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Research Article

Non-marital pregnancy and the second demographic transition in Australia in historical perspective

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Non-marital pregnancy and the second demographic transition in Australia in historical perspective

Gordon Carmichael¹

BACKGROUND

Australia has remarkably detailed data on non-marital pregnancy dating from 1908. They both offer insight into long-term trends in childbearing resulting from non-marital sexual activity and reveal in historical context key features of the second demographic transition and its genesis.

OBJECTIVE

Trends are traced in rates of non-marital conception of children ultimately born both outside and within marriage. A range of related indices is also presented in examining how demographic behaviour surrounding non-marital pregnancy (i) helped generate the second demographic transition and (ii) unfolded as a component of it.

METHODS

Core indices are rates of non-marital conception partitioned into additive components associated with marital and non-marital confinement. Data on non-marital and early marital births (at marriage durations 0–7 months) are lagged back 38 weeks to a date of and age at conception basis to facilitate a common, unmarried, population at risk.

RESULTS

Post-war weakening of parental oversight of courtship was a fundamental trigger to the broader rejection of normative and institutional values that underpinned the second demographic transition. In tandem with denying the unmarried access to oral contraception it generated rampant youthful non-marital pregnancy, which undermined Judeo-Christian values, especially once abortion law reform occurred.

CONCLUSIONS

Childbearing following non-marital conception transitioned rapidly after the 1960s from primarily the unintended product of youthful intercourse in non-coresidential relationships to mainly intended behaviour at normative reproductive ages in consensual unions. Family formation increasingly mixed non-marital births and premaritally and/or maritally conceived marital births.

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COMMENTS

An earlier analysis of non-marital pregnancy in Australia (Carmichael 1996) traversed the entire period of European settlement, commencing with the convict era (1788–1840). It did not focus on the second demographic transition, as this updated analysis does.

1. Introduction

In the first English language exposition of the second demographic transition, van de Kaa (1987: p. 7) highlighted an associated “large change in norms and attitudes” in Western Europe between the mid-1960s and the mid-1980s. This signalled rapid adoption of a much more individualistic outlook on life, and was illustrated using survey data for the Netherlands. Among the attitude changes van de Kaa demonstrated were huge increases over periods of less than a decade to a decade and a half in acceptance of sexual relations between couples who intended to marry and between a girl and a boy she “likes a lot”, and in acceptance of voluntary childlessness, divorce with children still at home, mothers of school-age children working, homosexuality, cohabitation with no intent to marry, and living apart together. There had also been a marked decline in the belief that married people were generally happier than single people.

These sorts of attitude changes, variously also labelled “reflexive modernization” (Beck, Giddens, and Lash 1994) and “social liberalism” (McDonald 2006), were occurring simultaneously in numerous developed countries including Australia (Carmichael 1998), and found expression in a variety of demographic indices. In this paper the focus is on trends in a range of measures pertaining to non-marital pregnancy and childbearing. They derive from data available for Australia since 1908 that tabulate annually (i) non-marital confinements yielding live births by age of mother and (ii) marital first confinements yielding live births by duration of marriage and age of mother. The latter data break duration down in months for the first year of marriage, allowing marital confinements following non-marital conceptions to be estimated (as the number of confinements within eight months of marriage). Together, the two sets of data facilitate a focus not just on non-marital fertility but also on childbearing (non-marital or marital) resulting from non-marital sexual activity.

It should be noted that, because of the practice historically of Australian birth registration forms (each State and Territory has its own) seeking information only on previous children of the current marriage (Carmichael 1986), and later of the current relationship (Corr and Kippen 2006), some “marital first confinements” may actually

have been preceded by non-marital births to other men and/or, for women pregnant at remarriage, by marital births to a previous spouse. Despite pressure from the Australian Bureau of Statistics (ABS) for parity data to reflect all previous children of the mother, the second and third largest States, Victoria and Queensland, continue to resist. The key issue is sensitivity – whether a married woman should be expected to disclose a previous birth her husband may be unaware of. Changes in other States and Territories are reflected in published data only since 2007, so this issue affects almost all data used here. Setting it aside, however, as something that can be acknowledged but not resolved, as the data described are available from 1908, trends over slightly more than a century will be examined. Emphasis will be placed on the more recent ones that spectacularly exemplify Australia's second demographic transition.

Several scholars have previously examined non-marital fertility and/or pregnancy trends in Australia. The major stimulus to research was the post-war development of a sexual revolution that during the 1950s and 1960s pitched successive youth cohorts into ever earlier marriages and saw non-marital fertility rates among adolescents and young adults rise rapidly (Basavarajappa 1968; Spencer 1969; Ruzicka 1975, 1976, 1977; Refshauge 1982; Carmichael 1996). The latter trend, aided by practices now widely condemned and the subject, during 2010–2013, of a spate of formal apologies from State and Territory Governments, religious denominations, and the Federal Government (Graham 2012; Gillard 2013), provided a growing supply of children for adoption.

The second demographic transition in Australia largely postdates this sexual revolution, but attitude and value changes at its core owed much to dissatisfaction with Judeo-Christian society's response to the revolution. The analysis that follows updates to 2010 one that terminated in the early 1990s (Carmichael 1996), and utilizes among other measures non-marital conception rates. These are generated from the data on non-marital confinements and marital first confinements within 0–7 months of marriage, which obviously pertain to a mixture of unmarried and married women. They therefore do not have a common population at risk, but by lagging data back 38 weeks (an assumed average gestation period at confinement) to an age at and year of conception basis using lexis diagram principles (Carmichael 1985), both sets of data concern events (conceptions rather than confinements) occurring to unmarried women. This yields a common population at risk, and the capacity to calculate non-marital conception rates that are sums of component rates of conception resulting in non-marital and in marital confinement.

It is important to appreciate that conceptions captured in these measures resulted in live births. It is probably reasonable to assume that conceptions resulting in stillbirths or miscarriages are over time a more or less constant force reducing total conceptions, and can be safely ignored as not significantly influencing trends. The same cannot be said, however, of those resulting in induced abortions. Where annual data on abortions by

single-year ages of woman are available lexis diagram principles can again be applied, assuming an average gestation at termination of 8 weeks, to incorporate a third additive component into non-marital conception rates (Stloukal 1997). Such data are not, however, available for Australia, so changes in rates of induced abortion need to be taken account of as a potential factor explaining trends in non-marital conception rates resulting in non-marital and marital confinement. These may have declined, for example, because non-marital pregnancies were more often terminated by induced abortion.

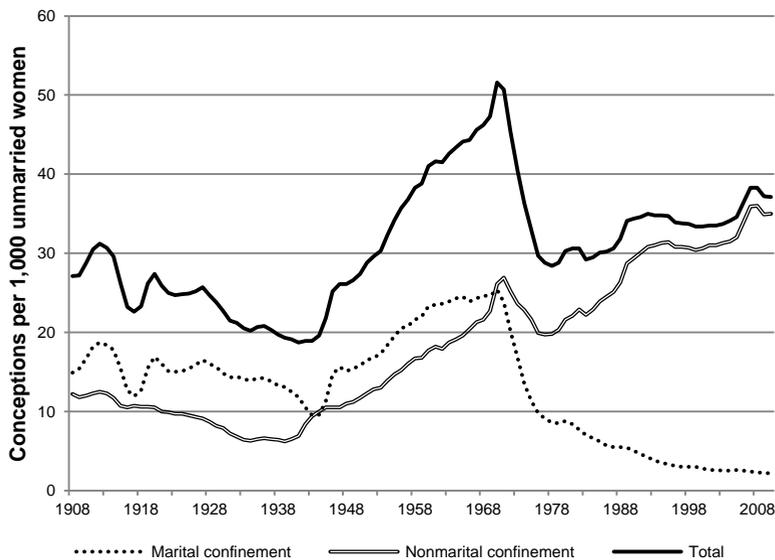
2. Non-marital conception rates at ages 15–44

Trends between 1908 and 2010 in non-marital conception rates for women aged 15–44 and in additive component rates associated with marital and non-marital confinement are shown in Figure 1. Until the end of the Second World War the overall rate declined from around 30 per 1,000 unmarried women to below 20. This decline was largely driven by the component rate associated with non-marital confinement, until war placed impediments in the way of ‘shotgun’ marriages. The rate associated with non-marital confinement consequently turned upward, and that associated with marital confinement downward after 1939 as departing servicemen left pregnant girlfriends behind. Many courting couples did hurriedly marry before being separated at this time (McDonald 1974; Carmichael 1988), but if pregnancy was not apparent when a serviceman sailed or involved a visiting American serviceman on leave (Aitchison 1972; Moore 1981; McKernan 1983; Sturma 1989), marriage may not have been an option. There were 12,000 to 15,000 marriages between Australian women and American servicemen during the War (Sturma 1989), but not all Americans who impregnated Australians were willing or, if already married, able to marry them. And again, some will have departed Australia before pregnancies were confirmed.

