THE GENDER GAP IN FINANCIAL SECURITY: WHAT WE KNOW AND DON'T KNOW ABOUT AUSTRALIAN HOUSEHOLDS

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ABSTRACT

This study investigates the gender wealth gap in Australia by examining differences in the net worth of households headed by single women and men, using data from the 2006 Household, Income and Labour Dynamics in Australia (HILDA) Survey. It demonstrates that the gender wealth gap is concentrated in particular types of assets, and differences in the *composition* of wealth, especially in high net worth households, are an important feature of the wealth gap in Australia. Using decomposition techniques within a quantile regression framework, the study explores the effects of individual characteristics of single male and female households on their wealth and finds that individual factors play a relatively small role in accounting for the large gender wealth gap at the top of the wealth distribution. Therefore, differences in the composition of men and women's wealth portfolios contribute to the gender wealth gap, and future research must account for these differences.

INTRODUCTION

Wealth is an important determinant of financial security. Accumulated assets can assist with smoothing consumption across the life cycle and provide a buffer against life's emergencies. These assets can generate current services such as accommodation; contribute income such as rent, interest, and dividends; provide collateral when credit is required; be converted to cash

to support current consumption; and satisfy motivations to leave a bequest (Carmen Diana Deere and Cheryl R. Doss 2006). However, when Deere and Doss (2006) summarized international research in the field, they concluded that there is little evidence overall for the gender differences in wealth Just four of the studies they identified utilized national-level data for the purposes of estimating the presence and size of a gender wealth gap and all were included in the same issue of *Feminist Econ*omics as Deere and Doss's review (John Gibson, Trinh Le, and Grant Scobie 2006; Lucie Schmidt and Purvi Sevak 2006; Tracey Warren 2006; Alexis Yamokoski and A. Lisa Keister 2006). Since Deere and Doss's (2006) review, two further studies on the gender wealth gap have been published: a Canadian study by Margaret Denton and Linda Boos (2007) and a German study by Eva Sierminska, Joachim R. Frick, and Markus M. Grabka (2010).[i]

These studies suggest a high level of inequality in the distribution of wealth substantial cross-country differences in the distribution of wealth, reflecting, in part, the importance of formal and informal institutions governing inheritance, divorce, and retirement incomes. They also reveal a gender wealth gap favoring men in most countries. However, this evidence base is currently too small to make definitive conclusions on the size of the gender wealth gap or its sources.

We aim to improve the evidence base on the gender wealth gap by examining differences in the level of net worth (the net balance of total assets less total debt) of households headed by single Australian women and men using data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. We use this data to describe current patterns of asset holdings and then utilize decomposition techniques within a quantile regression framework to explore the importance of differences in the individual characteristics of single male and female households. Our regression analysis is to the approach adopted by Schmidt and Sevak (2006) in their study of gender wealth gaps in the

United States, extended to utilize a quantile regression framework. Our results reveal that while several characteristics of SFHs negatively affect their wealth, individual factors play a relatively small role in accounting for the large gender wealth gap at the top of the wealth distribution. Among those with higher wealth, the gender wealth gap is linked with differences in the "returns" on various individual characteristics, such as age, and other factors not measured in this analysis. This finding indicates a need for further research into the factors that contribute to observed differences in the composition and size of men's and women's wealth portfolios.

PREVIOUS STUDIES OF THE GENDER WEALTH GAP IN DEVELOPED COUNTRY CONTEXTS

Using data on non-pension wealth Schmidt and Sevak (2006) identified a large disparity between the wealth of couples as compared to single households as well as similarities in the mean wealth of single men and women at all but the lowest quartile of the wealth distribution. However, their group of single households included widows and widowers, and once they accounted for the different characteristics of male and female households, a "strong and significant gender gap" in wealth became apparent (Schmidt and Sevak 2006: 152) and was particularly large in the top quartile of single households. Yamokoski and Keister (2006), also investigated non-pension wealth of US men and women aged 36 to 43, and found an advantage favoring couples over single households. In contrast to Schmidt and Sevak's findings, Yamokoski and Keister's results indicated that the median non-pension wealth of single men and women was similar once their different socio-economic characteristics were taken in account.

Warren's contribution focused on the United Kingdom and included data on pension wealth. She found that women's relatively low pension assets accounted for a large part of the observed gender wealth gap favoring men. Analysis of wealth holdings in New Zealand and revealed a substantial difference between the net worth of couples and single households (Gibson, Le, and Scobie 2006).

Denton and Boos's (2007) analysis of 1999 Canadian data revealed that a gender wealth gap persists once individual characteristics are taken into account and that differences in men's and women's income, labor market participation, age, marital status, and returns to education contribute to an observed gender wealth gap favoring men. More recently, analysis of data from the German Socio-Economic Panel (SOEP) addressed the important of the intrahousehold allocation of wealth (Sierminska, Frick and Grabka 2010) and study identified considerable gender wealth gaps within a range of household types except for households comprised of individuals who are widowed or had never married. The gender wealth gap was found to be "particularly large" in couple households (Sierminska, Frick and Grabka 2010: 680). However, the decomposition of the wealth gap, indicated that differences in the income and labor market characteristics of men and women accounted for most of the gender wealth gap.

THE AUSTRALIAN CONTEXT

To date, no Australian studies of the gender gap in net worth or its composition have been undertaken. Several previous studies of wealth in Australia have focused on the large inequalities in overall distribution. Analysis of 2002 data from the HILDA Survey reveals the wealthiest 10 percent of households account for 45 percent of total household wealth, while the bottom 50 percent of Australian households own less than 10 percent (Bruce Heady, Gary

Marks and Mark Wooden 2005: 159). There are also correlations between household wealth and a variety of socioeconomic characteristics of household members: "The wealthiest households have male Australian born 'heads' with parents from high status backgrounds, and wealth tends to peak at around age 55 years" (Headey, Marks, and Wooden 2005: 169). Later analysis of HILDA data from 2002–6 to shows that the wealth of Australian households increased without substantial changes in the level of total inequality (Roger Wilkins, Dianna Warren, and Markus Hahn 2009). Patric H. Hendershott, Rachel Ong, Gavin A. Wood, and Paul Flatau (2009) used the same data source to identify the importance of homeownership and superannuation to the net wealth position of Australian households.

Some Australian studies have examined the gendered aspects of particular types of wealth.Using confidential data from the Australian Bureau of Statistics 2005–6 Survey of Income and Housing, George Rothman and David Tellis (2008) found women's pension account balances (known in Australia as superannuation) were approximately 60 percent of men's. Therese Jefferson and Alison Preston (2005) identified how women's lower average earnings and fewer years in paid employment combined to reduce women's lifetime earnings and, consequently, their superannuation balances. Other gendered studies of Australian wealth have focused on housing wealth and the distribution of assets on divorce. For example, Susan J. Smith (1990) reported links between housing wealth, income, and gender. Grania Sheehan and Jody Hughes (2001) showed that women's financial outcomes following divorce are generally worse than men's (see also Grania Sheehan, April Chrzanowski, and John Dewar [2008]).

