FAMILY SIZE INTENTIONS OF CHILDLESS AUSTRALIANS: WHAT DETERMINES THEM?

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The contexts of 'low' and declining fertility in Australia, coupled with a structurally ageing population, have increased academics' and government interest in family size intentions. This study examines the determinants of childless Australian individuals' reported family size intentions. It seeks to contribute to research that has so far mainly focused either on intended childlessness, or the determinants of the 'gap' between intended and achieved fertility. Using data from the Household, Income and Labour Dynamics in Australia (HILDA) survey, this paper analyses the effects of several key demographic and socio-economic characteristics on the likelihood of intending family sizes of zero, one, two or three plus children.

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INTRODUCTION

Family size intentions are considered one of the most proximate determinants of subsequent childbearing behaviour (Testa, 2012a). Many argue that they are indeed the strongest predictor of fertility, particularly at an aggregate level (Bachrach & Morgan, 2012; Schoen, Astone, Kim, Nathanson, & Fields, 1999), and provide better insights into fertility trends than fertility rates alone (Westoff & Ryder, 1977).

As fertility rates continue to decline in many developed countries, like Australia, demographers, governments and policy makers are increasingly turning their attention to understanding the drivers behind such declines. As such, data on individuals' desires and intentions for children have increasingly featured in research as attempts are made to stave off the demographic and economic consequences of declining fertility.

However, most research has focussed on family size intentions for those individuals and couples who already have children. More specifically, the documented 'gap' between intended and achieved family size has been central to previous studies in this area (Balbo, Billari, & Mills, 2012; Philipov & Testa, 2006; Philipov, 2009; Sobotka, 2011; Thévenon, 2010), in an attempt to identify the socio-economic and structural constraints associated with an inability to meet childbearing goals. Little research has been conducted that examines, in depth, the family size intentions of those who are childless (Edmonston, Lee, & Wu, 2008), and no Australian studies were identified that have done so¹.

While developed countries, like Australia, implement pro-natal family policies designed to enable the achievement of family size intentions (Heard, 2006; Hill, Shelly, & Taket, 2013; Jackson & Casey, 2009), it is surprising that more attention has not been paid to understanding the childbearing intentions of the childless. This is of particular import as sub-replacement intentions and intentions to remain childless become increasingly common (Hin, Gauthier, Goldstein, & Buhler, 2011; Keizeer, 2010; Miettinen, 2010; Murphy, 2009; Sobotka, 2009). This paper addresses the importance of this issue and expands on prior knowledge about family size intentions of childless individuals from an Australian perspective. It diverges from previous research that examines, intentions to *remain* childless (Heaton, Jacobson, & Holland, 1999; Rovi, 1994), by including those individuals who both intend children, and those who do not. Inspired by the exclusion of men from many studies, and the acknowledgement that the determinants of childbearing intentions differ across the sexes, this study considers both childless men and women in its analyses.

Using multivariate models, data from wave 12 (2012) of the Household, Income and Labour Dynamics in Australia (HILDA) survey is analysed to test the association between several key demographic and socio-economic variables and childless Australian's intentions for children.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Broadly, literature that investigates the determinants associated with intended family size can be divided into three categories. First, those that examine intentions for large family sizes have largely focussed on less developed regions, such as Africa (Bankole & Singh, 2012; Dodoo, 1998; McAllister,

¹ Although some limited work has been conducted into childbearing desires and expectations of childless individuals and couples. For examples see Gray et al., 2012; Hill et al., 2013; Holton, Fisher, & Rowe, 2011; Qu, Weston, & Kilmartin, 2000.

Gurven, Kaplan, & Stieglitz, 2012; Snow, Winter, & Harlow, 2013), and parts of Asia (Kohlmann, 2002)—where the main aim is to reduce birth rates. In contrast, the emergence of sub-replacement fertility intentions and concern over the 'low fertility-trap' (Goldstein, Lutz, & Testa, 2003) has influenced a wealth of research into the determinants of small family size intentions throughout much of Europe and China (Basten, 2013; Goldstein et al., 2003; Salaff, 1985)—driven by a need to increase fertility rates. Finally, as mentioned, those that examine couples and individuals who intend to remain childless are becoming increasingly more common in an attempt to better understand the factors associated with low desires for children (Heaton et al., 1999; Keizeer, 2010; Murphy, 2009; Rovi, 1994).

