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Research Article

An age–period–cohort approach to disentangling generational differences in family values and religious beliefs: Understanding the modern Australian family today

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An age–period–cohort approach to disentangling generational differences in family values and religious beliefs: Understanding the modern Australian family today

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Abstract

BACKGROUND

Over the last few decades, Australian families have undergone profound changes, including fewer marriages, more divorces, and an increase in double-income families, resulting in a qualitative shift in understanding the family today.

OBJECTIVE

This paper investigates whether generational differences in family values and religious beliefs are at the core of changes to the family structure.

METHODS

Using the Household, Income and Labour Dynamics in Australia (HILDA) survey, we apply the Age–Period–Cohort Detrended (APCD) methodology to investigate generational differences in family values and religious beliefs.

RESULTS

Results show that changes in family values and religious beliefs are overwhelmingly generational. Cohorts born between 1946 and 1964 (commonly referred to as baby boomers) have significantly contributed to the revolutionary shift in family behaviours and attitudes.

CONCLUSIONS

The baby boomer generation has played a crucial role in supporting progressive views on marriage, children, gender roles, and religious beliefs. When compared to older and younger cohorts, baby boomers saw the largest shift in family behaviours and attitudes, having matured in a period of rapid economic prosperity and significant social change.

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The unique events that occurred during their formative years may have influenced these behaviours and attitudes, ultimately contributing to the qualitative shift in the understanding of family.

CONTRIBUTION

Recognising differences between cohorts is essential to our understanding of social change. The APCD models used in this study can detect birth cohort nonlinearities pertaining specifically to the cohort variable. We then search for appropriate explanations of these cohort fluctuations with contextual elements of cohort-specific socialisation and life conditions.

1. Introduction

Over the last four decades, Australian families³ have undergone profound changes, including an increase in divorce rates, a decline in marriage rates and family size, and a shift to double-income families. Before the 1980s, marriages were already declining and cohabitation rates rising. Nevertheless, these trends have continued, and couples living together before marriage have become the norm. According to census data, in 2016 around 1% of these cohabiting couples were same-sex couples, an increase of 36% since 2011.

Lone-parent families also increased from less than 7% in 1976 to 10.2% in 2016. Interestingly, the rise in one-parent families is mainly due to an increase in divorce and cohabiting relationships, which are less stable than marriage (de Vaus 2004; Hayes et al. 2010). Also, women nowadays have their first child in their early thirties, almost a decade later than the standard age in the 1980s. The share of employed mothers increased from 43% in 1981 to over 70% in 2020⁴ (although they are more likely to be in part-time jobs).

Overall, there has been a qualitative shift in the understanding of family. The heterosexual parent–child family with traditional gender roles is now just one of many diverse family types. Does this mean that the well-established family values are losing importance, and ‘traditional’ family life is declining? Alternatively, is the concept of ‘family’ evolving?

³ We understand a family as “two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household”. (<https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter32102016> last accessed August 2020). A family household is a household with a family (or more than one family), and some households may not contain family members.

⁴ <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-status-families/latest-release>.

Studies of changing family values can focus on changes over the life course (age effects), changes over generations (cohort effects), or changes over time (period effects) (Firebaugh 1997; Glenn 2005). According to the definition given by Blanchard, Bunker, and Wachs (1977), an ‘ageing’ effect is a change in variable values that occurs among all cohorts, independently of time, as each cohort grows older. Thus, younger individuals may view children as less central to their lives than older individuals (Jones and Brayfield 1997). A ‘period’ effect is a change that occurs at a particular time, affecting all age groups and generations uniformly. Factors that might cause period effects in changes to the family structure include, for example, the approval of divorce or same-sex marriage laws.

Finally, a ‘cohort’ effect is a change that characterises populations born at a particular point in time (i.e., a generation) but which is independent of the processes of ageing and time. Cohort effects generally arise during socialisation. As Alwin and McCammon (2003) argue, people form their attitudes and beliefs during the early stages of life and maintain them as they grow older. Social change occurs gradually as earlier birth cohorts (generations) are replaced by subsequent generations that differ in their attitudes and beliefs. One of the main issues when studying age–period–cohort (APC) models arises from the fact that each of the three can always be identified by knowing the other two (for example, if the age of a person and the current year-period are known, the cohort of birth is simply the year minus the year of birth).

The focus of this paper is to identify generational effects, which go beyond the simple linear combination of age and period. This is useful to understand whether generational differences (birth cohort differences) in family attitudes and values are at the core of the ongoing changes to the family structure. Our aim is to analyse differences between birth cohorts. Using the 2004–2018 Household, Income and Labour Dynamics in Australia (HILDA) survey, we apply the Age–Period–Cohort Detrended (APCD) methodology to better assess cohort-based differences in family values. We use the APCD approach to detect cohort nonlinearities pertaining specifically to the cohort variable, which cannot be explained by the simple combination of age and period (Chauvel and Schröder 2014).

To do so, we focus on two sets of values. The first set includes important family values concerning marriage, parenthood, and gender roles. To further support our hypotheses, the second set relates to religious beliefs. Increasing secularisation may be at the core of the ongoing changes to the family structure. Loss of religiosity is likely to have eroded the traditional religious base of many moral absolutes associated with family issues and behaviours such as divorce, homosexuality, and abortion (Harding and Jencks 2003; Halman and van Ingen 2015).

Changes to the family structure have been widely discussed in the literature from a theoretical point of view (Beck 1992; Popenoe 1988, 1993; Schumpeter 1988;

Lesthaeghe 1995), and empirical evidence has been provided for several countries (see, for example, Dorbritz 2008; Fokkema et al. 2008; Prskawetz et al. 2008). However, fewer studies have examined birth cohort changes as a critical explanation (see, for example, Thornton and Young-DeMarco 2001; Gubernskaya 2010; Choe et al. 2014; Lee 2019). As a young country, Australia has been exposed to significant and sometimes contrasting trends. Massive migration has driven multiculturalism and the growth of ethnic and religious diversity. Yet each generation (group of birth cohorts) has been uniquely affected during the past decades, from witnessing a world war, the sexual revolution, and peace movements to experiencing political and social instability in their home countries, rapid technological development, and economic prosperity. Thus, Australian society makes an excellent case study to examine generational differences in family values and religious beliefs and how they may have influenced different aspects of today's family life.

2. Background

2.1 Change in family values and religious beliefs

Several academic contributions from various disciplines have tried to explain the change in family values and religious beliefs. Thus, according to the post-materialist argument, economic development has brought prosperity and financial security, liberating individuals from their economic dependence on family and community and giving them the opportunity of self-realisation. As a result, post-materialist values are associated with less support for the traditional family life, traditional gender roles, and childrearing, while divorce, abortion, and homosexuality are more broadly tolerated (Inglehart 1997; Inglehart and Baker 2000). Alternatively, the Second Demographic Transition Theory (SDT) emphasises the rise of individualistic values that are incompatible with traditional marriage (Lesthaeghe 1995; Lesthaeghe and Surkyn 2008). The SDT stresses the importance of increased levels of education and secularisation as predictors of changes in attitudes, values, and beliefs. In line with this, the expansion of the educational system, improved birth control, and the rise in women's labour force participation have facilitated changes in family formation behaviour and attitudes. Living together as a couple and delaying marriage and childbearing have become increasingly accepted as more people choose to cohabit while pursuing education or establishing a career. This has undoubtedly contributed to further erosion of traditional family attitudes and values (Bumpass 1990). Thus, structural factors may bring new opportunities that compete with or even outweigh the benefits of traditional family life as societies modernise and become increasingly

secular, and religious participation and belief decline (Norris and Inglehart 2004; Voyé 1995).

The abovementioned contributions predict that public opinion will move away from traditional notions of family and religion. However, they speculate about the global trend and tend to disregard short-term fluctuations and sociodemographic generational differences. Dividing the population into generations and looking at their different social and economic experiences can help us understand the impact of generational membership on these changes in Australian society.

2.2 Generational differences: The case of Australia

Guided by information from the Australian Bureau of Statistics (ABS),⁵ we categorise people born between 1930 and the early 1990s into four different generations. The critical aspect to bear in mind is that by grouping birth cohorts into four generations, we acknowledge their shared cultural characteristics and likely distinctive social and political features, as briefly explained in this section (Mannheim 1952; Ryder 1965; Inglehart 1977; Inglehart 1990; Firebaugh 1992). We start with the oldest cohorts born between 1926 and 1946, which belong to the so-called lucky generation and are characterised by the experience of full employment and prosperity during the post-World War II economic boom. This generation received a great influx of European migrants in the 1950s and 1960s, mainly from the United Kingdom, Ireland, and Southern and Eastern Europe. Compared to successive generations it is relatively small, partly due to low birth rates during the Depression and World War II. It is a homogenous cohort in religious affiliation, mainly composed of equal shares of Catholic and Anglican Christians. However, when asked about their religious beliefs, the younger members were already more likely than their older peers to respond 'No Religion'. In addition, this generation strongly subscribed to traditional breadwinner and homemaker roles, which were adopted by most members.

The cohorts born between 1946 and 1964 are part of the baby boomer generation.⁶ As argued by Van Bavel and Reher (2013), the baby boom is generally viewed as a period of demographic resurgence in the developed countries of the world, especially most of those participating in World War II, that occurred between the mid to late 1940s and the

⁵ As explained later in section 3, cohorts are grouped in 3–4 year intervals for analytical purposes. However, each 3–4 year cohort will be gathered into four larger groups to match the different generations identified in the literature and summarised in this section. See, for example, https://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/FCB1A3CF0893DAE4CA25754C0013D844/%24File/20700_generation.pdf

⁶ There is a significant degree of consensus on the date range of the baby boomer generation across countries, with the Australian Bureau of Statistics accepting the period 1946 to 1964. However, we are aware that authors such as Salt (2004) propose an alternative year grouping for Australia (from 1946 to 1961).

late 1960s or early 1970s. The reproduction dynamics changed during this period, with marriage rates accelerating, total fertility rising, and the number of births increasing substantially. Australia was not oblivious to this population trend. In fact, according to Caldwell (1984), three-quarters of the Australian baby boom can be explained by changes in nuptiality and one quarter by changes in marital fertility.

Older members of this group entered the labour force when economic conditions were buoyant and employment rates high. Their younger peers did not have the same employment opportunities throughout their working lives, many being affected by the economic downturn of the late 1980s and early 1990s. This generation lived through enormous social change, experiencing rising rates of female participation in both tertiary education and the labour force, with the establishment of the two-income household as the norm. Moreover, they experienced increasing marital separation rates resulting from the introduction of no-fault divorce in 1975. As the first group to be raised with televisions in their homes, baby boomers were exposed to world events such as the Cold War, the Viet Nam War, the sexual revolution, the peace movement, and the birth of rock and roll. Baby boomers were less likely than older Australians to be Christians and more likely to have no religion. Thus, they are considered more liberal-minded⁷ than Australia's older generations.