Following the War the overall non-marital conception rate trended steeply and relentlessly upward until the early 1970s, rising from less than 20 to over 50 per 1,000 unmarried women aged 15–44. Component rates associated with marital and non-marital confinement did likewise, although that associated with marital confinement rose very steeply in the immediate post-war period, then much less rapidly through the 1960s, while that associated with non-marital confinement followed a more constant gradient. This was the baby boom period, underpinned by a marriage boom that owed a good deal to a substantial diminution in parental oversight of courtship. These were decades when young people’s access to motor vehicles increased markedly, facilitating courtship in unprecedented privacy. In 1945 there were 8.7 people per motor vehicle in Australia, but by 1960 this had fallen to 3.6 and by 1970 to 2.6 (Office of Road Safety

1984). Road accident death rates at ages 15–19 and 20–24 were respectively 3.4 and 2.4 times higher for males and 5.1 and 3.4 times higher for females in 1969–71 than in 1945–47 (Zou 1998), the gender differential implying more frequent couple occupancy of cars. Cars offered both makeshift bedrooms and the mobility to seek private locations for intimacy, and declining ages at first marriage through the 1950s were above all a product of increasing rates of female marriage at ages 16–21 where brides were pregnant (Carmichael 1988, Figure 7).

Figure 1: Non-marital conception rates ages 15–44, 1908–2010



At that time ‘shotgun’ marriage was the ‘honourable’ response to unintended premarital pregnancy. Clearly, though, it did not eventuate in a significant proportion of such situations (Figure 1), and this rapid increase in the rate of non-marital conception leading to non-marital confinement was the basis of the wave of often ‘forced’ adoptions, whose inappropriateness has only recently been officially acknowledged (Moor 2006; Australian Senate 2012; Kenny et al. 2012). National figures on adoptions by non-relatives are only available from 1968–1969 and show a peak of around 7,900 in 1971–1972, falling to below 3,000 in 1976–1977 and below 1,000 by the late 1980s. Trend data for New South Wales, responsible for 48% of national adoptions by non-

relatives in 1971–1972, extend over a longer period. They show non-relative adoptions processed by the Department of Child Welfare (others were processed by solicitors and, after 1965, accredited adoption agencies) increasing from an annual average of 681 between 1955–1956 and 1959–1960 to 2,121 between 1970–1971 and 1973–1974, with a peak of 3,176 in 1971–1972. By 1977–1978 the number had fallen again by more than three-quarters, to just 762 non-relative adoptions.

This rapid increase then decrease in adoptions by non-relatives coincided with the sharp peaks located in the early 1970s in Figure 1. They reflect a rapidly rising then precipitously declining supply of ‘illegitimate’ babies for adoption. By one estimate for New South Wales, in 1965–1966 adoptions of babies born to unmarried mothers accounted for 45% of non-marital births (NSW Department of Child Welfare 1966). Having peaked above 50 per 1,000 unmarried women aged 15–44 in 1970, the overall rate of non-marital conception plummeted to below 30 per 1,000 by 1976. Component rates associated with non-marital and marital confinement also dropped sharply, although while that associated with marital confinement would continue on a downward trajectory, that associated with non-marital confinement turned upward again. With the odd minor reversal it would surge past its 1971 peak of 26.9 conceptions per 1,000 unmarried women by 1989, and continue rising until late in the first decade of the new millennium.

3. Age-specific non-marital conception rates

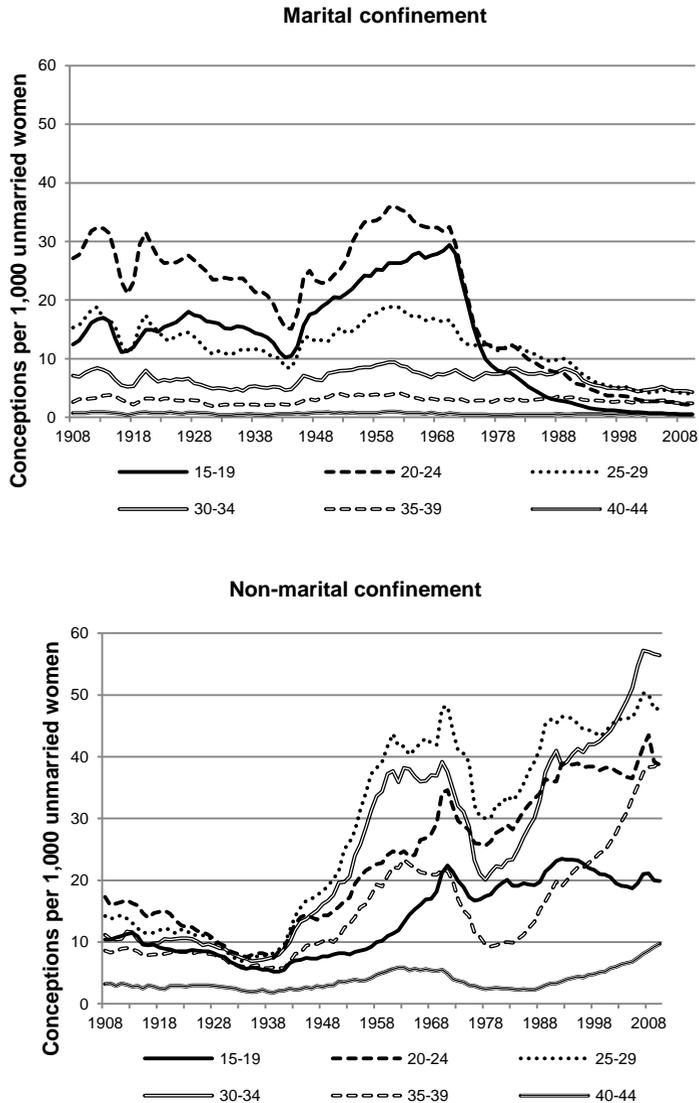
Age-specific detail of the trends in component rates of non-marital conception is shown in Figure 2. The major decline in non-marital conceptions leading to marital confinement was driven by age groups 15–19 and 20–24. The conception rate for teenagers had climbed relentlessly following the Second World War, but fell by two-thirds in the six years after 1970, continuing to decline thereafter until, in 2010, it was barely above zero. The pregnant teenaged bride, frequently stigmatized and satirized during the 1950s and 1960s, is nowadays rare and a creature of history. The conception rate leading to marital confinement for 20–24 year olds also declined precipitously after 1970, and with minor interruptions it, too, has continued to trend downward, although not quite to a near-zero level. But what is also of interest with this age group, and 25–29 year olds, is evidence of decline through the 1960s as well. These slightly older unmarried women were at that time already beginning to query the ‘honourable’ response to unintended pregnancy. Something then happened to blow that longstanding tenet of Judeo-Christian morality completely out of the water.

We will return to that ‘something’ after looking at age-specific trends in rates of non-marital conception leading to non-marital confinement (Figure 2). After rates had

been uniformly low and tightly bunched through the 1930s, they increased at varying speeds during and after the Second World War and consequently dispersed. At ages 25–29 through 40–44 they rose rapidly through the 1950s, possibly reflecting post-war marriage breakdowns and the impediment to remarriage represented by current divorce laws, then flattened off in the 1960s. At ages 15–19 and 20–24, upward momentum continued throughout these two decades to peaks in 1971. The downturn through the first half of the 1970s, evident in Figure 1, affected all reproductive ages, and except for a delayed response at ages 40–44 all rates turned upward again from the late 1970s. This reasserted upward momentum would be most persistent for the three oldest age groups in Figure 2. At younger ages there were further declines through the 1990s and beyond, reflecting a marked general shift to older ages at childbearing in Australia (Carmichael 2013a).

So what produced such dramatic change through the first half of the 1970s? Several things did. In 1961 the oral contraceptive was launched in Australia (Lavis 1975, Santow 1991). It had two notable initial impacts. It enabled higher parity women to more assuredly cease childbearing when they chose to, and it allowed newly-weds to defer the first birth with unprecedented certainty. Indeed, in the late 1960s this latter option led to a brief, but inevitably short-lived, resurgence in the post-war marriage boom (Carmichael 1988), as some couples sought to reconcile mounting peer pressure to be sexually active and parental exhortation to remain chaste until married. Even earlier marriage followed by pill-deferred parenthood offered a convenient, socially approved solution to their dilemma. But the other point about the pill was that in the prevailing moral climate its availability was largely restricted to married women. This left unmarried women, aside from those doctors would prescribe to because wedding dates were imminent, denied the protection from unintended pregnancy potentially available to them at a time when, because that potential was known to exist, pressure on them to be sexually active was intensifying. Inevitably, agitation for relief from undesirable consequences of the interaction of this new technology with Judeo-Christian morality quickly mounted. The unmarried demanded access to oral contraception. Voices arguing for induced abortion to be legalized became more strident. And once the pill's potential to defer parenthood within marriage was appreciated it was only a matter of time until couples began to say, "Forget the wedding. Let's just live together and enjoy a regular, protected sex life", and consensual partnering proliferated.