As little Australian research exists into childless individuals and their intended family size, the below reviews literature that examines determinants of family size intentions more broadly, and in contexts similar to Australia.

Age

Due to the biological limits associated with childbearing, age is considered to be on the most important constraints associated with achievements of intended family size (Spéder & Kapitány, 2009). It is generally understood that older individuals are less likely to intend 'large' family sizes, and that as age increases, family size intentions are revised downwards (M. N. Bhrolcháin & Beaujouan, 2011; Hayford & Morgan, 2008; Hayford, 2009; Iacovou & Tavares, 2010; Liefbroer, 2009). However, there is limited qualitative research that suggests upward revisions to intended family size are becoming more common as younger Australians mature and are better able to deal with the challenges of parenthood (Weston, R., Qu, L., Parker, R., Alexander, 2004).

Biology and fecundity aside, ageing is additionally understood to act as a social constraint in the context of intended family size (Billari et al., 2011). Research demonstrates that individuals perceive normative social deadlines for childbearing that are often much lower than biological limits (Billari et al., 2011; Mynarska, Meeting, & York, 2007; Mynarska, 2009), and that these constraints operate differently for men and women (Settersen & Hagestad, 1996; Staff, Young, Schulenberg, Lansford, & Pettit, 2012).

EDUCATION AND LABOUR FORCE

The interrelated nature of educational attainment and labour force status/participation is well documented throughout the literature (Sobotka, Skirbekk, & Philipov, 2011), as is their influence on intended family size measures (Beguy, 2009; Shreffler & Johnson, 2012; Shreffler, Pirretti, & Drago, 2010; Weston, R., Qu, L., Parker, R., Alexander, 2004). Evidence from West Germany (and other European countries) suggests that highly educated individuals intend larger family sizes than their less educated counterparts (Heiland, Prskawetz, & Sanderson, 2008; Testa, 2012c). On the other hand Australian research suggests that increases in educational attainment are associated with a decrease in childbearing desires for childless Australians (Gray, Evans, & Reimondos, 2012). Relatedly, highly educated women in Britain were found to consistently revise down their intended family sizes more often than less educated women (Iacovou & Tavares, 2010).

The effects of labour force participation and attachment on intended family size differ substantially across the sexes. Changes in employment status, mainly exiting the labour force, have been associated with decreases in childbearing desires for men, but not for women (Gray et al., 2012; White & McQuillan, 2006). This supports previous research that finds the effects of employment (Gray et al., 2012) and work hours (Shreffler et al., 2010) on women's childbearing desires to be ambivalent. The importance of secure employment for men's positive childbearing intentions is well

documented (Mitchell & Gray, 2007; Roberts, Metcalfe, Jack, & Tough, 2011; Singleton, 2005; Thompson & Lee, 2011), although increased working hours for men has recently been associated with decreased desires for children (Liefbroer, 2009; Shreffler et al., 2010).

PARTNERSHIP

Being part of a stable relationship is considered a pre-requisite for childbearing for many (Dommermuth, Klobas, & Lappegård, 2011; Heiland et al., 2008; Holton, Fisher, & Rowe, 2011; Roberts et al., 2011; Schoen et al., 1999; Thomson, 1997). As expected partnered individuals routinely report intentions for larger family sizes than those who are unpartnered (Iacovou & Tavares, 2010). Three Australian studies have illustrated changes in desires and expectations for children that are consummate with the beginning or dissolution of relationships (Gray et al., 2012; Holton, 2010; Mitchell & Gray, 2007). These results are echoed elsewhere (Gray, 2001; Voas, 2003). Differences in childbearing intentions have also been documented across differing types of relationship—being married is more positively associated with increased intentions for children compared to those who cohabit (Holland, 2013; Sobotka et al., 2011).

Sibship Size

Research into the correlation between sibship size growing up and completed fertility has a long history in demography (Axinn, Clarkberg, & Thornton, 1994). However, examinations into the intergenerational transfer of desired family size as measured by own sibling number (sibship size), and its influence on intended family size represent a relatively new strain of research in the field (Reigner-Loilier, 2006). Own sibling size growing up has been found to significantly predict both men and women's intended family sizes later in life. For example, in France, desired numbers of children increase as a function of sibship size for men and women—respondents report significantly higher desires for children when they grew up in a large family (3+ children) (Axinn et al., 1994; Reigner-Loilier, 2006).