Next, cohorts born between 1965–1979 belong to the generation overshadowed by the baby boomer generation and dubbed Generation X.⁸ They are the first generation to experience increased rates of parental separation and divorce. They are also regarded as having fewer opportunities than their baby boomer predecessors, being the first to experience user-pays higher education and job insecurity. They struggled with (high) unemployment and fierce competition as young adults. They have the most significant proportion of non-Christians (principally Buddhists, Muslims, and Hindus), mainly due to migration patterns, with migrants coming from Asia, the Middle East, Africa, and Polynesia.

The last cohorts studied are those born between 1980–1994, which belong to 'Generation Y'. As in other developed countries, they grew up in the era of globalisation and spent their formative years in a period that saw the birth and rise of the internet. They had more opportunities to study abroad and meet other cultures. The changing economic structure and labour market made it difficult for them to be financially independent of

⁷ Unlike traditional individuals, liberals are open-minded and not strict in the observance of orthodox, traditional, or established forms or ways. They support individual rights (including civil rights and human rights), democracy, secularism, freedom of speech, freedom of the press, freedom of religion, and a market economy.

⁸ Originally labelled Baby Busters, Post Boomers, or the Slacker Generation, only the label Generation X (or Xer) has held.

their parents (baby boomers) and achieve life events related to becoming adults.⁹ They are the most secular generation, with almost one in four reporting no religion in 2006.¹⁰

Overall, each generation has grown up in a time of unique challenges and opportunities. Based on the diverse experiences of the different birth cohorts, we expect considerable diversity in how these generations help structure the distinctive family values and religious beliefs.

More specifically, we expect baby boomers to have less traditional attitudes towards family values and religious beliefs than other cohorts. First, the developments predicted by post-materialism and the SDT theories (i.e., the expansion of higher education, increasing secularisation, and rapid growth of the economy) may have contributed to more liberal attitudes among them than prior and subsequent generations. Second, their greater exposure to momentous world events may have led them to have less traditional attitudes towards family and religion. We devote the remainder of the paper to exploring the possibility that across Australian generations there was a significant qualitative shift in family life and religious beliefs, while other values show more continuity.

3. Data, variables, and methods

3.1 Dataset

We use data from the Household, Income and Labour Dynamics in Australia (HILDA) survey. The HILDA survey is a household panel study that has collected annual information from individuals from the same households since 2001. The HILDA survey sample was drawn following a complex, probabilistic design and is largely representative of the Australian population aged 15 and over (Summerfield et al. 2019). Since the variables of interest (related to family values and religious beliefs) are not included in all years of the survey, we use different years according to the availability of information related to marriage, family, and gender values (years 2005, 2008, 2011 and 2015) and religiosity values (years 2004, 2007, 2010, 2014, and 2018).

3.2 Marriage, family, and gender values variables

The survey asks agreement with a set of statements related to individuals' opinions about gender ideology, marriage, children (and parenting), and work. The complete list of

⁹ The increasing cost of having children may also matter in this respect.

¹⁰ [https://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/7CEC0AAC7B73D745CA25754C0013DE60/\\$File/20700_religion.pdf](https://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/7CEC0AAC7B73D745CA25754C0013DE60/$File/20700_religion.pdf).

statements is provided in the Appendix (Table A-1). Agreement with a statement ranges between 1 (strongly disagree) and 7 (strongly agree). The purpose of these variables is to capture the general opinion about life conduct, referring to the same latent dimension. Accordingly, we use Principal Component Analysis (PCA) to reduce the number of variables considered in the analysis. Given the categorical nature of the variables, we use polychoric correlations to construct the covariance matrix from which the eigenvalues and eigenvectors are calculated. To choose the number of components retained we apply the Kaiser criterion, selecting several components equal to the number of eigenvalues greater than 1. Finally, to facilitate the interpretation of the extracted components, we rely on orthogonal rotation using the varimax approach.¹¹ We run two separate PCA, one including the variables related to marriage and children, and another with the variables related to gender ideology, parenting, and work.¹²

The two PCA analyses lead to four components, one coming from the first set of variables and three coming from the second set of variables. The PCA results and the corresponding factor loadings are reported in the Appendix (Tables A-2 and A-3). We summarise the four components as follows:

- C1:** Progressive views on marriage and children (higher values indicate more liberal views).
- C2:** Traditional views on gender ideology (higher values indicate more traditional views).
- C3:** Progressive views on parenthood and gender roles (higher values indicate more liberal views).
- C4:** Traditional views on parenthood and gender roles (higher values indicate greater importance given to family over career, for both men and women).

Higher values of C1 indicate openness towards different family typologies (e.g., cohabiting couples, single parents, same-sex couples) and support for divorce. Higher values of C2 are associated with more traditional views of gender ideology (i.e., women should stay at home and care for the children, while men should mainly work to provide income support to the family).

Both C3 and C4 relate to parenthood, but it is essential to highlight that they represent two slightly different dimensions. C3 refers to the relationships that working parents can establish with their children. By contrast, C4 relates to the choice between

¹¹ Final components have been standardised to have 0 mean and 1 standard deviation.

¹² As a robustness check, we also try to run the PCA pooling together all the variables. Results of the PCA are reported in Table A-4. Despite some small differences with the main PCA used, the same qualitative information is retained: four main components are identified, which are similar to the ones obtained in our main specification. When we run the APCD analysis on this set of four components we find the same results (available in Figure A-1 in the Appendix).

parenthood and a job/career. Thus, higher values of C3 denote agreement that working parents can have a good parent–child relationship. Higher values of C4 represent greater importance given to being a parent, rather than having only a job/career.

3.3 Religion and religiosity variables

The HILDA survey also includes questions on religion and religiosity in its self-completion questionnaire. Respondents' religious identification and two measures of religiosity – frequency of attendance at worship services and self-reported importance of religion – were collected in 2004, 2007, 2010, 2014, and 2018. We focus on the variable related to the self-rated importance of religion to one's life, which ranges between 0 ('one of the least important things in my life') and 10 ('the most important thing in my life').

3.4 Control variables

Independent variables measure age, period, and birth cohorts. The respondents' birth cohorts are calculated by subtracting age from the year of the survey. We consider only those between 19 and 78 years of age to ensure the presence of each birth cohort in the larger number of periods.¹³ Cohort variables were constructed to be consistent with previous studies and with the orthogonal requirements of the Age–Period–Cohort models described in the following section (Chauvel 2011; Chancel 2014; Chauvel and Schröder 2015). Given that information is only available for some years of the HILDA survey, they are coded into 3-year or 4-year intervals¹⁴ spanning 1928 to 1994. The use of 3-year and 4-year intervals allows maintaining acceptable observation size and measurement accuracy for each group/cohort while allowing the study of generational differences. Moreover, this choice further mitigates possible volatility connected to measurement range and observation sizes within groups and smooths the changes (see Luo et al. 2016). To help interpret the results, these birth cohorts are further gathered into four different

¹³ The inclusion of old individuals leads to a caveat that is worth mentioning: the older individuals represent those who survived up to a given age. Thus, their responses may not be representative of the original overall population born in that year. This would be a problem for the APCD model if the probability of surviving up to age t was somehow correlated to the answers used to build the five outcomes of interest. Unfortunately, this cannot be tested with the data.

¹⁴ Two time frames were used for the age, period, and cohort variables because the questions related to family attitudes and religious beliefs were asked in different waves of the HILDA survey. As shown later, the time frame choice does not significantly change the results, while it still allows identifying the generational differences discussed in the literature.

generations (i.e., lucky generation, baby boomers, Generation X, and Generation Y), based on the existing literature.

Additional control variables that could a priori explain the fluctuations include the respondent's gender (1 = female, 0 = male) and whether the respondent is married (1 = married, 0 = otherwise). The respondent's educational attainment is also included and coded into four categories: Degree+, Certificate 3 or 4, High school completed, Less than high school.¹⁵ Finally, country of birth is coded as Aboriginal Australian, non-Aboriginal Australian-born, migrant from an English-speaking country, migrant from a non-English speaking country.¹⁶ As explained later in the Method section, we estimate the model with and without these control variables.

3.5 Method: The Age–Period–Cohort ‘Detrended’ Model (APCD)

We aim to determine whether individuals born in different cohorts are systematically more/less inclined to have traditional or liberal attitudes towards marriage, gender ideology, parenting and working roles, religiosity, etc. Hence, we consider the continuous dependent variable $[y^{iapc}]$, observed in all four years, for individual i of age a in period p and belonging to cohort $c = p - a$, which denotes the five outcomes of interests: the importance of religion and the four components created through PCA.

A key challenge in identifying the desired cohort or generational differences is that they are confounded by age or period effects. Since there is a linear dependency between the three effects (period – age = cohort), the conventional age–period–cohort (APC) analysis is unable to identify the independent effects of age, period, and cohort (Yang et al. 2008). However, recent methodological studies have developed models that handle the identification problem by imposing special restrictions. In particular, the Age–Period–Cohort–Detrended (APCD) model identifies cohort effects by assuming a set of constraints where the age, period, and cohort parameters have a zero-sum and zero-slope shape, and where the first and last cohort are excluded (Chauvel 2011, 2012). Critically, these constraints absorb the linear age, period, and cohort trends, which allow the model to estimate the detrended age, period, and cohort effects. Thus, the ‘detrended’ approach focuses on how the effects of age, period, and cohort fluctuate around a linear trend. More expressively, APCD is a ‘bump’ detector that shows how different cohorts (averaged over the available lifespan of the cohort) diverge from the linear trend. The bumps measure

¹⁵ Since our sample is composed of individuals born over a large range of years, simply controlling for the level of educational attainment does not consider that a given degree may have different returns for people born in different years. Therefore, the assumption is that the same level of educational attainment affects the outcome variables at the same rate across the different cohorts and age groups.

¹⁶ We replicated the analysis considering only native-born Australians, and the results were the same as for the full sample. Results are available from the authors upon request.

the specific empirical divergence of cohorts from the predicted values resulting from the age and period effects to which they belong.¹⁷

Thus, using the APCD model, we estimate the impact of age, period, and cohort on family values and religious beliefs, as follows:

$$\left\{ \begin{array}{l} y_i^{apc} = \alpha_a + \pi_p + \gamma_c + \alpha_0 \text{rescale}(a) + \gamma_0 \text{rescale}(c) + \beta_0 + \sum_j \beta_j x_{i,j} + \epsilon_i \\ \left\{ \begin{array}{l} \sum_a \alpha_a = \sum_p \pi_p = \sum_c \gamma_c = 0 \\ \text{slope}_a(\alpha_a) = \text{slope}_p(\pi_p) = \text{slope}_c(\gamma_c) \\ c_{min} < c < c_{max} \end{array} \right. \end{array} \right. \quad (1)$$

where $\alpha_a, \pi_p, \gamma_c$, age, period, and cohort effect vectors respectively, reflect the nonlinear effect of age, period, and cohort, as they come with two main constraints: each vector sums up to 0 and has a slope of 0. This implies that these vectors are null when the age, period, or cohort effects are linear. The terms $\alpha_0 \text{rescale}(a)$ and $\gamma_0 \text{rescale}(c)$ absorb the linear trends. Rescale is a transformation that standardises the coefficients α_a and γ_c : it transforms age from the initial code a_{min} to a_{max} to the interval -1 to $+1$.

