men and women arises from differences in the proportions marrying. In France, for example, lower proportions of men have married particularly because of their greater numbers in immigration. Historical data for France also indicates that men still single at 50 years of age were far less likely than single women to have had any offspring (Toulemon, 1996).

Theory

One of the few proposals for a theoretical framework linking trends and causes of childlessness is the work of Poston and Trent (1982). They hypothesised a u-shaped pattern of change in the proportions childless as socio-economic development occurs. They believed this was due to a decrease in involuntary childlessness through time (in less developed countries) and an increase in voluntary childlessness (in more developed countries). Thus they hypothesised that voluntary and involuntary childlessness varied according to the level of development and that the lowest proportions childless occurred at some mid-point before voluntary childlessness gained influence (ibid., 477 & 486).

Low fecundity is caused by malnutrition, diseases such as tuberculosis, malaria and venereal disease, as well as genetic and other factors (Poston and Trent, 1982, 474-5). Poston and Trent (1982, 476) argue that socio-economic development, through reductions in disease and

CROSS-NATIONAL TRENDS IN CHILDLISSNESS 3

malnutrition, should reduce subfecundity and involuntary childlessness. They attributed the rise in voluntary childlessness to structural factors associated with fertility decline, such as urbanisation and increased educational and employment opportunities for women. Thus fertility and voluntary childlessness were thought to be inversely related (ibid., 477-78). A problem with the Poston and Trent hypothesis is that it makes no reference to trends in marriage. Early and near-universal marriage in countries with low levels of development presumably foster low levels of childlessness. Theoretical frameworks need to consider both trends in marriage (e.g. median age at marriage and the proportions marrying) and trends in family formation (e.g. median age at the birth of the first child and average family size). The putative transition from the predominance of involuntary childlessness to voluntary childlessness also requires clarification, especially given the effects on the proportions childless of never marrying or of delaying childbearing until too late. This Chapter explores these issues, looking first at trends through time in the total proportions childless, then focussing on explanations of trends, including married versus unmarried childlessness and voluntary and involuntary causes.

Sources

Statistics on childlessness were drawn principally from (i) detailed figures provided by other authors of this volume, (ii) academic journal articles and monographs, and (iii) census figures, including many published in the United Nations *Demographic Yearbook*. As the statistics and list of sources in Table 1 confirm, historical data on the childlessness of women are incomplete, not everywhere comparable and dispersed through a wide range of sources. Statistics on the fertility/childlessness of men are much rarer, and though found in some surveys and even the occasional census, there is no prospect of compiling a set of time series data for different countries (see Spencer, 1983).

4 DONALD T. ROWLAND

The main problem with the statistics in Table 1 is that some refer to currently married or ever married women, rather than total women. Since the primary interest was in the total proportions childless, additional estimates were made from census data for the Netherlands and Australia to provide the required figures. In these two countries, it was assumed, on the basis of detailed information for some cohorts, that 5 per cent of never married women had borne children. By comparison, in France about 14 per cent of never married women born in 1920 were mothers, as were about 17 per cent born in 1930 (Toulemon, 1996, 8). In the past, however, unmarried mothers were at risk of becoming functionally childless through surrendering their babies for adoption.

The statistics for Australia also include allowance for the death of an only child before the age of five. Since high fertility is associated with high mortality, differences between the numbers of children born and still living are most pronounced where average family size is large (Spencer, 1983, 213-5). Hence, child mortality is but a very small component of childlessness. Estimates for Australia, show that between 1 per cent and 0.2 per cent of total women in cohorts born since 1851 were childless on account of the death of a child (Rowland, 1998).

Since the 1960s, few European countries have had a question in their censuses on numbers of children; thus much of the information for Europe derives from surveys and national birth registers - which include information on childlessness, although mainly for younger cohorts. The United States and Australia, in contrast, have regularly included such a question in their censuses, which are rich sources of historical data. Nonetheless, there is some uncertainty about the accuracy of the census figures (Grabill and Glick, 1959, 61-2). In the United States, statistics for the same cohorts vary a little from one census to the next (Mattessich, 1979, 300) and the census figures on the proportion of all women childless are higher than those from other sources (Morgan, 1991, 782). The apparent overestimation is attributed to an under-

reporting of births, especially to never married women, although much of this is offset by other features of the data (Morgan, 1991, 804). All of the figures exclude the effects of adoptions, step children and functional childlessness, and some exclude births from previous marriages. Although the estimates vary somewhat between different sources, the major trends are clear.

The graphs and tables present information on five year birth cohorts. In some countries the data refer to years ending in 1 or 6, or to years measured from 1st July, but for simplicity these are grouped under the closest interval for years ending in 0 and 5. Adding thirty years to dates of birth gives the approximate time when cohorts were in the midst of family formation, since the average age at childbearing is fairly constant at around 29 years (Pressat, 1985, 87).

Trends in Total Proportions Childless

Trends through time in statistics for developed countries reveal three main features: (i) a rise in the proportions childless among women born around the middle of the nineteenth century, (ii) a marked decline in the proportions childless for cohorts born between 1900 and 1940, and (iii) an increase in childlessness among more recent birth cohorts (Figure 1, Table 1). The first of these is the most tentative since data were available for only two countries. The overall decline from 1900 to 1940 is striking, however, despite some exceptions and variations. Evidently, the contemporary aged are products of a time spanning the highest and lowest prevalence of childlessness.

Towards the Peak

Only for the United States and Australia are there data for much of the nineteenth century. These figures suggest that in the past it was common for high proportions of women to remain childless. Figures of between 15 and 25 per cent were typical for cohorts born in the

nineteenth century. In the United States there was a marked increase between the 1840 and 1875 cohorts in the proportions childless, then again in the early twentieth century cohorts. Marital childlessness was the main factor in the overall trend, and the peak figures for cohorts born in the 1890s and early 1900s arose from the effects on family formation of the Great Depression (Morgan, 1991, 781-4).

Remaining single was more prevalent in nineteenth century Australia than in the United States (Morgan, 1991, 783; Rowland, 1998): Australia's relatively high peak reflects that more than half of all childlessness in Australian female cohorts born before the 1890s was due to their having never married. In later cohorts, marital childlessness became predominant. Postponement of childbearing within marriage during the Great Depression was a key factor in the high prevalence of childlessness in Australia. The First and Second World Wars added to family disruption in cohorts born around the turn of the twentieth century, whose proportions childless peaked at over 30 per cent (Figure 1).

Decline

The cohorts born early in the twentieth century mark a turning point towards declining proportions childless. Available data for the Netherlands, Finland, Germany, France and the United States all indicate that approximately a quarter of women in the 1900 birth cohort remained childless. Twenty-five per cent is perhaps a typical peak from which the decline ensued.

