'Feel Good' Factors and Fertility

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Abstract

Are people who are more satisfied ("happier"?) with life more likely to have children? If so, is the relationship between satisfaction with life and fertility the product of satisfaction with particular domains of life? This paper investigates the interrelationships between fertility and satisfaction with life in general and with particular domains of life, using data are from 2,948 women and 2,622 men aged 15 to 44 years from a longitudinal survey of the household population in Australia. Preliminary results show that both for women and for men there is a strong positive relationship between satisfaction with life and subsequent fertility, with particularly low fertility among those with very low satisfaction scores. Fertility is also related to age, parity, marital status, education and birthplace. However scores for satisfaction with particular domains of life are not strong predictors of fertility. The interpretation and implications of these results are discussed.

Introduction

According to the economic approach to fertility analysis, the net costs of fertility, both direct and indirect, are borne by "rational" couples in return for a net gain in satisfaction ('utility') derived from children (Becker 1981, McDonald 2001a, Kohler et al. 2005). The costs of children, both 'direct' (i.e. additional expenditure required) and 'indirect' (i.e.foregone earnings of (usually) the female partner) have been well documented, particularly for Australia. Both components of the economic cost of children have been found to be substantial, with the both the marginal 'direct cost' and the marginal 'indirect cost' being considerably greater for the first child than for higher order children (Percival and Harding 2002, Chapman *et al.* 2001, Breusch and Gray 2004, Henman *et al.* 2007, Parr *et al*. 2007). Strictly speaking, the financial costs of children need to be assessed net of welfare financial benefits which may be paid to parents. In Australia a complex range of government benefits which are payable to the parents of children is available. However the value of these benefits is relatively small in comparison to the economic costs of children (McDonald 2001b, Lattimore and Pobke 2008, Parr 2008). There are also well-documented time costs of children: the additional time spent looking after their children being not only to the detriment of time spent in work but also to the detriment of time for personal care (sleeping, eating and drinking, bathing etc.) and for recreation (i.e. recreation without children). Again the marginal effects on time use of higher order children are less than the effects of the first child (Craig and Bittman 2005, Craig 2006, 2008).

In comparison to the extensive documentation of the costs of children, scientific assessment of the utility of children is rare, particularly in the context of contemporary Australia. The historical shortage of such studies may reflect a view that the utility of children is not readily quantifiable (Coleman 1998 cited in McDonald 2001a). However, self-reported measures of overall satisfaction with life (so-called 'subjective well-being') have been used as a proxy measure for the utilities of economic variables and relationships, and a growing number of overseas studies have endeavoured to assess the utility of children using such measures and based on cross-sectional data (Evans and Kelley 2004, Headey and Wooden 2004, Kohler et al 2005, Headey *et al.* 2008).

One of the limitations of the use of cross-sectional data to assess the effects of fertility on satisfaction with life is that the observed correlation of the two variables may also be affected by effects of satisfaction with life on fertility, as well as by omitted confounding factors. The selection, whether self-selection or by others, of individuals into having (or fathering) another) child may reflect psychological factors which are also integral to their self-reported satisfaction with life. For example, in Carmichael and Whittaker (2007) an aversion to lifestyle change, which reflects high levels of satisfaction with life as it is, is one of the main types of justification respondents cite for remaining childless. If such a pattern is general the more highly satisfied would have lower fertility.

Satisfaction with particular domains of life may be more important to the determination of fertility. For example, satisfaction with one's financial situation may be important, since the reasons given by Australians for not having more children are often financial (Weston et al. 2004). Employment opportunities may be a consideration, since pregnancy and children may diminish opportunities to take advantage of them,

particularly for women (Parr 2005). Satisfaction with the availability of free time may also be a consideration. For example, Carmichael and Whittaker (2007) present examples of people who rationalise their childlessness in terms of the extra free time they could enjoy without children