Since the APCD model (described above) requires surveys performed with identical intervals (Chauvel and Schröder 2014; Chauvel, Leist, and Ponomarenko 2016), the analysis is for the variables related to marriage, gender, and children based on three-period intervals after carrying the information backwards one year for 2015. Thus, the analysis is based on four waves of the HILDA survey, namely 2005, 2008, 2011, and 2014. Similarly, for the variable related to religious importance, we carried the information backwards one year for 2007 and two years for 2004 to end up with five waves of the HILDA survey separated by four-period intervals: 2002, 2006, 2010, 2014, and 2018. Consequently, age, period, and cohort variables are coded into 3-year (for variables related to marriage, gender, and children) or 4-year (for religiosity) intervals depending on the variable studied.¹⁸

The model also includes the following covariates: gender, marital status, educational attainment, and migrant status. Yet the explanatory variable of interest is the detrended cohort effect γ_c where estimates that are statistically different from zero can be seen as

¹⁷ For more information on the APCD model, see <http://www.louischauvel.org/apcdmethodo.pdf>. This innovative approach has been used in recent studies on political participation (Chauvel and Smits 2015), earning opportunities (Chauvel and Schröder 2014; Kim and Cheung 2015; Karonen and Niemela 2020), suicide research (Chauvel, Leist, and Ponomarenko 2016), attitudes towards marriage (Lee 2019), and occupational mismatch (Vera-Toscano and Meroni 2021).

¹⁸ The analysis is done using the *apcd* module in Stata (Chauvel 2012).

independent cohort effects.¹⁹ We estimate the model both with and without covariates (full results are provided in Tables A-5 to A-7 in the Appendix). A comparison of the results of these two models shows the degree to which cohort effects are the consequence of changes in population characteristics.²⁰

Nevertheless, it is important to underline some limitations of the APCD model. First, APCD estimates cohort effects over the period that we observe them. This suggests that results are more informative for cohorts we observe many times in the data, as these estimates can be understood as lifetime effects. By contrast, for more recent cohorts (and the oldest cohorts), who are observed fewer times in the data, the model provides estimates for part of their lifetime. If we have reason to believe that more recent/older cohorts will not progress linearly, then the APCD results may be less informative.²¹ Second, APCD models imply the existence of cohort effects but do not indicate to what extent these differences are stable, increase, or decrease over the life cycle of a given cohort.²² Accordingly, we complement the APCD analysis with two different graphs: (1) ‘synthetic cohort’ and (2) ‘cohort diagram’. Critically, the ‘synthetic cohort’ graph shows the development of the relevant variables for different birth cohorts over the years, helping to examine the degree of change in opinion over these cohorts’ lives. Alternatively, ‘cohort diagrams’ compare different cohorts when they have the same age. These diagrams let us identify differences between birth cohorts for each age category studied.

4. Results

4.1 Descriptive statistics

Table 1 provides descriptive statistics of the responses to the five main dependent variables by age group, year of observation, and birth cohort. Overall, individuals show greater religiosity and more traditional family values as they age (Panel A). Regarding

¹⁹ When c is zero, cohort effects are absent. In this case, cohorts do not deviate from age and period characteristics and the APCD model provides no improvement compared to a simple age and period model (AP) with the first and last cohorts omitted.

²⁰ Suppose, for example, a cohort effect is found for *cohort X* in the model with no control variables and is no longer found by adding educational attainment as a control variable. In that case, this suggests that cohort nonlinearity is entirely due to the different educational compositions of the various cohorts. Once this is considered, *cohort X* does not deviate from the trend.

²¹ Luo and Hodges (2016) caution researchers about interpreting cohort effects as a general trend for that cohort in their life course when there are less than three age-by-period observations for a cohort.

²² Chauvel, Leist, and Ponomarenko (2016) have developed an APCH model which partially addresses these concerns by estimating the presence of ‘hysteresis’ or lasting scarring effects. However, this estimator yields only a summary estimate of variation and cannot assist in identifying the shape of life cycle dynamics.

changes across time (Panel B), religion appears less important in recent years, with a value of 2.9 for 2018 compared to 3.82 in 2002. Likewise, individuals report higher values in progressive views on marriage, children, and parenthood and gender roles (C1 and C3) in more recent years. By contrast, they show lower scores for more traditional views on gender ideology and the importance of family only over a job/career (C2 and C4). Last, the results in Panel C show that younger cohorts report lower values for the importance of religion and components C2 (more traditional views on gender ideology) and C4 (greater importance of family over career and the role of parents in the family). By contrast, they show higher values for components C1 (progressive views on marriage and children) and C3 (more progressive views on parenthood and gender roles). Thus, religion is of less importance to younger cohorts as they are more likely to adopt a more progressive view towards different family values.

Table 1: Descriptive statistics of the outcome variables (average values)

Age	(A) Age Group	Religion	C1	C2	C3	C4
	19–22	2.78	0.09	–0.05	0.10	–0.23
	23–26	2.93	0.04	–0.11	0.03	–0.21
	27–30	3.11	–0.01	–0.09	–0.00	–0.14
	31–34	3.43	–0.01	–0.12	–0.03	–0.08
	35–38	3.45	–0.05	–0.09	–0.07	–0.02
	39–42	3.49	0.02	–0.09	–0.06	–0.04
	43–46	3.56	–0.02	–0.02	–0.05	–0.06
	47–50	3.53	–0.09	0.08	–0.04	0.04
	51–54	3.69	–0.08	0.10	–0.08	0.01
	55–58	3.87	–0.17	0.17	–0.07	0.08
	59–62	4.02	–0.27	0.23	–0.13	0.22
	63–66	4.22	–0.35	0.37	–0.06	0.29
	67–70	4.41	–0.43	0.53	–0.03	0.34
	71–74	4.68	–0.64	0.70	–0.07	0.42
	75–78	5.11	–0.73	0.82	–0.09	0.49
	(B) Year					
	2002/2005	3.82	–0.26	0.07	–0.17	0.05
	2006/2008	3.65	–0.12	0.05	–0.12	0.02
	2010/2011	3.40	0.01	0.05	0.04	–0.01
	2014/2014	3.15	0.26	–0.13	0.17	–0.03
	2018	2.92				

Table 1: (Continued)

Age	(A) Age Group	Religion	C1	C2	C3	C4
Generation	(C) Cohort group					
Lucky generation	1928–1931	5.04	–1.01	1.01	–0.23	0.60
	1932–1935	5.15	–0.82	0.84	–0.13	0.40
	1936–1939	5.03	–0.65	0.71	–0.11	0.40
	1940–1943	4.86	–0.57	0.57	–0.08	0.40
Baby boomer generation	1944–1947	4.18	–0.36	0.34	–0.11	0.31
	1848–1951	3.83	–0.25	0.23	–0.08	0.17
	1952–1955	3.78	–0.15	0.15	–0.08	0.08
	1956–1959	3.88	–0.11	0.11	–0.09	0.02
	1960–1963	3.72	–0.07	0.08	–0.07	–0.01
Generation X	1964–1967	3.33	0.00	–0.04	–0.04	–0.01
	1968–1971	3.34	0.02	–0.10	–0.09	–0.04
	1972–1975	3.37	0.01	–0.15	–0.01	–0.07
	1976–1979	3.54	–0.04	–0.10	–0.09	–0.03
Generation Y	1980–1983	3.18	0.00	–0.09	0.02	–0.15
	1984–1987	3.26	–0.02	–0.03	0.06	–0.18
	1988–1991	2.75	0.15	–0.07	0.14	–0.25
	1992–1995	2.65	0.34	–0.17	0.28	–0.33

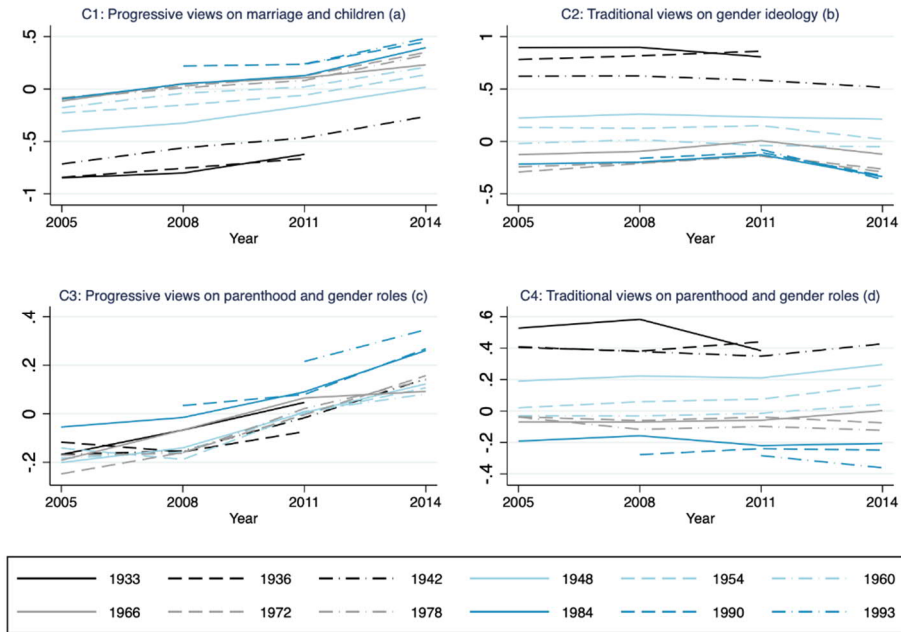
Note: The table reports the mean values of the outcome variables by age group (panel A), survey year (panel B), and birth cohort (panel C). C1: Progressive views on marriage and children, C2: Traditional views on gender ideology, C3: Progressive views on parenthood and gender roles, C4: Traditional views on parenthood and gender roles.

Next, to get further insight into how birth cohorts evolve across time and to compare them with each other we build ‘synthetic cohort’ and ‘cohort’ diagrams.

‘Synthetic cohort’ graphs show the development of the relevant variables for different birth cohorts over the years (see Figure 1 and left panel of Figure 3).²³ For example, the solid black line represents the values of the various outcomes in 2005, 2008, and 2001 for the cohort born in 1933. These graphs allow us to assess two issues: how the same birth cohort responded over the different years and how the responses of the various birth cohorts differ in a given year and over time.

²³ To make the graphs readable, not all 19 cohorts are plotted: we chose to plot three cohorts for each of the four generation groups identified in Section 2. The cohorts belonging to the lucky generation are plotted in black, baby boomers in light blue, Generation X in grey, and Generation Y in dark blue.