Figure 2: Age-specific rates of non-marital conception leading to marital and non-marital confinement, 1908–2010



The trend to consensual partnering and consequent greater coverage of non-marital sexual activity by the pill was undoubtedly a factor. Non-cohabiting unmarried women becoming emboldened to demand it and the development of post-coital forms of ‘emergency’ contraception may also have contributed. However, the rapidity of the decline in non-marital conception rates through the early and mid-1970s and the date from which it commenced leave little doubt that the key occurrence was liberalization of abortion laws. A 1969 legal ruling clarified the law in Victoria, and South Australian law was liberalized with effect from early 1970 (Carmichael 1996, endnote 102). The key change, though, came in New South Wales in late 1971 when, in directing the jury in *R. v Wall et al.*, Mr Justice Levine explicitly admitted the “effects of economic or social stresses that may be pertaining at the time” as relevant to establishing danger to a woman’s mental health sufficient to justify abortion. He also asserted that a second doctor’s opinion was unnecessary, and that abortions need not take place in public hospitals. This reinterpretation of state law gave private practitioners and specialist clinics the green light to openly provide services for the first time anywhere in Australia.

Accurate national abortion data do not exist, especially for the 1970s and early 1980s when the major downturns in non-marital conception rates occurred. Abortion became notifiable in South Australia in 1970, but that is the only jurisdiction with comprehensive statistics from that date (Chan and Taylor 1991). It later also became notifiable in the Northern Territory and Western Australia, but has never been made so in the three eastern mainland states in which most Australians (currently 77%) live. Efforts to measure abortion in Australia (Chan and Sage 2005; Grayson, Hargreaves, and Sullivan 2005) have used Medicare claims data and National Hospital Morbidity (NHM) data, available since 1985 and 1994 respectively. The former cover services provided by private abortion clinics and private hospitals for which Medicare claims are presented. NHM data cover both public and private hospital procedures, and through comparison with Medicare data facilitate checking on potential private hospital Medicare claimants who for reasons of privacy etc. elect not to file claims. The prevalence of this sort of behaviour has also been estimated for abortion clinic patients via surveys in New South Wales (Adelson, Frommer, and Weisburg 1995) and Victoria (Nickson, Smith, and Shelley 2004).

This is not the place to delve in detail into Australian abortion data. Suffice to repeat that no national estimates cover the decade and a half following 1970, for which period only South Australian data are available. Age-specific abortion rates per 1,000 unmarried women have been estimated using these for the period 1970–1993 (Carmichael 1996). The rate at ages 15–19 in 1970 (4.9 per 1,000) more than trebled by 1973 (15.4 per 1,000) and quadrupled by 1978 (20.8 per 1,000), at around which level it stabilized. The rate at ages 20–24 in 1970 (15.9 per 1,000) immediately almost doubled

(28.7 per 1,000 in 1971), and was thereafter consistently in the high 20s or low 30s. Interpreting these data is hampered by not knowing how many notified abortions in 1970 would have been clandestine without the law change, but clearly the take-up of abortion by unmarried women in South Australia through the early 1970s was rapid. If, as seems likely, teenage abortion prior to 1970 was near zero, and a rise to some 18 per 1,000 unmarried 15–19 year olds in 1976 bears some resemblance to the scale of change nationally once abortion virtually on request became available in New South Wales, clearly abortion was the major factor in the national rate of non-marital conception at ages 15-19 (sum of both components in Figure 2) falling by 24 per 1,000 during 1971–1976. South Australia Health regularly publishes a graph of teenage birth, abortion, and pregnancy rates since 1970 (e.g., Chan et al. 2011, Figure 8b), and this shows rapid convergence of abortion and birth rates during the 1970s, both levelling out at around 20 per 1,000 after 1980. The trends are clearly linked, and national abortion rates for 1985–2003 that Chan and Sage (2005, Figure 3) plot alongside South Australian rates hint, because they are distinctly higher, that if available back to 1970 they would show an even sharper response to 1969–1971 changes to abortion laws. This is only to be expected given that South Australia still requires abortions to take place in hospitals, whereas New South Wales, Victoria, Tasmania, and the Australian Capital Territory have long also permitted them in other facilities. This wider range of termination options attracts interstate patients, particularly to Sydney and Melbourne (Nickson, Shelley, and Smith 2002), quite apart from any innate tendency to higher demand for abortion in larger metropolitan centres.

It is conceivable that freer access to abortion impacted most strongly on unmarried women who otherwise would have married, and therefore most strongly on the rate of non-marital conception leading to marital confinement. Male partners who formerly may have ‘done the right thing’ by marrying girlfriends may instead have helped them arrange terminations. Parents for whom a hasty marriage had previously minimized social embarrassment may instead have seen abortion facilitating complete concealment of a daughter’s ‘indiscretion’. And if better educated young women were especially likely to have formerly opted for marriage when pregnant, they may have been just the types to appreciate limitations early motherhood would impose, to have clear life plans it would disrupt and the skills and resources to obtain abortions, and to have parents also concerned that they not limit their life options. That said, to the extent that pregnancies terminated were otherwise destined to supply the adoption market, abortion clearly directly impacted rates of non-marital conception leading to non-marital confinement as well. And there is another factor to consider: decisions by women who previously would have married to instead become unmarried mothers, thus transferring confinements from marital to non-marital and steepening the decline in non-marital conceptions leading to marital confinement whilst applying a brake to that in those

leading to non-marital confinement. A particular inducement to such behaviour was the Whitlam Labor Government's introduction in 1973 of a Supporting Mother's (later Supporting Parent's) Benefit. This offered a more realistic economic base for choosing sole parenthood over other resolution options for unintended pregnancy.

Upturns in rates of non-marital conception leading to non-marital confinement following the declines of the 1970s (Figure 2) reflect the rise in consensual partnering that began in the late 1960s, and the increasing acceptance of childbearing within consensual unions that emerged through the 1980s and 1990s – in Australia as in other developed countries (Kiernan 2001). This force would quickly counteract and overwhelm those that had seen non-marital confinement rates fall. McDonald and Reimondos (2013) present survey data for Australia showing how relationship pathways to first birth changed between female cohorts born in the 1940s, 1950s, 1960s, 1970s, and 1980s. Across these cohorts, in conjunction with a major delay by the two youngest of them in entering any type of co-resident relationship, there occurred a marked decline in direct entry to marriage and a correspondingly sharp increase in marriages preceded by cohabitation, usually with the spouse but sometimes with others as well. The increased complexity of relationship histories McDonald and Reimondos demonstrate was a product of (2013, p. 70) the “wave of social liberalism” that emerged in reaction to “the rigid social regime of the male breadwinner model of the family that held sway in the 1950s and 1960s”, leading individuals to “construct their own identities rather than having [them] defined for them by societal norms and institutions.”

This meant taking more responsibility for one's own decisions and actions, promoting sensitivity to risk, and cautious decision-making. The rise of cohabitation was in substantial measure a product of this. Intimacy while ‘going steady’ could be experienced in a more relaxed environment that, because effective contraception was easier, was far less likely to produce an unintended pregnancy than in the 1950s and 1960s. With divorce rates rising quickly (Carmichael, Webster, and McDonald 1997), time could be taken to evaluate relationships in marriage-like settings before committing fully to them. And young women could prioritize education and careers that would give them economic independence to survive alone should the need arise in future. Then, of course, as cohabitation became more entrenched it was natural that having children in such relationships would increase. For a minority, living together would become an ongoing lifestyle within which families would be formed, just as other couples formed them within marriages. For others who would eventually marry it increasingly became of no great consequence should one or more children arrive before getting around to a wedding. Institutionally prescribed social propriety was no longer the main consideration in determining the relative timing of these events.

Figure 2 shows renewed declines in non-marital conception rates leading to non-marital confinement at ages 15–19 through 25–29 during the 1990s and early 2000s, but not at older ages. These almost certainly reflect the delayed entry into any form of co-resident relationship demonstrated for female birth cohorts of the 1970s and 1980s by McDonald and Reimondos (2013), and the general shift to later childbearing in which that trend was embedded (Carmichael 2013a). Renewed upturns from 2005 could be attributable, in part at least, to the introduction from July 1, 2004 of what was officially the Maternity Payment, but was quickly dubbed the Baby Bonus by the media. This was a universal payment of \$A3,000 on the birth of a child, which was scheduled to increase to \$A4,000 from July 1, 2006 and \$A5,000 from July 1, 2008. In 2008, however, it was discontinued for families earning over \$A75,000 in the six months following a birth and converted for others from a lump sum entitlement to one paid in 13 fortnightly instalments by the incoming Labor Government (Parr and Guest 2011). The 2004 scheme replaced a less lucrative tax offset scheme focused solely on first births (also, to the media, the Baby Bonus) introduced three years earlier, and was accompanied by several other family-friendly welfare initiatives. Assessments of the impact of these measures on Australian fertility have generally used words like “modest” and “slight” (Lattimore and Pobke 2008; Drago et al. 2011; Parr and Guest 2011), but Risse (2010, p. 231) did report an associated “highly significant increase in the childbearing intentions of women from lower-income households”. This may have manifested itself in increased rates of non-marital conception leading to non-marital confinement at ages 15–24. The amounts of money involved were trivial viewed alongside the lifetime cost of raising a child, but to women/couples on low incomes they may have been attractive incentives to initiate childbearing, or to have another child, sooner than otherwise planned.