Analyses also need to control for a range of variables which may affect both satisfaction with life and fertility. Even though the fertility of the unmarried has risen markedly in Australia since the 1970s, a pattern which is also evident in other more developed countries, the married still have considerably higher rates of fertility (Carmichael 1998; Lesthaeghe 1995; ABS 2007). Entering and remaining in a registered marriage have also been found to raise satisfaction with life (Evans and Kelley 2004). Income, being employed, and education have also been shown to affect both satisfaction with life and fertility (Carmichael and McDonald 2003, Parr 2005, Carroll 2007, Headey *et al.* 2008). Infecundity and reduced libido have been found to negatively affect life satisfaction, as well as fertility (Abbey *et al*. 1992, Bongaarts and Potter 1983). However McQuillan et al. (2007) find the relationship between infertility and subjective well-being is weaker among employed women. Moreover, where the birth of a child followed assisted reproduction a reduced parenting stress, more positive parent-child relationship,s and a higher satisfaction with life have been found (Hahn 2001,McQuillan et al. 2007) Parr (2006) found the relationship between family size and the children's life satisfaction in adulthood to be not significant.

This paper analyses the fertility of Australian women and men, paying particular attention to whether women and men who are more highly satisfied with life are more likely to have children. It also assesses whether satisfaction with particular domains in

life is associated with subsequent levels of fertility, as well as the effects of a range of demographic, socioeconomic and cultural factors.

Data and Methods

The data used are from the Household, Income and Labour Dynamics in Australia Survey (or HILDA for short). Wave 1 of this nationwide, longitudinal survey was conducted in 2001 and subsequent waves on an annual basis. The sample design employed a multi-stage cluster sample of households. Remote areas of the country were not sampled (Watson and Wooden 2002a, 2002b).

Wave 5 collected a wide range of data on fertility. From data on the children a respondent had ever had, including co-resident children, non-resident children, and dead children, a binary variable on whether or not the respondent had given birth to/fathered a child in the 12 months prior to the Wave 5 interview was constructed. Satisfaction with life was measured by responses on a 0 to 10 scale, with higher values indicating greater satisfaction, to the question "All things considered how satisfied are you with your life?'. In view of the roughly two-years interval between Wave 3 and with Wave 5 the measurements of satisfaction with life in Wave 3 would not have been affected either by the pregnancies for or the births of children in the 12 months before the Wave 5 interview. Similarly constructed measures of satisfaction with "the home in which you live", "your employment opportunities", "your financial situation", "how safe you feel", "feeling part of the local community in which you live", "your health", "the

neighbourhood in which you live", and "the amount of free time you have" were also considered.

The analysis was restricted to 2,948 women and 2,622 men who were aged 15 to 44 years last birthday one year before the Wave 5 interview and for whom a measurement of satisfaction with life was available from Wave 3. Separate analyses were performed for females and males in order to assess whether the interrelationships of fertility and satisfaction with life differed significantly between the sexes. Since the response variable was binary logistic regression was used. Control variables include those for marital status, age, parity, education, income, employment and birthplace.

Results

Variation in Satisfaction With Life

In general Australian women and men report high levels of satisfaction with life (Headey and Wooden 2004). The mean score for women (7.93) was slightly above that for men (7.84). For both sexes the modal value was 8 out of 10. For each sex less than 3 per cent of the women rated their satisfaction with life below the scale's natural mid-point of 5.

Table 1 shows the variation in the mean level of satisfaction with life by background variables. For both sexes those who are divorced, separated or widowed stand out as being less highly satisfied with life than those who are married or cohabiting and also than those who have never married. For both sexes the 15 to 19 years olds are

significantly more highly satisfied with life than those at older ages. Men who are not employed have a lower mean satisfaction with life than men who are in employment. Men with four or more children also have a relatively low satisfaction with life. Both for males and for females the variation by other tabulated variables including income, education, birthplace and age is slight.

The Effects of Satisfaction with Life and Other Variables on Fertility

4.7 per cent of women in the 15 to 44 age range gave birth to a child in the year before their Wave 5 interview. The percentage of men who fathered a child was virtually identical. There is significant variation in fertility by the satisfaction with life expressed roughly two years earlier, with generally higher levels of fertility being associated with higher preceding levels of satisfaction with life. None of the 78 women whose life satisfaction was below the scales natural mean of 5 had given birth, whilst the percentages giving birth among women who rated their satisfaction with life at 9 or 10 were 51 per cent and 24 per cent respectively above the average for all women aged 15 to 44. years.