The attention given to superannuation accumulations reflects Australia's approach to retirement incomes, whereby employers pay an amount equivalent to 9 percent of wages to their employees' superannuation accounts. Employees are able to make additional contributions to these accounts which are tax-privileged and particularly attractive to middle-

and high-income earners. The tax concessions and the proportionality between employer

contributions and workers' current earnings promote the accumulation of wealth by men

rather than women (Rhonda Sharp and Siobhan Austen 2007).

A further relevant element of Australia's institutional environment is its legacy of

divorce law. Prior to 2001, superannuation accounts (a form of private pension accumulation)

were not formally considered an asset that could be apportioned between partners on divorce.

Women who divorced before 2001 could not make a claim against their partner's (typically

much larger) superannuation assets, with consequences for gender inequality between

divorcees (Grania Sheehan 2002). Australia became a signatory to the United Nations

Convention for the Elimination of Discrimination of all forms Against Women (CEDAW) in

1983, and this facilitated the equal division of property between divorcing men and women.

However, divorce court rulings on the allocation of assets continue to take account of two key

principles: the past contributions of each partner to matrimonial property and their likely

future financial needs. The application and interaction of these principles is complicated. In

some cases, women's lower financial contribution to assets such as superannuation accounts

might mean that women continue to have a relatively lower claim to this asset. In other cases,

the inclusion of superannuation in the definition of shared financial assets might lead to a

larger pool of assets to be shared on the basis of past contributions but, due to the legal

reasoning chain, reduce the assets allocated to divorcing women on the basis of future

financial needs (Sheehan, Chrzanowski, and Dewar 2008). As such, it is possible that the

allocation of housing as compared to business and financial assets between divorced men and

women – and, thus, the composition of wealth held by single men and women – will continue

to differ.

The gendered aspects of inheritance has the subject of limited research in Australia,

although several researchers have examined the inheritance of specific assets such as housing

and land and their possible links with wealth distribution (Lisel A. O'Dwyer 2001; Jim McAllister and Barbara Geno 2004; Michael Gilding 2005; Jeanette A. Lawrence and Jacqueline J. Goodnow 2011). Gendered practices in this area are likely to be informal and may take the form of norms that favor bequests to sons over daughters. This has been recognized as a historical factor in the case of family farm inheritances (McAllister and Geno 2004). In Australia, the distribution of property on death is generally determined by the will of the deceased or, in the case of intestacy, laws prescribing the distribution of property. The formal regulatory framework is gender neutral in its treatment of children as beneficiaries in the absence of a will. There are no direct taxes on inherited wealth in any Australian states, and this may contribute to the emergence and persistence of inequalities in wealth due to intergenerational transfers and bequests. The lack of such a tax means that there are few data available to investigate for patterns of inherited wealth by gender.

DATA AND SAMPLE

This study makes use of wealth data from the 2006 HILDA wealth module to investigate gender differences in the total value of the wealth portfolios of single Australian households, the diversification of their asset and debt portfolios, and the factors that might contribute to a gender gap in wealth. HILDA began in 2001 as a large nationally representative panel survey, which each year collects data on the sociodemographic characteristics, education, labor market history, income, and geographic location of its participants (Nicole Watson and Mark Wooden 2002). Special modules of the survey, in 2002 and 2006 (and forthcoming for 2010), collected an extensive range of self-reported data on the assets and debts of Australian households. The modules measure assets in the form of the primary home, other property, superannuation, business, equity and cash investments, bank accounts, trust funds, cash-

redeemable life insurance, vehicles, and collectibles. The modules also measure the key categories of debt, including debt secured against the primary home, other property and business, as well as the Higher Education Contribution Scheme (HECS), Australia's tertiary education loan scheme,[ii] and a range of financial debts (such as credit card loans, car loans, hire purchase agreements, personal loans, and overdue bills). In our study, we take into account all of the above asset and debt types when measuring net worth, which we define as the net balance of total assets less total debt.

Data from the HILDA wealth modules have been used to generate broadly similar estimates of the aggregate value of household net worth as the data collections of the Australian Bureau of Statistics (ABS; Paul Bloxham and Thomas Betts 2009). However, the HILDA wealth modules do suffer some limitations. First, due to non-response from some interviewees, the modules include asset and debt values imputed by statisticians (see Clinton Hayes and Nicole Watson 2009). Among all the heads of single households in the 2006 wealth module, 18 percent did not respond fully to the asset and/or debt questions

The representativeness of the HILDA Survey has also been affected by attrition over time. When the 2006 HILDA data was collected, 28 percent of the original (nationally representative) HILDA sample had been lost and the loss was not random (Watson and Wooden 2010). To counteract this loss of representativeness, HILDA's statisticians "followed" members of the original wave 1 households over time, and over the life of the panel the sample was extended to include children born to or adopted by an original sample member, as well as any persons who joined the household of an original sample member (Nicole Watson 2012). To further bolster the representativeness of the data, we applied cross-sectional population weights for the 2006 data to our empirical analysis. We also compared the gender wealth gaps in the 2002 and 2006 wealth module data to ensure that loss of sample representativeness did not affect our results in a substantial way. Our comparisons indicate

that the broad patterns by gender remain relatively unchanged between 2002 and 2006. Furthermore, that sample attrition affected households toward the bottom of the wealth distribution most, while the gender wealth gap is concentrated in the top of the distribution, suggests that the impact of attrition on our results will be minimal.

Finally, the wealth modules primarily comprise information on assets and debts that was collected from households rather than individuals. We have decided to limit our analysis to comparisons between SFHs and SMHs in this study. These are households in which a single adult lives alone or with dependent children. They account for a substantial and growing share of the Australian population, comprising 31 percent of all households in 2006, up from 23 percent in 1982.[iii] We do not attempt any analysis of gender wealth gaps in couple households because this would require assumptions about the division of wealth between the adults in the household.

The basic sample for this study is, thus, households in the 2006 HILDA wealth module with a single "head."[iv] We make a number of further restrictions to this sample. First, to focus on differences in net worth between adults, we exclude households where the oldest independent member of the household is under 15 years of age. We also exclude households where the household head is a widow or widower for reasons discussed below. Second, we exclude multiple income unit households (approximately 15 percent of all single households) because, as is the case in couple households, we cannot identify individual asset ownership in these household types.[v] The final sample for analysis is 1,594 households: 824 SMHs and 770 SFHs. The sample includes individuals who have never married and are currently not in a de facto relationship (851 in total), as well as individuals who are divorced or separated and are currently neither married nor in a de facto relationship (743 in total).[vi] When population weights are applied, the sample represents 816,000 SMHs and 763,000 SFHs.

