

Accounting for Wealth Differences in Australia

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Abstract

It is well established that wealth differs by age, gender, ethnicity, family size, socioeconomic background, marital status and education. The purpose of this article is to quantify these differences and account for the differences. For all social and demographic differences in wealth the immediate subsequent question is whether these differences can be accounted by education, occupation, income or other factors: or reflect more deep-rooted and less policy malleable social differences. For example, the much lower wealth of indigenous Australians can only be partially accounted for by differences in education and employment. In contrast, the greater wealth associated with university degrees, is generally accounted for by differences in labor market outcomes.

Accounting for Wealth Differences in Australia

The most prominent theory on wealth accumulation is the life-cycle model of wealth accumulation. According to the lifecycle model the young have little or no wealth since they have low incomes and tend not to save. People in their thirties tend to accumulate wealth as they increase the equity in their houses – a form of forced saving – and contribute to investments and their pensions. After several decades contributing to their housing and other investments, many people have accumulated considerable wealth. Furthermore, incomes peak during middle age, which hastens the reduction of debt and the accumulation of assets. After middle-age wealth declines probably reflects the impact of retirement: retirees are both less able to accumulate wealth and more likely to use their assets to fund consumption.

The strong association between wealth and age is evidence for the lifecycle model. However, the association between age and wealth may be spurious, or at least misleadingly high, in that older persons are more likely to be married, (which increases wealth by often providing additional income and assets), have completed their education, are more likely to be in higher status jobs and earn higher incomes. Furthermore, the lifecycle model assumes rational actors who avoid immediate gratification to save in order to accumulate wealth, an assumption that may not be warranted. Critiques of human capital theory, such as the lack of accurate information for rational decision-making and the assumption that people seek to maximize utility over the long-term also apply to the life-cycle model. Furthermore, the lifecycle does not explain gender, ethnic and other sociological differences in wealth.

Keister and Moller (2000) adopt a more sociological approach and discuss the individual and family processes of wealth accumulation. Although they emphasize the role of income they are more concerned with how other attributes such as age, race and family structure influence wealth. They discuss whether ethnic and racial differences in wealth is accounted by education and the differences in life-time income that stem from differences in human capital or are such inequalities more to do with structural inequalities and discrimination.

For Australia, the same discussion would apply to the lower wealth of indigenous and other ethnic minorities. This same logic applies to other demographic and sociological differences in wealth. For example, a higher number of siblings is associated with decreased wealth (Keister 2003). This may simply reflect a greater dilution of parental wealth because of larger families or may be indirect through the well-documented finding that larger families are associated with lower educational attainment (Blake 1989; Downey 1995). Is the fact that those with higher

socioeconomic origins more to do with educational and occupational attainment or can be attributed to direct intergenerational transfer. People from higher sociological backgrounds have more wealth. The strong relationship between education and wealth may simply be because qualifications are associated with better jobs or may be because more educated people are smarter about money. Similarly, the greater wealth associated with marriage found in previous analyses of the HILDA wealth data (see Marks, Headey and Wooden 2005) may be because married people are more likely to have higher status, higher income jobs. On the other hand marriage may be associated with a set of opportunities or behaviors that facilitate the accumulation of wealth.

Therefore the purpose of this paper is to quantify and account for sociological differences in wealth in Australia.

Data, Measures and Methods

DATA

The data used in this article come from the second wave of the Household, Income and Labor Dynamics in Australia (HILDA) Survey, a longitudinal survey of households focusing on the interactions between the labor market, families and social welfare. The survey commenced, in 2001, with a two-stage probability sample. In the first stage 488 Census Collection Districts (CDs), based on 1996 Census boundaries, were randomly selected. Within each CD, all households (approximately 200 to 250) were enumerated and 22 to 34 dwellings randomly selected.¹ Personal interviews were attempted with all household members aged 15 years and over. In wave 1, interviews were obtained at 7,682 households, which represented 66 per cent of all households identified as in-scope. This in turn generated a sample of 15,127 persons eligible for interview, 13,969 of whom were successfully interviewed.²

In 2002 all responding households from wave 1 were re-contacted. Sixty-nine households were out of scope due to death or moves overseas and there were an additional 713 households arising from changes in household composition.³ A total of 8,326 households were, therefore, in-scope for wave 2. Interviews were obtained from members of 7,245 of these households, giving a household response rate of 87 per cent. Interviews were again sought with all household members aged 15 or over, including persons who did not respond in wave 1, as well as any new household members. In total, interviews were completed with 13,041 persons. Of this group, almost 12,000 were respondents from wave 1, which represented almost 87 per cent of the wave 1 individual sample.⁴

The data include weights to adjust for the probability of selection and differences in the distributions of benchmark variables between the sample and population (Watson and Fry 2002). Weights were also developed to adjust for differential attrition by respondent characteristics. A model of response/non-response was estimated and the inverse of the probabilities of response were included in the weights so that respondents who responded with characteristics associated with non-response received larger weights (Watson 2004). All estimates presented in this paper are weighted estimates.