For men the relationship between satisfaction with life and subsequent fertility is even stronger. None of the 157 men who rated their satisfaction with life below 6 fathered a child in the period 1-2 years later. Men who rated their satisfaction with life at 9 or 10 were 36 and 38 per cent respectively above the average for all women aged 15 to 44. years. Table 2 shows that both for women and for men fertility also varies considerably by socioeconomic variables, marital status, age, parity and ethnicity.

The logistic regression models in Table 3 show that both for women and for men the effect of satisfaction with life is positive and significant, even after controlling for a range of demographic, socioeconomic and cultural variables. The effect of satisfaction with life on fertility is slightly larger for males than for females.

The effects of the demographic variables are broadly similar for both males and females. Not surprisingly, for both sexes those who have ever been married have higher fertility than those who have not, and, among the unmarried, those who were cohabiting have higher fertility than those who were not cohabiting. There are significant effects for parity for both sexes, with those with one child being more likely to have another child than those with no children or with two or more children. This reflects two children remaining the most common family size in Australia (Kippen 2004, Parr 2007). For both sexes the effects of age follow an inverted U-shape with the peak in the 25 to 29 age group. Migrants generally have lower fertility than the Australia-born. The fertility of women who were born in Asia is significantly lower than that of their Australia-born counterparts.

For both sexes the more highly educated have higher fertility (Table 2). Whilst the association between higher levels of education and higher fertility among males has been long established, the pattern of higher fertility among more highly educated women appears to contrast with the past pattern for Australia of the more highly educated having lower fertility (Carmichael and McDonald 2003). For males having a Bachelors degree is associated with significantly higher fertility, even after controlling for a range of other variables. In contrast Table 3 shows that for women the effects of highest educational level for females are not significant. Thus the higher fertility of the more highly educated

is an artefact of their being more likely to be partnered (another recent departure from the patterns of the past) and to a greater recuperation of previously postponed births (a 'tempo effect') (Heard 2008). For women being employed at the time of Wave 3 was associated with significantly lower fertility than for women who were not employed, whereas for men the effect of being employed is not significant. For both sexes the effect of individual income on fertility is not significant.

Model 2 in Table 3 shows, for each of the eight domains of life considered, the effect of satisfaction with that domain of life was small and not statistically significant.

Conclusion

This paper shows that, both for women and for men, an increased level of satisfaction with life is associated with a significantly greater subsequent propensity to have children. Some of these differences in fertility are attributable to differences in the characteristics of those with differing levels of satisfaction with life. For example, the more highly satisfied are disproportionately found among certain groups with higher fertility, in particular women and men in marital or cohabiting unions, and more highly educated men. It is possible that there is a selection of the more highly satisfied into partnerships. However it also appears likely that the higher satisfaction resulting from continuing marital or cohabiting partnerships explains part of the correlation between life satisfaction and fertility. It should be noted, however, that not all the groups with higher levels of satisfaction with life also have high fertility. In particular the employed and the 15 to 19 age groups have high levels of satisfaction with life and also low fertility.

Whilst some of the higher fertility of the more highly satisfied can be linked to their demographic, socioeconomic and cultural characteristics, there is also a large and significant residual effect of satisfaction with life and fertility is apparent even after controlling for an extensive rage of other factors affecting fertility. Thus some of the relationships between fertility on satisfaction with life, shown by existing studies, may be attributable to a selection of the more highly satisfied into having (fathering) (additional) children. Longitudinal data, such as those from the HILDA survey, should facilitate the controlling for such selection effects.