In several countries the decline brought the prevalence of childless down to around 10 per cent. The lower limit for virtually all countries in Figure 1 and Table 1 occurs in cohorts born in the 1940s - whose prime child-bearing years preceded the real emergence of the 'second demographic transition' in the 1980s. The second demographic transition refers to 'a dramatic shift in norms toward progressiveness and individualism, which is moving Europeans away

CROSS-NATIONAL TRENDS IN CHILDLISSNESS 7

from marriage and parenthood' (van de Kaa, 1987).

Finland stands out in Figure 1 as having experienced a more modest decline than other countries.

The lowest points in the graph are for the United States and Australia (Figure 1), both of which experienced more sustained baby booms after the Second World War than did European countries. Their proportions childless fell to a minimum in the cohorts who became the parents of the baby boom generation, born in the first fifteen to twenty years after the Second World War. Australia had the most prolonged period of low childlessness associated with its post-1945 increases in the proportions marrying and having children, together with its sustained immigration boom.

Less complete information for a range of other countries points to the widespread nature of the decline of childlessness, as well as its more recent revival. In a majority of the countries listed in Table 1, the proportions childless in the early 1900s cohorts were over 20 percent, compared with 10 to 14 per cent in their 1940s cohorts. New Zealand, the former Democratic Republic of Germany, Poland and Spain had the lowest figures in their 1900s cohorts, but the decline still ensued in all but the last of these. Evidently there was a wide occurrence of declining childlessness in cohorts of women born in the 1910s, '20s and '30s: often the proportions fell by between a third and a half.

This pattern was repeated among cohorts of women living in Israel after 1948 and, although the figures for Israel in Table 1 refer to ever married women, rather than total women, the proportion childless in the 1930-34 cohort (3 per cent) is unusually low, perhaps because of early ages at marriage. Trends through time in Japan contrast with those in the other countries since the figures indicate a plateau, with the proportions childless running at just under 10 per cent, a figure consistent with near universal marriage, though not early universal marriage. In pre-industrial Japan, for example, it was exceptional for women to remain unmarried since

there were no other roles for them and minimal economic barriers to marriage (Cornell, 1984). Other statistics for Metropolitan Tokyo show a marked increase in childlessness in the cohorts born in the late 1910s and early 1920s: 14 per cent of the women aged 65-69 in 1995 were childless, compared with 13 per cent at ages 70-74 and 10 per cent at 75-79 (Wataru Koyano, University of Hokkaido, *pers comm.*). This implies an early rise in childlessness in Japan's largest urban centre.

Revival

A return to higher levels of childlessness is occurring among cohorts born after the Second World War in most countries shown in Figure 1 and Table 1. Although France, Hungary and Italy appear to be exceptions, they are merely experiencing a slightly delayed revival of childlessness (van de Kaa, 1997, 23; Toulemon, 1996, 4). After the United States, Finland has the highest projection for the early 1950s cohort, partly because its previous decline was shallower. Sharp increases in childlessness are evident in the United States, England and Wales, Australia, Denmark and Sweden.

Figures for the younger cohorts are necessarily estimates but there is broad agreement among social researchers that the revival is a major trend. Frinking (1988) estimated childlessness for the 1950 cohort of women in several European countries as ranging between 11 per cent and 16 per cent, which is similar to the 1950-54 estimates in Table 1. Looking further ahead, in the Netherlands the proportion could reach 20 per cent for women born in the early 1960s (De Beer *et al.*, 1997). Bloom and Pebley's (1982, 208 & 210) earlier projections of the proportions childless in the 1950 birth cohort gave figures as high as 34 per cent for Austria, 21 per cent for England and Wales and 20 per cent for the United States.

In the 1960s and later generations, the distinction between married and unmarried

CROSS-NATIONAL TRENDS IN CHILDLINESS 9

childlessness is less clear because a high proportion of children are born outside formal marriages and because consensual unions are more widely accepted. Some authors perceive a global transformation of the matrimonial system in which relationships are merely the expression of individual choices, without any societal regulation or concern. They see the rise in cohabitation as a major determinant now of temporary and permanent childlessness because such couples are seeking greater personal freedom and are more motivated to remain childless (Frinkling, 1988, 230-232). In Denmark and Sweden, however, pre-marital cohabitation has had little effect on marital fertility (ibid, 232). This means that the long-run implications of cohabitation for childlessness are far from clear.

The decline in childlessness, and the associated marriage revolution and baby boom, were to some extent exceptional in that they created unsustainable expectations of universal marriage and childbearing. Perhaps the new situation marks a reassertion of 'the right not to marry' and 'the right not to have children'. Social scientists, however, are still debating the relative importance of voluntary and involuntary factors in the change, although individualism and freedom of choice have received most attention (Poston and Kramer, 1983). In the United States, Poston and Gotard (1977, 212) attributed the rise in childlessness since the mid 1960s mainly to voluntary factors 'linked to broader changes in the fabric of society regarding fertility control, contraceptive technology, female work preferences and patterns, and sexual and family norms.' They saw as a key trend the equalisation between the sexes of opportunities for nonfamilial roles.

Other commentators emphasise the unexpected long-run consequences of delaying family formation, given that many women do not wish to have a child until they are in their thirties. Among younger cohorts in France childlessness is increasing as families are started later (Toulemon, 1996). On the basis of data for the 1965 marriage cohort in Germany, Schwarz

10 DONALD T. ROWLAND

(1986) calculated that 'almost all couples who have remained childless for about 10 years will remain childless for ever' (ibid., 244).

Sub-national Variations

Just as birth rates have varied between geographical settings and social groups, so too have the proportions childless. More detailed figures show that the 32 per cent childless in Australia's 1890s cohorts is by no means the maximum in the historical record. German census data for West Berlin indicates proportions in excess of 40 per cent for cohorts born between 1885 and 1904 (1971 Micro Census, Michael Wagner, pers comm.). Evidently, regional variations were marked since total figures for the former Federal Republic of Germany were in the range of 26 to 28 per cent for the same cohorts (Figure 1). Other German examples of geographical variations show that, whereas the proportion of married couples without children was about 8 to 12 per cent in the late nineteenth and early twentieth centuries, the figure was lower in small communities (<2,000), where early contraception and abortion of the first child were rare, and higher in larger communities (>100,000) (Schwarz, 1986).