MEASURES

The measures of wealth, assets and debts were from the questions in the wealth module in wave 2. Questions covering housing, unincorporated businesses, equity-type investments (e.g. shares and managed funds), cash-type investments (e.g. bonds and debentures), life insurance policies, vehicles and valuables (e.g. jewellery, art works) were asked at the household level and answered by one adult on behalf of the entire household. Questions about superannuation, bank accounts, credit cards, HECS debt and other personal debt, however, were asked directly of individuals. For most questions, respondents were asked to provide exact dollar amounts. Wealth is simply assets minus debts.

For the income and wealth variables, missing data was handled by imputation. For other variables, the few cases missing were excluded from the corresponding analysis. Details on the construction of the wealth variables are available (Headey 2003; Headey, Marks and Wooden 2004; Marks et al. 2005).

The measurement of most of the independent variables is apparent from the tables in the following tables. The variables: marital status, highest educational qualifications, labor force status and personal income are derived variables available on public releases of the HILDA data. The occupational status measures were measured using the ANU4 occupational status scale (Jones and McMillan 2001).⁵ For parental occupational status, father's occupation at age 14 was used. If this information was missing, then the mother's occupation was used.

METHODS

In modeling wealth five groups of factors were analyzed: demographic and social background factors; educational attainment; marital status, marital history and the number of children; labor market factors comprising, occupational status, no occupation and income; and work history. The logic behind these analyses is to quantify how the coefficients change with additional variables. The variables that comprise these groups are apparent from Tables 1 to 3. Table 1

presents the results for all persons, and tables 2 and 3 separate analyses for men and women. The man or woman with the highest income in the household who was not living with a parent was selected to link individual characteristics with household wealth. Wealth was logged to overcome its very skewed distribution. This involved excluding the very small percentage of households with zero or negative wealth. In the text the coefficients are interpreted as percentage effects which are presented in the corresponding tables (Tables A1 to A3) in the Appendix.⁶

RESULTS

Age

The relationship between age and wealth corresponds to the life-cycle model. Wealth has a curvi-linear relationship with age increasing until retirement followed by a decline. The estimated wealth of 25-year-olds is approximately 84 per cent lower than that of 45-year-olds and for 35 year olds 52 per cent less. The wealth of 55-year-olds is about 43 per cent higher than that of 45-year-old men. Because of the curvilinear relationship between wealth and age, the wealth of 65-year-old men is about 49 per cent more than that of 45-year-olds. The effects for age are very similar for men and women.

The greater wealth of older persons is not because they are more likely to be married or work in more prestigious and higher-income occupations. The coefficients for age did not decline appreciably when controlling for other correlates of wealth. So the greater wealth of older people is not because of life-cycle factors but probably due to more economic factors: the delay in home ownership among younger cohorts, the large real increase in housing prices over the last decade or so and real increases in investments which contribute to most superannuation funds.

Generational differences in the saving and spending habits of younger cohorts may also be a contributing factor.

Gender

As expected on average women have less wealth than men. The estimate from the first model is that women on average have 30 per cent less wealth. This declines slightly to 24 per cent when controlling for education since for the general population men still have higher levels of education than women. However, when controlling for marital status, number of children and marital history there was no significant gender difference in wealth. This suggests that the lower average wealth of women is due to low levels of wealth of single parent families, ninety percent of which are headed by women, rather than gender differences in occupational status and income. Indeed, when controlling for employment factors, women's wealth is greater than

men's. This is because among married who are or have been married or in a de facto relationship a sizable proportion of household wealth is due to their spouse's labor market activities. Comparison of the wealth of single men and women is likely to show that employment differences contribute to gender differences in wealth.

Ethnicity

On average Indigenous persons have 88 per cent less wealth than non-indigenous persons. This very large difference cannot be attributed to differences in educational attainment between indigenous and non-indigenous persons or to differences in marital status, marital history or the number of children. Differences in labor market activities can only partially account for indigenous/non-indigenous differences in wealth. In the final model which takes into account occupational status, earnings and both employment and unemployment history, the wealth of indigenous persons is 70 per cent lower than that of non-indigenous persons. Therefore, the bulk of the difference in wealth between indigenous and non-indigenous is due to factors not included in these analyses, for example, cultural differences in financial behavior and asset formation. Differences in wealth according to indigenous status are generally greater among women than men.

On average, a first language other than English was associated with 26 per cent less wealth. This effect was considerably stronger among men (40 per cent less wealth) than women (19 per cent). Ethnic differences in wealth increase rather than decrease when taking into account education and marital status. Differences in employment and labor force history and interactions between them, only marginally account for differences in wealth according to first language spoken. In the final model a first language other than English was associated with 18 per cent less wealth compared. Gender differences remained non-trivial: among men a first language other than English was associated with 24 less wealth and 17 per cent less wealth among women.