Research Question

This research is concerned with those factors associated with intended family size for childless Australians. As such, it adopts the following the research question:

1. What characteristics predict men's and women's intentions for children (or no children)?

Guided by the literature above, it is hypothesised that childless Australians who are younger, partnered, highly educated, attached to the labour force and grew up with siblings are more likely to report positive intentions for children, rather than intentions to remain childless.

DATA AND ANALYTICAL APPROACH

DATA, VARIABLES AND SAMPLE

This paper investigates intended family sizes of childless Australians. The data for this study come from wave 12 (2012) of the Household Income and Labour Dynamics in Australia Survey (HILDA). The HILDA is a nationally representative longitudinal panel survey that commenced in 2001 with a sample size of close to 14,000 respondents. It collects information annually on three key dimensions

of future fertility; desires, expectations and intentions². Information on childbearing intentions, to which this study is restricted, is measured by the following question:

"How many (more) children do you intend to have?"

Responses are recorded in absolute numbers, including intentions for zero children (i.e. to remain childless).

For the specific purposes of this paper, it was determined that measures of intended family size were more suitable for examination than desires or expectations for children. There are several reasons for this. First, whilst inter-related desires, expectations and intentions refer to distinct psychological concepts³. Briefly, childbearing desires represent an individual's wants and wishes, and are generally understood to be reflective of "what one would like to do given no situational constraints" (such as fecundity)(Miller, Severy, & Pasta, 2004; Miller, 1994). Expectations for children on the other hand, refer to the estimated likelihood an individual will perform a specified behaviour within the confines of their own specific situational and environmental limits (Miller, 2011). Finally, intentions for children relate to a determined plan to act (or not act) in a certain way to achieve childbearing (or not) (Hagewen & Morgan, 2005).

As such, measures of childbearing intentions⁴ have been demonstrated as one of the most proximate determinants of childbearing behaviour (Philipov, Thévenon, Klobas, Bernardi, & Liefbroer, 2008; Testa, 2011; Toulemon & Testa, 2005), and are understood to be less amenable to short-term circumstantial constraints than desires or expectations for children (Hin et al., 2011). Finally, measures of intended family size are an important starting point for assessing the success (or failure) of individuals and couples in achieving their childbearing goals.

The dependent variable for this study, intended family size, is derived by recoding respondent's reported intended numbers of children into family sizes of zero, one, two or three (or more) children⁵. The models include a range of independent variables including age, relationship status, educational attainment, labour force attachment and sibling size.

To examine the characteristics most strongly associated with intended family size, this study uses weighted population unit data of childless men aged 20-49 years old, and childless women aged 20-44 years. The reasons behind the different sample ages for men and women are two-fold. First, the female sample is limited by way of the HILDA survey design itself—women aged 45+ years are excluded from reporting intentions for children. Second, research has demonstrated that age as a social deadline for childbearing operates differently for men and women. Put simply, social age

² Previously on a 3 yearly cycle (now 4 yearly from 2011) HILDA collects additional fertility information including timing of intended births, patterns of contraceptive use and attitudes towards childbearing (i.e. the importance of age, career, and costs associated with children).

³ The similarities and differences between desires, expectations and intentions constitutes a heated debate throughout the demographic literature devoted to childbearing behaviours and norms—see for example (Azjen & Klobas, 2013; Miller, 2010, 2011), however, it is generally understood that to use the terms interchangeably is erroneous (Miller & Pasta, 1995; Miller et al., 2004; Philipov, 2011).

⁴ Operationalised most frequently as 'intended family size'. See for example Bhrolcháin, Beaujouan, & Berrington, 2010; Hagewen & Morgan, 2005; Liefbroer, 2009; Vignoli & Surveys, 2012.

⁵ Due to the 'skip' rules associated with the battery of family formation questions in HILDA, this study also recoded those who reported a 'low' likelihood for children (evidenced by a score of 1-5 on the likert scale) who would ordinarily have been excluded from the question on intentions, as intending "zero" children.

deadlines for women are perceived more often and at a younger age than they are for men (Billari et al., 2011).