There were also striking variations by age at marriage: among German wives who married at age 30 or more the proportion childless was about four times higher than among those who married in their early twenties (ibid, 243). Variations in age at marriage are believed to account for many of the differences in levels of childlessness through time and between social groups in Germany (ibid, 244). Other European and American studies have reported similar findings (Beets, 1996, 24), since late marriage decreases the time during which pregnancy can occur, brings better knowledge of contraception and strengthens the likelihood of a commitment to a childless lifestyle (de Jong and Sell, 1977, 133-4). Cross-national data show that among women marrying in their early thirties, at least 10 per cent remained childless and

often the figure was greater than 20 per cent (Spencer, 1983, 283-5). Delayed marriage is commonly linked with educational attainment. The 1950 Census of the United States population showed larger proportions childless among white women with higher levels of education (Grabill and Glick, 1959). Education was seen as reinforcing roles and value systems that represented alternatives to motherhood (de Jong and Sell, 1977, 134). Black women with high educational attainments were also more likely to be childless (de Jong and Sell, 1977, 134).

Nevertheless, in the United States, the proportions childless in the black population are higher overall than in the white population (Poston and Gotard, 1977, 223). Disease-related sterility has been considered 'a major determinant of the greater incidence of childlessness among black when compared to white couples' (de Jong and Sell, 1977, 133; see also Veevers, 1971, 291). McFalls (1973), however, has challenged the hypothesis that venereal diseases account for a large part of nonwhite childlessness, and Thomlinson (1965, cited by Veevers 1971, 292) has pointed out that white women spent a higher proportion of their reproductive years in marriages. Later chapters take up questions of the extent of differences between groups in society together with their implications for circumstances in later life. Key questions include: are career-oriented, well-educated and affluent women more likely to be childless? And what percentage of the childless do the socio-economically advantaged groups comprise?

Survival of the Childless

An issue needing mention in this section on 'Trends' concerns how representative for the contemporary aged are estimates of childlessness based on data for their younger years? Studies commonly measure a cohort's childlessness when they were aged 45-49, the end of women's normal reproductive span. In historical data for the United States the proportions childless at ages 40-44 for all women differ little from those for ages 45-49 (Hastings and

Robinson, 1974). Potential causes of change from age 50 include international migration of older people and differences in death rates between women with and without children. Statistics for Australia, for example, tentatively suggest a small decline in the proportions of *married* women who are childless as they reach their sixties and seventies. International migration of the aged to Australia has typically entailed family reunion of parents with sons and daughters already in the country, and would therefore tend to reduce the proportions childless among the married, as well as the widowed.

Childlessness is believed to be a risk factor in contracting some diseases, while having borne children is a risk factor in others. Two studies from Norway and England in the medical literature suggest that nulliparous women have heightened post-menopause mortality from hormone-related cancers of the breast, uterus and ovary (Lund, 1990), while parous women have greater risk of mortality from diabetes mellitus and cervical cancer (Green *et al.* 1988). The overall outcome of such differences is still uncertain: a complex of factors affect survival to older ages, and risk factors other than number of children - such as diet, exercise and smoking - may be more important.

Marital status is a further influence on the survival of women with and without children. The conventional view has been that the married generally outlive the never married because marriage is selective of the healthy (marriage selection) and results in better care (marriage protection) (Mathers, 1994, 31). Such mechanisms would tend to decrease the proportions childless as cohorts grow older. Recently the relative importance of selection versus protection has been shown to be uncertain (Goldman, 1993), implying that the never married need not be a group in which disproportionate numbers had health impairments from an early age.

Nevertheless, the combined outcome of marriage selection and protection affords substantial

benefits in that never married women have higher age-specific death rates than wives or widows (Krishnamoorthy, 1982, 105; Waite, 1995; Mathers, 1994). In the United States, marriage is thought to contribute to healthier life-styles, better monitoring of health, greater social support and a stronger sense of meaning in peoples' lives (Waite, 1995, 488). Furthermore, marriage appears to reduce health risk behaviours such as smoking and excessive drinking, and to increase material well-being through greater income, better nutrition and a safer living environment (ibid, 488-9). Australian data show that death rates for all unmarried older men and women (including the widowed and divorced) are about 40 per cent higher than for the married (Mathers, 1994, v). This creates an expectation that the proportion of *all* women childless will decline as cohorts grow older, because the never married have poorer survival. Nevertheless, there is no consistent trend in the meagre amount of evidence available. Given the presence of opposing influences, and the relatively low numbers of deaths of women in their fifties and sixties, the total proportions childless probably do not vary substantially overall as cohorts advance from their forties into later life. Thus although the statistics mainly refer to levels of childlessness at ages 45-49, the proportions should be similar at ages 65-69.

Explanations

Turning now from the trends *per se* to the explanation of them, this section examines findings about the causes of change, beginning with the relative contribution of the never married and the ever married to overall trends. Later sections focus on interrelationships between different aspects of change in the family and the role of voluntary and involuntary factors through time.

Marital and Non-marital Components

Changes in the family through time are the key points of reference in explaining the apparently

typical decline in childlessness in more developed countries from a high of 25 per cent to a low of 10 per cent. Figures above 25 per cent seem to have been due to a greater impact on family formation of calamitous events, notably the 1930s Depression.

Statistics for the United States, France, the Netherlands and Australia illustrate the effects of marriage trends on childlessness among cohorts born between the early 1900s and the 1930s (Figure 2). A major development has been 'the marriage revolution' - a trend towards earlier and more universal marriage in Western societies. In the late nineteenth century, the 'European marriage pattern' (Hajnal, 1965 and 1983) was characteristic in north-western Europe, as well as in Australia (McDonald, 1982). This entailed late ages at marriage and high proportions never marrying, predominantly on account of economic constraints. The expense of marriage and child-rearing, however, were not the sole reasons for never marrying. For instance, in nineteenth century Ireland celibacy became more prevalent, even though incomes grew; in adversity individuals could rely on 'substitutes for marriage and children' including ownership of land as well as relationships with other kin and alternative heirs (Guinnane, 1991,60). The twentieth century 'marriage revolution' reversed the European marriage pattern; thus contemporary older cohorts lived their younger years during a period when higher proportions of people were marrying.

During the course of the marriage revolution, family formation was further affected by the two World Wars and the Great Depression. Because of these events, many married couples delayed having children and some ultimately remained childless. The peak in childlessness within cohorts born around the turn of the century appears to have been due substantially to childlessness within marriage. The passing of the effects of war and economic depression later facilitated a decline in married childlessness to relatively low figures for cohorts born in the

1930s, who became the parents of the baby boom generation.

Differences in the impact of events and social changes on national populations have resulted in contrasts in the marital composition of the childless through time in different settings, despite a common trend towards declining proportions childless overall. The former importance of married childlessness is striking in the United States, France and Australia, while the effects of the marriage revolution in reducing the proportions never married are especially apparent in the Netherlands and Australia (Figure 2). The decrease in married childlessness in France has been attributed to improvements in health care, living standards and working conditions which reinforced the 'right to have children' and possibly also extinguished for a time the 'right not to have children' (Toulemon, 1996).