Other Demographic Factors

Each additional sibling was estimated to reduce net worth by about 9 per cent. The relationship was not accounted by differences between persons from small and large families in educational attainment. When controlling for all factors in the model, net worth was reduced by about 6 per cent.

Having parents divorced or separated at age 15 reduced wealth by about 26 per cent. This effect was stronger among women at around 31 per cent compared to men at around 24 per cent. However, among both sexes this relationship was no longer statistically significant when

controlling for marital status, marital history and children. These results suggest that the lower wealth of those whose parents had divorced or separated is because this group is less likely to be married or in de facto relationships.

Socioeconomic Background and Type of School Attended

Socioeconomic background had only small effects on wealth. A ten point difference in parental occupational status — on a zero to one hundred scale — was associated with a 8 per cent difference in wealth. When controlling for educational attainment the effect was reduced by about half to 4 per cent. The effect of socioeconomic background was further reduced to statistical insignificance when controlling for labor market factors (column 4). This result suggests that the effect of socioeconomic background on wealth accumulation is mostly indirect via educational and occupational attainment and that the direct intergenerational transfer of wealth is not a major determinant of wealth differences in Australia.

Type of school attended was also associated with wealth. Net of socioeconomic background, attendance at a Catholic school increased wealth by 27 per cent and at an independent school by 46 per cent compared to attendance at a government school. There was some indication that the benefits to wealth for attendance at an independent school were greater among women than men. Wealth differences according to school type declined substantially when taking into account educational attainment and among men were no longer statistically significant when controlling for occupation and earnings. Among women attendance an independent school was associated with about 30 per cent greater wealth when controlling for all factors included in the model. The greater wealth among women who attended independent schools is likely to be because of their spouses tend to have higher status occupations and higher income.

Educational attainment

Large effects on wealth were found for educational qualifications. Relative to school completion, post-graduate qualifications increased wealth by 65 per cent, bachelor degrees 40 per cent and diplomas 32 per cent. There were no significant effects for advanced certificates and certificates were associated with about 30 per cent less wealth in the complete sample. Not completing school was associated with nearly 40 per cent less wealth compared to school completion. Not completing school was particularly detrimental among women. Similarly the returns to wealth for university qualifications were larger for men than for women.

Much of the effect of educational qualifications was indirect through labor market variables. When controlling for occupational status and earnings, the effects for post-graduate and bachelor

degrees were substantially reduced and no longer statistically significant in the full-sample. In contrast the effects for a diploma remained largely unchanged. Not completing school significantly reduced wealth in both sexes in all models although the magnitude of the effect was substantially smaller when taking into account labor market history.

Marital Status, Marital History and Children

Marriage has one of the strongest effects on wealth. Adding marital status, marital history and the number of children to the analysis increased the R square values substantially especially among women. In tables the effects for marriage are little exaggerated because of the inclusion of number of times married. Rerunning the third model without number of times the married, the effects for marriage were 1.53 (men and women), 1.29 (men) and 1.62 (women). This compares to the effects in the tables of 1.59, 1.35 and 1.82. This means that the effects of marriage are huge. In contrast to being single, being married increasing wealth by over 360 per cent in the complete sample. Among women it increased wealth by over 400 per cent or by a factor of 5. These are large effects, far more than is the case if the benefits of marriage to wealth were simply because there are two income earners. Among men, the effect on wealth of marriage decreases from 286 to 216 per cent when taking into account occupational status and earnings and further decreases when taking into account work history. The larger effects among women reflect the generally higher occupational status and earnings of married compared to single men. However, even when controlling for all the factors in the model — which includes, age, education and occupation — the wealth of married men is about two and a half times greater than that of single men. Among women, the returns in wealth to marriage do not decline substantially when taking into account labor market factors. Reiterating, these results indicate that the benefits to wealth from marriage are not because of the additional income earner servicing mortgages and accumulating assets but imply that it is associated with a set of opportunities and behaviors that accelerate wealth accumulation.

Being in a de facto relationship is also associated with greater wealth. Among men, de facto relationships were associated with 100 per cent more wealth and among women 200 per cent. Among men the effect of a de facto relationship declined substantially when taking into account employment and unemployment history. This result reflects the superior labor market outcomes of men in de facto relationships compared to single men. Among women, controls for labor market factors had no impact on the association between wealth and de facto relationships.

Being separated and divorce had no impact on wealth⁷. Widows and widowers tended to have substantially greater wealth than single people, even when taking into account age. On average they have approximately 3 times the wealth of single people. Among men much of this effect is accounted for by labor market factors but not among women.

The number of times a person has been married reduces wealth by between 10 and 14 per cent. This effect was larger among women.

Children were associated with less wealth. Among men, one child decreased wealth by about 14 per cent, 2 children by about 19 per cent and 3 children by about 23 per cent. Among women, these effects were larger: 16, 22 and 27 per cent. Among both sexes, the association between wealth and children cannot be attributed to differences in labor market factors. The coefficients remained largely unchanged.