4. Other related trends

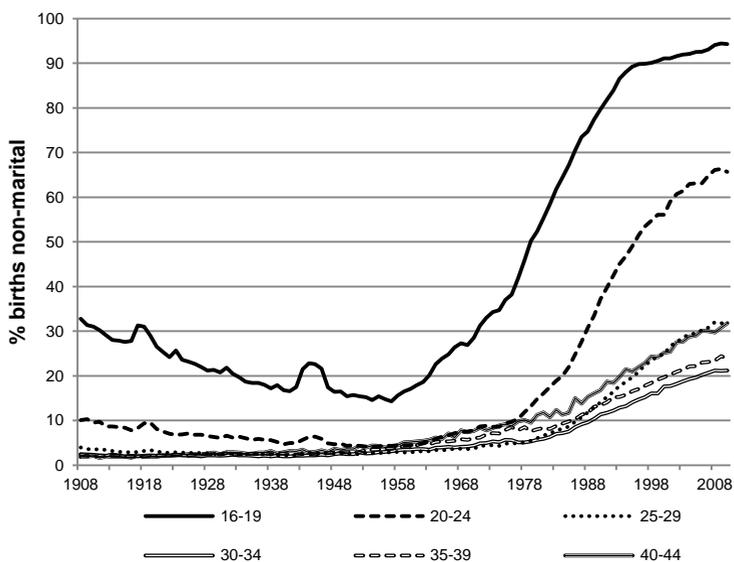
4.1 Percentage of births non-marital

The data from which non-marital conception rates were derived also yield, sometimes in conjunction with additional data, several other indices of interest. The nowadays quaintly and inappropriately named ‘illegitimacy ratio’ – the percentage of births taking place outside marriage – remained fairly constant, at around 5%, from 1908 until the mid-1950s. There then began an upswing that only recently has shown any sign of ending, at just under 35% (Carmichael 2013b). It was driven through the late 1950s and 1960s by the teenage and young adult pregnancies that supplied the then-growing

adoption market, but thereafter chiefly by the proliferation of cohabitation and childbearing within it.

Age-specific trends are shown in Figure 3. Non-marital births were well below 5% of all births at ages 25–29 and older until the mid-1950s, and then began to trend upward to 2010 levels of between 20% and 32%. Among these age groups the increase was most rapid for 25–29 year olds, who in the 1960s and early 1970s had the lowest proportion of births non-marital, but by 2010 had the highest. But the ages at which non-marital births clearly exceed marital births these days are 16–19 and 20–24. Until the early post-war years both age groups exhibited downward trends, aside from spikes reflecting temporary impediments to ‘shotgun’ marriage during the world wars. These declines essentially reflected declines in age at first marriage (Carmichael 1988), which meant that decreasing proportions of women giving birth at those ages had become pregnant in relationships insufficiently committed for marriage to have occurred before confinement. From the late 1950s, however, the proportions of births to women aged 16–19 and 20–24 that were non-marital have risen relentlessly, to well over 90% and around two-thirds in 2010 respectively. Until 1970 surging unintended pregnancies were mainly responsible, whereafter rejection of marriage as a response to unintended pregnancy, improved welfare provision for sole mothers, and then the spread of cohabitation as the predominant initial co-residential lifestyle kicked in. The stage has now been reached where it is well-nigh unheard of for teenagers having babies to be married, although as paternity of around 85% of ‘ex-nuptial’ babies born to them is acknowledged (Carmichael 2013b), most are probably in consensual unions. About a third of women giving birth at ages 20–24 are nowadays married, but that is a far cry from 95% around 1960, and the 90% figure that prevailed as recently as the mid-1970s.

Figure 3: Age-specific percentages of births non-marital, 1908-2010

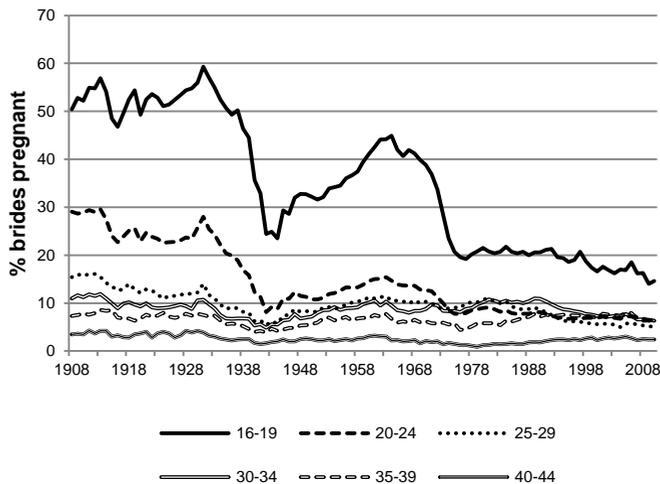


4.2 Age-specific bridal pregnancy ratios

Bridal pregnancy ratios (Figure 4), generated using lexis diagram principles from data on early marital confinements and annual marriage statistics, express the percentages of brides of given ages who were pregnant (i.e., who gave birth within eight months of their wedding dates). Teenage bridal pregnancy was generally in the 50%–60% range prior to the Great Depression of the 1930s. These were years when, to a considerable extent, women did not marry in their teens *unless* pregnant. It fell 15 percentage points during the Depression, then by a further 20 points under wartime conditions. While it recovered following the War, as teenage premarital pregnancies substantially drove the marriage boom that underpinned the baby boom, it only ever reached the immediate pre-war level again, not the pre-depression level. It did this in 1964, then began to fall again as the wisdom of ‘shotgun’ marriage began to be questioned, before dropping steeply once the abortion revolution occurred. By the late 1970s it had reached around 20%, where it stabilized for about a decade before beginning another slow decline that still continues. Age group 20–24 followed a similar path but at a much lower level – it

declined sharply during the Depression and Second World War; recovered up to the early 1960s without regaining its pre-war level; dropped again during the 1960s and more steeply during the early 1970s; and has wobbled around in the 6%–9% range ever since. Older age groups exhibit shallower trends associated with the Depression, the War, then the post-war sexual revolution, before converging (except age group 40–44) with age group 20–24 beyond the mid-1970s.

Figure 4: Age-specific bridal pregnancy ratios, 1908–2010



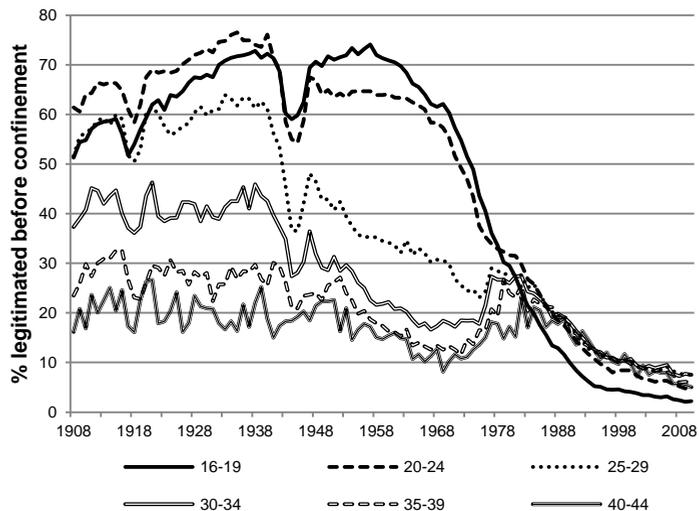
4.3 Age-specific legitimation ratios

Figure 5 plots age-specific trends since 1908 in the legitimation ratio, the percentage of non-maritally conceived births that occur within marriage (i.e., that are ‘legitimated’ by marriage prior to confinement). For most of the twentieth century there was a wide disparity in legitimation levels by age of mother. Prior to the Second World War the highest level was at ages 20–24. For teenagers it was slightly lower, the relatively late normative age for marriage and family formation at that time meaning there were comparatively few teenage non-marital pregnancies, and that those that did occur quite often did so in circumstances not conducive to marriage before confinement. Legitimation levels did, however, rise at these younger ages before 1939, probably as a function of decline in the aforementioned normative age for marriage and family

formation (Carmichael 1988). Levels at most ages dipped sharply during the world wars – another manifestation of the impediment troop departures were to ‘shotgun’ marriage – then after the Second World War an unambiguous negative relationship between legitimation and maternal age developed.