The revival of childlessness in the 1950s cohorts has been linked with the availability of more efficient methods of family limitation, especially the contraceptive pill and wide recourse to safe methods of abortion. The historical peak in childlessness, in contrast, was associated with no such innovations. Until the 1930s, more than a third of Australian couples controlling their fertility used *coitus interruptus* as the main method; the remainder principally used terminal abstinence or infrequent coitus, condoms, spermicides, douching and abortion (Caldwell, 1982, 252). Similarly in the United States common means of fertility control were the diaphragm, the condom, infrequent coitus, *coitus interruptus*, abstinence and abortion. Abortion is thought to have been frequent throughout the nineteenth century in the United States (Degler, cited in Morgan, 1991, 799). Abortion itself was probably a cause of childlessness through the pelvic infections and infertility that could follow (Morgan, 1991, 799). Other aspects of women's health, including nutrition, antenatal care and exposure to diseases, notably sexually transmitted diseases, are further factors in the prevalence of childlessness. Indirect evidence of a contemporary rise in infertility is the great increase in

reported cases of pelvic inflammatory disease, reflecting that there is considerable sexual activity preceding marriage and the first attempt to conceive (Menken, 1985, 472).

Given that ages at marriage vary and many couples delay having children, the question arises of what is the likely minimum proportion childless in a married population? Across all age groups, some estimate 'that about 10 per cent of married couples of childbearing age have seriously impaired fecundity' (Grabill and Glick, 1959, 61). In contrast, Coleman (1996, 32) cited evidence that 'About 3 per cent of married couples suffer from 'primary sterility' from the beginning of their marriage'. One of the lowest known figures for a total population of women (married and unmarried) is 6.1 per cent childless for women aged 50-74 in Utah in 1910, most of whom were Mormons. For ever-married Utah women the figure was 4.5 per cent, but even this was higher than the 3 per cent childless observed among ever-married women from Russia and Poland living in the United States in 1910 (Grabill and Glick, 1959, 62-3). A similar percentage for ever married women in Israel was noted earlier (Table 1). The lowest figures presumably occur where a population is in good health, has high proportions married in their early twenties and does not use family planning or abortion to delay the first birth.

Interrelations between Family Changes

To illustrate relationships between different changes, Figure 3 compares trends in childlessness of *married* women with trends in other aspects of marriage and family formation in Australia. There is clearly a parallel in Figure 3A between changes in the proportions of married women who are childless and the median age at marriage. Later ages at marriage bring a greater likelihood of low fecundity as well as, for some, a strengthened reluctance to have children. Commenting on Canadian data for 1961, Veevers (1971, 294) observed: 'psychological disinclination to parenthood may be a major factor in explaining the correlation with age of

marriage and incidence of childlessness'. For earlier cohorts, notions of the economically proper time to marry (McDonald, 1982) was a major factor in delayed marriages.

Figure 3 about here

It seems reasonable to expect a similar association between the proportion of *married* women who are childless and the proportion with only one child. The one child family has never been a popular family size and denotes uncompleted, or unusually limited, family-building goals. It appears that in cohorts born during the twentieth century the one child family has varied in tandem with the proportions childless (Figure 3B). Thus the highest proportions of married women with one child occur in the same birth cohorts that had the peak proportions childless. The later fall in the proportions with only one child matched the fall in the proportions of married women remaining childless. It is notable also that the current increase in childlessness now matches with survey information for a number of European countries showing a spectacular rise between 1979 and 1989 in the proportion of young women who specified their preferred family size as one child (Coleman, 1996, 39).

In the cohorts born before the 1890s, however, there was little association between the two. In these cohorts the proportion of married women childless was more or less constant at a level in keeping with the 'normal' level that might be expected in a population in which late marriage and health problems could have substantial outcomes in terms of low fecundity and sterility.

Nevertheless, the proportions with only one child rose continuously (as did the proportions with two or three children) perhaps because the one child family was the initial response to straitened circumstances, while heightened proportions childless reflected greater adversity. The prime years of women born between the 1850s and the mid-1870s would have been affected by the 1890s economic depression, which hastened the newly begun decline in average family size in Australia.

In other countries, authors have found that childlessness within marriage is greatest in the times and places where fertility control is most in evidence (Morgan, 1991; Spencer, 1983, 286, Poston and Trent, 1982). In the United States, higher levels of childlessness match up in time, space and social groupings with lower rates of having a third or later birth (Morgan, 1991, 799). Thus childlessness has been most conspicuous where families are smaller (ibid p.781).

For Australia, Figure 3C gives moderate support to the hypothesis that higher levels of married childlessness are associated with smaller families. Among twentieth century birth cohorts, those with the lowest average family size had the highest proportions childless, while those with the largest families had the lowest proportions childless. Yet in the same cohorts average family size has varied within a fairly narrow range - from 3.6 to 2.4 children per married woman. This reflects that the fertility transition in Australia occurred earlier - largely among women born in the nineteenth century. The graph indicates that the proportions childless varied relatively little among the nineteenth century birth cohorts responsible for the fertility transition from more than six to fewer than three children per family: the figures are fairly consistent with the expected minimum of around 10 per cent of married women childless. Overall, the cohorts with the greatest range in family size showed only small variations in the proportions childless, while those with the greatest range in the proportions childless had only small variations in average family size. This suggests that explanations of linkages between family size and childlessness could usefully distinguish between the experiences of cohorts born during and after the fertility transition.

In summary, Figure 3 suggests an association, in twentieth century cohorts, between childlessness and delayed family formation (later marriage), incomplete family formation (the one child family) and average family size. These findings imply that a framework for the

investigation of childlessness through time should consider trends in the proportions marrying and, within the married population, the extent of delays and curtailments in childbearing. Additionally, in the married population some 5 to 10 per cent will normally be childless (depending on the ages at which the first pregnancy is sought) on account of low fecundity and sterility.

Voluntary and Involuntary Childlessness

As noted in the earlier section on 'Theory' it is sometimes assumed that in the past most childlessness was involuntary, while contemporary childlessness is mainly voluntary. Indeed, voluntary childlessness in the United States was formerly declared to be nearly extinct (see Veevers, 1971, 292; de Jong and Sell, 1977, 129). More realistically, there has always been a mixture of voluntary and involuntary factors. It cannot be assumed that in the past marriage and family formation were universally desired, or that in the present all are able to achieve their particular marital and reproductive goals. Nor is there an absolute distinction between voluntary and involuntary outcomes (see Mosher and Bachrach, 1982), since individual circumstances constrain most choices. There is also much ambivalence about childlessness, because of the persistence of pro-natalist ideals, and because childlessness is commonly a situation consolidated only gradually as youth gives way to middle age. This is evident in that various authors have interpreted voluntary childless as due more commonly to delaying childbearing than to a single decision not to have children (Poston and Trent, 1982, 476; Morgan, 1991):

'...there exists a strong cultural and historical continuity in the process producing childlessness. Marriage and fertility delay are time honored and culturally approved strategies in the United States. Furthermore, childlessness in the past, as in the present, was most often caused by as series of postponements.' (Morgan, 1991, 780)

20 DONALD T. ROWLAND

The importance of postponements as a key factor in childlessness underlines the role of indecision, which in the longer run may produce both 'voluntary' and 'involuntary' childlessness, as well as lifetime ambivalence. Postponements have major consequences on account of the relationship between age and fecundity. The longer the delay in family formation, the greater the risk of involuntary sterility. The resulting involuntary childlessness may cause a continuing sense of loss, which one author described as 'one of the most traumatic experiences people have to live with' (Beets, 1996, 16).