Work

Not unexpectedly, occupational status, earnings and employment history are all associated with wealth. Among men an increase of 10 units on the zero to 100 occupational status scale is associated with an increase in wealth of about 7 per cent. A 50 point difference, for example between a semi-skilled and worker professional person, translates to a difference in wealth of about 35 per cent. Among women occupational status does not have a significant effect although there is a stronger effect for income among women than men. A \$10,000 difference in income is associated with 7 per cent more wealth among men but 11 per cent more wealth among women. For a \$50,000 difference in income translates to 35 per cent greater wealth among men and 55 per cent more wealth among women. Note that the estimates for men are net of occupational status.

Having no occupation (unemployed or not in the labor force) reduces wealth by about a third among both sexes. This effect is substantially reduced when taking into labor market history among men but not among women.

A 10 percentage point increase in time spent employed since leaving full-time education was associated with 24 per cent greater wealth among men. Among women, employment history appears less important with the comparable effect around 5 per cent. A one percentage point increase in the time spent unemployed reduces wealth in both sexes.

Interactions between income and occupation with time spent employed were negatively associated with wealth among men. This means that the returns to wealth occupational status and

income are lower the greater percentage of time spent employed. Among women there were no significant effects.

DISCUSSION

Not done

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Table 1 Influences on Wealth (Men and Women)

Model	Demo. & Social Backgrd.	1+ Education	2+Marital Status	3+ Occupation	4+Work History	5+ Interaction Work and Job
	1	3	3	4	5	6
Intercept	12.75 ^{***}	12.75 ^{***}	11.97 ^{***}	11.95 ^{***}	11.81 ^{***}	11.83 ^{***}
Age	0.56 ^{***}	0.60 ^{***}	0.56 ^{***}	0.65 ^{***}	0.59 ^{***}	0.59 ^{***}
Age Squared	-0.18 ^{***}	-0.17 ^{***}	-0.16 ^{***}	-0.12 ^{***}	-0.10 ^{***}	-0.10 ^{***}
Women	-0.35 ^{***}	-0.28 ^{***}	-0.08 ^{***}	0.08 ^{***}	0.22 ^{***}	0.23 ^{***}
Indigenous	-2.06 ^{***}	-1.96 ^{***}	-1.62 ^{***}	-1.53 ^{***}	-1.21 ^{**}	-1.19 ^{**}
Number of Siblings	-0.09 ^{***}	-0.07 ^{***}	-0.07 ^{***}	-0.06 ^{***}	-0.06 ^{***}	-0.06 ^{***}
1st Language not English	-0.30 ^{**}	-0.33 ^{***}	-0.43 ^{***}	-0.27 ^{**}	-0.20 ^{**}	-0.20 ^{**}
Parents Divorced/Separated	-0.30 ^{**}	-0.27 ^{**}	-0.16 ^{**}	-0.09 ^{**}	-0.05 ^{**}	-0.06 ^{**}
Family Occup. Status (10s)	0.08 ^{***}	0.04 ^{**}	0.03 ^{**}	0.02 ^{**}	0.02 ^{**}	0.02 ^{**}
Catholic School	0.24 ^{**}	0.16 [*]	0.15 [*]	0.10 ^{**}	0.08 ^{**}	0.08 ^{**}
Independent School	0.38 ^{***}	0.26 ^{***}	0.20 ^{**}	0.20 ^{**}	0.21 ^{**}	0.21 ^{**}
Post-Graduate Quals	.	0.50 ^{***}	0.37 ^{***}	0.07 ^{***}	0.13 ^{**}	0.09 ^{**}
Bachelor Degree	.	0.34 ^{***}	0.30 ^{***}	0.07 ^{***}	0.11 ^{**}	0.07 ^{**}
Diploma	.	0.28 ^{**}	0.30 ^{**}	0.25 ^{**}	0.23 [*]	0.22 [*]
Advanced Certificate	.	-0.10 ^{**}	-0.11 ^{**}	-0.04 ^{**}	-0.05 ^{**}	-0.05 ^{**}
Certificate	.	-0.42 ^{***}	-0.37 ^{***}	-0.28 ^{***}	-0.22 ^{**}	-0.23 ^{**}
Year 11	.	-0.56 ^{***}	-0.54 ^{***}	-0.37 ^{***}	-0.28 ^{**}	-0.28 ^{**}
Married	.	.	1.59 ^{***}	1.39 ^{***}	1.29 ^{***}	1.29 ^{***}
De facto	.	.	0.88 ^{***}	0.77 ^{***}	0.74 ^{***}	0.74 ^{***}
Separated	.	.	0.20 ^{***}	0.10 ^{***}	0.07 ^{***}	0.06 ^{***}
Divorced	.	.	0.20 ^{***}	0.09 ^{***}	0.06 ^{***}	0.05 ^{***}
Widowed	.	.	1.06 ^{***}	0.83 ^{***}	0.83 ^{***}	0.84 ^{**}
No. of Children (sqrt)	.	.	-0.23 ^{**}	-0.20 [*]	-0.16 [*]	-0.15 [*]
No. of times Married	.	.	-0.13 [*]	-0.13 [*]	-0.14 [*]	-0.14 [*]
Occupational Status (10s)	.	.	.	0.05 ^{***}	0.04 ^{***}	0.04 ^{**}
No Occupation	.	.	.	-0.47 ^{***}	-0.30 ^{***}	-0.25 ^{***}
Income (\$10,000s)	.	.	.	0.07 ^{***}	0.06 ^{***}	0.08 ^{***}
Per Cent Employed	.	.	.	.	0.11 ^{***}	0.09 ^{***}
Per Cent Time Unemployed	.	.	.	.	-0.31 ^{***}	-0.31 ^{***}
Time Employed*Income	.	.	.	.	.	-0.01 ^{**}
Time Employed*Occupation	.	.	.	.	.	0.00
N of cases	5641	5641	5641	5399	5370	5370
R Square	0.20	0.23	0.32	0.36	0.38	0.39