This study examines childless individuals for a few reasons. First, the mechanisms by which childless individuals and parents form intentions for children are different. As childbearing decisions are made sequentially (Udry, 1983), the factors that affect intending a first child are distinct from factors that affect the intention to move from one to two children, or two to three children (Berrington, 2004; Dommermuth et al., 2011; Gray et al., 2012). Second, by excluding those with children, this study's sample allows for the examination of intended family size of those who not only intend children and do not yet have them, but also those who intend to remain childless.

After excluding respondents with missing values, the final analytical sample totals 3,732 respondents.

ANALYTICAL APPROACH

The method adopted here is relatively straightforward. As a means of providing contextual background, this investigation begins with a descriptive bivariate analysis comparing the mean intended family sizes of men and women across the independent variables listed above. Following, a multinomial logistic regression is conducted. The models are run separately for men and women to control for the possibility of sex differences in the way the independent variables mediate intentions for family sizes.

A multinomial logistic regression model⁶ was utilised to examine the relationship between intended family size and the independent variables. This method was adopted as this paper seeks to examine the different ways in which the independent variables act as constraints or enablers to intending different family sizes. While there is an ordering to the dependent variable—which would suggest the need for an ordered model—previous research indicates that the assumption of parallel odds across the categories of intended family size to be false in certain circumstances (Miettinen, Basten, & Rotkirch, 2011). For example, in a study of women's educational attainment and intended family size, results demonstrate that for childless women, levels of achieved education interact differently across intended family size (and as such violated the assumptions of ordered models) (Testa, 2012; see also Miettinen et al., 2011).

The equation for the multinomial model for intended family size specifies the relationship between the probability of intending family size Y and the set of explanatory variables. It is expressed as follows:

$$\Pr(Y_{ij} = j) = \frac{\exp(\beta_j X_i)}{\sum_{k=0}^{J} \exp(\beta_j X_i)}$$

⁶ At the outset, it was assumed, given the ordered nature of the dependent variable that ordered logistic regression would be the most appropriate method for modelling the relationship between intended family size and the independent variables. However, the model continuously violated the assumption of proportional odds (as measured by a brant test) and as such, was abandoned. Generalised ordered logistic regression was additionally conducted, but due to small response observations in the older age groups across higher parity intentions, the Wald test for gologit2 models in STATA12.0 repeatedly failed also.

where Pr(.) is the probability that the *ith* respondent intends the *jth* family size. The model predicts the relative risk ratios of intending *jth* family size across all of the independent variables. Because the risk ratios of such models are not easily interpreted, marginal effects were estimated to express the probability of intended family size with respect to each individual variable, measured from the mean of the variable.

RESULTS

Descriptive Bivariate

A descriptive statistical summary of the independent variables included in the model is provided in Table 1. The overall mean ages of respondents in the study were 29 years and 27 years for men and women respectively. Interestingly, the intended family size of respondents is well below replacement level fertility (2.1), as well as the achieved total fertility rate in Australia for the previous decade. Childless men intend significantly smaller family sizes of 1.45 children than their female counterparts who intend 1.64 children (p<0.05).

As expected, there are significant differences in intended family size scores for both men and women-with younger individuals reporting intentions for significantly larger family sizes than those aged 35+ years. It is clear that women, those with lower educational qualifications, those employed (full or part time) and those who are partnered report intentions for larger family sizes. Conversely, men, those unemployed, respondents who are single and individuals with higher educational qualifications intend fewer children. From these results, after age, sibling number appears to operate most substantially across categories—particularly for women. Women who grew up in larger families, on average, intend larger family sizes. These descriptive results give some indication of support for the above hypotheses.

Background Variables					
	Male	Female		Male	Female
Age	**	* *	Rel. Status	* *	
20-24	1.80	2.04	Married	1.59	1.61
25-29	1.74	1.78	De-facto	1.63	1.73
30-34	1.53	1.45	Single	1.33	1.60
35-39	0.79	0.60			
40-44	0.48	0.21	Sibling No.		**
45-49	0.13	n/a	0	1.44	1.34
			1	1.36	1.53
Highest education level	**		2	1.54	1.66
BA+	1.54	1.62	3+	1.46	1.81
Cert/Dip	1.37	1.60			
Secondary	1.46	1.70			
Labour Force Status	**	* *			
Full Time	1.51	1.63			
Part Time	1.48	1.78			

TABLE 1- WEIGHTED MEAN INTENDED FAMILY SIZE SCORES- CHILDLESS RESPONDENTS, SELECTED CHARACTERISTICS, 2012.