In West German opinion polls since 1953, less than 5 per cent of women have said that they did not want to have children (Schwarz, 1986, 245) but this is far fewer than the actual proportions remaining childless. Likewise, similar surveys in other European countries mostly found that only 2 to 5 per cent of young women did not want any children (Coleman, 1996, 39). Respondents evidently wish to give the appearance of conforming to traditional family norms, but postponements strengthen preferences for a lifestyle without children. Thus, despite the seeming importance of voluntary childlessness today, the longer the delay in family formation, the greater the risk of involuntary childlessness. Toulemon (1996, 24) summarised the relationship between age and fecundity as follows: 'in the absence of therapy, 20% of women who start trying for a baby when they are aged 35 do not succeed, compared to 12% at age 30, 8% at 25 and 4% at 20.' Another author further attributed higher childlessness with age to a decline in coital rates as well as to a rising risk of spontaneous abortion (James, 1979, cited by Schwarz, 1986, 250). Since most couples mistakenly view delayed childbearing simply as keeping their options open, Toulemon (1996, 25) emphasised that 'it is important that couples should be fully aware of the biological risks of postponing parenthood, and that they should not exaggerate the possibilities of adoption and medically assisted procreation'.

Conclusion

Given the resurgence of childlessness in contemporary societies, the nineteenth and early twentieth centuries provide potentially enlightening points of comparison. It appears to have been unexceptional for cohorts of women born before the 1920s to have had more than 15 per cent childless. The lower levels of childlessness among the cohorts born during the 1920s and 1930s seem atypical in the light of earlier and later developments. Social norms probably pressured some into assuming 'traditional' family roles because there were few socially acceptable, or economically viable, alternatives.

In the past, childlessness seems to have been inconspicuous because it occurred in conjunction with a large family system. A key feature of the present situation, and the main reason for concern about contemporary childlessness, is that it is occurring in the context of a small family system. Childlessness now makes all the difference between population growth and long-term population decline.

Compared with the childless in younger generations today, the childless aged are a little known, even invisible, social group. Their invisibility needs to be addressed to enable a proper appreciation of the circumstances and vulnerabilities of a substantial minority within the aged population. Lessons learnt should benefit future generations, since the proportions childless is unlikely to fall below 10 per cent in any of the more developed countries considered here.

Further inquiry into the history of childlessness could also address questions that are potentially enlightening in understanding the nature and implications of childlessness generally. How were staying single or married and childless perceived in past generations? Were these statuses always 'involuntary' and imposed by circumstances? What became of the 'maiden aunts' who cared for their own mothers in old age? How common were adoptions and step families, and to what extent did these substitute for biological offspring? How did people fare

22 DONALD T. ROWLAND

in later life without children, pensions and aged care institutions? Answers to these questions would help to provide a comparative perspective in understanding of the present increase in, supposedly, 'voluntary' childlessness and the adaptations people make in their later years (see Hufton 1984 and Anderson 1984). The prevalence of childlessness in older cohorts emphasises the importance of research into the alternatives, adaptations and social policy provisions available to people who are without the support of offspring.

References

- Anderson, Michael 1984. 'The social position of spinsters in mid-Victorian Britain', *Journal of Family History*, 9 (4), 377-393.
- Beets, Gijs 1996. 'Does the increasing age at first birth lead to increases in involuntary childlessness?' in Devernardi, M.C. (ed), *Evolution or Revolution in European Population, Contributed Papers Sessions I-IV*, Milano: Franco Angeli, pp. 15-30.
- Bloom, David E. and Pebley, Anne R. 1982. 'Voluntary childlessness: a review of the evidence and implications', *Population Research and Policy Review*, 203-224.
- Caldwell, J.C. 1982. 'Fertility control', in United Nations, *Population of Australia*, Country Monograph Series No. 9, Volume 1, United Nations, New York, Chapter X, pp. 230-258.
- Cornell, Laurel L. 1984. 'Why are there no spinsters in Japan?', *Journal of Family History*, 9 (4), 326-339.
- Coleman, David (ed) 1996. *Europe's Population in the 1990s*, Oxford: Oxford University Press.
- De Beer, J., Prins, K., and Verhoef, R. 1997. 'Demografische ontwikkelingen in Nederland', in N. van Nimwegen and G. Beets (eds.), *Bevolkingsvraagstukken in Nederland anno 1997*,

Den Haag: NIDI rapport no. 50, pp. 91-117.

De Jong, G.F. and Sell, R.R. 1977. 'Changes in childlessness in the United States: a demographic path analysis', *Population Studies*, 31 (1), 129-141.

Frinking, Gerald 1988. 'Childlessness in Europe: Trends and Implications', in Hein Moors and Jeannette Schoorl (eds), *Lifestyles, Contraception and Parenthood: Proceedings of a Workshop*, Netherlands Interdisciplinary Demographic Institute, The Hague, pp. 225-240.

Goldman, Noreen 1993. 'Marriage selection and mortality patterns: inferences and fallacies', *Demography*, 30 (2), 189-208.

Grabill, W.H. and Glick, P.C. 1959. 'Demographic and social aspects of childlessness: census data', *Milbank Memorial Fund Quarterly*, 37, 60-86.

Green, A., Beral, V. and Moser, K. 1988. 'Mortality in women in relation to their childbearing history', *British Medical Journal*, 297 (6645), 391-5.

Guinnane, T. 1991. 'Rethinking the Western European marriage pattern: the decision to marry in Ireland at the turn of the twentieth century', *Journal of Family History*, 16 (1), 47-64.

Hajnal, J. 1965. 'European Marriage Patterns in Perspective', in D.V. Glass and D.E.C. Eversley (eds), *Population in History: Essays in Historical Demography*, Surrey: Edward Arnold, pp: 101-143.