Note *** P<0.001, ** 0.001<P<0.01, * 0.01<P<0.05. Contrast group are 45 year old males, from average socioeconomic backgrounds, attended government schools, completed Year 12, single, no children, never married, employed with job of average occupational status and earnings. Spent average time since full-time education employed (74 per cent) and no time unemployed.

Table 2 Influences on Wealth (Men)

Model	Social Backgrd. 1	1+ Education 3	2+Marital Status 3	3+ Occupation 4	4+Work History 5	5+ Interaction Work and Job 6
Intercept	12.82 ^{***}	12.67 ^{***}	12.01 ^{***}	12.09 ^{***}	11.82 ^{***}	11.88 ^{***}
Age	0.58 ^{***}	0.58 ^{***}	0.54 ^{***}	0.65 ^{***}	0.57 ^{***}	0.58 ^{***}
Age Squared	-0.20 ^{***}	-0.18 ^{***}	-0.17 ^{***}	-0.12 ^{***}	-0.11 ^{***}	-0.11 ^{***}
Indigenous	-1.42 ^{***}	-1.29 ^{***}	-1.12 ^{***}	-1.08 ^{***}	-0.80 ^{**}	-0.74 ^{**}
Number of Siblings	-0.09 ^{***}	-0.07 ^{***}	-0.08 ^{***}	-0.06 ^{***}	-0.06 ^{***}	-0.06 ^{***}
1st Language not English	-0.52 ^{***}	-0.56 ^{***}	-0.61 ^{***}	-0.43 ^{***}	-0.29 ^{**}	-0.28 ^{**}
Parents Divorced/Separated	-0.27 ^{**}	-0.24 ^{**}	-0.15 ^{**}	-0.11 ^{**}	-0.05 ^{**}	-0.05 ^{**}
Family Occup. Status (10s)	0.08 ^{***}	0.04 ^{***}	0.04 ^{***}	0.02 ^{***}	0.02 ^{***}	0.02 ^{***}
Catholic School	0.28 ^{**}	0.20 [*]	0.18 [*]	0.13 [*]	0.13 [*]	0.13 [*]
Independent School	0.30 ^{***}	0.19 [*]	0.15 [*]	0.12 [*]	0.14 [*]	0.15 [*]
Post-Graduate Quals	.	0.62 ^{***}	0.46 ^{***}	0.14 [*]	0.29 [*]	0.22 [*]
Bachelor Degree	.	0.49 ^{***}	0.37 ^{***}	0.11 [*]	0.25 [*]	0.17 [*]
Diploma	.	0.38 ^{**}	0.32 ^{**}	0.22 [*]	0.24 [*]	0.22 [*]
Advanced Certificate	.	0.09 ^{**}	0.00 ^{**}	0.04 [*]	0.00 [*]	-0.03 [*]
Certificate	.	-0.25 [*]	-0.26 ^{**}	-0.18 [*]	-0.14 [*]	-0.16 [*]
Year 11	.	-0.30 [*]	-0.34 ^{**}	-0.21 [*]	-0.21 [*]	-0.24 [*]
Married	.	.	1.35 ^{***}	1.15 ^{***}	0.92 ^{***}	0.91 ^{***}
De facto	.	.	0.71 ^{***}	0.58 ^{***}	0.46 ^{***}	0.44 ^{***}
Separated	.	.	0.12 ^{**}	0.05 ^{**}	-0.09 ^{**}	-0.10 ^{**}
Divorced	.	.	-0.06 ^{**}	-0.13 ^{**}	-0.26 ^{**}	-0.27 ^{**}
Widowed	.	.	1.00 ^{***}	0.67 ^{***}	0.52 ^{**}	0.53 ^{**}
No. of Children (sqrt)	.	.	-0.15 ^{**}	-0.16 ^{**}	-0.15 ^{**}	-0.13 ^{**}
No. of times Married	.	.	-0.12 [*]	-0.12 [*]	-0.11 [*]	-0.11 [*]
Occupational Status (10s)	.	.	.	0.07 ^{***}	0.06 ^{***}	0.09 ^{***}
No Occupation	.	.	.	-0.41 ^{***}	-0.06 ^{***}	0.02 ^{***}
Income (\$10,000s)	.	.	.	0.06 ^{***}	0.04 ^{***}	0.07 ^{***}
Per Cent Employed	.	.	.	.	0.22 ^{***}	0.20 ^{***}
Per Cent Time Unemployed	.	.	.	.	-0.18 ^{**}	-0.16 [*]
Time Employed*Income	.	.	.	.	.	-0.01 [*]
Time Employed*Occupation	.	.	.	.	.	-0.02 [*]
N of cases	4158	4158	4158	4158	3997	3981
R Square	0.23	0.26	0.32	0.33	0.37	0.42