A final comment on how marital history affects our analysis is warranted. We excluded widows and widowers from the sample because the net worth of these households is likely to reflect the accumulations of a couple over an extended period of time (Sierminska, Frick, and Grabka 2010). As such, their net worth is likely to be substantially different from – and be affected by a different set of factors than – other single households. Gender differences in life expectancy result in a relatively large number of widows and, thus, including widows and widowers in the sample would distort the data on differences in net worth between SFHs and SMHs.

It is also likely that some household heads who are divorced or separated will, due to wealth accumulation during previous marriages, have higher levels of net worth than their never married counterparts. However, in this analysis, we retain divorced and separated household heads in our sample and account for differences in net worth associated with this factor using control variables in the regression analysis. We acknowledge that, if the pattern of remarriage differs between men and women, our data on gender differences in net worth will be distorted. Given available information that indicates divorced men are more likely to remarry than divorced women and remarriage is more likely to occur for individuals with high wealth, we anticipate that our data is likely to understate the gender wealth gap in Australian single households.[vii]

METHOD

Our analysis comprises a descriptive analysis of gender wealth gaps and a decomposition analysis of the factors contributing to their existence. The descriptive analysis focuses on the median and average wealth levels of single households and how these differ with gender, age,

and marital history. This is complemented by an analysis of differences in the composition of net worth across SFHs and SMHs and a distributional analysis of net worth, which is undertaken to identify the nature and extent of gender wealth gaps at different parts of the wealth distribution.

The decomposition analysis of the observed gender gap within the sample uses the standard (Oaxaca-Blinder) decomposition methodology adjusted for a quantile regression framework. Use of this framework was motivated by data showing large inequalities in the distribution of wealth across single Australian households (as summarized in the following results). A standard OLS decomposition, which relies on estimates of the relationship between characteristics and net worth at mean values, would be ineffective in uncovering the role of differences in the characteristics of SMHs and SFHs at different parts of the net worth distribution.

Our method is expressed algebraically as follows:

$$\overline{NW}_q^m - \overline{NW}_q^f = [\beta_q^m (X_q^m - X_q^f)] + [(\beta_q^m - \beta_q^f) X_q^f]$$

where $\overline{NW}$ equals predicted net worth, q represents 25th, 50th, 75th or 90th quantile, m and f represent SMHs and SFHs respectively, and β represents the coefficients from a regression analysis of the importance of the set of X explanatory individual characteristics potentially relevant to household wealth (including measures of marital history, age, parenting roles, education, earnings, and labor market experience). The equation separates the predicted percentile q net worth gap of SMHs and SFHs ($\overline{NW}_q^m - \overline{NW}_q^f$) into two key components. The first component, $[\beta_q^m (X_q^m - X_q^f)]$, is the net worth gap at percentile q attributable to differences in the measured individual characteristics of the households at this point in the net worth distribution. This effect is evaluated using the regression coefficients β_q^m. The second component, $[(\beta_q^m - \beta_q^f) X_q^f]$, is the net worth gap at percentile q attributable to the different

relationships between net worth and the various measured individual characteristics of the two household types (evaluated in this case at the values of the SFHs' characteristics at the relevant percentile). By adjusting the Oaxaca-Blinder approach for the quantile regression framework, the exercise is undertaken across the net worth distribution, utilizing the explanatory variables and coefficients in the quantile regressions (rather than at the mean values for the whole distribution, which is the standard case). The analysis is performed using the rqdeco command from STATA (Blaise Melly 2007).[viii]

RESULTS

Descriptive statistics on the gender wealth gap among single Australian households

The results of our descriptive analysis of the gaps in the net worth across all SFHs and SMHs are summarized in Tables 1 and 2, located at the end of this paper (and Figure 1 in this article's online supplementary files). The data in Table 1 show that, on average, SMHs achieve a level of net worth that is almost AUD38,000 (or 14.4 percent) higher than SFHs. The figures in Table 2 show that, although the gender wealth gap favors SFHs in the lowest quartile of the wealth distribution, it favors SMHs by a large margin in the higher quartiles. Although not shown in Table 1a, the gap reaches AUD137, 300 in the top quartile and AUD952,000 at the 99th percentile.[ix] Thus, it is apparent that the *average* gender wealth gap that favors SMHs is largely produced by differences in the achievement of very high levels of wealth by SMHs and SFHs.

As is the case with most wealth distributions, the data in Table 2, together with the diagrammatic representation of the distribution of SMH and SFH net worth in Supplementary Figure 1, indicate that the wealth of single Australian households is unequal and largely concentrated at the top of the distribution. The net worth of low quartile SFHs and SMHs is negative (by AUD200 and AUD4,300 respectively). However, top quartile SFHs achieve, on average, a net worth of AUD855,200, while SMH net worth in the top quartile is close to AUD1 million.

Insert Tables 1 and 2 here

The data in Table 1 highlight a number of other important features of the distribution of wealth. First, primary home assets are a very important part of the wealth portfolios of SFHs (representing, on average, 48.4 percent of total SFH net worth, as compared to 32.6 percent for SMHs). Second, financial instruments and business assets are relatively insignificant in the wealth portfolios of SFHs (business assets account, on average, for only 4.1 percent of the net worth of SFHs, as compared to 10.6 percent of the net worth of SMHs). Third, the gender wealth gap favoring SMHs is mainly associated with non-property assets. Specifically, the data identify a gender gap in property assets that, on average, favors SFHs. However, large gaps favor SMHs in the other asset groups – and these outweigh the gaps favoring SFHs in property assets. Thus, at mean values, if we count only housing assets, the gender gap favors women by 30 percent. Including other property in the measure of net worth increases this gap by 13 percentage points to 43 percent. However, the inclusion of superannuation, business, and financial assets shift the gap in favor of SMHs by 28.0, 11.5 and 16.0 percentage points, respectively.

It is important to note that the relationship between the gender wealth gap at mean values and the different components of wealth are heavily affected by the wealth characteristics of top quartile SMHs and SFHs. The data for top quartile households in Table 2 show that if we count only housing assets, the gender wealth gap favors women by 32 percent. Including other property in the measure of net worth increases this gap by 17 percentage points to 49 percent. However, the inclusion of superannuation shifts the gap in favor of SMHs by 27.7 percentage points, while business and financial assets shift the gap in favor of SMHs by 16.1 and 19.4 percentage points, respectively. In contrast, in the second quartile, primary home assets favor SMHs by 5 percent. Including other property in the measure of net worth increases the gender wealth gap favoring SMHs to 21.5 percent. Superannuation, business, and other business assets also favor SMHs but have a relatively small impact on the gender wealth gap. Thus, it is apparent that the *average* gender wealth gap that favors SMHs is not simply the product of differences in the representation of SMHs and SFHs in the group of high net worth households. Differences in the composition of the wealth portfolios of top quartile SFHs and SMHs are also important in the determination of the overall gender wealth gap. It is also important to recall that, in Australia, remarriage rates following divorce are higher for men and for high net worth individuals. As a result, our results, which are based on a sample of single men and women, are likely to understate both the average gender wealth gap and the size of gender wealth gap in the upper portion of the wealth distribution.