Legitimation for teenagers recovered to pre-war levels during the 1950s, while that for age group 20–24 only partly recovered, as did ratios for 25–29 and 30–34 year olds. In particular, a huge post-war gap opened between age groups 20–24 and 25–29 as ages at first marriage fell and non-marital pregnancies in the latter age group increasingly involved couples awaiting final divorces before marriage was legally possible. Teenage and early adult legitimation dropped through the 1960s as the wisdom of ‘shotgun’ marriage was queried. They then plummeted through the 1970s as the idea of marrying because one was pregnant lost all credibility in the face of sweeping attitude/value changes and the emergence of abortion and welfare-assisted sole parenthood as alternative pregnancy resolution options. The outcome was rapid convergence of legitimation ratios at all reproductive ages to levels between 20% and 30%. Subsequently these have continued to fall to well below 10%, teenagers nowadays notably being the least likely to marry between conception and confinement, completely reversing the situation during the baby boom years. Clearly, by 2010, marriage due to pregnancy had been emphatically rejected at all reproductive ages.

Figure 5: Age-specific legitimation ratios, 1908–2010



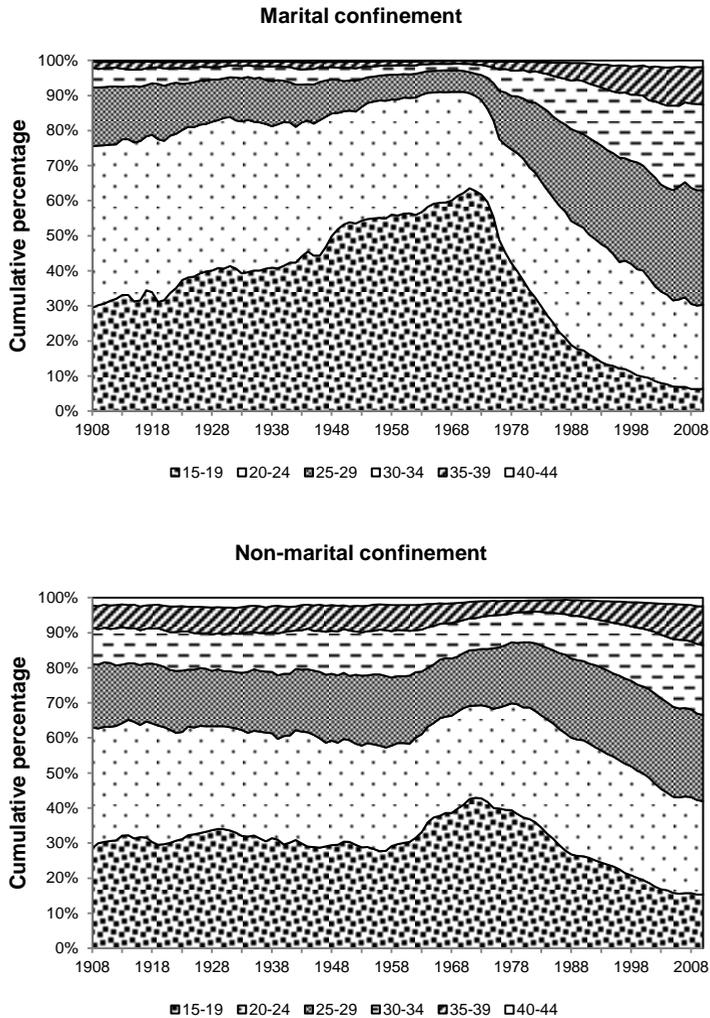
4.4 Age distributions of non-marital conceptions

Age distributions of non-marital conceptions leading to marital and non-marital confinement are shown in Figure 6. They are standardized to the age distribution of the female population of reproductive age in 1990 to eliminate distortion due to changes in age composition. Between 1908 and the early 1970s the teenage share of non-marital conceptions resulting in marital confinement doubled more or less linearly, from 30% to 60%. The shares of age groups 20–24 and 25–29 contracted to accommodate this growth, which until the Second World War was largely due to declining rates of non-marital conception at older reproductive ages, but thereafter reflected the rapidly rising rates of teenage conception (Figure 2). The period following the early 1970s, as the second demographic transition took hold, then saw the teenage share of these conceptions fall continuously, to well under 10% by 2010. The slack was taken up by older reproductive ages (principally 25–29, 30–34, and 35–39), at which cohabiting women, who were probably mostly intentionally pregnant, increasingly dominated the diminished corpus of pregnant brides. These older women, in the main, were probably not marrying to satisfy social convention, but because, being pregnant, it was as good a time as any to do something they and their partners intended doing at some point anyway. Decisions to have children and to marry during pregnancy may often even have been consciously linked.

The second graph in Figure 6, pertaining to non-marital conceptions ending in non-marital confinement, is both different from and similar to the first. The chief difference is the lack of change until the mid-1950s, ages 15–19 and 20–24 consistently accounting for around 30% of conceptions each, and ages 25–29 and 30–34 a little under 20% and about 10% respectively. Teenagers only increased in importance through the late 1950s and 1960s, their standardized share rising from 27.7% in 1956 to 42.9% in 1972. Compensating share reductions occurred at older reproductive ages, but especially 25–29 through 35–39. Then from the mid-1970s, as cohabitation and childbearing within it increased, and a much later pattern of fertility developed as young women focused on their educations, careers, and social lives, the teenage share of non-marital conceptions resulting in non-marital confinement fell again to 15%, half the pre-mid-1950s level. Compensating increases, especially after the mid-1980s, were concentrated at and beyond the new normative childbearing ages, 25–29 and 30–34. Non-marital childbearing transitioned from substantially the preserve of teenagers conceiving in non-co-residential relationships with effective contraception irregular or non-existent, to overwhelmingly the product of probably mostly planned conceptions at more normative reproductive ages within consensual unions. In this process age group 20–24 was something of a buffer. Its 1972 and 2010 standardized shares of non-marital conceptions resulting in non-marital confinement were identical (26.6%), but in

between its share rose to 33.4% in 1987, before subsiding again as the early twenties became too young for many to seriously contemplate parenthood.

Figure 6: Standardized age distributions of non-marital conceptions leading to marital and non-marital confinement, 1908–2010



4.5 Age-specific distributions of premaritally conceived marital first confinements by duration of marriage

The distribution of marital first confinements following non-marital conception by duration of marriage within durations 0–7 months has been examined in previous Australian studies of non-marital pregnancy. The belief has been that it aids understanding of the contexts in which pregnancies followed by marriage before confinement occurred, and points to broad changes in their relative importance over time (Spencer 1969; Ruzicka 1977; Carmichael 1996). Spencer (1969) divided “premarital” pregnancies into “shotgun” and “anticipatory” subgroups based on their having led to confinement at marriage durations 0–3 and 4–7 months respectively. However, given that the term ‘shotgun’ is (inappropriately) widely used to refer to any marriage in which the bride is pregnant, Ruzicka’s (1977) terminology when making the same distinction is arguably preferable. He differentiated between “forced” and “advanced” marriages.

The theory behind this differentiation is that the longer the delay from conception to marriage (and hence the shorter the interval from there to confinement) the greater the likelihood that pregnancy actually precipitated marriage, as distinct from having occurred in the lead-up to an already planned wedding. Where marriage was a response to pregnancy, time would be taken for pregnancy to be confirmed, agreement to marry to be reached, and wedding arrangements to be made, shortening the interval from marriage to confinement. In his later analysis Carmichael (1996) further divided Ruzicka’s “advanced” subgroup into confinements at marriage durations 4–5, 6, and 7 months, for two reasons. First, the label “advanced” was a misnomer if conception had occurred shortly before an already arranged wedding. Second, there was interest in what impact marketing of the pill from the early 1960s and the practice of prescribing it from several weeks before a young woman’s wedding day had had on pregnancy at marriage. This would be more clearly reflected in the relative importance of confinements at marriage duration 7 months, and possibly also 6 months, than of those at durations 4–7 months.

Trends by age of mother in percentages of marital first confinements within 8 months of marriage that occurred at marriage durations 0–3, 4–5, 6, and 7 months are shown in Figure 7. Large short-term fluctuations become increasingly apparent beyond ages 25–29 because diminishing numbers of confinements lead to volatility over short periods, so these age groups do not warrant close attention. Age groups 16–19 and 20–24 exhibit long downward trends in the importance of confinement at marriage durations 0–3 months extending across the world wars and beyond. A similar, shorter trend is evident at ages 25–29, terminating around the outbreak of the Second World War. These declines probably reflect a trend to earlier marriage, interrupted by the

Depression (Carmichael 1988). This progressively rendered younger women more likely to become premaritally pregnant in relationships in which marriage was imminent if not already planned, and less likely to do so in more casual, even exploitative, relationships in a climate where youthful marriage was uncommon *unless* one was pregnant. The main counterpoints to these downward trends at durations 0–3 months were upward trends at duration 6 months and, for part of the time, 7 months, implying proportionately more conceptions within sight of marriages that were perhaps mostly already scheduled. The declining trends in confinement after 0–3 months at ages 16–19 and 20–24 reversed emphatically from the early 1960s, the shares of these ‘forced’ marriages rising for about two decades, declining then levelling off through the 1980s and 1990s, then rising again from the late 1990s to highest-ever recorded levels.