Note *** P<0.001, ** 0.001<P<0.01, * 0.01<P<0.05. Contrast group are 45 year old males, from average socioeconomic backgrounds, attended government schools, completed Year 12, single, no children, never married, employed with job of average occupational status and earnings. Spent average time since full-time education employed (74 per cent) and no time unemployed.

Table 3 Influences on Wealth (Women)

Model	Social Backgrd.	1+ Education	2+Marital Status	3+ Occupation	4+Work History	5+ Interaction Work and Job
	1	3	3	4	5	6
Intercept	12.78 ^{***}	12.79 ^{***}	11.67 ^{***}	11.66 ^{***}	11.64 ^{***}	11.66 ^{***}
Age	0.47 ^{***}	0.51 ^{***}	0.50 ^{***}	0.53 ^{***}	0.50 ^{***}	0.49 ^{***}
Age Squared	-0.18 ^{***}	-0.17 ^{***}	-0.15 ^{***}	-0.12 ^{***}	-0.11 ^{***}	-0.11 ^{***}
Indigenous	-2.00 ^{***}	-1.97 ^{***}	-1.63 ^{***}	-1.54 ^{***}	-1.39 ^{***}	-1.39 ^{***}
Number of Siblings	-0.08 ^{***}	-0.07 ^{***}	-0.06 ^{***}	-0.06 ^{***}	-0.06 ^{***}	-0.06 ^{***}
1st Language not English	-0.20 [*]	-0.22 [*]	-0.31 ^{**}	-0.20 [*]	-0.18 [*]	-0.18 [*]
Parents Divorced/Separated	-0.37 ^{***}	-0.35 ^{***}	-0.25 ^{**}	-0.19 [*]	-0.18 [*]	-0.18 [*]
Family Occup. Status (10s)	0.07 ^{***}	0.03 ^{**}	0.03 [*]	0.03 [*]	0.03 [*]	0.03 [*]
Catholic School	0.26 ^{***}	0.19 ^{**}	0.21 ^{**}	0.18 ^{**}	0.16 [*]	0.15 [*]
Independent School	0.37 ^{***}	0.28 ^{***}	0.22 ^{**}	0.25 ^{**}	0.25 ^{**}	0.25 ^{**}
Post-Graduate Quals	.	0.41 ^{***}	0.43 ^{***}	0.20 [*]	0.22 [*]	0.21 [*]
Bachelor Degree	.	0.29 ^{***}	0.35 ^{***}	0.19 [*]	0.19 [*]	0.19 [*]
Diploma	.	0.22 ^{**}	0.31 ^{***}	0.31 ^{***}	0.30 ^{***}	0.30 ^{***}
Advanced Certificate	.	-0.10	-0.02	0.03	0.03	0.02
Certificate	.	-0.11	-0.08	-0.04	-0.01	-0.01
Year 11	.	-0.40 ^{***}	-0.39 ^{***}	-0.27 ^{**}	-0.20 [*]	-0.20 [*]
Married	.	.	1.82 ^{***}	1.80 ^{***}	1.79 ^{***}	1.79 ^{***}
De facto	.	.	1.08 ^{***}	1.07 ^{***}	1.10 ^{***}	1.10 ^{***}
Separated	.	.	0.20	0.11	0.11	0.10
Divorced	.	.	0.33 ^{***}	0.25 ^{***}	0.28 ^{***}	0.26 ^{***}
Widowed	.	.	1.16 ^{***}	1.12 ^{***}	1.10 ^{***}	1.09 ^{***}
No. of Children (sqrt)	.	.	-0.18 ^{***}	-0.09 [*]	-0.06 ^{**}	-0.06 ^{**}
No. of times Married	.	.	-0.15 [*]	-0.15 [*]	-0.18 ^{**}	-0.17 ^{**}
Occupational Status (10s)	.	.	.	0.00	0.00	0.00
No Occupation	.	.	.	-0.38 ^{***}	-0.33 ^{***}	-0.30 ^{**}
Income (\$10,000s)	.	.	.	0.10 ^{***}	0.08 ^{***}	0.09 ^{***}
Per Cent Employed	.	.	.	.	0.05 ^{***}	0.04 [*]
Per Cent Time Unemployed	.	.	.	.	-0.22 ^{***}	-0.22 ^{***}
Time Employed*Income	.	.	.	.	.	-0.01
Time Employed*Occupation	.	.	.	.	.	0.00
N of cases	4691	4691	4691	4491	4463	4463
R Square	0.18	0.20	0.31	0.33	0.33	0.33