Tables 3 and 4 provide insights to patterns in the level and types of wealth across different single households. Table 3 compares households headed by people who have never married with those headed by single people who have divorced or separated from a partner. The data show that a gender gap in average wealth favoring SMHs exists in each sub-group (20 percent in the group of single and never married people, and 19.2 percent in the group

who were separated or divorced). However, the gap in median wealth between divorced or separated SFHs and SMHs is relatively small, 5.2 percent, while the gap in median wealth between never married SFHs and SMHs is particularly large at 55.9 percent. This reflects a relatively high rate of growth in the net worth of never married SMHs as we move from the bottom percentiles to the median. For never married SMHs, net worth rises from -AUD5,000 in the 5th percentile to AUD63,500 in the 50th percentile. For never married SFHs, net worth rises from - AUD9,800 in the 5th percentile to \$28,000 in the 50th percentile.

Insert Tables 3 and 4 here

The data in Table 3 also indicate that the average wealth of separated or divorced people is much higher than that of people who have never married (108.4 percent higher in SFHs and 106.4 percent in SMHs). The composition of the wealth portfolios of the two groups also differs. Property assets account for a relatively large share of the total wealth of divorced or separated SFHs. Superannuation is more important for women who have never married and for both SMH groups.

Table 4 compares single households in three age groups: 15–34 years, 35–54 years, and 55+ years. The data reveal that age-related differences in wealth are a major source of total wealth inequality. Among SFHs, average net worth climbs by 537 percent between age groups 15–34 years and 55+ years, the difference is 338 percent for SMHs. The data also shows that the gender wealth gap varies across the age groups. A relatively large gap (of 45.3 percent) favors SMHs in the youngest group, a small gap (0.5 percent) favors SFHs in the middle age group, and a gender wealth gap of 30.3 percent favors SMHs in the older age group. The greater importance of property assets to SFH, as compared to SMH, wealth is evident in each age group. Similarly, business and other assets play a relatively minor role for

SFH wealth in each age group. Primary home assets appear to be particularly important to SFH wealth in the oldest age group, accounting for 52.8 percent of their total net worth.

Decomposition of the gender wealth gap among single Australian households

Our decomposition analysis compares the importance of measured differences in the individual characteristics of SMHs and SFHs (such as differences in their age and marital status) on the gender wealth gap with the effect on this gap of similarly situated single women and men achieving different wealth outcomes. Reflecting the data presented above, we include measures of the household head's age and marital history to account for the possibility that these characteristics differ between the men and women in the sample – and that their impacts on wealth differ between SFHs and SMHs. We add further variables to capture the likely importance of labor market characteristics, such as employment history and current wages, for wealth outcomes (Jefferson and Preston 2005; Denton and Boos 2007; Sierminska, Frick, and Grabka 2010) and to take into account differences in the labor market experiences of Australian men and women, as well (Jefferson and Preston 2005). Other variables focus on education, due to possible links between knowledge of financial matters (Denton and Boos 2007; Sierminska, Frick, and Grabka 2010) and a positive gap in university qualifications favoring Australian women (Siobhan Austen and Fiona MacPhail 2011). A further set of variables target intergenerational influences. Following the practice of previous Australian studies of household wealth (Headey, Marks, and Wooden 2005; Hendershott et al. 2009), we use the occupational status of the respondent's father, parental marital history, and the number of siblings to proxy the likelihood of inheritance. Australian research on wealth has also identified wealth differences between Australian households

according to language backgrounds (Headey, Marks, and Wooden 2005) and the presence of adult children (Tim Seelig, Alice Thompson, Terry Burke, Simon Pinnegar, Sean McNelis, and Alan Morris 2009). Our analysis also includes these variables. A summary of the characteristics of our sample and the definition of variables for our analysis is provided in online supplementary Tables 1 and 2.

We start our investigation of the importance of specified individual characteristics to the wealth outcomes with data on differences in the measured characteristics of SFHs and SMHs. Several characteristics of SFHs are likely to boost their net worth in comparison to SMHs. First, SFHs feature a relatively high proportion of household heads who are either divorced or separated (50.8 as compared to 38.7 percent of SMHs). Second, SFHs are, on average, slightly older than their male counterparts (by about six months). Third, the proportion of household heads of SFHs with a bachelor's degree is relatively high (27.8 as compared to 19.3 percent of SMHs – although this pattern reverses for other post-school qualifications). However, several other characteristics of SFHs are likely to contribute to lower net worth compared with SMHs. First, parenthood is more prevalent in the SFHs, with 32 percent of SFHs having a child under the age of 15 years, compared with 17 percent of SMHs. Second, the average annual earnings of SFHs are 32.3 percent lower than SHMs. Third, the proportion of time spent in paid work since leaving full-time education is relatively low for SFHs (67.6 percent as compared to 82 percent for SMHs).

Our next step is to examine the relationship between the measured characteristics of SMHs and SFHs and their wealth. We conduct this analysis by estimating quantile regression models of net worth for each household type. Table 5 presents the results and reveals that being 55 years of age or older is the only variable that has an effect on wealth that is both statistically significant in each household type *and* differs significantly between SFHs and SMHs in each part of the wealth distribution. Across the distribution, being over 55 (rather

than under 35 years of age) has a positive effect on both SMH and SFH wealth. However, this effect is larger in SMHs than SFHs (for example, lifting average wealth by AUD821,800 in SMHs as compared to AUD625,800 in SFHs at 90th percentile values).

The results indicate that at median values (but not in other parts of the wealth distribution) a number of other variables have different effects on the wealth of SFHs than they do on SMH wealth. First, household earnings and bachelor degree qualifications have a larger positive impact on SFH wealth than SMH wealth (this pattern also applies in the other quartiles, but the difference is not always statistically significant). Second, the presence of children under 25 years old has a negative impact on SMH wealth but is not a statistically significant source of difference in SFH wealth. Third, having more siblings negatively affects the wealth of SFHs but not SMHs (a similar pattern applies at 75th percentile values). Fourth, recent separation is positively correlated with SFH wealth, while the wealth levels of recently separated SMHs and those who have never married are similar. In SMHs, individuals who have been separated for more than one year or have recently divorced achieve higher wealth.

The covariates that are similar across the SFH and SMH regressions follow a fairly predictable pattern. Age has a strong positive impact of the net worth of each household type, demonstrating that time is a key factor in the accumulation of assets and the paying down of debts. Current earnings also have a positive effect that is large in magnitude on net worth for both SFH and SMH in most parts of the wealth distribution, demonstrating a clear link between labor market outcomes and net worth. A positive impact of post-school qualifications on net worth is also apparent at 50th percentile values and above. In contrast, the results in Table 4 generally indicate that the presence of children in single households has a negative effect on wealth. Compared to their counterparts without children, SFHs with adult children (ages 25+) have relatively low wealth. These effects also apply in SMHs at 50th and

75th percentile values. As noted above, at 50th percentile values, the presence of younger children also reduces SMH wealth in comparison to childless households.