Figure 1: Synthetic cohort diagram of attitudes towards family values (within birth cohorts)

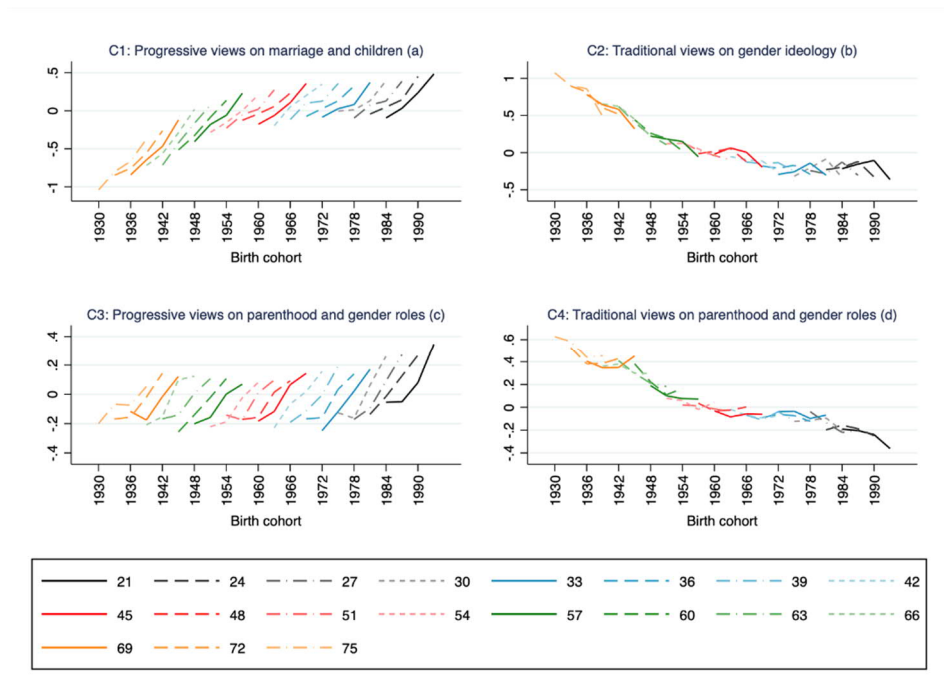


Note: Synthetic cohort graph, by birth cohort. For simplicity and clarity this figure does not report all identified cohorts, which would mean drawing up to 19 different lines, complicating the interpretation of the results (see footnote 23 for further details).

Figure 1 and the left panel of Figure 3 illustrate that older birth cohorts systematically show higher values for more traditional views on gender ideology (C2) and parental and gender roles within the family (C4). They also report higher values for the importance of religion. By contrast, they display lower scores for progressive attitudes towards marriage and children (C1). The ranking among the different birth cohorts is less clear for progressive views on parenthood and gender roles (C3). Simultaneously, the pattern over time shows that results do not change within cohorts for the importance of religion and components C2 and C4. However, we observe how the values increased for component C3 (and C1 to a lesser extent). These results indicate that individuals belonging to the same cohort reported more progressive views on parenthood and gender roles (and on marriage and children) in recent years. Overall, we can argue that the cohort-relative rankings are widely stable for the five outcomes studied, though some nuances are introduced, particularly for C3. It can also be seen that for C1, C2, C4,

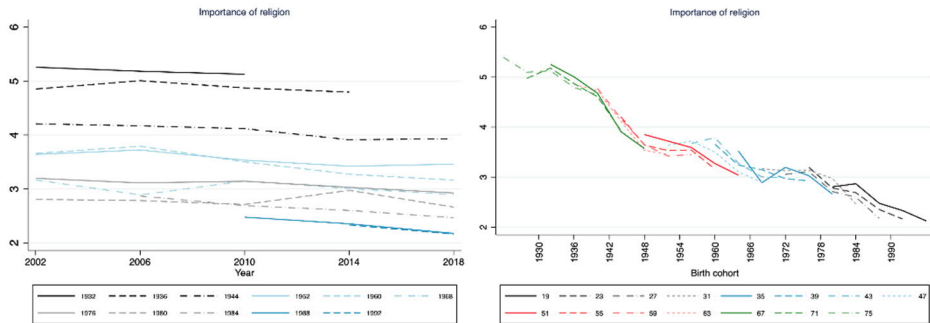
and the importance of religion, cohorts belonging to the two younger generations (Generation X and Y) behave similarly (the blues and grey lines almost overlap). Finally, cohorts belonging to the baby boomer generation are closer to younger cohorts than those belonging to the lucky generation (in particular, cohorts born in 1954 and 1960). The jump observed between the values of the lucky generation cohorts and the baby boomer generation cohorts is higher than that between the baby boomers and the two younger generations.

Figure 2: Cohort diagram of attitudes towards family values (within age groups)



Note: Cohort diagram graph, by age. Lines are age groups.

Figure 3: Synthetic cohort (left) and cohort diagram (right) of the importance of religion



Note: For simplicity and clarity this figure does not report all cohorts identified in the left panel, which would mean drawing up to 19 different lines and would complicate the interpretation of results (see footnote 23 for further details).

Next, Figure 2 and the right panel of Figure 3 show the difference between birth cohorts given certain ages. For example, in Figure 2, we can compare how individuals aged 33 reply to attitudes towards family values depending on whether they were born in 1972, 1975, 1978, or 1981 (i.e., look at the solid blue line, corresponding the replies given by individuals aged 33, but born in different years). At the same time, we can also compare how individuals born each year (so belonging to one specific birth cohort) change their reply as they age. Individuals belonging to a given birth cohort can be followed over the years by moving the eyes up and down (for example, one can see how individuals born in 1960 reply when they are 45, 48, and 51). At any given age, we see that younger birth cohorts are more progressive than older cohorts in their views on marriage, children, and gender roles. At the same time, as individuals from the same birth cohort age, they report more progressive views on family values (C1 and C3).

For components C2 and C4, individuals aged 51 years or more or those born before 1960 have more traditional attitudes towards parenthood and gender roles than younger individuals. However, a declining trend is observed across these cohorts. Such declines are not very noticeable when respondents are younger than 51 years or when they were born after 1960. A smaller proportion of the younger birth cohorts show traditional attitudes, which is stable for people of the same age that belong to different cohorts.

Overall, younger cohorts report more progressive views towards family values, though some differential ageing patterns are present. While the ‘synthetic cohort’ graphs show differences across birth cohorts given specific periods without controlling for their age, the ‘cohort diagrams’ display cohort differences given certain ages without controlling for observation periods. In the next section the APCD models will allow us

to detect nonlinear birth cohort effects after controlling for both age and period effects and sociodemographic characteristics.

4.2 Nonlinear cohort effects: APCD models

Table A-6 shows the detrended cohort effects with control variables for the four identified components and Table A-7 does so for the importance of religion (the detrended cohort effects without control variables for C1, C2, C3, and C4 are provided in Table A-5. No significant changes emerged in the estimates without controls). The effects of belonging to different cohorts are displayed net of nonlinear effects of age and period.²⁴

First, the contributions of control variables can be summarised as follows: higher education is associated with more progressive views on the four components considered and greater importance of religion. Migrants from non-English-speaking countries and indigenous natives report more traditional beliefs and are more religious than the Australian-born (non-indigenous), while migrants from English-speaking countries display the least traditional and religious values. Females and people who are married assign greater importance to religion than males or people who are not married. Being female is also associated with more progressive views towards marriage and gender roles, but the patterns of the other two components are mixed.

However, since the results controlling and not controlling for these variables lead to the same conclusions about the age, cohort, and period effects, the differences found in the cohorts are not due, for example, to a different educational or migrant composition. In other words, the cohort nonlinearities do not derive from individual characteristics.

To better illustrate the regression results across all four components and the importance of religion, Figures 4 and 5 plot the cohort effects with 95% confidence intervals. We include vertical lines, which help distinguish the four generations identified in Australian society according to individual's birth cohort.

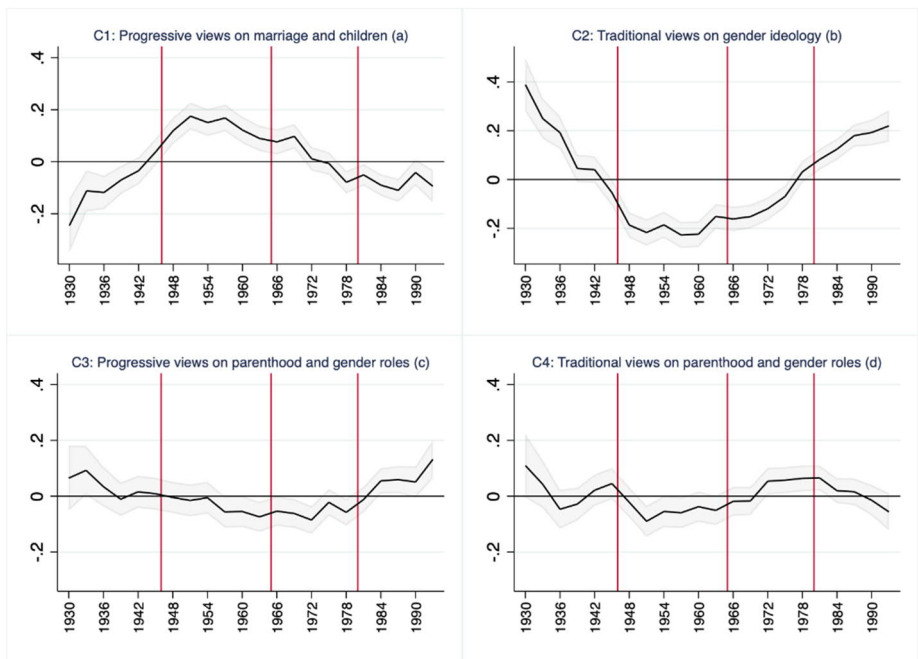
Results in Figures 4(a) and 4(b), and also in Figure 5, show a similar pattern.²⁵ The views of cohorts born before 1944 (the lucky generation) are lower than the long-run trend of views on marriage and children. However, their opinions on gender ideology and the importance of religion are above the linear trend. By contrast, the views of cohorts born after 1944 but before 1964 (baby boomer generation) on marriage and children are above the long-run trend but their opinions on gender ideology and religion are below

²⁴ Notice that the APCD-method identifies deviations from the linear trend of age, period, and cohort. That is, regarding cohort effects, it can identify specific cohorts defined by higher/lower traditional or more liberal family values, but it cannot identify the actual linear trend.

²⁵ The pattern of C1 and 'importance of religion' is reversed in C2, but this is obvious as one measures a more progressive view towards family values and the other two measure more traditional family attitudes.

that trend. This means that individuals from the lucky generation are more likely to have traditional views on marriage, children, and gender roles, and baby boomers are more likely to have a progressive view than what would have been the linear trend.