Unemployed	1.20	1.50	
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μ intended family size	1.45	1.64	
(95% CI)	(1.3-1.5)	(1.6-1.7)	
Ν	2,026	1,706	
	(54%)	(46%)	

Source: HILDA Wave 12 (2012), population weighted.

**p<0.05 tested using a combination of chi-sqaure and one way analysis of variance, run separately for men and women (between groups). In some cases, the 'simanova' add-on in STATA 12 was used to test the robustness of the results of violations of the homogeneity of variance assumption between groups.

Multivariate Model

The results of the multinomial logistic regression are presented as predicted percentages in Appendix 1. The relative risk ratios are available in Appendix 2. Holding all variables at their mean, among men, the majority (39%) of respondents are predicted to intend family sizes of two children, followed by an intention to remain childless (36%), have three or more children (18%) or one child (5%). Similarly for women, almost 41% report intentions for family size of two children, followed by an intention to remain childless (30%), have three or more children (23%) or one child (5%).

Turning first to the variable of age, as expected, increasing age for men and women is associated with a significant increase in the predicted percentage of those respondents who intend to remain childless, as well as those who intend one child. While gradual declines in intended family size are experienced across all child numbers, the threshold for intending to remain childless is strongest after age 35 for both men and women. Cumulatively, of men aged 35-39 years, 40-44 years and 45-49 years, 65%, 80% and 92% are predicted to remain childless. Similar patterns are evident for women, with 69 % and 87% of women aged 35-39 years and 40-44 years (respectively) intending to remain childless. Conversely, a significantly higher proportion of men and women who intend family sizes of two or three (or more) children are younger Australians—those aged between 20-29 years.

In regards to educational attainment, evidence in support of the above mentioned hypothesis is mixed, and differs between men and women. Compared to men with Bachelor degrees or higher, less educated men are significantly more likely to intend family sizes of three or more children (compared to two children). Roughly 64% of highly educated men intend family sizes of two or more children, compared to only 56% and 54% of men with certificates and secondary level educational qualifications. There is less variation in women's intended family sizes by education level, and only one significant predictor. Compared to women with Bachelor degrees, women with certificate level qualifications are significantly more likely to intend to remain childless.

Again, when examining labour force attachment, there is some evidence to suggest that those who are employed are more likely to intend larger family sizes, but the differences are not significant for men (with the exception of unemployed men who are more likely to report intentions for no children). They are however, for women. Cumulatively, almost 66% of women employed full time, and 63% of those employed part time intend family sizes of 2 or more children. Interestingly, women who are unemployed are significantly more likely to intend smaller family sizes compared to those employed full time.

As expected, partnered men and women are more likely to report intentions for larger family sizes and are less likely to intend no children. Interestingly however, partnership status is not a significant predictor of family size for women or men. There is one exception however. Those who are single are significantly more likely to intend childlessness than their partnered (married and cohabiting) counterparts. Large proportions of single men and women (43% and 38% respectively) are predicted to intend no children, followed closely by family sizes of two children. Cumulatively, the majority of married and cohabiting individuals intend family sizes of two children also.

Turning finally to sibship size, there is some evidence to support the hypothesis that those who grew up in larger families, intend larger families themselves. Again, there appears to be a threshold however, particularly for men, at intended family sizes of two children, regardless of sibship size. There is an exception however—men who grew up as an only child are the most likely of all men to intend no children. Similar patterns are evident for women. In contrast to men however, women who grew up in family sizes of three or more children are significantly more likely to intend similar family sizes to their own childhood families.

One final result worth highlighting is the lack of respondents who intend family sizes with only one child. Across *all* variables, for both men and women, there is a distinct unwillingness for families this size. Of groups in the model, women aged 30-39 years were the most likely to intend only one child (cumulatively 21% of women in this age group).

DISCUSSION

This paper has examined the social and demographic characteristics associated with intended family size for childless Australians in 2012. It demonstrates, that on average, childless respondents in Australia report intentions for family sizes that are below the level required for population replacement—a finding that is becoming increasingly common across parts of Europe (Goldstein et al., 2003; Sobotka, 2009), but not before evidenced in Australia. However, a note should be made regarding the selectivity of the sample in this study in that it is not representative of the Australian population more broadly, but simply of those who in 2012 were childless. However, among childless individuals who do report positive intentions for children, there is a preference for family sizes of two children, which somewhat reinforces the two child norm evidenced in other Australian studies (Adam, 1991; Fan & Maitra, 2011; Mitchell & Gray, 2007).