Insert Table 5 here

Some further findings in Table 5 are also noteworthy. First, the difference in the magnitude of the effect of age on SMH and SFH wealth implies that single women have a lower ability to accumulate wealth as they age compared with men with similar individual characteristics. We also find that current household earnings and education are more important for SFH wealth than they are for SMH wealth, at least in the lower half of the wealth distribution. In total, these results indicate that the accumulation of wealth by SFHs is relatively more dependent on education and earnings and less dependent on the time available for investments to mature.

A second finding is the positive correlation in our data between separation or divorce and SFH net worth. Previous Australian studies of the effects of marital dissolution, such as Hendershott et.al. (2009), have identified a negative effect of divorce on individual wealth. Yamokoski and Keister (2006) also find that marital dissolution lowers the mean wealth of women with children. The pattern is most likely due to the fact that our comparator group is women and men who have never married, rather than individuals who remained married. It suggests that when marriage partnerships dissolve, women retain some of a couples wealth "advantage" compared with individuals who have never married. Thus, we identify never-married women as a particularly disadvantaged group.

Our analysis also reveals a negative relationship between the presence of older (25+) children and net worth in SFHs and SMHs. This could indicate that the presence of children in a household can limit its ability to accumulate wealth. A number of other studies have

produced similar results. For example, James Banks, Richard Blundell, and Ian Preston (1994) concluded that households will consume a greater share of lifetime resources when children are present relative to families with fewer children, all else being equal. Using US data from 1992, John Karl Scholz and Ananth Seshadri (2009) found that the ratio of net worth to lifetime income is highest for families with no children and falls monotonically with the number of children above two. Alfred Michael Dockery (2009) found that the net wealth of Australian married couples falls with each year that they have one of their children resident in the household.

It should be noted that the overall explanatory power of the model is relatively small. Similar to results commonly reported for wage equations, the "Rsquared" of the estimation for men at the 50th percentile is 12.8 percent and 16.7 percent for women. This result could reflect the influence of socioeconomic and other factors (such as those related to portfolio composition) not captured in the model on the wealth outcomes of individuals.

The final step in our decomposition analysis identifies the contribution of gender differences in characteristics, as opposed to differences in *returns* to characteristics, to the overall gap. The results are summarized in Figure 1 (and Table 3 in this article's online supplementary files) and show that the distribution of differences in the measured individual characteristics of SMHs and SFHs contribute to the gender wealth gap favoring men throughout. However, at approximately the 75th percentile, the "effects of coefficients" change from positive to negative. Below the 75th percentile, differences in the "effects of coefficients" (that is, differences in the "returns" on characteristics such as education and current earnings) tend to favor the relative wealth position of SFHs and play a relatively minor role in accounting for the gender wealth gap. However, in the top part of the wealth distribution, the large majority of the gender wealth gap favoring men is either due to the

relatively poor returns to characteristics (such as age) experienced by SFHs, or a residual effect representing unobservable factors not included in our regression model.

Insert Figure 1 here

At the 90th percentile, when all the returns to the characteristics of SFHs are set equal to those of SMHs, the estimated gender wealth gap favoring men (of AUD23,800) is only 15 percent of the actual gap (AUD158,700). Thus, differences in the returns on characteristics and/or factors *not* measured in our regression analysis contribute to an overwhelming 85 percent of the gender wealth gap at the top of the distribution. Differences in characteristics, such as differences in earnings, also contribute to the gender wealth gap, but by a relatively small amount.

A different pattern applies at the lower end of the wealth distribution. At the 25th percentile, differences in the returns on characteristics and/or factors *not* measured in our regression analysis act to lower the gender wealth gap from the levels that would obtain if the characteristics of SFHs and SMHs were "rewarded" in the same way. The different characteristics of SMHs, such as their higher earnings and longer length of time in the labor market, contribute substantially to the gender wealth gap in their favor.

DISCUSSION AND CONCLUSION

Single Australian households have a gender wealth gap that favors SMHs in each broad household type and in most age groups. The gap is concentrated at the top of the wealth distribution and largely associated with men's greater holdings of superannuation, business, and financial assets. There are strong links between wealth, social recognition and power (Milan Z. Zafirovski 2000; Michael Gilding 2004; Sierminska, Frick, and Grabka 2010), and possible links between wealth, bargaining power and ongoing economic advantage (John P. Harding, Stuart S. Rosenthal, and C. F. Sirmans 2003). As such, our findings suggest that the gender gap in wealth is an important aspect of economic inequality in Australia that is deserving of continuing policy and research attention.

Our analysis shows, that the gender gap in wealth favoring single Australian men is large (in absolute terms) in the upper quartile of the net worth distribution, relatively small in other parts of the wealth distribution and reversed at the very lowest quartile. This reflects the concentration of wealth in a relatively small group of single households, with wealth levels close to zero for both SFHs and SMHs situated toward the bottom of the wealth distribution. Our results contrast with Schmidt and Sevak's (2006) finding that the gender wealth gap in the US is largest in the lowest quartile of the wealth distribution. A likely explanation for this difference is the exclusion of widows or widowers from our analysis on the grounds that their wealth is likely to reflect the accumulations of a couple over an extended period of time, and thus be substantially higher than other single households. Schmidt and Sevak's finding that a large gender wealth gap favoring men emerges at the top of the wealth distribution when characteristics, such as widowhood, are taken into account supports this analysis.

Our decomposition analysis within a quantile regression framework reveals that differences in the characteristics of SFHs and SMHs play a relatively minor role in explaining the gender wealth gap. Across the wealth distribution, the lower earnings and smaller length of time in paid work of SFH heads contribute to the gender wealth gap favoring SMHs. This

replicates the findings of studies of the gender wealth gap in other country contexts (Denton and Boss 2007; Sierminska, Frick, and Grabka 2010). The greater prevalence of children in SFHs also contributes to the gender wealth gap favoring men, due to a wealth penalty for parenthood.

Our findings raise a number of questions for future research, including the important issue of factors that explain the gender wealth gap favoring SMHs, given that observed differences in the individual characteristics in our data set play a relatively small role. The evidence in this paper suggests that the composition of men and women's wealth portfolios is a factor worthy of further investigation. The dominant role that property assets play in the wealth portfolios of SFHs implies they are more exposed to changes in rates of return on a single class of assets than their male counterparts. Furthermore, their relatively low rate of participation in financial investments beyond the primary home may limit the ability of SFHs to accumulate wealth. Ideally, future research into women's dependence on primary home assets will take account of the unique geographic, social, and emotional dimensions of these assets. Primary home assets are typically linked closely to other elements of women's "social capital," connections to family and friends, attachment to neighborhood, ontological security, and access to services (Emma Baker and Selina Tually 2008). Institutional aspects of men and women's asset portfolios, such as the long-term effects of asset distribution on divorce, are also worthy of further investigation. It is possible that greater allocations of housing assets may create disadvantages for women as they attempt to negotiate favorable outcomes for their financial and broader well-being.