Figure 7: Percentages of marital first confinements within eight months of marriage occurring at marriage durations 0–3, 4–5, 6 and 7 months by age

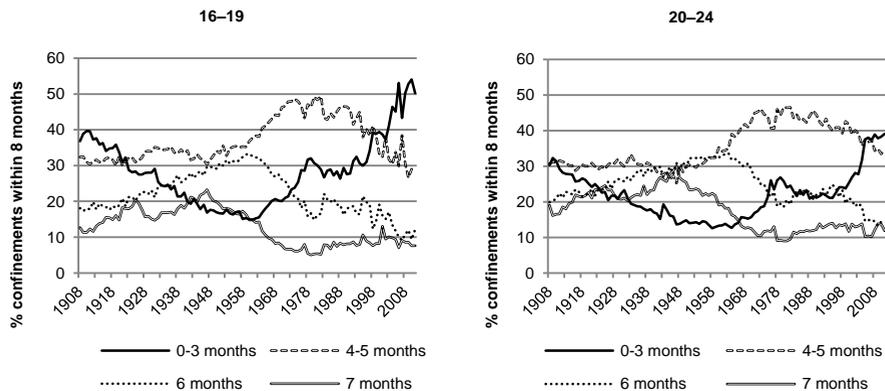
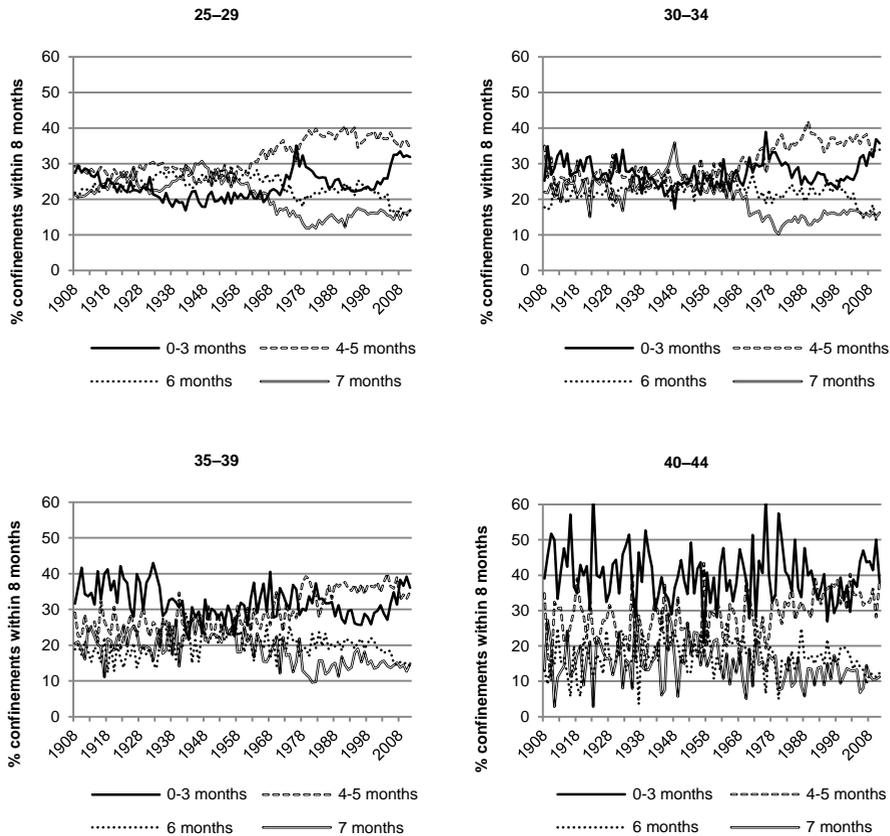


Figure 7: (Continued)



The upturns through the 1960s and 1970s were repeated at ages 25–29, but thereafter this age group saw decline through the 1980s and 1990s followed by recovery through the early years of the new millennium, a pattern also evident for age groups 30–34 and 35–39.

The 1960s and 1970s, of course, embraced both the height of the increase in the teenage rate of non-marital conception leading to marital confinement and the dramatic decline in that rate and the equivalent rate for 20–24 year olds that followed through the 1970s (Figure 2). There is, however, no discernible imprint of that sharp turning point

in the 0–3 months trend lines at ages 16–19 and 20–24 in Figure 7. This implies that as induced abortion suddenly eliminated many ‘shotgun’ marriages it did so either without being selective by gestational age at marriage or by being selective in a way that perpetuated a trend already under way. It is likely that the driving force here through the 1960s was late premarital prescription of the pill to intending brides, and its promotion of simultaneous sharp declines in the shares of confinements at marriage durations 6 and 7 months. Because these shares fell, those at durations 0–3 and 4–5 months had to rise to compensate. This ‘driving force’ may have continued to operate through the 1970s, but abortion selective of premarital pregnancies that if carried to term would have resulted in marital confinements after 6 or 7 months is also a possibility. These would be pregnancies where marriage would have occurred quickly following conception. The tendency has been to assume such pregnancies were products of intercourse within sight of already scheduled weddings. However, perhaps some were cases where parents would have been anxious to arrange weddings extremely quickly to minimize social embarrassment, such parents then becoming equally anxious to encourage abortions to eliminate embarrassment altogether.

It is, though, interesting to note that, unlike those at duration 6 months, downturns in the shares of confinements at marriage duration 7 months at ages 16–19 and 20–24 in Figure 7 began well before oral contraception arrived in 1961. They date from shortly after the Second World War, and the reason for their progress through the late 1940s and 1950s may be that as the post-war marriage boom unfolded it was ‘going steady’ relationships that could produce moderately rapid responses to unintended pregnancy (ones leading to confinement at marriage durations 4–6 months) that increasingly contributed ‘shotgun’ marriages, not those in which the wedding date was set and imminent.

The more recent rises in the importance of confinement at marriage durations 0–3 months at ages 16–19 through 35–39 are reflective of (i) the almost complete rejection of the notion that precipitate marriage is an appropriate response to unintended premarital pregnancy and (ii) maturing of the cohabitation phenomenon under the second demographic transition. These developments appear to have led to a much more relaxed attitude to the scheduling of weddings where the bride is pregnant, with almost certainly less concern that they occur before a ‘baby bump’ is obvious. One thing that stands out at ages 25–29 through 35–39 in Figure 7 is the much more dispersed nature of the four trend lines since 1970 than before that, when especially at ages 25–29 and 30–34 they were tightly bunched in a range of about 10 percentage points. For most of the last 40 years the middle-of-the-road trend line for duration 4–5 months has dominated at just below 40% importance, while that for duration 7 months has been by some margin the lowest. With couples now typically cohabiting before marriage (McDonald and Raimondos 2013), the scenario of pregnancy arising from unprotected

experimental intercourse between non-co-resident engaged couples in the shadow of their wedding days is far rarer than it once was. Over the last decade or so, moreover, the importance of confinement at marriage duration 6 months has also dropped to levels similar to those for duration 7 months (Figure 7). This is further evidence that these days couples that marry with the bride pregnant are mostly cohabiters who are little concerned with doing so quickly to conceal physical disclosure of their condition. They have no reason to conceal it, their open cohabitation, not a ‘baby bump’, the evidence of sexual intimacy that is no longer frowned upon by most members of society anyway.

5. Brides pregnant with second and subsequent children since 1976

Data analysed above have pertained to non-marital confinements and marital first confinements within eight months of marriage. This reflects the reality that with social convention in Australia for much of the twentieth century strongly encouraging ‘legitimation’ of children conceived outside marriage before birth, pregnant brides were highly likely to be pregnant with first children, not second or subsequent children. While other possibilities are conceivable, situations in which this was not the case were probably most likely to arise (i) where there had been a previous non-marital birth by another man or (ii) where a woman was remarrying after having one or more children by a previous husband. And, as noted earlier, in both these circumstances the child is likely to have been treated statistically as a first child anyway, because of the convention of birth registration forms seeking details only of previous children “of this marriage” or “of this relationship”. With the far more relaxed attitude to consensual partnering and childbearing that has evolved during the second demographic transition, however, it stands to reason that births that occur within marriage following premarital conception are nowadays less often first births. The scenario in which a couple has one or more children before marriage and is pregnant with a second or subsequent child on their wedding day seems likely to have become more common, so efforts were made to secure data that would allow this hunch to be investigated.

Data on confinements at marriage durations 0–7 months by age of woman and “previous issue” were available from 1976 onward. Until then only data for women classified as having no previous issue (i.e., as having first confinements) were ever published. Figure 8 plots, from 1976 to 2011 by age of mother, percentages of premaritally conceived marital confinements that were second or higher parity. The solid trend line is for all maternal ages below 45 years; others are for ages less than 20, then 20–24 through 35–39. The solid line shows an upward trend from below 5% in 1976 to around 17% in 1994 (save for an unexplained dip in 1989), followed by a flat trend until 2006 then another big increase in 2007. The latter is spurious. It reflects

several States and Territories having responded over time to ABS urging, ongoing since publication of Carmichael's (1986) paper on flaws in Australian parity data, to move away in their birth registration practices from collecting data only on previous issue of the current relationship and ask for details of all previous children of the mother. By 2007 Queensland and Victoria were still not compliant and Tasmania's compliance was incomplete, but the ABS decided to begin basing previous issue in its data on all previous children born to the mother where such information was available.