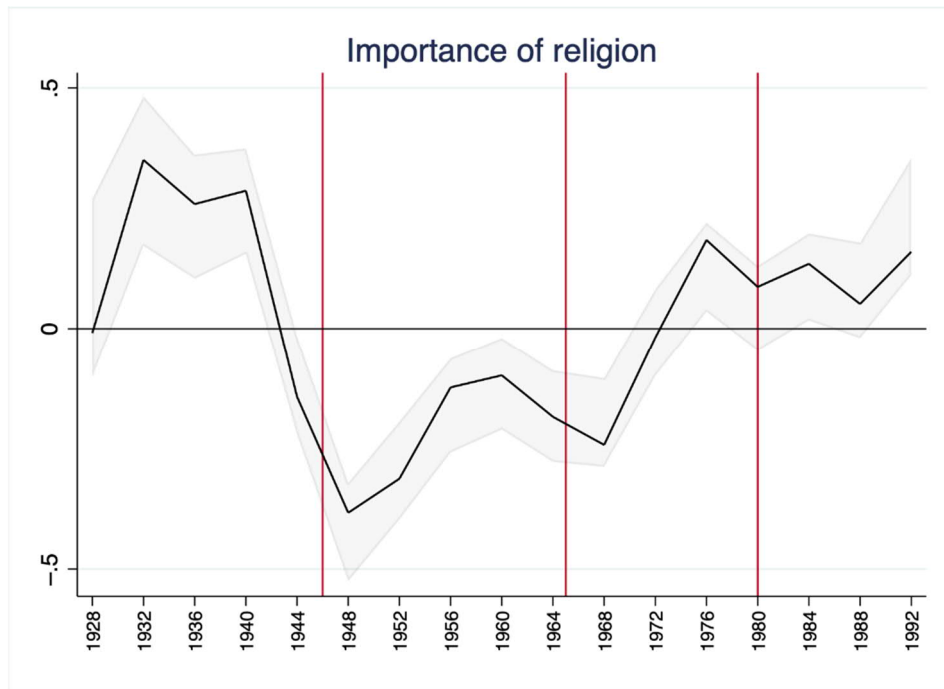
Figure 4: Detrended cohort effects



Note: Detrended cohort effects on progressive views toward marriage and children (a); traditional views on gender roles (b); progressive views on parenthood and gender roles (c); traditional views on parenthood and gender roles (d). Solid lines represent estimates, and shaded area represents 95% confidence intervals. Coefficients are reported in full in Table A.6

No clear pattern is found for these two generations in the other two outcomes (C3 and C4). However, the 1951/1957 cohorts are, on average, below the long-run trend of traditional attitudes towards parenthood and gender roles (C4). These are the cohorts with more progressive views on children, marriage, gender ideology, and religion. These individuals entered the labour force right after the oil shock (1973) and probably faced more complex labour market conditions than their slightly older or younger counterparts. While our model cannot test whether the economic crisis is a critical factor influencing this deviation from the linear trend, it is a likely possible explanation.

Figure 5: Detrended cohort effects



Note: Detrended cohort effects on the importance of religion. The solid line represents estimates, and the shaded area represents 95% confidence intervals. Coefficients are reported in full in Table A-7

As a bridge generation, individuals belonging to Generation X (born between 1965 and 1979) present mixed results. Those born closer to the baby boomers appear to behave more like baby boomers; however, the behaviour of their younger peers is closer to that of Generation Y (born between 1980 and 1994). Finally, individuals from Generation Y also seem to behave more like their older lucky generation counterparts. However, their cohort effects are smaller and not always significant (see, for example, panels (a) and (b) in Figure 4 and the importance of religion in Figure 5).

Overall, the APDC results confirm that generational differences are significant when explaining family values and religious beliefs. Finally, to understand the strength of cohort effects relative to other significant control variables, we compare them graphically in Figure 6. We only report the coefficients for the three outcome variables for which we identify important patterns (C1: progressive views on marriage and children, panel (A); C2: traditional views on gender ideology, panel (B); Importance of religion, panel (C)).

For example, panel (A) in Figure 6 illustrates how cohort membership influences attitudes towards marriage and children. Individuals born in 1951 are 0.286 standard deviations (s.d.) above the trend for progressive views on marriage and children compared to those born in 1933 (the distance between the two coefficients: -0.111 and 0.175). This is smaller than being married (-0.482 s.d.) or being an immigrant from a non-English-speaking country (-0.545 s.d.). However, it is slightly larger than being a female (0.224 s.d.), almost 2.5 times more than having a high school degree (0.119 s.d.), and similar to having a university degree (0.261 s.d.). Roughly speaking, the views on marriage and children of the lucky and baby boomer generations are about 0.2 standard deviations apart – averaging the coefficients from the different birth years in each generation. This means that cohort effects, except for marital status and non-English-speaking migrant background, are larger than any other control variables for views on marriage and children.

Similar overall results are found for attitudes towards gender (C2). The most substantial cohort effect is 0.617 s.d., which is the difference between the most traditional 1930 cohort (0.390 s.d. above the traditional trend) and the 1957 cohort (0.227 s.d. below). On average, the views of the lucky and baby boomer generations on gender are about 0.339 standard deviations apart. This is larger than the coefficient of being married (0.038 s.d.), being female (-0.264 s.d.), being indigenous (0.187 s.d.), or having only a high school degree (-0.206 s.d.). However, it is smaller than having a university degree (-0.43 s.d. – more progressive) or coming from a non-English-speaking country (0.501 s.d. – more traditional).

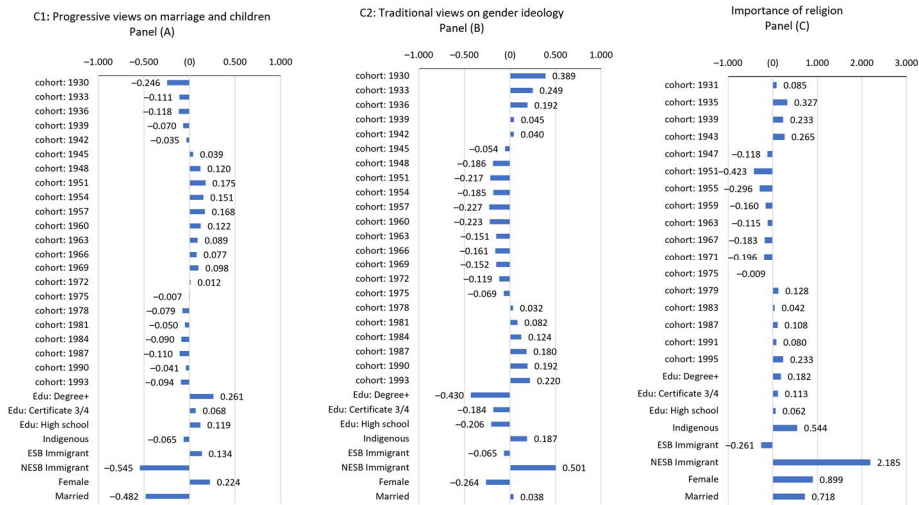
Finally, for the importance of religion, members of the most progressive 1951 cohort are 0.75 s.d. apart from the most traditional 1935 cohort.²⁶ This is comparable with being married (0.718) or a female (0.899). However, it is larger than any of the coefficients of level of educational attainment or of being indigenous or a migrant from an English-speaking country. Overall, we observe that the deviation from the trend of the lucky generation and baby boomer cohorts is also significant.

Each generation seems to have uniquely contributed to today's understanding of family. More specifically, generations have distinct behaviours concerning progressive views on marriage and children (C1), traditional views on gender ideology (C2), and the importance of religion. Interestingly, the cohorts belonging to the baby boomer generation seem to deviate more from the linear trend: Every year the coefficient is systematically among the highest/lowest estimated. Thus, baby boomers are not only unique concerning health, labour market success, and political participation (Becker 2000; Buchholz et al. 2009; Roberts 2012; Chauvel and Smits 2015): they are also special

²⁶ The importance of religion is measured on a scale from 1 to 10, and it is treated as a continuous variable, so the coefficients are a unit increase/decrease in this scale.

concerning their more liberal attitudes towards family values and the importance of religion.

Figure 6: How cohort membership and other variables affect attitudes towards family values



Note: APCD model estimates from Tables A-6 and A-7.

5. Discussion and conclusions

This paper studies birth cohort differences in family values and the importance of religion from 2002 to 2018 in Australia using a large and nationally representative data set. To do this, we adopted a newly developed APCD model that estimates nonlinear cohort effects and controls for age, period, and cohort linear trend effects, as well as other socioeconomic characteristics. Our results confirm that being born into a given birth cohort influences certain attitudes towards family values in Australia.

More specifically, cohorts born between 1945 and 1965 (baby boomer generation) report more progressive views on marriage, children, gender ideology, and religion than would be expected if all cohorts participated equally in the long-run trend of attitudes towards family values. This birth cohort (generational) effect is larger for views on marriage and children (C1) and importance of religion than any of the other control variables, including education. Yet it is smaller than having a migrant background (from

a non-English-speaking country) or being married. Similar results are found for gender ideology, though the coefficient associated with having a university degree is larger than the individuals' birth cohort coefficients on more progressive views towards gender. Interestingly, no significant differences are found by birth cohort for views on parenthood and parental roles within the family (components C3 and C4). These results confirm that their distinctive experiences in their formative years shaped their noticeably more liberal attitudes towards family values and religious beliefs.

Compared to the other generations studied, the baby boomer generation lived through significant social and economic changes, including the increasing participation of women in the labour force, approval of the divorce law, and the growth of double-income families. Rapid economic growth and increasing prosperity also took place. International events such as the Cold War, the Vietnam War, and the peace movements were crucial experiences (in line with post-materialist and SDT theory) in their formative years. These unique birth cohort characteristics could explain the more progressive views on family values and religious beliefs beyond the simple combination of age and period effects. Moreover, controlling for sociodemographic information did not change the shape and significance of the nonlinear cohort effects. This means that the results found are not due to the composition of the different birth cohorts in terms of education, gender, marital status, or immigrant background, but rather the social context and specific experience of each studied cohort.

This study contributes to understanding generational differences in social and family values, yet is not without limitations. Although we use the longest longitudinal survey available in Australia, the span of 18 years could be seen as relatively short. Consequently, cohorts born in the last two generations (X and Y) represent a relatively small fraction of the sample, as they appear in the survey for fewer years than the older cohorts. It would be useful to update these analyses with future HILDA survey waves.

To conclude, this study focuses on nonlinear cohort effects on several aspects that capture a wide array of values and beliefs (attitudes towards marriage and childbearing, parenthood cohabitation, the gendered division of domestic labour, and the importance of religion in Australia). The results show that while attitudinal change does not occur uniformly across these dimensions, they are intimately related, confirming the role of generational features defining and re-defining the Australian family as we know it today.

Availability of data

This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the

Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper are those of the authors and should not be attributed to either the DSS or the Melbourne Institute.

All data is available to download for users who register with the Australian Data Archive. More information can be found at: <https://dataverse.ada.edu.au/dataverse/hilda>.

Code availability

All code used in the analysis is available on request to the authors.

Disclaimer

Opinions expressed herein are those of the authors only. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication. Any remaining errors are the authors' responsibility.