Additional research into the reasons for women's relatively low level of involvement in other forms of wealth is also warranted. Some studies suggest that women are relatively risk-averse in their investment strategies (Vickie L. Bajtelsmit and Jack L. VanDerhei 1997; Nancy Ammon Jianakoplos and Alexandra Bernasek 1998; Alexandra Bernasek and

Stephanie Schwiff 2001). However, the explanatory power of risk aversion is reduced when specific features of women's social context are taken into account, such as the influence of workplace peer groups and ease of access to relevant information (Melanie Powell and David Ansic 1997; Annika E. Sundén and Brian J. Surette 1998; Marilyn Clark-Murphy and Paul Gerrans 2001; Esther Duflo and Emmanual Saez 2002). Women's relative lack of social networks is a further element of their social context that may limit their capacity to build wealth by accessing a range of investment products (Candida G. Brush, Nancy M. Carter, Patricia G. Greene, Myra M. Hart, and Elizabeth Gatewood 2002).

As further HILDA wealth modules become available, the ability to explore links between portfolio composition, wealth accumulation, and the gender wealth gap will improve. The longitudinal nature of the HILDA data will, as more wealth modules are conducted, increase the potential for research on the determinants of household wealth that account for age and cohort effects. In this paper we have not been able to measure generational (or cohort) differences in the use and availability of different types of assets and debts. As further waves of the longitudinal data become available, the nature of these differences should be explored.

However, as it is currently designed, the HILDA data are not well equipped to support research into gender wealth gaps affecting couple households. This is an important limitation, as intrahousehold allocations have long been recognized as important determinants of women's economic well-being (Martin Browning 2000; Shelly Lundberg, Richard Startz, and Steven Stillman 2003; Schmidt and Sevak 2006). There is an important need for new Australian data on intrahousehold holdings of wealth and, ideally, this would be combined with qualitative data to provide insights into the reasons for and implications of observed patterns of intrahousehold asset distribution.

ACKNOWLEDGMENTS

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Figure 1 Decomposition of gender net worth gap into effects of characteristics and coefficients across the net worth distribution, 2006, dollars
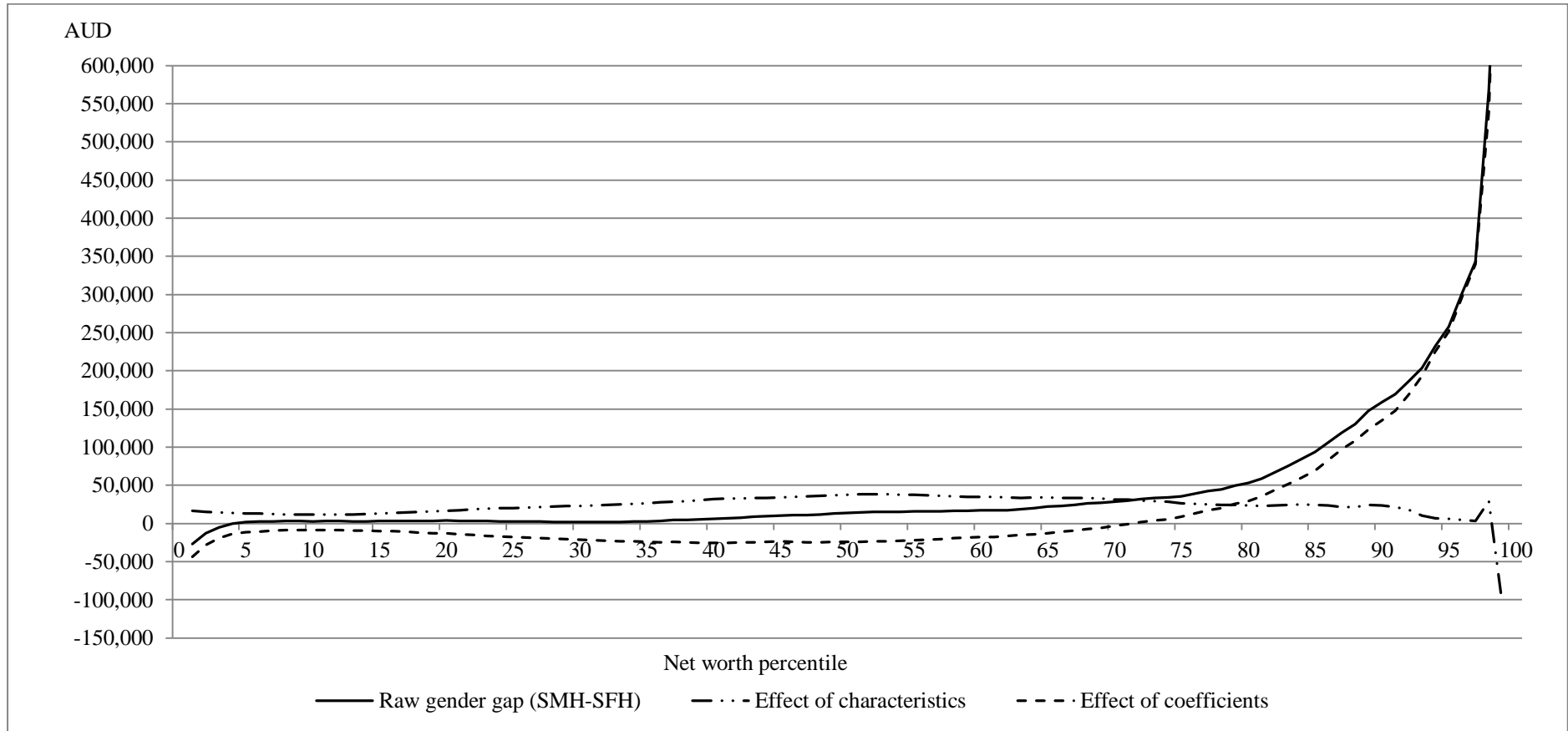
Note: The vertical axis has been truncated at AUD600,000. At the 99th percentile, the raw gap is in fact AUD952,000.