Hajnal, J. 1983. 'Two kinds of preindustrial household formation system', in Richard Wall, Jean Robin and Peter Laslett (eds.), *Family Forms in Historic Europe*: Cambridge: Cambridge University Press, pp. 65-104.

Hastings, D.W. and Robinson, G. 1974. 'Incidence of childlessness for United States women, cohorts born 1891-1945', *Social Biology*, 21 178-84.

24 DONALD T. ROWLAND

Hufton, Olwen 1984. 'Women without men: widows and spinsters in Britain and France in the eighteenth century', *Journal of Family History*, 9 (4), 355-376.

James, W.H. 1979. 'The causes of decline in fecundability with age', *Social Biology*.

Krishnamoorthy, S. 1982. 'Marital Status Life Table for Australian Women 1971', *Genus*, 38, 97-117.

Lund, E. 1990. 'Number of children and death from hormone-dependent cancers', *International Journal of Cancer*, 46 (6), 998-1000.

Mathers, Cohn 1994. *Health Differentials Among Older Australians*. Australian Institute of Health and Welfare, Health monitoring series, no.2. Canberra: Australian Government Publishing Service.

Mattessich, Paul W. 1979. 'Childlessness and its correlates in historical perspective: a research note', *Journal of Family History*, 4 (3), 299-307.

McDonald, P.F. 1982. 'Marriage and Divorce in Australia', in United Nations, *Population of Australia*, Country Monograph Series No, 9, New York: United Nations, pp. 183-98.

McFalls J.A. Jr. 1973. 'Impact of V.D. on the Fertility of the U.S. Black Population, 1880-1950', *Social Biology*, 20, 2-19.

Menken, Jane. 1985. 'Age and fertility: how late can you wait', *Demography*, 22 (4), 469-483.

Morgan, S.Philip 1991. 'Late Nineteenth and Early Twentieth-Century Childlessness', *American Journal of Sociology*, 97 (3), 779-807.

Mosher, William D. and Bachrach, Christine A. 1982. 'Childlessness in the United States: Estimates from the National Survey of Family Growth', *Journal of Family Issues*, 3 (4), 517-543.

- Poston, Dudley L and Trent, Katherine 1982. 'International Variability in Childlessness: A Descriptive and Analytical Study', *Journal of Family Issues*, 3 (4), 473-491.
- Poston, Dudley L. and Gotard, Erin 1977. 'Trends in Childlessness in the United States, 1919-1975.', *Social Biology*, 24 (3), 212-224.
- Poston, Dudley L. and Gu, Baochang 1983. 'Measurement of childlessness with world fertility and national census data', *American Statistical Association, Proceedings of the Social Statistics Section*, Washington D.C.: American Statistical Association, pp.401-6.
- Poston, Dudley L. and Kramer, Kathryn Beth 1983. 'Voluntary and involuntary childlessness in the United States, 1955-1973', *Social Biology*, 30 (3), 290-306.
- Pressat, Roland 1985. *The Dictionary of Demography*. Edited by Christopher Wilson, Oxford: Blackwell Reference.
- Prioux, F. 1990. 'Fertility and family size in Western Europe', *Population: An English Selection*, 2, 141-161.
- Rowland, D.T. 1998. 'The prevalence of childlessness in cohorts of older women', *Australian Journal on Ageing*, (in press).
- Schwarz, K. 1988. 'Childlessness in Germany: Past and Present', in Hein Moors and Jeannette Schoorl (eds), *Lifestyles, Contraception and Parenthood: Proceedings of a Workshop*, Netherlands Interdisciplinary Demographic Institute, The Hague, pp. 241-250.
- Spencer, G.K. 1983. *Childlessness and One-child Fertility: A Comparative and Historical Analysis of International Data*, Ph.D Dissertation, University of California, Berkeley, University Microfilms International, Ann Arbor.
- Toulemon, L. 1996. 'Very few couples remain voluntarily childless', *Population: An English Selection*, 8, 1-28.

26. DONALD T. ROWLAND

United Nations [various years]. *Demographic Yearbook*. New York: United Nations.

van de Kaa, 1997. 'Options and sequences: Europe's demographic patterns', *Journal of the Australian Population Association*, 14 (1), 1-29.

Veevers, J.E. 1971. 'Childlessness and age at first marriage', *Social Biology*, 18, 292-295.

Veevers, J.E. 1971. 'Differential childlessness by color: a further examination', *Social Biology*, 18, 285-291.

Waite, Linda J. 1995. 'Does marriage matter?', *Demography*, 32 (4), 483-507.

Table 1: Percentages of All Women Childless by Age 45, Cohorts Born c. 1900-04 to c. 1950-54

Five year cohort:	1900 -1904	1905 -1909	1910 -1914	1915 -1919	1920 -1924	1925 -1929	1930 -1934	1935 -1939	1940 -1944	1945 -1949	1950 -1954
Austria							d16	d14	d15	d15	d17
Belgium		b16	b14	b13	b12		d16	d14	d13	d13	d14
Bulgaria			b7	b6	b5	b4					
Czechoslovakia [former]			a13	a12	a10						
Denmark										8	12
England & Wales					21	17	14	13	12	10	14
Finland		26	22	20	18	16	16	15	14	14	15
France	25	23	21	20	19	16	13	11	11	11	12
Germany [former D.R.]			17	17	18	14	11				
Germany [former F.R.]	28	25	22	22	22			d10	d12	d13	d17
Hungary	20	20	20	19	16	14	11		9	9	9
Iceland	a12										
Ireland									d19	d15	d13
Italy								15	12	11	12
Netherlands	23	22	20	16	15	14	12	12	12	11	15
Norway			a14					d9	d9	d9	d11
Poland	b12	b11	b10	b9	b7						
Portugal	21	21	20	19	17	17	14				11
Romania			21	20	19	16	13				
Spain	b14	b14	b14	b13	b14						
Sweden							14	13	13	13	15
Switzerland	a22		a20					d16	d16	d18	
Yugoslavia [former]	c17	c15	c16	c15	c15	c13	c12				
Australia	31	27	21	19	15	11	9	9	9	10	13
Canada			b14	b12	b10	b8	b7				
Israel			b9	b7	b5	b4	b3				
Japan	b9	b9	b8	b8	b8						
New Zealand	b14	b14	18	15	13	11	9				
United States	24	24	25	22	17	14	13	10	9	11	17

Notes:

a Currently married women, births from the existing marriage.

b Ever married women.

c Living children.

d Women aged 40 years and over.

- The data refer to women aged 45-49 or older at the time of the census or survey, unless otherwise indicated.
- Years of birth vary between sources; figures are located under the nearest birth years (e.g. 1901-5 is under 1900-4).
- Some figures from the *Demographic Yearbook* include stillbirths.
- Percentages calculated from the *Demographic Yearbook* for some countries used denominators that included women who did not state their issue; since it is likely that many women in this category had no

children (1986 *Yearbook*, 136), underestimation of childlessness has resulted.