How might this apparent effect of "satisfaction with life" on fertility be explained? One possibility is that some of the correlation may reflect qualitative dimensions of the fertility history, which the HILDA data do not allow be controlled for. According to Newman (2008) parenthood experiences (for example difficulties conceiving, unpleasant pregnancy experiences, body image issues, birth trauma, sleep deprivation, baby care issues) are an important influence on the desire for subsequent children. It would seem reasonable to assume such experiences may also affect satisfaction with life (Abbey et al. 1992). A second possibility is that union stability and quality is a confounding factor. Both for women and for men the unsatisfactory prospect of raising children in an environment of parental conflict or following a parental break-up acts as a deterrent to producing additional children. So too may an unreasonable division of parental workloads (Carmichael and Whittaker 2007). The association of higher levels of subjective wellbeing with higher subsequent fertility may also reflect that among the unpartnered those who perceive a reduced likelihood of finding a mate have both lower satisfaction with life and lower fertility. Whilst the logistic regression controls for the

existence and type of a marital or cohabiting partner, it is unable to consider the quality and satisfaction (on either side) with an existing partnership or the differing likelihoods of the unpartnered finding a mate. To some authors (eg Kohler et al. 2005) 'satisfaction with life' is seen as synonymous with 'happiness'. However as Bruni and Porta (2005, p7) 'satisfaction with life' may include a broader range of considerations than current 'happiness': it may also reflect an accumulated wisdom from past experiences. Thus, a third possibility is that, 'satisfaction with life' may overlap with the 'psychological readiness' seen by some as prerequisite for the commitment entailed by having children (Carmichael and Whittaker 2007).

The analyses presented here are preliminary. Further testing for possible confounding factors is anticipated. Disaggregation of the relationships between satisfaction with life and parity progression between progression to first birth and progressions to higher order births is anticipated. An analysis of the effects of fertility on satisfaction with life, which controls for the selection of the more satisfied into parenthood is also planned. Finally, analyses using previous changes in life satisfaction following a birth as an explanatory variable for further parity progressions is anticipated.

Table 1: Mean Scores for Satisfaction with Life (Taken from Wave 3) for Men and Women Aged 15-44 by Background Variables.

Variable	Women		Men	
	Mean Life Satisfaction	n	Mean Life Satisfaction	N
Marital Status				
Married	8.1	1278	8.0	983
Cohabiting	8.0	413	7.8	354
Divorced, Separated or Widowed	7.3	283	7.3	173
Never Married and Not Cohabiting	7.9	974	7.8	1,112
Parity				
0	8.0	1,355	7.9	1,513
1	7.9	403	7.9	326
2	7.8	666	7.8	466
3	8.0	342	7.8	217
4+	7.9	182	7.4	100
Age at Start of Year				
15 to 19	8.2	374	8.4	363
20 to 24	8.0	421	7.8	392
25 to 29	7.9	403	7.8	358
30 to 34	7.9	519	7.8	456
35 to 39	7.9	583	7.7	500
40 to 44	7.8	648	7.7	553
Highest Level of Education				
Bachelors or Higher	7.9	677	7.8	476
Year 12	7.9	929	7.7	784
Below Year 12	8.0	1,342	7.9	1,362
Total Annual Income				
Above 100,000	8.0	304	7.8	1,173
45,000-99,999	7.8	779	7.7	500
10,000-44,999	7.8	842	7.9	324
Below 10,000	8.1	726	8.1	380
Employment Status				
Employed	8.0	1978	7.9	2198
Not Employed	7.8	970	7.6	424
Birthplace				

Australia	8.0	2,434	7.9	2,188
MES Overseas[a]	7.8	190	7.7	201
Europe[b]	7.9	77	7.6	46
Asia[c]	7.8	171	7.8	102
Other Overseas	7.9	76	7.6	85
All		2,948		

Source: HILDA Survey Combined Wave1-Wave 5 Data

Table 2: Percentage Who Gave Birth to/Fathered A Child in 12 Months Before Wave 5 Interview by Satisfaction With Life (Measured in Wave 3) and Background Variables.