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Appendix

Table A-1: List of variables related to gender ideology, children, marriage, and work

Variable	Description
atwkms	Many working mothers seem to care more about being successful at work than meeting the needs of their children
atkwfs	Many working fathers seem to care more about being successful at work than meeting the needs of their children
atwkseh	If both partners in a couple work, they should share equally in the housework and care of children
atkwrl	Whatever career a woman may have, her most important role in life is still that of being a mother
atwkmrl	Whatever career a man may have, his most important role in life is still that of being a father
atwkmsw	Mothers who don't really need the money shouldn't work
atwkcdw	Children do just as well if the mother earns the money and the father cares for the home and the children
atwkbmw	It is better for everyone involved if the man earns the money and the woman takes care of the home and children
atwkadc	As long as the care is good, it is fine for children under 3 years of age to be placed in child care all day for 5 days a week
atwkwmr	A working mother can establish just as good a relationship with her children as a mother who does not work for pay
atkwfr	A working father can establish just as good a relationship with his children as a father who does not work for pay
atwxfhi	A father should be as heavily involved in the care of his children as the mother
atwkmfm	It is not good for a relationship if the woman earns more than the man
atwkmp	On the whole, men make better political leaders than women do
atwkpsc	A pre-school child is likely to suffer if his/her mother works full-time
atwks	Children often suffer because their fathers concentrate too much on their work
atwkdc	If parents divorce it is usually better for the child to stay with the mother than with the father
mcdef	It is alright for an unmarried couple to live together even if they have no intention of marrying
mcnodiv	Marriage is a lifetime relationship and should never be ended
mcmoi	Marriage is an outdated institution
mcdiv	It is alright for a couple with an unhappy marriage to get a divorce even if they have children
mcchmf	Children will usually grow up happier if they have a home with both a father and a mother
mcsingp	It is alright for a woman to have a child as a single parent even if she doesn't want to have a stable relationship with a man
mchscr	Homosexual couples should have the same rights as heterosexual couples do

Table A-2: Results from the principal component analysis of variables related to marriage

Variable	C1	Description
mcdef	0.7871	It is alright for an unmarried couple to live together even if they have no intention of marrying
mcnodiv	-0.6186	Marriage is a lifetime relationship and should never be ended
mcmoi	0.4161	Marriage is an outdated institution
mcdiv	0.6324	It is alright for a couple with an unhappy marriage to get a divorce even if they have children
mcchmf	-0.5604	Children will usually grow up happier if they have a home with both a father and a mother
mcsingp	0.7069	It is alright for a woman to have a child as a single parent even if she doesnt want to have a stable relationship with a man
mchscr	0.7187	Homosexual couples should have the same rights as heterosexual couples do

Table A-3: Result from the principal component analysis for variables related to gender ideology, children, and work

Variable	C2	C3	C4	Description
atwkms	0.3692	-0.4379	0.2490	Many working mothers seem to care more about being successful at work than meeting the needs of their children
atkwfs	0.2777	-0.3855	0.2185	Many working fathers seem to care more about being successful at work than meeting the needs of their children
atwkseh	-0.3823	0.1282	0.4431	If both partners in a couple work, they should share equally in the housework and care of children
atkwrl	0.1038	-0.0177	0.8921	Whatever career a woman may have, her most important role in life is still that of being a mother
atwkmrl	0.0504	-0.0004	0.8921	Whatever career a man may have, his most important role in life is still that of being a father
atwkmsw	0.4452	-0.3097	0.3161	Mothers who don't really need the money shouldn't work
atwkcdw	-0.5485	0.2777	0.1369	Children do just as well if the mother earns the money and the father cares for the home and the children
atwkbmw	0.6908	-0.2370	0.2763	It is better for everyone involved if the man earns the money and the woman takes care of the home and children
atwkadc	0.0175	0.5046	-0.1523	As long as the care is good, it is fine for children under 3 years of age to be placed in child care all day for 5 days a week
atkwmr	-0.1753	0.8763	0.0123	A working mother can establish just as good a relationship with her children as a mother who does not work for pay
atkwfr	-0.1146	0.8414	0.0808	A working father can establish just as good a relationship with his children as a father who does not work for pay
atwkfhi	-0.4488	0.2719	0.3792	A father should be as heavily involved in the care of his children as the mother
atwkmmf	0.6828	-0.1317	0.0419	It is not good for a relationship if the woman earns more than the man
atwkmpl	0.6335	-0.1495	0.0537	On the whole, men make better political leaders than women do
atwkpsc	0.3983	-0.4989	0.3106	A pre-school child is likely to suffer if his/her mother works full-time
atwkcs	0.1983	-0.3375	0.3473	Children often suffer because their fathers concentrate too much on their work
atwkdc	0.4463	-0.0908	0.1829	If parents divorce it is usually better for the child to stay with the mother than with the father

Table A-4: Robustness checks, all variables together

Variable	(C1)	(C2)	(C3)	(C4)	Description
atkwms	-0.0197	0.6003	-0.3440	0.1713	Many working mothers seem to care more about being successful at work than meeting the needs of their children
atkwfs	0.1056	0.5736	-0.2948	0.1464	Many working fathers seem to care more about being successful at work than meeting the needs of their children
atwkseh	0.2725	-0.1883	0.1148	0.4936	If both partners in a couple work, they should share equally in the housework and care of children
atkwrl	-0.1455	0.1284	-0.0100	0.8662	Whatever career a woman may have, her most important role in life is still that of being a mother
atwkmrl	-0.1223	0.0844	0.0037	0.8739	Whatever career a man may have, his most important role in life is still that of being a father
atwkmsw	-0.2612	0.4469	-0.2522	0.2481	Mothers who don't really need the money shouldn't work
atwkcdw	0.4480	-0.3450	0.2422	0.1993	Children do just as well if the mother earns the money and the father cares for the home and the children
atwkbmw	-0.4575	0.5694	-0.1686	0.1884	It is better for everyone involved if the man earns the money and the woman takes care of the home and children
atwkadc	0.1205	0.0167	0.5141	-0.1731	As long as the care is good, it is fine for children under 3 years of age to be placed in child care all day for 5 days a week
atkwmr	0.1981	-0.1542	0.8705	0.0188	A working mother can establish just as good a relationship with her children as a mother who does not work for pay
atkwfr	0.1294	-0.1146	0.8406	0.0845	A working father can establish just as good a relationship with his children as a father who does not work for pay
atwkfhi	0.2786	-0.2769	0.2550	0.4364	A father should be as heavily involved in the care of his children as the mother
atwkmmf	-0.3509	0.5810	-0.0634	-0.0628	It is not good for a relationship if the woman earns more than the man
atwkmpl	-0.4088	0.5068	-0.0871	-0.0280	On the whole, men make better political leaders than women do
atwkpsc	-0.2006	0.4475	-0.4488	0.2554	A pre-school child is likely to suffer if his/her mother works full-time
atwkcs	-0.0229	0.3530	-0.2899	0.3100	Children often suffer because their fathers concentrate too much on their work
atwkdc	-0.1822	0.4222	-0.0459	0.1141	If parents' divorce it is usually better for the child to stay with the mother than with the father
mcdef	0.7487	-0.1381	0.1725	-0.0974	It is alright for an unmarried couple to live together even if they have no intention of marrying
mcnodiv	-0.5735	0.0248	-0.0727	0.2213	Marriage is a lifetime relationship and should never be ended
mcmoi	0.3994	0.2331	0.0382	-0.2432	Marriage is an outdated institution
mcdiv	0.6120	-0.0723	0.1865	0.0054	It is alright for a couple with an unhappy marriage to get a divorce even if they have children
mcchmf	-0.4555	0.1868	-0.1760	0.3142	Children will usually grow up happier if they have a home with both a father and a mother
mcsingp	0.6199	-0.1042	0.2473	-0.1557	It is alright for a woman to have a child as a single parent even if she doesn't want to have a stable relationship with a man
mchscr	0.6576	-0.1983	0.2216	-0.1235	Homosexual couples should have the same rights as heterosexual couples do

Figure A-1: Detrended cohort effects – Robustness check

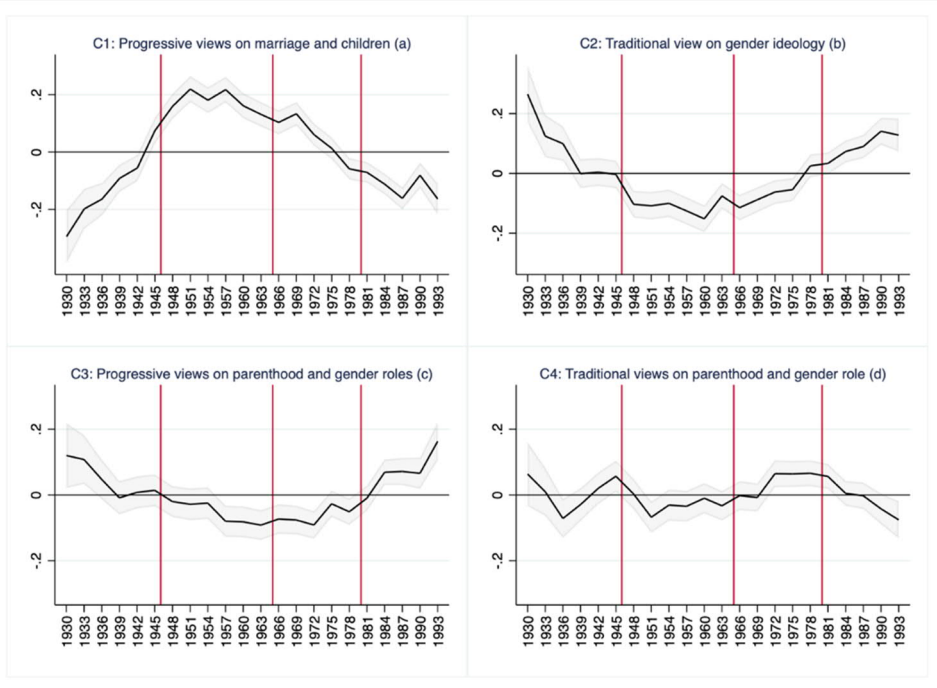


Table A-5: Cohort effects on different components of attitudes and behaviours towards family values. APCD estimation (C1, C2, C3, and C4) without controls