The findings of the multinomial analyses are reflective of those uncovered in the descriptive analyses—the lowest family size intention (.13, close to zero) was reported by men aged 45-49 years (91% of this group), whilst the highest, and only report close to replacement level (2.04) was observed by women aged 20-24 years (47% of this group). There were some differences in intended family size, particularly by gender, education and partnership status. On average, men, older individuals, un-partnered respondents, those with lower levels of education, who grew up in small families and those unattached to the labour market are more likely to intend childlessness. In contrast, young respondents, women, individuals with Bachelor degrees (or higher), from larger families, and those married or in defacto relationships are more likely to intend family sizes of around two children. The findings lend some support to the hypotheses entailed within⁷.

Cumulatively, the results from the analysis of age are indicative of trends that are documented elsewhere (Beets, Liefbroer, & Gierveld, 1999; Hayford, 2009; Iacovou & Tavares, 2010; Liefbroer,

⁷ In addition to the hypotheses within, it was assumed that interaction effects across the explanatory variables would be present. However, no interactions were uncovered for men or women. The interactions that were tested were as follows: education and partnership, sibling number and partnership, and employment and partnership.

2009). First, increasing age is associated with smaller intended family size reports. Where this research differs is in the identification of a 'threshold' age at which positive intentions for children become significantly less likely. A gradual decline in family size intentions occurs as individuals age, but sharp declines are most marked for women between 30-34 years and men aged 35-39 years, possibly reflective of normative age deadlines for childbearing (Billari et al., 2011). The findings of this research add to a growing Australian literature that has demonstrated support for a cut-off point for childbearing *desires* (Arunachalam & Heard, n.d.; Gray et al., 2012) but this study is the first to do so for intended family size.

Importantly, while being in a relationship appears an important pre-requisite for positive family size intentions amongst respondents, unexpectedly, it was not a significant predictor for children for either men or women. Lack of a partner however, was significantly associated with intentions to remain childless. These findings are inconsistent with the majority of research developed in this area that finds partnership status to be a significant predictor of family size. It should be noted however, that in a majority of previous studies, the samples included those individuals and couples who were already parents (M. Bhrolcháin, Beaujouan, & Berrington, 2010), and as such, interactions between parity and partnership status were likely (Newman, 2008; Rosina & Testa, 2009; Testa, 2012b).

Previous Australian (and international) research has demonstrated the importance of employment and financial security in decision-making around childbearing (Adsera, 2011; Berninger, Weiß, & Wagner, 2011; Stolzenberg & Waite, 1977). Childless men employed full time are more likely to intend larger family sizes, and these findings are consistent with theories of 'provider ability' (Lappegård, 2012; Lappegård, Trude, Ronsen, M., Skrede, 2011; Roberts et al., 2011). The finding that women employed part time are most likely to intend larger family sizes is probably reflective of the flexibility associated with their employment as evidence in other studies (Adsera, 2005; Begall & Mills, 2011). However, without qualitative research into this area, these assumptions are somewhat speculative.

The cross-sectional nature of this investigation highlights a limitation of this research—it does, in a sense treat intended family size as a static concept. Research has demonstrated however that it is not static, but rather dynamic and subject to revision over the life course (Hayford, 2009; Heiland et al., 2008; Liefbroer, 2009). Further difficulties are encountered by the inability to distinguish age effects from cohort or period effects (Ryder, 1965). As such, this investigation offers some ideas for areas of future research. The study of change in childbearing desires and expectations in Australia is gathering momentum (Gray et al., 2012; Risse, 2011; Tesfaghiorghis, 2005). There is however, still little in the way of investigations into changes in childbearing intentions, or intended family size across the life course in an Australian context. This study offers a starting point for such research to occur.

This study of childless Australians sheds light on some of the variations across intended family size between different sub-populations in a new context. Given the broader contexts of Australia's continued below replacement level fertility and ageing population, it is predicted that measures of intended family size will feature more prominently in the development of family policy in Australia, particularly as Government and policy makers continue in their efforts to increase Australia's total fertility rates by making it easier for Australians to have children.