Data beyond 2006 in Figure 8 (and indeed in several earlier graphs) are thus hybrid, in that two definitions of a woman's parity are in play, the old one for about 45% of the population and the new one for the other 55%. But the big 2007 increase for all ages under 45 is probably entirely due to women's parities, other than in Queensland and Victoria, suddenly taking into account births by men other than the current husband or partner. We therefore seem to have in Figure 8 two things. First, evidence that more complicated family formation profiles involving one or more non-marital births followed by a premaritally conceived marital birth became more common as consensual partnering became established between the mid-1970s and the early 1990s (other couples may, of course, have had non-marital births followed by maritally conceived marital births). Second, a suggestion, based on the 2007 increment in Figure 8 and the realization that it reflects a redefinition of parity for only 55% of Australia's population, that something in excess of 30% of premaritally conceived marital confinements these days are not first confinements. In perhaps half of those cases the father of previous children is not the current spouse.

The radically altered age distribution since the mid-1970s of women experiencing marital first confinements following premarital conception as pregnant teenaged brides faded into history, and premarital cohabitation became commonplace, has been demonstrated in Figure 6. From being responsible for almost half of these confinements in 1976 teenagers accounted for less than 4% in 2011, while from accounting for less than 2% and less than 5% respectively at the former date, 35–39 year olds and 30–34 year olds accounted for over 13% and almost 25%. Figure 9 shows trends in the age composition of women confined maritally following premarital conception of second or higher parity births as this circumstance has become more common. Almost 20% were teenagers in 1976 and 60% were aged under 25 in 1981. By the mid-2000s less than 2% were teenagers and barely 20% were younger than 25. At the other end of the reproductive age spectrum the proportion aged 30 or older had risen from less than 13% in 1978 to over 50% in 2010. Part of this transition was attributable to the redefinition of parity to reflect all previous births, not just those of the current relationship, in data for States other than Victoria and Queensland from 2007, but only a small part. Clearly, as marital confinement with premaritally conceived children has increasingly involved second or higher parity births, it has been women of currently normative reproductive

ages (25–34) and older who have led the charge in commencing their family formation outside marriage and completing it within marriage.

Figure 8: Percentages of premaritally conceived marital confinements parity two or higher by age, 1976–2011

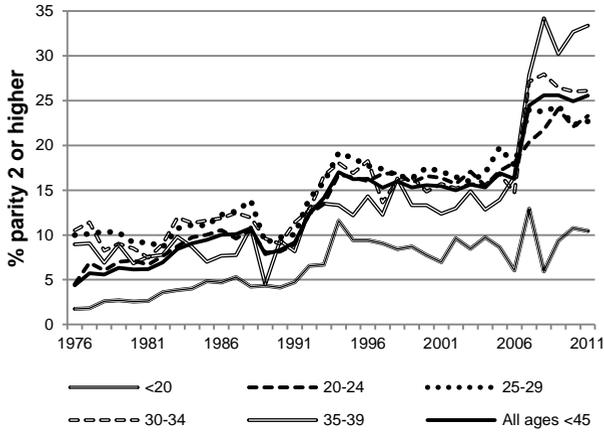
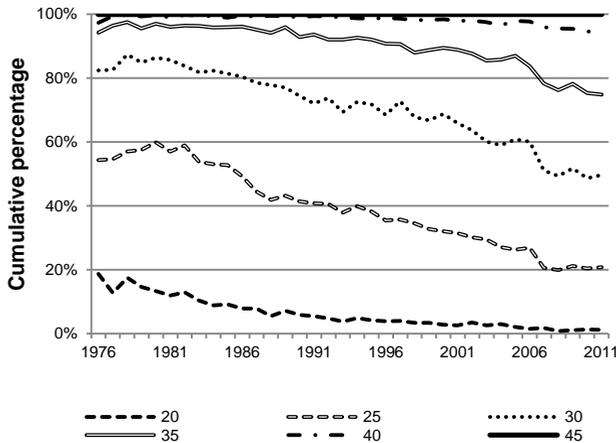


Figure 9: Cumulative age distributions of women experiencing premaritally conceived marital births that were second or higher parity, 1976–2011



6. Discussion

This paper has traced trends over more than a century in several indices pertaining to non-marital pregnancy in Australia, placing those associated with the second demographic transition in historical context. It is arguable that developments in this area following the Second World War, with parental oversight of courtship greatly weakening as it became ever easier for the young to be intimate in total privacy, were a fundamental trigger to the broader rejection of normatively and institutionally prescribed values widely held to underpin the second demographic transition. Initially, in the 1950s, ages at marriage fell, as many, though by no means all, unintended pregnancies were resolved in societally (and religiously) approved fashion – through ‘legitimation’ of the unborn children prior to delivery. What was happening was to a degree kept under control by the fact that small 1930s birth cohorts were affected.

However, as baby boomers entered their middle and later teens through the 1960s and numbers of non-marital births and hence — given prevailing views as to the best interests of those children — adoptions increased rapidly, the seeds of a concerted challenge to life prescriptions centred on the breadwinner model of the family were sown. The advent of oral contraception and the denial of access to it to the unmarried until shortly before they did marry were important catalysts for revolution. The capacity the pill conferred to control fertility was soon widely appreciated, and indignation that preventable pregnancies were being allowed to dictate the courses of young women’s lives became increasingly shrill. Not only was access to this new technology demanded; so, too, was access to the ultimate safety net, induced abortion. Control over unwanted reproductive consequences of sexual engagement was key to being able to control one’s life.

Through the second half of the 1960s there was, in Australia, a brief resurgence of the trend to earlier marriage among couples who recognized that the pill, in allowing them to defer parenthood indefinitely, enabled them to respond to peer pressure to be sexually active without compromising their parents’ values. But it was inevitable once first birth intervals began to lengthen (Carmichael 1988, Table 6) that the need to marry to enjoy childless co-residence with an intimate partner would be challenged, and living together, at least as a precursor to marriage, would become commonplace. Rising divorce rates only enhanced this inevitability as it was appreciated that many of the youthful, often pregnancy-precipitated marriages of the 50s and 60s were foundering.

Rates of non-marital conception leading to marital confinement at ages 15–19 and 20–24 in particular (Figure 2) exemplify the mounting pressure for release from religiously inspired behavioural norms governing sexual activity through the 1950s and 1960s, and the breakneck speed with which they were abandoned once abortion law reform provided a circuit breaker in the early 1970s. Rejection of marriage as the

honourable response to unintended non-marital pregnancy was quickly massive, and ultimately almost total. Abortion and welfare-supported sole parenthood were preferable alternatives. The temporary nature of the simultaneous decline in rates of non-marital conception leading to non-marital confinement simply reinforces how rapidly consensual partnering and family formation were embraced by young Australians once confident enough to jettison elements of Judeo-Christian morality that no longer made sense in an age of unprecedented capacity to control fertility. Having children without committing to marriage became ever more normal and accepted, and while having them at all at younger reproductive ages was increasingly viewed as not the most sensible way to arrange one's life, marrying to have them at those ages was even less attractive. Teenagers today, if they give birth at all, overwhelmingly do so unmarried (Figure 3). Teenage brides remain the most likely to be pregnant, but the probability of their being pregnant is one-third of what it was in the mid-1960s (Figure 4) and they are now so few in number that pregnant teenaged brides are a seriously threatened species bordering on extinction. Legitimation of non-maritally conceived children, well above a majority occurrence at ages 16–19 and 20–24 in the early 1970s, is today a well below 10% minority occurrence at all reproductive ages, and almost unheard of among teenagers carrying non-marital pregnancies to term (Figure 5). This is another index that dramatically captures the extent of change in societal values.

The changing age compositions of both marital and non-marital confinements following non-marital conception provide further powerful images of social change under the second demographic transition. Teenagers, formerly major players through their vulnerability to unintended pregnancy in typically non-co-residential relationships poorly protected by contraception, are now minor contributors to a scene dominated by planned conceptions at normative reproductive ages within consensual unions (Figure 6). As far as the greatly diminished pool of marital compared to non-marital confinements following non-marital conception (Figure 5) is concerned, instances, once common, where pregnancy followed tentative first attempts at coital intimacy with weddings imminent appear to have been rare for some time (Figure 7). Premarital cohabitation is now the norm, and concern that marriages involving pregnancy be as little delayed as possible has largely dissipated now that it rather than a 'baby bump' implies sexual intimacy. Indeed the latter may nowadays often be a cause for celebration rather than a symbol of social impropriety to be hidden. Recent steeply rising duration 0–3 months shares of premaritally conceived marital confinements, at younger reproductive ages to highest recorded levels (Figure 7), certainly suggest a rather carefree contemporary attitude to pregnant brides' physical appearance.