Variable	Percentage of Women Who Gave Birth	n	Percentage of Men Who Fathered Child	n
Satisfaction With Life				
0 to 4	0.0	78	0.0	68
5	5.5	109	0.0	89
6	0.6	161	4.1	196
7	3.8	579	3.5	550
8	3.9	941	4.9	865
9	7.1	736	6.4	578
10	5.8	344	6.5	276
Marital Status				
Married	6.6	1278	8.0	983
Cohabiting	7.3	413	6.8	354
Divorced, Separated or Widowed	2.8	283	4.6	173
Never Married and Not Cohabiting	1.6	974	1.3	1,112
Parity[d]				
0	4.1	1,355	3.4	1,513
1	13.2	403	14.4	326
2	2.7	666	3.4	466
3	2.3	342	2.8	217
4+	1.7	182	3.0	100
Age at Start of Year				
15 to 19	2.1	374	0.1	363
20 to 24	4.0	421	2.8	392
25 to 29	10.9	403	8.9	358
30 to 34	8.3	519	9.2	456
35 to 39	3.8	583	5.0	500
40 to 44	0.6	648	2.2	553
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Asia[c]	2.3	171	2.0	102
Other Overseas	5.3	76	8.2	85
All	4.7	2,948	4.7	2,622

Source: HILDA Survey Combined Wave1-Wave 5 Data

a Main English-speaking overseas i.e. Canada, Ireland, New Zealand, South Africa, United Kingdom, United States Falkland Islands, British and New Zealand Antarctic Territories

b. Excludes Ireland and United Kingdom. **a**nd includes French and Norwegian Antarctic Territories

c Excludes Middle East

d Calculated from Wave 5 data for time point two years before Wave 5 interview (the recording of fertility in Wave 5 is more complete)

Table 3: Logistic Regressions of Whether Gave Birth to/Fathered A Child in 12 Months Before Wave 5 Interview.

	Females				Males			
	Model 1		Model 2					
Variable	β	S. E. (β)	β	S. E. (β)	β	S. E. (β)	β	S. E. (β)
Satisfaction With Life	0.20**	0.08	0.28**	0.12	0.24***	0.09	0.35***	0.11
Satisfaction with Home			0.01	0.06			-0.07	0.06
Satisfaction with Employment Opportunities			-0.02	0.05			-0.06	0.06
Satisfaction with Financial Situation			-0.04	0.06			0.00	0.06
Satisfaction with Safety			0.03	0.08			0.07	0.09
Satisfaction with Local Community			-0.04	0.06			-0.01	0.06
Satisfaction with Health			0.00	0.07			0.06	0.08
Satisfaction with Neighbourhood			-0.01	0.07			-0.10	0.07
Satisfaction with Free Time			-0.01	0.05			-0.05	0.05
Marital Status								
Married	2.18***	0.41	2.20***	0.42	2.25***	0.41	2.18***	0.41
Cohabiting	1.66***	0.40	1.58***	0.41	1.47***	0.41	1.33***	0.41
Divorced, Separated or Widowed	2.02***	0.55	2.05***	0.55	2.31***	0.55	2.23***	0.55
Never Married and Not Cohabiting	0.00		0.00		0.00		0.00	
Parity								
0	1.17	0.79	1.62	1.07	0.38	0.65	0.35	0.66
1	2.05***	0.76	2.56**	1.05	1.17*	0.63	1.06	0.65
2	0.53	0.77	0.90	1.06	-0.23	0.66	-0.29	0.67
3	0.66	0.81	0.73	1.19	-0.61	0.79	-0.67	0.80
4+	0.00		0.00		0.00		0.00	
Age[e]								
15 to 19	2.15**	0.92	2.45**	1.01	0.48	0.90	0.46	0.90
20 to 24	2.68***	0.69	2.78***	0.81	1.31**	0.54	1.16**	0.54
25 to 29	3.11***	0.63	3.29***	0.75	1.64***	0.42	1.49***	0.43
30 to 34	2.61***	0.62	2.90***	0.74	1.35***	0.38	1.29***	0.39
35 to 39	1.82***	0.63	2.21***	0.75	0.89**	0.40	0.88**	0.40
40 to 44	0.00		0.00		0.00		0.00	
Highest level of Education								
Bachelors or	0.43	0.29	0.49	0.31	0.94***	0.27	0.94***	0.28