Source: Authors' own calculations using the 2006 HILDA Survey

Table 1 Net worth and gender wealth gap in single Australian households, 2006

	Median wealth holding (AUD'000)		Mean wealth holding (AUD'000)		Gender gap	Gender gap ratio	Portfolio composition (% of net worth)		Participation rate (% of households with wealth)	
	SFH	SMH	SFH	SMH	(SMH-SFH) (AUD'000)	(SFH/SMH)	SFH	SMH	SFH	SMH
Primary home	0	0	127.5	98	-29.5	1.301	48.4	32.6	44.1	40.2
Other property	0	0	50.8	26.6	-24.2	1.910	19.3	8.8	10.4	10.3
Superannuation	8.7	15	42.4	67.2	24.8	0.631	16.1	22.3	73.8	78.9
Business	0	0	10.8	31.8	21	0.340	4.1	10.6	4.3	7.6
Other[a]	9	13.4	31.8	77.4	45.6	0.411	12.1	25.7	97.2	94.9
Net worth	81	102	263.2	301	37.8	0.874	100.0	100.0		

Notes: SFH refers to single female household, and SMH refers to single male household.

[a] Other assets comprise financial instruments such as equity investments, cash investments, bank accounts, trust funds and redeemable life insurance, vehicles, and collectibles. Other debt is the sum of credit card loans, HECS loans, car loans, hire purchase agreements, investment loans, personal loans from a bank/financial institution, loans from other lenders, loans from friends/relatives, and overdue personal bills.

Source: Authors' own calculations from the 2006 HILDA Survey

Table 2 Net worth of single Australian households, by household type and quartile, 2006

	Mean (AUD'000)									
	Quartile									
	Q1		Q2		Q3		Q4		Total	
	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH
Primary home	0	-1.8	6.2	6.5	134.7	107.7	394.1	297.3	127.5	98
Other property	0	0	0.8	2.4	17.7	12.7	196	97.7	50.8	26.6
Superannuation	2.5	5.1	15.6	21	34.5	60.8	124.2	192	42.4	67.2
Business	-0.2	0	0.2	0.3	1	3.9	44.7	131.9	10.8	31.8
Other[a]	-2.6	-7.6	13.8	17.5	25.6	42	96.1	273.6	31.8	77.4
Net worth	-0.2	-4.3	36.6	47.7	213.4	227.1	855.2	992.5	263.2	301
	Gender Gap (SMH-SFH) (AUD'000)									
	Q1		Q2		Q3		Q4		Total	
Primary home	-1.8		0.3		-27		-96.8		-29.5	
Other property	0		1.6		-5		-98.3		-24.2	
Superannuation	2.6		5.4		26.3		67.8		24.8	
Business	0.2		0.1		2.9		87.2		21	
Other[a]	-5		3.7		16.4		177.5		45.6	
Net worth	-4.1		11.1		13.7		137.3		37.8	
	Gender Gap Ratio (SFH/SMH)									
Primary home	-		0.954		1.251		1.326		1.301	
Other property	-		0.333		1.394		2.006		1.910	
Superannuation	0.490		0.743		0.567		0.647		0.631	
Business	-		0.667		0.256		0.339		0.340	
Other[a]	-		0.789		0.610		0.351		0.411	
Net worth	-		0.767		0.940		0.862		0.874	

Notes: [a] See note under table 1.

Source: Authors' own calculations from the 2006 HILDA Survey

Table 3 Net worth of single Australian households, by household type and marital status, 2006

	Median (AUD'000)				Mean (AUD'000)				Gender gap (SMH–SFH) (AUD'000)		Gender ratio (SFH/SMH)	
	Single never married		Separated or divorced		Single never married		Separated or divorced		Single never married	Separated or divorced	Single never married	Separated or divorced
	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH	SMH–SFH	SMH–SFH	SFH/SMH	SFH/SMH
Primary home	0	0	93	0	76.3	78	176.4	128.5	1.7	-47.9	0.978	1.373
Other property	0	0	0	0	26.2	18	74.2	39.8	-8.2	-34.4	1.456	1.864
Superannuation	7.5	15	10	20	40.4	52.1	44.3	90.1	11.7	45.8	0.775	0.492
Business	0	0	0	0	3.6	8.8	17.7	66.8	5.2	49.1	0.409	0.265
Other[a]	6.0	10.9	12.1	15.5	22.9	54.8	40.3	111.7	31.9	71.4	0.418	0.361
Net worth	28	63.5	188.7	198	169.3	211.7	352.9	436.9	42.4	84.0	0.800	0.808

Notes: [a] See note under table 1.
Source: Authors' own calculations from the 2006 HILDA Survey

Table 4 Net worth of single Australian households, by household type and age band, 2006

	Median (AUD'000)						Mean (AUD'000)						Gender Gap (SMH–SFH) (AUD'000)			Gender Gap Ratio (SFH/SMH)		
	15–34 yrs		35–54 yrs		55+ yrs		15–34 yrs		35–54 yrs		55+ yrs		15–34 yrs SMH–SFH	35–54 yrs SMH–SFH	55+ yrs SMH–SFH	15–34 yrs SFH/SMH	35–54 yrs SFH/SMH	55+ yrs SFH/SMH
	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH						
Primary home	0	0	72	0	183	165	29	31.6	151.4	102.7	219.8	187.7	2.6	-48.7	-32.1	0.918	1.474	1.171
Other property	0	0	0	0	0	0	10.2	8	86.9	24.6	38.5	58.1	-2.2	-62.3	19.6	1.275	3.533	0.663
Superannuation	4.8	10	21	40	0	0	12.4	30.8	57.3	82.6	55.8	92.2	18.4	25.3	36.4	0.403	0.694	0.605
Business	0	0	0	0	0	0	4	26.6	4.8	25.7	31.8	50.8	22.6	20.9	19	0.150	0.187	0.626
Other[a]	2.6	6.4	12.4	13.4	20	33.6	9.6	22.2	27.8	91	70.4	133.7	12.6	63.2	63.3	0.432	0.305	0.527
Net worth	10.2	28	181	179.3	258.4	323.2	65.3	119.4	328.2	326.7	416.3	522.5	54.1	-1.5	106.2	0.547	1.005	0.797

Notes: [a] See note under table 1.