Note *** P<0.001, ** 0.001<P<0.01, * 0.01<P<0.05. Contrast group are 45 year old males, from average socioeconomic backgrounds, attended government schools, completed Year 12, single, no children, never married,

APPENDIX

Table A 1 Percentage Effects on Wealth (All)

	Social Backgrd.	1+ Education	2+Marital Status	3+ Occupation	4+Work History	5+Interaction Work and Job
Age	75.1	82.2	75.1	91.6	80.4	80.4
Age Squared	-16.5	-15.6	-14.8	-11.3	-9.5	-9.5
Women	-29.5	-24.4	-7.7	8.3	24.6	25.9
Indigenous	-87.3	-85.9	-80.2	-78.3	-70.2	-69.6
Number of Siblings	-8.6	-6.8	-6.8	-5.8	-5.8	-5.8
1st Language not English	-25.9	-28.1	-34.9	-23.7	-18.1	-18.1
Parents Divorced/Separated	-25.9	-23.7	-14.8	-8.6	-4.9	-5.8
Family Occup. Status (10s)	8.3	4.1	3.0	2.0	2.0	2.0
Catholic School	27.1	17.4	16.2	10.5	8.3	8.3
Independent School	46.2	29.7	22.1	22.1	23.4	23.4
Post-Graduate Quals	.	64.9	44.8	7.3	13.9	9.4
Bachelor Degree	.	40.5	35.0	7.3	11.6	7.3
Diploma	.	32.3	35.0	28.4	25.9	24.6
Advanced Certificate	.	-9.5	-10.4	-3.9	-4.9	-4.9
Certificate	.	-34.3	-30.9	-24.4	-19.7	-20.5
Year 11	.	-42.9	-41.7	-30.9	-24.4	-24.4
Married	.	.	390.4	301.5	263.3	263.3
De facto	.	.	141.1	116.0	109.6	109.6
Separated	.	.	22.1	10.5	7.3	6.2
Divorced	.	.	22.1	9.4	6.2	5.1
Widowed	.	.	188.6	129.3	129.3	131.6
No. of Children (sqrt)	.	.	-20.5	-18.1	-14.8	-13.9
No. of times Married	.	.	-12.2	-12.2	-13.1	-13.1
Occupational Status (10s)	.	.	.	5.1	4.1	4.1
No Occupation	.	.	.	-37.5	-25.9	-22.1
Income (\$10,000s)	.	.	.	7.3	6.2	8.3
Per Cent Employed (10s)	.	.	.	.	11.6	9.4
Per Cent Time Unemployed (10s)	.	.	.	.	-26.7	-26.7
Time Employed*Income	.	.	.	.	.	-1.0
Time Employed*Occupation	.	.	.	.	.	0.0

Table A 2 Percentage Effects on Wealth (Men)

	Social Backgrd.	1+ Education	2+Marital Status	3+ Occupation	4+Work History	5+Interaction Work and Job
Age	78.6	78.6	71.6	91.6	76.8	78.6
Age Squared	-18.1	-16.5	-15.6	-11.3	-10.4	-10.4
Indigenous	-75.8	-72.5	-67.4	-66.0	-55.1	-52.3
Number of Siblings	-8.6	-6.8	-7.7	-5.8	-5.8	-5.8
1st Language not English	-40.5	-42.9	-45.7	-34.9	-25.2	-24.4
Parents Divorced/Separated	-23.7	-21.3	-13.9	-10.4	-4.9	-4.9
Family Occup. Status (10s)	8.3	4.1	4.1	2.0	2.0	2.0
Catholic School	32.3	22.1	19.7	13.9	13.9	13.9
Independent School	35.0	20.9	16.2	12.7	15.0	16.2
Post-Graduate Quals	.	85.9	58.4	15.0	33.6	24.6
Bachelor Degree	.	63.2	44.8	11.6	28.4	18.5
Diploma	.	46.2	37.7	24.6	27.1	24.6
Advanced Certificate	.	9.4	0.0	4.1	0.0	-3.0
Certificate	.	-22.1	-22.9	-16.5	-13.1	-14.8
Year 11	.	-25.9	-28.8	-18.9	-18.9	-21.3
Married	.	.	285.7	215.8	150.9	148.4
De facto	.	.	103.4	78.6	58.4	55.3
Separated	.	.	12.7	5.1	-8.6	-9.5
Divorced	.	.	-5.8	-12.2	-22.9	-23.7
Widowed	.	.	171.8	95.4	68.2	69.9
No. of Children (sqrt.)	.	.	-13.9	-14.8	-13.9	-12.2
No. of times Married	.	.	-11.3	-11.3	-10.4	-10.4
Occupational Status (10s)	.	.	.	7.3	6.2	9.4
No Occupation	.	.	.	-33.6	-5.8	2.0
Income (\$10,000s)	.	.	.	6.2	4.1	7.3
Per Cent Employed (10s)	.	.	.	.	24.6	22.1
Per Cent Time Unemployed (10s)	.	.	.	.	-16.5	-14.8
Time Employed*Income	.	.	.	.	.	-1.0
Time Employed*Occupation	.	.	.	.	.	-2.0