Higher								
Year 12	0.36	0.25	0.39	0.27	0.32	0.27	0.38	0.27
Below Year 12	0.00		0.00		0.00		0.00	
Income[d]	0.02	0.01	0.02	0.02	-0.02	0.01	-0.02	0.01
Not Employed	0.57**	0.24	0.56**	0.26	-0.13	0.44	-0.29	0.49
Birthplace								
Australia	0.00		0.00		0.00		0.00	
MES Overseas[a]	-0.35	0.45	-0.38	0.46	0.01	0.35	0.08	0.35
Europe[b]	-0.50	0.75	-1.28	1.05	-0.77	1.07	-0.84	1.08
Asia[c]	-1.32**	0.61	-1.20*	0.62	-1.18	0.75	-1.08	0.75
Other Overseas	0.04	0.56	-0.33	0.65	0.61	0.45	0.67	0.46
Constant	-9.95***	1.20	-11.08***	1.53	-8.00***	1.04	-7.63***	1.13
-2 Log Likelihood	782.2		717.5		744.1		724.9	

Source: HILDA Survey Combined Wave1-Wave 5 Data

a Main English-speaking overseas i.e. Canada, Ireland, New Zealand, South Africa, United Kingdom, United States Falkland Islands, British and New Zealand Antarctic Territories

b. Excludes Ireland and United Kingdom. Includes French and Norwegian Antarctic Territories

c Excludes Middle East

d Measured in A$10,000

e As at start of 12 months before Wave 5 interview.

*** $p < 0.01$, **$0.01 \leq p < 0.05$, * $0.05 \leq p < 0.01$

References

Abbey, Antonia, Frank M. Andrews and Jill Halman 1992. Infertility and subjective well-being: the mediating roles of self-esteem, internal control and interpersonal conflict. *Journal of Marriage and the Family* 54 (May): 408-417.

Australian Bureau of Statistics 2007. *Births 2006.* Catalogue Number. 3301.0 Canberra: Commonwealth of Australia. http://www.abs.gov.au Date accessed 6th February 2008.

Becker, G. 1981. *A Treatise on the Family*. Cambridge, Massachusetts, Harvard University Press.

Bongaarts, John and Robert G. Potter. 1983. *Fertility, Biology and Behavior.* Academic: New York

Breusch, Trevor and Edith Gray. 2004. New estimates of mothers' forgone earnings using HILDA data. *Australian Journal of Labour Economics* 7(2): 125-150.

Bruni, Luigino and Pier Luigi Porta 2005. *Economics and Happiness: Framing the Analysis.* Oxford University Press: Oxford.

Carmichael. Gordon A. 1998. Things ain't what they used to be! Demography, mental cohorts, morality and values in Post-War Australia. *Journal of the Australian Population Association* 15(2): 91-114.

Carmichael, Gordon A. and Peter McDonald. 2003. Fertility trends and differentials. Pp40-76 in Khoo, Siew-Ean and McDonald, Peter (eds.), *The Transformation of Australia's Population 1970-2030.* Sydney: UNSW Press.

Carmichael, Gordon A. and Andrea Whittaker 2007. Choice and circumstance: qualitative insight into contemporary childlessness in Australia. *European Journal of Population.* 23(2):111-143.

Carroll, Nick 2007. Unemployment and psychological well-being. *Economic Record.* 83 (262): 287-302.

Chapman, Bruce, Yvonne Dunlop, Matthew Gray, Amy Liu, and Deborah Mitchell 2001. The impact of children on the lifetime earnings of Australian women: evidence from the 1990s. *Australian Economic Record* 34(4): 373-389.

Craig, Lyn 2006. Parental education, time in paid work and time with children: an Australian time-diary analysis. *British Journal of Sociology* 57(4):553-575

Craig, Lyn 2008. The incremental time costs of children: An analysis of children's impact on adult time use in Australia. *Feminist Economics.* 14(2): 59-88.

Craig, Lyn and Michael Bittman. 2005. The time costs of children in Australia. *International Journal of Time Use Research* 3(1): 60-87

Evans, M.D.R. and Jonathon Kelley, 2004. Effect of family structure on life satisfaction: Australian evidence. *Social Indicators Research.* 69: 303-349.

Hahn, Cun-Shin 2001. Review: Psychosocial well-being of parents and their children born after assisted reproduction. *Journal of Pediatric Psychology.* 26(8): 525-538.