Source: Authors' own calculations from the 2006 HILDA Survey

Table 5 Quantile regression results, SFHs and SMHs, 2006

	25th percentile		50th percentile		75th percentile		90th percentile	
	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH
	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Explanatory variables	(std. error)	(std. error)	(std. error)	(std. error)	(std. error)	(std. error)	(std. error)	(std. error)
Recently separated (within last year)	0.391 ***	-0.102	0.758 ***	0.076	1.554 ***	0.752	2.379 ***	3.541
	(0.133)	(0.167)	(0.287)	(0.196)	(0.352)	(0.554)	(0.884)	(2.737)
Separated more than one year ago	0.272 **	0.109	0.004	1.134 ***	-0.479 *	1.687 ***	2.518 ***	2.680
	(0.111)	(0.147)	(0.247)	(0.173)	(0.282)	(0.456)	(0.618)	(1.810)
Recently divorced (within last year)	0.208 *	-0.154	0.051	0.558 ***	0.039	0.858 *	-0.019	-1.282
	(0.117)	(0.178)	(0.266)	(0.194)	(0.277)	(0.481)	(0.559)	(2.088)
Divorced more than one year ago	0.250 ***	-0.256 **	0.272	-0.064	0.511 **	0.200	0.919 *	-0.097
	(0.087)	(0.129)	(0.193)	(0.138)	(0.220)	(0.373)	(0.505)	(1.485)
Separated or divorced from multiple marriages	-0.137	0.063	-0.629 ***	0.003	-0.871 ***	-1.297 ***	-0.821	2.233
	(0.088)	(0.139)	(0.212)	(0.156)	(0.260)	(0.392)	(0.571)	(1.462)
Age 35–54 years	0.249 ***	0.397 ***	1.153 ***	1.190 ***	2.178 ***	2.002 ***	2.932 ***	3.374 ***
	(0.080)	(0.092)	(0.177)	(0.107)	(0.191)	(0.286)	(0.403)	(1.249)
Age 55+ years	0.649 ***	0.957 ***	2.810 ***	3.175 ***	4.359 ***	5.900 ***	6.258 ***	8.218 ***
	(0.095)	(0.114)	(0.227)	(0.142)	(0.280)	(0.419)	(0.644)	(1.575)
Has children aged 0–14 years	0.057	-0.049	0.093	-0.396 ***	0.281	-0.393	-0.019	-0.940
	(0.075)	(0.109)	(0.165)	(0.116)	(0.185)	(0.316)	(0.418)	(1.360)
Has children aged 15–24 years	0.087	0.017	0.258	-0.306 **	-0.027	-0.588 *	0.309	0.430
	(0.079)	(0.120)	(0.187)	(0.126)	(0.213)	(0.326)	(0.488)	(1.237)
Has children aged 25+ years	-0.247 ***	0.018	-0.630 ***	-0.647 ***	-0.344	-0.730 *	-1.289 **	-1.653
	(0.087)	(0.127)	(0.200)	(0.148)	(0.251)	(0.426)	(0.566)	(1.587)
Has disability	-0.021	-0.014	0.127	-0.032	0.167	-0.143	0.622	-0.280
	(0.061)	(0.078)	(0.147)	(0.099)	(0.177)	(0.277)	(0.410)	(1.170)
Major city	-0.066	-0.024	0.032	0.042	0.011	0.429 *	0.206	-0.638
	(0.057)	(0.083)	(0.131)	(0.087)	(0.154)	(0.222)	(0.366)	(0.916)
Annual household earnings / AUD100,000	1.114 ***	0.677 ***	2.033 ***	1.336 ***	2.258 ***	1.862 ***	2.711 ***	2.313
	(0.108)	(0.095)	(0.288)	(0.127)	(0.358)	(0.368)	(0.918)	(1.617)
Percentage of working age years spent in paid work	0.004 ***	0.004 ***	0.007 ***	0.010 ***	0.004	0.009 **	0.011	0.018
	(0.001)	(0.001)	(0.003)	(0.002)	(0.003)	(0.004)	(0.007)	(0.022)
English is first language	0.069	0.234	-0.276	0.252	-0.020	-0.266	0.585	-1.020
	(0.105)	(0.161)	(0.245)	(0.170)	(0.269)	(0.420)	(0.618)	(1.720)
Bachelor degree or higher	0.084	-0.099	0.412 **	0.013	1.118 ***	0.942 ***	2.281 ***	3.118 ***
	(0.074)	(0.114)	(0.174)	(0.124)	(0.192)	(0.315)	(0.459)	(1.228)

	25th percentile		50th percentile		75th percentile		90th percentile	
	SFH	SMH	SFH	SMH	SFH	SMH	SFH	SMH
Other post-school qualification	0.072	0.089	0.188	0.304 ***	0.450 ***	0.666 ***	0.585	1.133
	(0.066)	(0.078)	(0.153)	(0.088)	(0.173)	(0.235)	(0.389)	(0.944)
Whether father was a manager or professional	-0.012	0.038	-0.036	0.005	-0.028	0.032	0.203	0.895
	(0.058)	(0.081)	(0.137)	(0.090)	(0.158)	(0.237)	(0.360)	(1.005)
Whether parents ever separated or divorced	-0.039	-0.045	-0.009	-0.133	-0.005	0.008	0.006	0.533
	(0.065)	(0.084)	(0.147)	(0.098)	(0.165)	(0.253)	(0.403)	(1.075)
Number of siblings	-0.021	0.000	-0.066 **	0.008	-0.157 ***	-0.021	-0.152 **	-0.166
	(0.014)	(0.016)	(0.031)	(0.019)	(0.036)	(0.055)	(0.077)	(0.198)
Constant	-0.460 ***	-0.738 ***	-0.339	-1.196 ***	0.064	-0.407	-0.399	1.556
	(0.147)	(0.212)	(0.349)	(0.249)	(0.390)	(0.657)	(0.936)	(2.864)
Sample	816	761	816	761	816	761	816	761
Pseudo R^2	0.065	0.044	0.167	0.128	0.175	0.147	0.164	0.173

Notes: ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively. Shaded cells signify coefficients in SFH regression and SMH regression that

are *not* significantly different at the 1, 5, or 10 percent level. Variables for age, earnings, number of working years and number of siblings are continuous while the rest are

binary . *Source:* Authors' own calculations using the 2006 HILDA Survey

[i] A focused search of the phrase "gender wealth gap" in all fields of the EconLit database on March 2, 2012 yielded only six returns. Of these, two were focused on wealth as a factor in women's access to education. Three of the remaining four were published in the special 2006 edition of *Feminist Economics* on gender and wealth and the fourth was by Sierminska, Frick, and Grabka (2010). A search of the terms "gender AND wealth AND distribution" generated 442 returns. However, of these 411 had only a minor link with the issue of gender and wealth and were usually included in the search results due to the use of a subject heading such as "income and wealth distribution." A further sixteen were historical studies from pre-twentieth century contexts. Three were written in languages other than English and were therefore difficult to classify. Of the remaining twelve articles, only seven were directly relevant and have been included in this paper's discussion.

[ii] HECS debt is measured at an individual (rather than household) basis. It is attributed to the student, rather than the parent. We do not include it in the measurement of the parent's wealth.

[iii] Authors' estimates using microdata from the 1982 and 2005–6 ABS Surveys of Income and Housing.

[iv] The "head" of the household is identified by the authors, based on the age of the people in the household (adults versus children) and their dependency relationships.

[v] An income unit is a group of persons who share income. By focusing on single income units we exclude households where, for example, an adult child who is earning an income is present. We assume that dependent children do not own their own assets or debt so the entire household reported wealth is attributed to the single adult.

[vi] In Australia, the term "de facto" refers to individuals who are living with another person but are not formally married.

[vii] We are grateful to a referee for identifying this pattern.

[viii] This command bootstraps the results on the quantile regression 100 times to estimate standard errors.

[ix] This difference is not directly observable from the figure, as the vertical axis is truncated to highlight some of the differences at the lower percentiles.