Sources:

- England and Wales: HMSO (1991 *Social Trends*, 42).
- Finland: compiled by Marja Jylhae (Tampere School of Public Health).
- France: Toulemon (1996, 8; and *pers comm.* 1998). Another source gives relatively low proportions childless in France, namely 8.4 per cent (1940-44 cohort), 8.5 per cent (1945-49 cohort), 8.1 per cent (1950-54 cohort) and 8.7 per cent (1955-59 cohort) (averages for single year cohorts from Prioux, cited by Coleman, 1996, 33). The statistics for France in Coleman (1996) came originally from a paper in *Population* by Rallu (1986), using 1982 data.
- Germany [former F.R]: 1900-24 compiled by Michael Wagner (Max Planck Institute for Human Development and Education); 1935-54 from Coleman (1996, 33).
- Hungary: 1940-54 Prioux, cited by van de Kaa (1997, 23), averages for single year cohorts.
- Italy: Prioux, cited by van de Kaa (1997, 23), averages for single year cohorts.
- Netherlands: compiled by Pearl Dykstra (Netherlands Interdisciplinary Demographic Institute).
- Sweden: Prioux, cited by van de Kaa (1997, 23), averages for single year cohorts.
- Australia: Rowland (1998).
- United States: figures for total white women from Morgan (1991, 782-3), including Bloom's estimates from 1940. Hastings and Robinson (1974) have provided similar estimates for all United States women, including data for the ever married and total women.
- Data for other countries/cohorts from Frinking (1988), Prioux (1990), Coleman (1996, 33) and the United Nations *Demographic Yearbook* (various issues). All the figures marked (d) are averages from single year figures for cohorts at age 40 in Coleman (1996, 33). Where figures differed between sources, normally the more recent ones were used.

Figure 1: Proportions Childless in Selected Countries, Female Birth Cohorts at Ages 45-49 or Older
 Sources: See Table 1

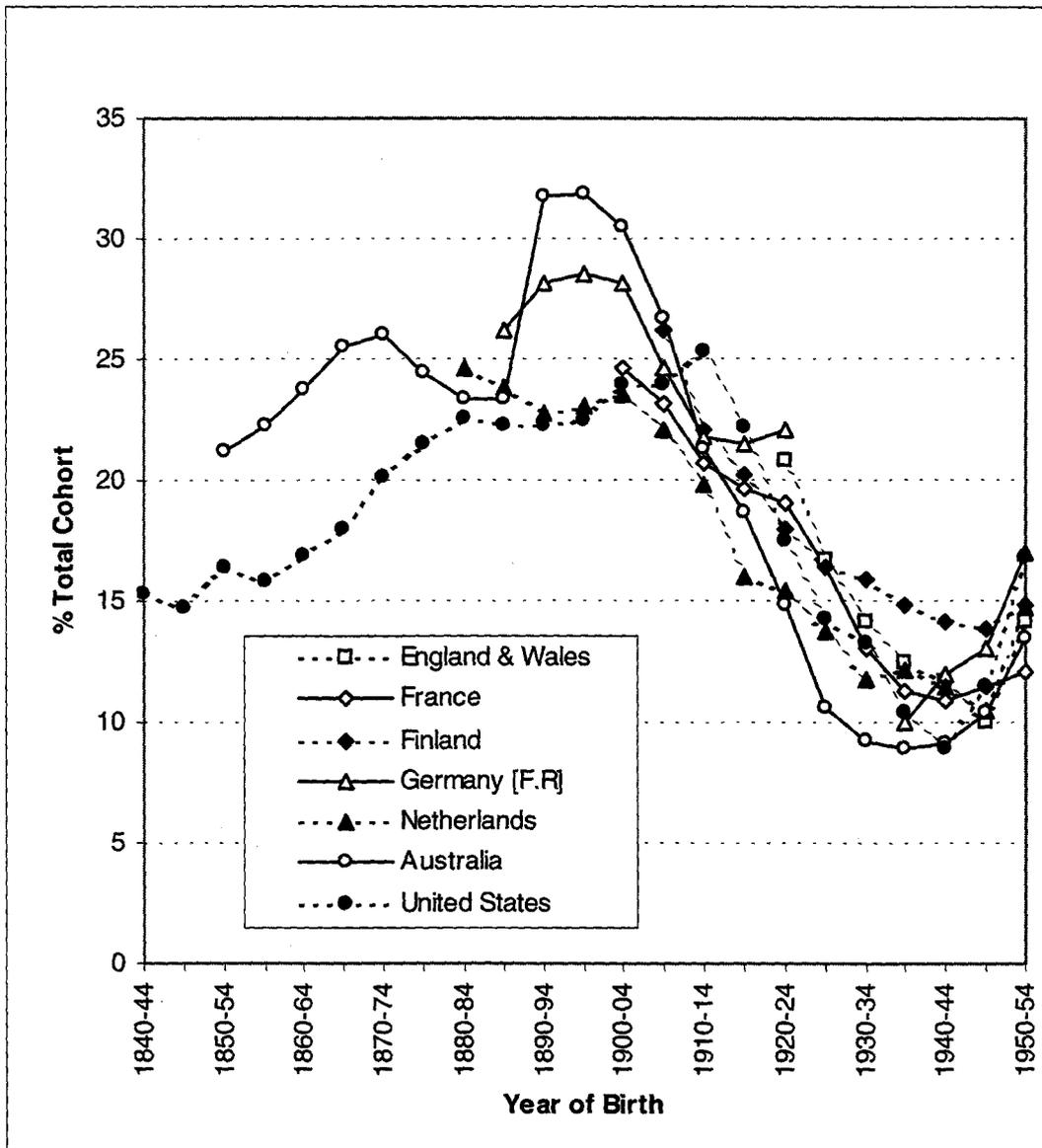


Figure 2: Marital and Non-Marital Components of the Total Proportions Childless in the United States, Australia, France and the Netherlands, Female Birth Cohorts 1900-04 to 1930-34

Sources: see Table 1.