	C1		C2		C3		C4	
	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.
Cohort 1930	-0.243	[-0.354,-0.132]	0.400	[0.286,0.514]	0.057	[-0.061,0.175]	0.101	[-0.015,0.218]
Cohort 1933	-0.107	[-0.191,-0.022]	0.251	[0.165,0.337]	0.100	[0.012,0.189]	0.053	[-0.035,0.140]
Cohort 1936	-0.148	[-0.217,-0.080]	0.208	[0.138,0.277]	0.031	[-0.041,0.103]	-0.039	[-0.110,0.033]
Cohort 1939	-0.094	[-0.152,-0.036]	0.046	[-0.013,0.104]	-0.015	[-0.076,0.046]	-0.021	[-0.081,0.039]
Cohort 1942	-0.073	[-0.128,-0.017]	0.076	[0.020,0.132]	0.006	[-0.052,0.065]	0.036	[-0.022,0.093]
Cohort 1945	0.049	[-0.006,0.104]	-0.062	[-0.118,-0.006]	0.013	[-0.045,0.071]	0.046	[-0.011,0.103]
Cohort 1948	0.121	[0.068,0.175]	-0.191	[-0.245,-0.137]	-0.002	[-0.058,0.055]	-0.026	[-0.082,0.029]
Cohort 1951	0.179	[0.124,0.234]	-0.215	[-0.270,-0.159]	-0.015	[-0.073,0.042]	-0.085	[-0.142,-0.028]
Cohort 1954	0.163	[0.108,0.218]	-0.202	[-0.258,-0.147]	-0.007	[-0.065,0.050]	-0.064	[-0.121,-0.007]
Cohort 1957	0.196	[0.142,0.251]	-0.255	[-0.310,-0.200]	-0.046	[-0.103,0.012]	-0.068	[-0.125,-0.012]
Cohort 1960	0.130	[0.076,0.184]	-0.231	[-0.286,-0.177]	-0.056	[-0.113,-0.000]	-0.049	[-0.104,0.007]
Cohort 1963	0.090	[0.038,0.142]	-0.148	[-0.200,-0.095]	-0.075	[-0.129,-0.021]	-0.041	[-0.095,0.012]
Cohort 1966	0.091	[0.039,0.142]	-0.165	[-0.217,-0.113]	-0.050	[-0.104,0.004]	-0.013	[-0.067,0.040]
Cohort 1969	0.129	[0.079,0.179]	-0.166	[-0.216,-0.116]	-0.058	[-0.110,-0.006]	-0.017	[-0.068,0.035]
Cohort 1972	0.044	[-0.004,0.092]	-0.142	[-0.190,-0.093]	-0.079	[-0.130,-0.029]	0.039	[-0.011,0.088]
Cohort 1975	0.024	[-0.022,0.070]	-0.090	[-0.137,-0.044]	-0.019	[-0.067,0.030]	0.031	[-0.016,0.079]
Cohort 1978	-0.064	[-0.110,-0.018]	0.017	[-0.030,0.063]	-0.053	[-0.101,-0.005]	0.045	[-0.002,0.093]
Cohort 1981	-0.057	[-0.101,-0.013]	0.083	[0.038,0.128]	-0.014	[-0.060,0.032]	0.054	[0.008,0.099]
Cohort 1984	-0.110	[-0.154,-0.066]	0.131	[0.086,0.175]	0.050	[0.004,0.097]	0.013	[-0.033,0.058]
Cohort 1987	-0.137	[-0.184,-0.090]	0.206	[0.158,0.253]	0.055	[0.006,0.105]	0.034	[-0.014,0.083]
Cohort 1990	-0.074	[-0.128,-0.020]	0.224	[0.169,0.279]	0.042	[-0.014,0.099]	0.014	[-0.042,0.070]
Cohort 1993	-0.110	[-0.176,-0.044]	0.227	[0.160,0.294]	0.133	[0.064,0.202]	-0.043	[-0.111,0.025]
Age 18 years	-0.020	[-0.085,0.045]	0.058	[-0.007,0.124]	0.002	[-0.066,0.071]	0.061	[-0.006,0.129]
Age 21 years	-0.036	[-0.088,0.016]	-0.020	[-0.073,0.032]	-0.038	[-0.093,0.016]	0.032	[-0.022,0.085]
Age 24 years	-0.021	[-0.067,0.026]	-0.052	[-0.099,-0.004]	-0.012	[-0.061,0.037]	0.022	[-0.026,0.071]
Age 27 years	0.001	[-0.044,0.045]	-0.073	[-0.118,-0.028]	-0.018	[-0.064,0.029]	0.016	[-0.030,0.062]
Age 30 years	0.019	[-0.025,0.062]	-0.056	[-0.100,-0.012]	-0.005	[-0.051,0.041]	-0.002	[-0.047,0.043]
Age 33 years	-0.006	[-0.050,0.039]	-0.058	[-0.103,-0.013]	-0.019	[-0.066,0.028]	0.025	[-0.021,0.072]
Age 36 years	-0.002	[-0.049,0.044]	-0.016	[-0.063,0.031]	0.003	[-0.045,0.052]	-0.022	[-0.070,0.026]
Age 39 years	0.021	[-0.027,0.069]	0.021	[-0.027,0.069]	0.020	[-0.030,0.070]	-0.044	[-0.093,0.006]
Age 42 years	0.037	[-0.013,0.086]	0.013	[-0.038,0.063]	0.039	[-0.013,0.091]	-0.046	[-0.097,0.005]
Age 45 years	0.020	[-0.031,0.071]	0.073	[0.021,0.124]	0.050	[-0.003,0.104]	-0.058	[-0.111,-0.005]
Age 48 years	0.023	[-0.030,0.075]	0.059	[0.006,0.112]	0.022	[-0.033,0.077]	-0.031	[-0.085,0.023]
Age 51 years	0.029	[-0.024,0.082]	0.030	[-0.024,0.084]	0.022	[-0.034,0.078]	-0.059	[-0.114,-0.003]
Age 54 years	-0.008	[-0.063,0.046]	0.053	[-0.002,0.109]	-0.018	[-0.075,0.039]	-0.044	[-0.100,0.013]
Age 57 years	-0.004	[-0.059,0.051]	0.045	[-0.010,0.101]	-0.013	[-0.070,0.045]	-0.018	[-0.075,0.038]

Table A-5: (Continued)

	C1		C2		C3		C4	
	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.
Age 60 years	-0.013	[-0.067,0.042]	0.041	[-0.014,0.097]	-0.022	[-0.080,0.035]	0.021	[-0.035,0.078]
Age 63 years	-0.013	[-0.068,0.042]	0.031	[-0.025,0.086]	0.006	[-0.051,0.064]	0.014	[-0.043,0.071]
Age 66 years	0.018	[-0.038,0.073]	0.056	[0.000,0.112]	0.032	[-0.026,0.090]	0.018	[-0.039,0.075]
Age 69 years	0.003	[-0.056,0.062]	-0.007	[-0.067,0.054]	0.013	[-0.050,0.075]	0.037	[-0.025,0.099]
Age 72 years	0.004	[-0.059,0.067]	-0.014	[-0.078,0.051]	0.004	[-0.063,0.071]	0.038	[-0.028,0.104]
Age 75 years	-0.018	[-0.090,0.053]	-0.029	[-0.102,0.043]	-0.031	[-0.106,0.045]	0.077	[0.002,0.151]
Age 78 years	-0.033	[-0.182,0.115]	-0.156	[-0.308,-0.004]	-0.039	[-0.196,0.118]	-0.038	[-0.193,0.117]
Period 2005	0.017	[0.007,0.027]	-0.030	[-0.041,-0.020]	0.025	[0.014,0.036]	0.007	[-0.004,0.017]
Period 2008	-0.003	[-0.019,0.013]	0.011	[-0.005,0.027]	-0.038	[-0.054,-0.021]	-0.006	[-0.023,0.010]
Period 2011	-0.045	[-0.059,-0.032]	0.069	[0.055,0.083]	0.000	[-0.014,0.015]	-0.007	[-0.022,0.007]
Period 2014	0.031	[0.022,0.041]	-0.049	[-0.059,-0.040]	0.012	[0.003,0.022]	0.007	[-0.002,0.017]
Cohort trend	3.548	[3.384,3.713]	-1.402	[-1.568,-1.236]	2.283	[2.111,2.455]	-0.542	[-0.712,-0.372]
Age trend	1.296	[1.210,1.381]	-0.136	[-0.222,-0.049]	1.067	[0.977,1.156]	0.124	[0.036,0.213]
Constant	-0.120	[-0.132,-0.108]	0.125	[0.113,0.137]	-0.020	[-0.033,-0.008]	0.070	[0.057,0.082]
<i>N</i>	45,618		44,854		44,854		44,854	

Table A-6: Cohort effects on different components of attitudes and behaviours towards family values. APCD estimation (C1, C2, C3, and C4) with controls

	C1		C2		C3		C4	
	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.
Cohort: 1930	-0.246	[-0.350,-0.142]	0.389	[0.279,0.499]	0.065	[-0.052,0.182]	0.110	[-0.005,0.224]
Cohort: 1933	-0.111	[-0.191,-0.032]	0.249	[0.167,0.332]	0.093	[0.005,0.180]	0.043	[-0.043,0.129]
Cohort: 1936	-0.118	[-0.182,-0.054]	0.192	[0.125,0.259]	0.034	[-0.037,0.106]	-0.047	[-0.117,0.023]
Cohort: 1939	-0.070	[-0.124,-0.015]	0.045	[-0.011,0.102]	-0.011	[-0.071,0.049]	-0.028	[-0.087,0.030]
Cohort: 1942	-0.035	[-0.087,0.018]	0.040	[-0.014,0.095]	0.016	[-0.042,0.073]	0.021	[-0.035,0.078]
Cohort: 1945	0.039	[-0.013,0.091]	-0.054	[-0.108,0.000]	0.009	[-0.049,0.066]	0.045	[-0.011,0.101]
Cohort: 1948	0.120	[0.069,0.170]	-0.186	[-0.239,-0.134]	-0.005	[-0.060,0.051]	-0.022	[-0.076,0.033]
Cohort: 1951	0.175	[0.123,0.227]	-0.217	[-0.271,-0.163]	-0.015	[-0.073,0.042]	-0.090	[-0.146,-0.034]
Cohort: 1954	0.151	[0.099,0.202]	-0.185	[-0.239,-0.132]	-0.006	[-0.062,0.051]	-0.055	[-0.111,0.001]
Cohort: 1957	0.168	[0.117,0.220]	-0.227	[-0.280,-0.174]	-0.057	[-0.113,-0.000]	-0.059	[-0.114,-0.004]
Cohort: 1960	0.122	[0.071,0.173]	-0.223	[-0.276,-0.171]	-0.055	[-0.110,0.001]	-0.037	[-0.092,0.017]
Cohort: 1963	0.089	[0.040,0.138]	-0.151	[-0.202,-0.100]	-0.074	[-0.128,-0.020]	-0.051	[-0.103,0.002]
Cohort: 1966	0.077	[0.028,0.125]	-0.161	[-0.211,-0.111]	-0.053	[-0.107,-0.000]	-0.018	[-0.070,0.034]
Cohort: 1969	0.098	[0.051,0.145]	-0.152	[-0.200,-0.103]	-0.062	[-0.113,-0.010]	-0.017	[-0.067,0.034]
Cohort: 1972	0.012	[-0.034,0.057]	-0.119	[-0.166,-0.073]	-0.085	[-0.135,-0.036]	0.054	[0.005,0.102]
Cohort: 1975	-0.007	[-0.050,0.037]	-0.069	[-0.114,-0.024]	-0.022	[-0.069,0.026]	0.058	[0.011,0.104]
Cohort: 1978	-0.079	[-0.122,-0.035]	0.032	[-0.013,0.077]	-0.058	[-0.105,-0.010]	0.064	[0.017,0.111]
Cohort: 1981	-0.050	[-0.092,-0.009]	0.082	[0.039,0.125]	-0.012	[-0.058,0.034]	0.065	[0.021,0.110]
Cohort: 1984	-0.090	[-0.131,-0.048]	0.124	[0.081,0.167]	0.055	[0.009,0.101]	0.020	[-0.025,0.064]
Cohort: 1987	-0.110	[-0.154,-0.065]	0.180	[0.134,0.226]	0.059	[0.011,0.108]	0.016	[-0.032,0.063]
Cohort: 1990	-0.041	[-0.092,0.010]	0.192	[0.139,0.245]	0.051	[-0.005,0.107]	-0.015	[-0.069,0.040]
Cohort: 1993	-0.094	[-0.156,-0.032]	0.220	[0.155,0.284]	0.132	[0.064,0.200]	-0.056	[-0.123,0.010]
Age 18 years	-0.159	[-0.221,-0.097]	0.017	[-0.048,0.081]	-0.007	[-0.075,0.061]	0.037	[-0.030,0.104]
Age 21 years	-0.178	[-0.227,-0.129]	-0.020	[-0.071,0.031]	-0.053	[-0.108,0.001]	0.045	[-0.008,0.098]
Age 24 years	-0.107	[-0.151,-0.063]	-0.033	[-0.079,0.012]	-0.022	[-0.070,0.026]	0.050	[0.003,0.097]
Age 27 years	-0.010	[-0.051,0.032]	-0.060	[-0.103,-0.017]	-0.021	[-0.066,0.025]	0.028	[-0.017,0.073]
Age 30 years	0.075	[0.033,0.116]	-0.049	[-0.092,-0.007]	0.001	[-0.044,0.046]	-0.004	[-0.048,0.040]
Age 33 years	0.083	[0.041,0.126]	-0.052	[-0.096,-0.008]	-0.010	[-0.057,0.036]	0.018	[-0.027,0.064]
Age 36 years	0.090	[0.046,0.134]	-0.014	[-0.060,0.031]	0.012	[-0.037,0.060]	-0.036	[-0.083,0.011]
Age 39 years	0.107	[0.062,0.152]	0.020	[-0.027,0.066]	0.028	[-0.022,0.077]	-0.054	[-0.103,-0.005]
Age 42 years	0.113	[0.066,0.159]	0.012	[-0.037,0.060]	0.047	[-0.004,0.098]	-0.053	[-0.103,-0.003]
Age 45 years	0.084	[0.036,0.132]	0.072	[0.022,0.122]	0.059	[0.005,0.112]	-0.059	[-0.111,-0.007]
Age 48 years	0.067	[0.018,0.116]	0.064	[0.013,0.115]	0.027	[-0.028,0.081]	-0.027	[-0.081,0.026]
Age 51 years	0.062	[0.012,0.112]	0.036	[-0.017,0.088]	0.024	[-0.031,0.080]	-0.054	[-0.108,-0.000]
Age 54 years	0.023	[-0.028,0.074]	0.055	[0.001,0.108]	-0.017	[-0.073,0.040]	-0.042	[-0.098,0.013]
Age 57 years	0.017	[-0.035,0.068]	0.045	[-0.008,0.099]	-0.011	[-0.068,0.045]	-0.017	[-0.072,0.038]