Table A 3 Percentage Effects on Wealth (Women)

	Social Backgrd.	1+ Education	2+Marital Status	3+ Occupation	4+Work History	5+Interaction Work and Job
Age	60.0	66.5	64.9	69.9	64.9	63.2
Age Squared	-16.5	-15.6	-13.9	-11.3	-10.4	-10.4
Indigenous	-86.5	-86.1	-80.4	-78.6	-75.1	-75.1
Number of Siblings	-7.7	-6.8	-5.8	-5.8	-5.8	-5.8
1st Language not English	-18.1	-19.7	-26.7	-18.1	-16.5	-16.5
Parents Divorced/Separated	-30.9	-29.5	-22.1	-17.3	-16.5	-16.5
Family Occup. Status (10s)	7.3	3.0	3.0	3.0	3.0	3.0
Catholic School	29.7	20.9	23.4	19.7	17.4	16.2
Independent School	44.8	32.3	24.6	28.4	28.4	28.4
Post-Graduate Quals	.	50.7	53.7	22.1	24.6	23.4
Bachelor Degree	.	33.6	41.9	20.9	20.9	20.9
Diploma	.	24.6	36.3	36.3	35.0	35.0
Advanced Certificate	.	-9.5	-2.0	3.0	3.0	2.0
Certificate	.	-10.4	-7.7	-3.9	-1.0	-1.0
Year 11	.	-33.0	-32.3	-23.7	-18.1	-18.1
Married	.	.	517.2	505.0	498.9	498.9
De facto	.	.	194.5	191.5	200.4	200.4
Separated	.	.	22.1	11.6	11.6	10.5
Divorced	.	.	39.1	28.4	32.3	29.7
Widowed	.	.	219.0	206.5	200.4	197.4
No. of Children (sqrt)	.	.	-16.5	-8.6	-5.8	-5.8
No. of times Married	.	.	-13.9	-13.9	-16.5	-15.6
Occupational Status (10s)	.	.	.	0.0	0.0	0.0
No Occupation	.	.	.	-31.6	-28.1	-25.9
Income (\$10,000s)	.	.	.	10.5	8.3	9.4
Per Cent Employed (10s)	.	.	.	.	5.1	4.1
Per Cent Time Unemployed (10s)	.	.	.	.	-19.7	-19.7
Time Employed*Income	.	.	.	.	.	-1.0
Time Employed*Occupation	.	.	.	.	.	0.0

NOTES

- 1 In dwellings which included three or less households, all households were selected.
- 2 For further details on the HILDA Survey, including wave 1 outcomes, see Watson and Wooden Watson, N. and M. Wooden. 2001. "The Household, Income and Labour Dynamics in Australia (HILDA) Survey: An Introduction." *Australian Social Policy*:79-99. and Wooden et al. Wooden, M., S. Freidin, and N. Watson. 2002. "The Household, Income and Labour Dynamics in Australia (HILDA) Survey: Wave 1." *Australian Economic Review* 35(September):339-348..
- 3 'Split households' are households in which individuals from households in wave 1 created new households. New households are most often formed by separation and divorce and as a result of young adults leaving the parental home.
- 4 Further details on the methodology for wave 2 are available in Watson and Wooden Watson, N. and M. Wooden. 2004. "Wave 2 Survey Methodology." Melbourne Institute for Applied Economic and Social Research..
- 5 A list of occupations and their ANU4 occupational status scores is available on the internet http://www.dest.gov.au/archive/highered/eippubs/eip02_4/appendix_02.htm
- 6 The formula to convert the estimates on logged wealth to percentage effects is:
$$\text{Percentage effects} = \{\exp(\text{estimate}) - 1\} \times 100$$
- 7 The effect for divorce contrasts with the finding for in Marks et al, Marks, G.N., B. Headey, and M. Wooden. 2005. "Household Wealth in Australia: Its Components, Distribution and Correlates." *Journal of Sociology* 41(1):47-68. that divorce was associated with reduced wealth among men but greater wealth among women. Reanalysis of the same model as analysed in that paper show identical results. The inclusion of parents' separated or divorced caused the coefficients to move out of statistical significance.