Casual observation suggested that with non-marital childbearing in consensual unions now widespread, more complex family formation pathways mixing non-marital and marital births were likely to have become more common. Investigation of trends

since the mid-1970s in proportions of premaritally conceived marital confinements delivering second or higher parity births confirmed this, suggesting that it had occurred relatively early in the second demographic transition – by the mid-1990s. There had been little change subsequently (Figure 8), other than a continued ageing of the profile of women following such pathways (Figure 9).

References

- Adelson, P.L., Frommer, M.S., and Weisburg, E. (1995). A survey of women seeking termination of pregnancy in New South Wales. *Medical Journal of Australia* 163(8): 419–422.
- Aitchison, R. (1972). *Thanks to the Yanks? The Americans and Australia*. Melbourne: Sun Books.
- Australian Senate. (2012). Commonwealth contribution to former forced adoption policies and practices. *Australian Journal of Adoption* 5(1).
- Basavarajappa, K.G. (1968). Pre-marital pregnancies and ex-nuptial births in Australia, 1911–66. *Australian and New Zealand Journal of Sociology* 4(2): 126–145. doi:10.1177/144078336800400205.
- Beck, U., Giddens, A., and Lash, S. (1994). *Reflexive modernization: Politics, tradition and aesthetics in the modern social order*. Cambridge: Polity Press.
- Carmichael, G.A. (1985). Non-marital pregnancies in New Zealand since the second world war. *Journal of Biosocial Science* 17(2): 167–183. doi:10.1017/S0021932000015625.
- Carmichael, G.A. (1986). Birth order in Australian vital statistics. *Journal of the Australian Population Association* 3(1): 27–39.
- Carmichael, G.A. (1988). *With this ring: First marriage patterns, trends and prospects in Australia*. Canberra: Department of Demography, Australian National University and Australian Institute of Family Studies.
- Carmichael, G.A. (1996). From floating brothels to suburban semirespectability: Two centuries of nonmarital pregnancy in Australia. *Journal of Family History* 21(3): 281–315. doi:10.1177/036319909602100303.
- Carmichael, G.A. (1998). Things ain't what they used to be! Demography, mental cohorts, morality and values in post-war Australia. *Journal of the Australian Population Association* 15(2): 91–113.
- Carmichael, G.A. (2013a). *Decisions to have children in late 20th and early 21st century Australia: A qualitative analysis*. Dordrecht: Springer. doi:10.1007/978-94-007-6079-0.
- Carmichael, G.A. (2013b). Estimating paternity in Australia, 1976-2010. *Fathering* 11(3): 256–279. doi:10.3149/fth.1103.256.

- Carmichael, G.A., Webster, A., and McDonald, P. (1997). Divorce Australian style: A demographic analysis. *Journal of Divorce and Remarriage* 26(3/4): 3–37. doi:10.1300/J087v26n03_02.
- Chan, A. and Sage, L.C. (2005). Estimating Australia's abortion rates 1985–2003. *Medical Journal of Australia* 182(9): 447–452.
- Chan, A. and Taylor, A. (1991). *Medical termination of pregnancy in South Australia: The first 20 years 1970–1989*. Adelaide: South Australian Health Commission.
- Chan, A., Scheil, W., Scott, J., Nguyen, A-M., and Sage, L. (2011). *Pregnancy outcome in South Australia 2009*. Adelaide: Pregnancy Outcome Unit, South Australia Health.
- Corr, P. and Kippen, R. (2006). The case for parity and birth-order statistics. *Australian and New Zealand Journal of Statistics* 48(2): 171–200. doi:10.1111/j.1467-842X.2006.00433.x.
- Drago, R., Sawyer, K., Shreffler, K.M., Warren, D., and Wooden, M. (2011). Did Australia's baby bonus increase fertility intentions and births? *Population Research and Policy Review* 30(3): 381–397. doi:10.1007/s11113-010-9193-y.
- Gillard, J. (2013). National apology for forced adoptions. *Australian Journal of Adoption* 7(1).
- Graham, T. (2012). Apology season. *Australian Journal of Adoption* 4(1).
- Grayson, N., Hargreaves, J., and Sullivan, E.A. (2005). *Use of routinely collected national data sets for reporting on induced abortion in Australia*. Sydney: Australian Institute of Health and Welfare National Perinatal Statistics Unit.
- Kenny, P., Higgins, D., Soloff, C., and Sweid, R. (2012). *Past adoption experiences – National research study on the service response to past adoption practices*. Melbourne: Australian Institute of Family Studies.
- Kiernan, K. (2001). The rise of cohabitation and childbearing outside marriage in Western Europe. *International Journal of Law, Policy and the Family* 15(1): 1–21. doi:10.1093/lawfam/15.1.1.
- Lattimore, R. and Pobke, C. (2008). *Recent trends in Australian fertility*. Canberra: Australian Government Productivity Commission.
- Lavis, D.R. (1975). *Oral contraception in Melbourne, 1961–1971*. Canberra: Department of Demography, Australian National University.

- McDonald, P. (1974). *Marriage in Australia: Ages at first marriage and proportions marrying, 1860–1970*. Canberra: Australian National University.
- McDonald, P. (2006). Low fertility and the state: The efficacy of policy. *Population and Development Review* 32(3): 485–510. doi:10.1111/j.1728-4457.2006.00134.x.
- McDonald, P. and Reimondos, A. (2013). Relationship pathways and first birth in Australia. In: Evans, A. and Baxter, J. (eds) *Negotiating the life course: Stability and change in life pathways*. Dordrecht: Springer: 69–98. doi:10.1007/978-90-481-8912-0_5.
- McKernan, M. (1983). *All in! Australia during the second world war*. Melbourne: Nelson.
- Moor, M. (2006). Silent violence: Australia's white stolen children. [PhD thesis]. Brisbane: Griffith University, School of Arts, Media and Culture.
- Moore, J.H. (1981). *Over-sexed, over-paid and over here: Americans in Australia 1941–1945*. St Lucia, Brisbane: University of Queensland Press.
- Nickson, C., Shelley, J., and Smith, A. (2002). Use of interstate services for the termination of pregnancy in Australia. *Australian and New Zealand Journal of Public Health* 26(5): 421–425. doi:10.1111/j.1467-842X.2002.tb00341.x.
- Nickson, C., Smith, A.M.A., and Shelley, J.M. (2004). Intention to claim a medicare rebate among women receiving private Victorian pregnancy termination services. *Australian and New Zealand Journal of Public Health* 28(2): 120–123. doi:10.1111/j.1467-842X.2004.tb00923.x.
- NSW Department of Child Welfare. (1966). *Annual report: Child welfare department of New South Wales, 1965-66*. Sydney: Government Printer.
- Office of Road Safety. (1984). *Road traffic accident data and rates: Australia, states and territories 1925 to 1981*. Canberra: Office of Road Safety.
- Parr, N. and Guest, R. (2011). The contribution of increases in family benefits to Australia's early 21st-century fertility increase: An empirical analysis. *Demographic Research* 25(6): 215–244. doi:10.4054/DemRes.2011.25.6.
- Refshauge, W.F. (1982). Non-marital pregnancy in Australia. [Masters thesis]. Canberra: The Australian National University, Department of Demography.

- Risse, L. (2010). '... And one for the country'. The effect of the baby bonus on Australian women's childbearing intentions. *Journal of Population Research* 27(3): 213–240. doi:10.1007/s12546-011-9055-4.
- Ruzicka, L.T. (1975). Non-marital pregnancies in Australia since 1947. *Journal of Biosocial Science* 7(2): 113–132. doi:10.1017/S002193200000286.
- Ruzicka, L.T. (1976). Age at marriage and timing of the first birth. *Population Studies* 30(3): 527–538. doi:10.2307/2173749.
- Ruzicka, L.T. (1977). Premarital pregnancies in Australia. *Journal of Marriage and the Family* 39(2): 387–395. doi:10.2307/351133.
- Santow, G. (1991). Trends in contraception and sterilization in Australia. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 31(3): 201–208. doi:10.1111/j.1479-828X.1991.tb02781.x.
- Spencer, G. (1969). Pre-marital pregnancies and ex-nuptial births in Australia, 1911–66 – a comment. *Australian and New Zealand Journal of Sociology* 5(2): 121–127. doi:10.1177/144078336900500204.
- Stloukal, L. (1997). Changing patterns of extramarital conceptions in the Czech Republic, 1960–93. *Journal of Biosocial Science* 29(4): 471–489. doi:10.1017/S0021932097004719.
- Sturma, M. (1989). Loving the alien: The underside of relations between American servicemen and Australian women in Queensland, 1942–1945. *Journal of Australian Studies* 13(24): 3–17. doi:10.1080/14443058909386990.
- van de Kaa, D.J. (1987). Europe's second demographic transition. *Population Bulletin* 42(1): 1–57.
- Zou, Q.F. (1998). Mortality experience from injury and violence in Australia during 1869–1992. [PhD thesis]. Canberra: The Australian National University, Demography and Sociology Program.