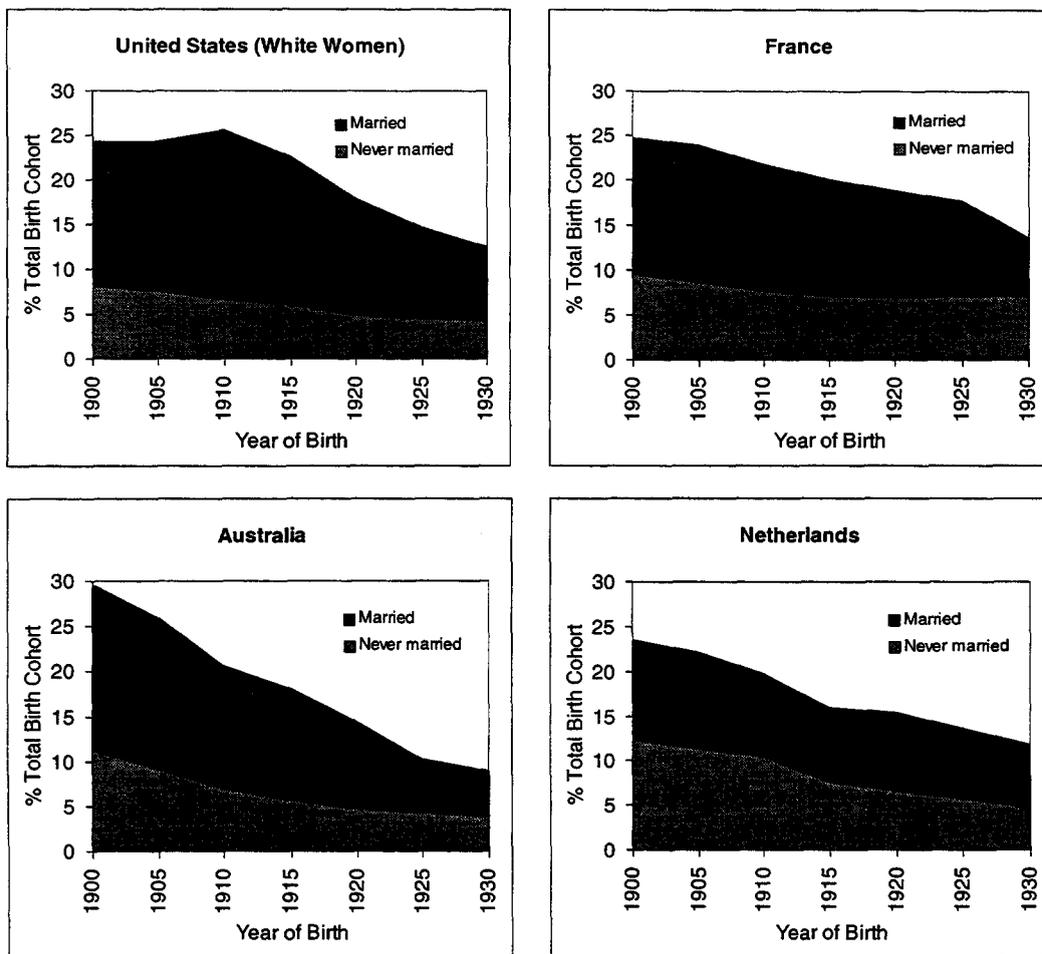
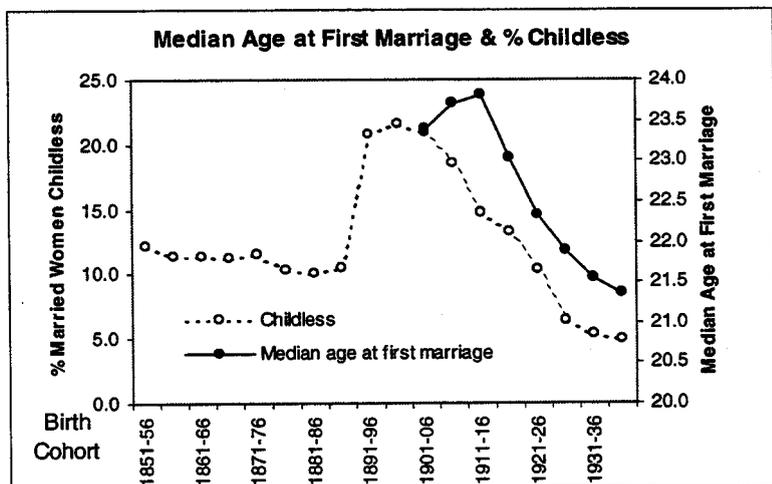
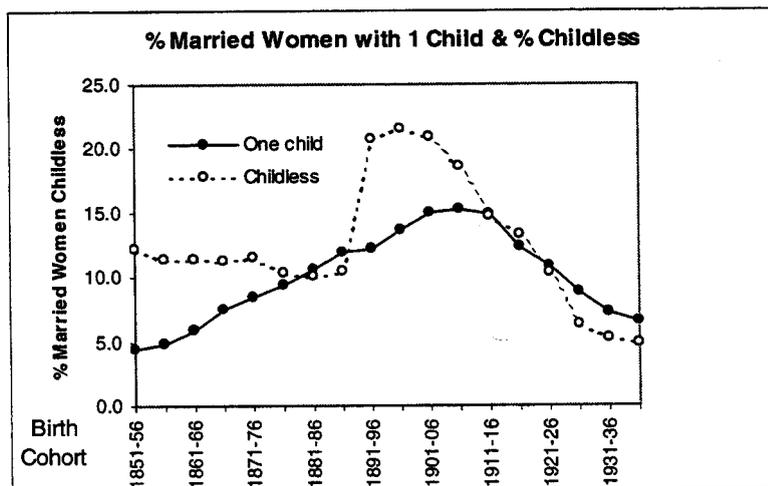


Figure 3: Proportions of Married Women Childless and Associated Family Changes, Female Birth Cohorts, Australia

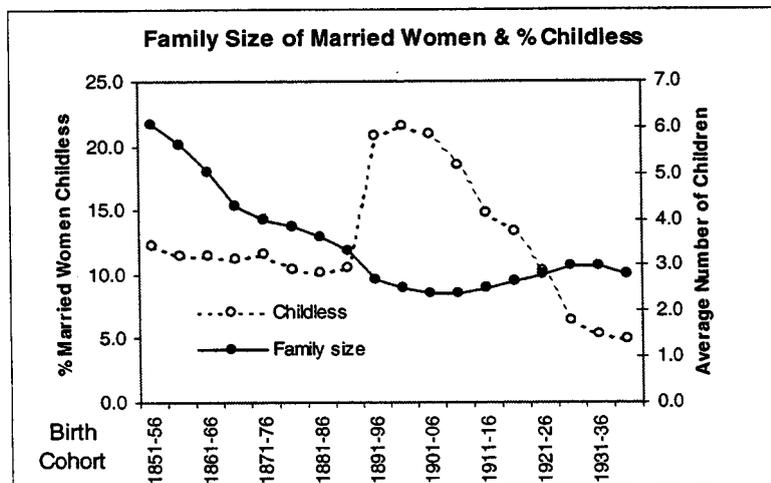
Sources: Data on median age at first marriage by courtesy Gordon Carmichael, Australian National University. Other data from Australian censuses.



A



B



C