If different types of people are more likely to intend larger or smaller family sizes based on their social and demographic characteristics, the knowledge garnered by this study provides a powerful

tool in understanding different potential responses to family policy across large sub-sections of the population. This is particularly the case in regards to pro-natal policies⁸.

In conclusion, given that the above findings indicate that one of the most predictive variables for men's and women's intentions for children (including no children)—age—is also a variable over which individuals and policy have little volitional control, ultimately this research joins others (Gray, M., Qu, L., Weston, 2008; Holton, 2010; Jackson & Casey, 2009; Mcdonald, 2000; McDonald, 2006; Sinclair, Boymal, & Silva, 2012; Weston, R., Qu, L., Parker, R., Alexander, 2004) in questioning the efficacy and efficiency of policies aimed at increasing Australians' family sizes.

⁸ For further discussion see Hakim (2011) who has written extensively on this issue, particularly in reference to women and their potential responses to pro-natal and family policy.

APPENDIX 1



FIGURE: MALE PREDICTED FAMILY SIZE (%) BY AGE.

FIGURE: MALE PREDICTED FAMILY SIZE (%) BY EDUCATIONAL ATTAINMENT.





FIGURE: MALE PREDICTED FAMILY SIZE (%) BY EMPLOYMENT STATUS.



FIGURE: MALE PREDICTED FAMILY SIZE (%) BY PARTNERSHIP STATUS.



FIGURE: MALE PREDICTED FAMILY SIZE (%) BY SIBLING NUMBER.

FIGURE: FEMALE PREDICTED FAMILY SIZE (%) BY AGE.





FIGURE: FEMALE PREDICTED FAMILY SIZE (%) BY EDUCATIONAL ATTAINMENT.







FIGURE: FEMALE PREDICTED FAMILY SIZE (%) BY PARTNERSHIP STATUS.

FIGURE: FEMALE PREDICTED FAMILY SIZE (%) BY SIBLING NUMBER.



APPENDIX 2

TABLE: RELATIVE RISK RATIOS- PREDICTING INTENDED FAMILY SIZE FOR CHILDLESS RESPONDENTS, 2012.

i		Mal	es			Fema	les	
Family Size		0 vs. 2	1 vs. 2	3+ vs. 2		0 vs. 2	1 vs. 2	3+ vs. 2
Age 20-24		272*	201*	075		221*	171*	1 0/*
20-24		.272 /199*	.204 780	1 09		.331 615*	3/6*	1.94
30-34 (ref)		1 00	1 00	1.00		1 00	1 00	1.40
35-39		2.88*	1.00	396*		4 27*	1.00	236*
40-44		2.60 8.67*	2.83*	.917		15.6*	2.89	$.000^{2}$
45-49 ¹		37.91*	8.28*	.462		10.0	2.05	.000
Educational attainment								
BA+ (ref)		1.00	1.00	1.00		1.00	1.00	1.00
Cert/Dip		1.79*	1.37	1.08		1.39*	1.05	.830
Secondary or below		2.01*	1.71*	1.39		1.30	1.31	.720*
Employment status								
Full time (ref)		1.00	1.00	1.00		1.00	1.00	1.00
Part time		1.44*	.94	.941		1.31	1.62	1.44*
Unemployed/not attached to		2.13*	1.37	1.10		1.95*	2.42*	.929
market								
Relationship Status								
Married		.27*	.951	1.20		.364*	1.23	.915
De-facto		.48*	1.71*	1.12		.411*	1.82*	.739*
Single (ref)		1.00	1.00	1.00		1.00	1.00	1.00
Sibling number								
Only child		.96	1.31	.600		1.01	1.37	.223*
1 sibling		.71*	.675	.368*		.790	.748	.344*
2 siblings		.77	.759	.755		.759	.895	.737
3+ siblings (ref)		1.00	1.00	1.00		1.00	1.00	1.00
Constant		.999	.144*	.565*		1.22	.172*	.747
LR Chi2	705.94				550.78			
Df	42				39			

	Ν	2026	1706	
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Source: HILDA wave12 (2012) Note: *indicates significance at p<0.05 level. ¹women's age variable not available for 45-49 years due to survey design. ²value is 7.77x10⁻⁷ or 0.000000077.

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