Headey, Bruce, Ruud Muffels and Mark Wooden. 2008. Money does not buy happiness: or dies it? A reassessment based on the combined effects of wealth, income and consumption. *Social Indicators Research.* 87: 65-82.

Headey, Bruce and Mark Wooden. 2004. The effects of wealth and income on subjective well-being and ill-being. *Economic Record.* 80(Special Issue) S24-S33.

Heard, Genevieve. 2006. Pronatalism under Howard. *People and Place* 14(3): 12-24.

Henman, P., Percival, R., Harding, A. and Gray, M. (2007) Costs of children: research commissioned by the Ministerial Taskforce on Child Support. Occasional Paper No. 18.

Canberra: Australian Government Department of Families, Community Services and Indigenous Affairs.

Kippen, Rebecca. 2004. Declines in first and second birth rates and their effects on levels of fertility. *People and Place* 12(1): 28-37.

Kohler, Hans-Peter, Jere R. Behrman and Axel Skytthe 2005. Partner + children = Happiness? The effects of partnerships and fertility on happiness. *Population and Development Review* 31(3): 4-7-445.

Lattimore, Ralph and Clinton Pobke. 2008 Recent trends in Australian Fertility. *Productivity Commission Staff Working Paper.* Australian Government Productivity Commission: Canberra.

Lesthaeghe, Ron. 1995. The Second Demographic Transition in Western countries: an interpretation. Pp17-62 in Mason, K.O. and Jensen, A. (eds.), *Gender and family change in industrialized countries.* Oxford: Clarendon Press

McDonald 2001a. Theory pertaining to low fertility. Paper presented to the International Union for the Scientific Study of Population Seminar on International Perspectives on Low fertility: trends, Theories and Policies in Tokyo, Japan 21-23 March 2001.

McDonald, Peter. 2001b. Family support policy in Australia: the need for a paradigm shift. *People and Place* 9(2): 14-20.

McQuillan, Julia, Rosalie A Torres Stone, and Arthur, L. Greil 2007. Infertility and life satisfaction among women. *Journal of Family Issues.* 28(7): 955-981.

Newman, Lareen 2008. How parenthood experiences influence desire for more children in Australia: a qualitative study. *Journal of Population Research* 25(1): 1-28.

Parr, Nicholas J. 2005. Family background, schooling and childlessness in Australia. *Journal of Biosocial Science* 37(2): 229-243.

Parr, Nick 2006. Do children from small families do better? *Journal of Population Research* 23(1):1-25

Parr, Nick 2007. Which women stop at one child in Australia, *Journal of Population Research* 24(2): 207-226.

Parr, Nick. 2008. The socioeconomic context and spatial distribution of Australia's early 21st century increase. Paper presented to the IUSSP Seminar on 'Fertility and Public Policies in Low Fertility Countries'. At the Universitat Pompreu Fabra, Barcelona, Spain 7-8 July 2008.

Parr, Nick, Shauna Ferris, and Stéphane Mahuteau. (2007) The impact of children on Australian women's and men's superannuation. *Economic and Labour Relations Review* 18(1):3-26.

Percival, Richard and Ann Harding. 2002. All they need is love and around $450,000. The AMP_NATSEM Income and Wealth Report Issue 3. Australia: AMP http://www.amp.com.au/au/3column/0,2338,CH5306%255FSI56,00.html Date Last Accessed 25th January 2007.

Watson, Nicole and Mark Wooden 2002a. The Household, Income and Labour Dynamics in Australia (HILDA) Survey: wave 1 survey methodology. *Hilda Project Technical Paper Series No 1/02* http://www.melbourneinstitute.com/hilda/ Date Last Accessed 1 May 2007.

Watson, Nicole and Mark Wooden 2002b. Assessing the quality of the the HILDA Survey Wave 1 Data. *Hilda Project Technical Paper Series No 4/02* http://www.melbourneinstitute.com/hilda/ Date Last Accessed 20 August 2007.

Weston, Ruth., Lixia Qu,, Robyn Parker, and Michael Alexander. 2004. *It's not for lack of wanting kids…: A report on the Fertility Decision Making Project.* Research Report No. 11, Melbourne: Australian Institute of Family Studies.