Table A-6: (Continued)

	C1		C2		C3		C4	
	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.	Coeff.	C.I.
Age 60 years	-0.001	[-0.053,0.050]	0.039	[-0.014,0.093]	-0.020	[-0.076,0.037]	0.022	[-0.033,0.078]
Age 63 years	-0.002	[-0.054,0.049]	0.026	[-0.028,0.079]	0.008	[-0.049,0.065]	0.008	[-0.047,0.064]
Age 66 years	0.011	[-0.041,0.063]	0.051	[-0.003,0.105]	0.032	[-0.025,0.090]	0.014	[-0.042,0.070]
Age 69 years	-0.027	[-0.083,0.028]	0.001	[-0.057,0.059]	0.012	[-0.050,0.073]	0.045	[-0.016,0.105]
Age 72 years	-0.049	[-0.108,0.011]	-0.009	[-0.071,0.054]	-0.003	[-0.069,0.063]	0.044	[-0.021,0.108]
Age 75 years	-0.096	[-0.164,-0.028]	-0.024	[-0.095,0.046]	-0.043	[-0.117,0.032]	0.077	[0.004,0.150]
Age 78 years	-0.102	[-0.242,0.037]	-0.175	[-0.321,-0.028]	-0.042	[-0.197,0.113]	-0.042	[-0.193,0.110]
Period 2005	0.020	[0.010,0.029]	-0.032	[-0.042,-0.022]	0.026	[0.015,0.036]	0.006	[-0.005,0.016]
Period 2008	-0.008	[-0.023,0.007]	0.016	[0.001,0.031]	-0.039	[-0.055,-0.023]	-0.005	[-0.021,0.011]
Period 2011	-0.042	[-0.055,-0.029]	0.064	[0.051,0.078]	0.001	[-0.013,0.016]	-0.008	[-0.022,0.006]
Period 2014	0.031	[0.022,0.040]	-0.048	[-0.057,-0.039]	0.012	[0.002,0.022]	0.007	[-0.003,0.016]
Cohort trend	3.387	[3.231,3.543]	-1.211	[-1.373,-1.050]	2.241	[2.070,2.412]	-0.294	[-0.462,-0.127]
Age trend	1.366	[1.285,1.447]	-0.119	[-0.203,-0.035]	1.079	[0.990,1.168]	0.158	[0.071,0.245]
Edu: Degree+	0.261	[0.237,0.285]	-0.430	[-0.455,-0.405]	0.091	[0.065,0.117]	-0.465	[-0.491,-0.440]
Edu: Certificate 3/4	0.068	[0.046,0.090]	-0.184	[-0.207,-0.161]	0.011	[-0.013,0.036]	-0.142	[-0.166,-0.118]
Edu: high school	0.119	[0.090,0.147]	-0.206	[-0.235,-0.176]	0.042	[0.011,0.073]	-0.227	[-0.258,-0.197]
Female	0.224	[0.208,0.241]	-0.264	[-0.281,-0.247]	0.297	[0.279,0.316]	0.182	[0.164,0.200]
Indigenous	-0.065	[-0.124,-0.006]	0.187	[0.126,0.249]	0.015	[-0.051,0.080]	0.101	[0.037,0.165]
ESB Immigrant NESB	0.134	[0.107,0.161]	-0.065	[-0.093,-0.036]	0.005	[-0.025,0.035]	-0.029	[-0.058,0.001]
Immigrant	-0.545	[-0.571,-0.518]	0.501	[0.474,0.529]	-0.070	[-0.099,-0.041]	0.176	[0.147,0.204]
Married	-0.482	[-0.500,-0.464]	0.038	[0.019,0.057]	-0.064	[-0.084,-0.044]	0.116	[0.097,0.136]
Constant	-0.025	[-0.048,-0.002]	0.378	[0.355,0.402]	-0.166	[-0.191,-0.141]	0.079	[0.054,0.103]
<i>N</i>	45,584		44,821		44,821		44,821	

Note: The table reports the results of the APCD model estimated using Equation (1) and including controls for education (reference category: less than secondary school), gender (female dummy), immigrant (reference category: Native Australians) and marital status (married dummy). 95% confidence intervals in brackets.

Table A-7: Cohort effects on the importance of religion. APCD estimation, without and with controls

	Coeff.	C.I.	Coeff.	C.I.
Cohort: 1931	-0.009	[-0.239,0.222]	0.085	[-0.137,0.307]
Cohort: 1935	0.351	[0.158,0.543]	0.327	[0.141,0.513]
Cohort: 1939	0.259	[0.099,0.419]	0.233	[0.078,0.387]
Cohort: 1943	0.287	[0.151,0.422]	0.265	[0.134,0.396]
Cohort: 1947	-0.143	[-0.270,-0.015]	-0.118	[-0.241,0.005]
Cohort: 1951	-0.384	[-0.510,-0.257]	-0.423	[-0.546,-0.301]
Cohort: 1955	-0.313	[-0.439,-0.187]	-0.296	[-0.418,-0.174]
Cohort: 1959	-0.124	[-0.245,-0.002]	-0.16	[-0.278,-0.043]
Cohort: 1963	-0.098	[-0.217,0.020]	-0.115	[-0.230,-0.001]
Cohort: 1967	-0.185	[-0.303,-0.066]	-0.183	[-0.297,-0.069]
Cohort: 1971	-0.243	[-0.357,-0.128]	-0.196	[-0.306,-0.086]
Cohort: 1975	-0.019	[-0.131,0.094]	-0.009	[-0.117,0.100]
Cohort: 1979	0.184	[0.070,0.299]	0.128	[0.018,0.239]
Cohort: 1983	0.087	[-0.022,0.197]	0.042	[-0.063,0.148]
Cohort: 1987	0.135	[0.023,0.247]	0.108	[-0.000,0.216]
Cohort: 1991	0.052	[-0.071,0.175]	0.08	[-0.039,0.199]
Cohort: 1995	0.16	[0.010,0.311]	0.233	[0.088,0.378]
Age 19 years	0.012	[-0.112,0.137]	0.314	[0.190,0.437]
Age 23 years	-0.037	[-0.147,0.072]	0.112	[0.005,0.218]
Age 27 years	-0.075	[-0.179,0.028]	-0.097	[-0.197,0.003]
Age 31 years	0.054	[-0.050,0.158]	-0.073	[-0.174,0.027]
Age 35 years	0.039	[-0.069,0.147]	-0.115	[-0.220,-0.010]
Age 39 years	0.034	[-0.077,0.146]	-0.103	[-0.211,0.004]
Age 43 years	0.085	[-0.027,0.198]	-0.03	[-0.139,0.079]
Age 47 years	0.004	[-0.111,0.120]	-0.07	[-0.182,0.041]
Age 51 years	-0.026	[-0.143,0.092]	-0.066	[-0.179,0.047]
Age 55 years	-0.073	[-0.191,0.044]	-0.099	[-0.212,0.014]
Age 59 years	-0.04	[-0.159,0.078]	-0.055	[-0.169,0.059]
Age 63 years	-0.034	[-0.154,0.087]	-0.026	[-0.142,0.090]
Age 67 years	-0.004	[-0.130,0.121]	0.036	[-0.086,0.157]
Age 71 years	-0.009	[-0.147,0.129]	0.059	[-0.074,0.192]
Age 75 years	0.068	[-0.096,0.232]	0.215	[0.057,0.373]
Period 2002	-0.025	[-0.068,0.019]	-0.039	[-0.081,0.003]
Period 2006	0.012	[-0.046,0.070]	0.019	[-0.037,0.075]
Period 2010	0.031	[-0.028,0.090]	0.053	[-0.004,0.109]
Period 2014	0.001	[-0.048,0.050]	-0.008	[-0.055,0.039]
Period 2018	-0.019	[-0.058,0.019]	-0.025	[-0.062,0.012]

Table A-7: (Continued)

	Coeff.	C.I.	Coeff.	C.I.
Cohort trend	-3.367	[-3.660,-3.073]	-3.361	[-3.648,-3.074]
Age trend	-0.503	[-0.657,-0.350]	-0.679	[-0.827,-0.530]
Edu: Degree+			0.182	[0.103,0.261]
Edu: Certificate 3/4			0.113	[0.039,0.187]
Edu: high school			0.062	[-0.033,0.156]
Female			0.899	[0.844,0.955]
Indigenous			0.544	[0.355,0.733]
ESB Immigrant			-0.261	[-0.353,-0.169]
NESB Immigrant			2.185	[2.097,2.272]
Married			0.718	[0.659,0.777]
Constant	3.564	[3.530,3.597]	2.368	[2.295,2.441]
<i>N</i>	54,968		54,788	

Note: The table reports the results of the APCD model estimated using Equation (1). Column (1) does not include control variables, while column (3) controls for education (reference category: less than secondary school), gender (female dummy), immigrant (reference category: Native Australian) and marital status (married dummy). 95% confidence intervals in brackets.

