

Exploring recent increases in the gender wealth gap among Australia's single households

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Abstract

This study uses three wealth modules from the Household, Income and Labour Dynamics in Australia Survey to explore the gender wealth gap for single Australian households between 2002 and 2010. The findings indicate a significant gender wealth gap, which has increased over the 8 years explored. Most of the increase in the wealth gap was associated with a relatively rapid increase in the value of housing assets by single men over the study period. The findings of this study challenge a wider literature that tends to emphasise that men are more prepared to invest in 'risky' assets such as shares and that their higher wealth is due to these investment strategies. Instead, this study emphasises how, in the Australian context at least, it was higher growth rates in the value of housing assets owned by single men that improved their wealth position relative to single women over the last decade.

JEL Codes: D31, R219

Keywords

Assets, Australia, gender, portfolio composition, wealth

Introduction

Compared with studies on wages, gender wealth gaps are under-researched. Yet, differences in wages provide only a static snapshot of economic inequality, while an analysis

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of the distribution of wealth can better illustrate how economic inequality accumulates over the life course (Deere and Doss, 2006).

This article contributes to a small but growing international literature on links between gender and wealth. We use data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey to examine changes in the wealth gap between single female and single male households (SMHs)¹ in Australia between 2002 and 2010. We establish the categories of wealth where the gender wealth gaps are greatest and review changes in these gaps over time and explore the extent to which changes in the relative wealth position of men and women are linked to changes in the composition of their portfolios. We also examine wealth gaps between men and women in different age groups and evaluate whether, during the study period, wealth outcomes changed in similar ways across younger and older groups of single men and women. Our findings suggest that the wealth accumulations of single men and women reflect not only different levels of wealth but also different portfolio compositions.

Background and previous research

A large and varied body of literature is concerned with gendered patterns of access to economic resources and their policy implications. Economic theories emphasise how access to resources influences the capacity of individuals to realise particular choices, not only with respect to consumption but also with respect to investment and future wealth accumulation. Inequities with respect to earning an income or accessing accumulated wealth are viewed as key barriers to a socially equitable economy. This perspective forms the basis of numerous studies of different average levels of income for different population groups defined by characteristics such as sex, age and race.

Nevertheless, despite the importance of accumulated wealth as a source of economic capacity, a search of the EconLit database reveals that fewer than 10 published articles have explored the extent and distribution of gender wealth gaps in developed countries in recent decades (Austen et al., 2014) and that only 1 article has examined changes in gendered patterns of wealth holding over time. Using data from the German Socio-Economic Panel, Sierminska et al. (2010) identified significant gender wealth gaps for a range of household types. The gender wealth gap was found to be ‘particularly large’ in couple households. However, most of this wealth gap could be accounted for by differences in the income and labour market characteristics of men and women. Owing to the absence of data on intra-household wealth allocations in other data collections, insights on gendered patterns of wealth distribution have tended to rely on analyses of single person households. The examination by Denton and Boos (2007) of data from the 1999 Canadian Survey of Financial Security identified differences in men’s and women’s income, labour market participation, age, marital status and returns to education as factors contributing to an observed gender wealth gap favouring men. Warren (2006) used the 1996 Family Resources Survey to investigate gender asset gaps in the United Kingdom. Her study included data on pension wealth and found that women’s relatively low pension assets accounted for a large part of the observed gender wealth gap favouring men. Using data from the 2000 National Longitudinal Survey of Youth, Yamokoski and Keister (2006) found that the median non-pension wealth

of single men and women was similar, once account was taken of their different socio-economic characteristics.

Reflecting data availability and significant policy changes affecting retirement income accumulation, Australian research has tended to focus specifically on superannuation accumulations (Jefferson, 2005). However, studies which explore wealth holdings in addition to superannuation suggest that particular groups of women, such as female sole parents, have low levels of wealth (Warren et al., 2001); that there is a gender wealth gap concentrated in the upper end of Australia's wealth distribution; and that single women's asset portfolios are, on average, less diversified than men's and dominated by their investment in a primary home (Austen et al., 2014).

The only existing study of *changes* in the gender wealth gap over time examined data for single person households in Sweden from 1978 to 1992 (Bolin and Palsson, 2001). It found that female wealth² increased relative to male wealth, and the explanation offered was that the risk profile of women's wealth portfolios was relatively low. The women in the study tended to invest more in relatively secure assets, such as bonds and bank accounts, compared with men. During the study period, there was a sharp decline in the value of assets held more commonly by men, such as shares (the Swedish stock exchange, like other exchanges around the world, experienced a sharp recession in 1987).

This study pursues similar research questions to those of Bolin and Palsson. That is, it is concerned first with the extent and direction of *changes* in the relative wealth position of men and women (in this case, Australian men and women between 2002 and 2010). It also investigates the possible connection between these changes and the nature of men's and women's wealth portfolios. By comparing the results with those of Bolin and Palsson, we can potentially achieve insights as to how gender wealth gaps can change under different economic circumstances and timeframes.

Data, sample and approach

This study utilises data from the HILDA Survey, which is conducted annually and collects data from a representative sample of households. Annual data collections include questions on socio-demographic characteristics, education, labour market history, income and location. In 2002, 2006 and 2010, the survey also included 'special modules' designed to measure wealth stored in the primary home, other property, superannuation, business, equity and cash investments, bank accounts, trust funds, cash redeemable life insurance, vehicles and collectibles. Key categories of debt, including debt secured against the primary home, other property, business, credit card and the Higher Education Contribution Scheme (HECS),³ were also included. These three waves of data form the basis of our study.

The comprehensive nature of the asset and debt measures in the HILDA special wealth modules is a key advantage for exploring the extent and composition of gender wealth gaps. However, the survey also suffers some limitations. Importantly, most asset and debt data are collected from households rather than individuals, and, as a result, a gender analysis of differences in household wealth can only be conducted using data on single female households (SFHs) and single male households (SMHs). Use of household level data prevents the attribution of assets and debts to different individuals such as would be

required to achieve a gender analysis of differences in wealth in couple households. This limitation cannot be overcome by assuming that assets and debts are pooled in couple households because the ownership of, and the benefits from, wealth is often not equal within the household (Denton and Boos, 2007).

The sample used in this study is thus restricted to households with a 'single head'. It is further restricted to households where the oldest independent adult member of the household is aged 15 years or over, to households with only one income unit⁴ and to households where the head is not a widow or widower. Multiple income unit households are excluded because, as is the case in couple households, it is not possible to identify who owns household assets in these household types. Widows and widowers are excluded to avoid distorting the analysis of single men's and women's ability to accumulate wealth. The net worth of single households comprising widows or widowers is likely to reflect the accumulations of a couple over an extended period of time (Sierminska et al., 2010). Their net worth is thus likely to be substantially different from – and be affected by a different set of factors to – that of other single households. However, with these exclusions in place, the final sample available for analysis in this study is still substantial: 975 SFHs and 864 SMHs in 2002, 998 SFHs and 917 SMHs in 2006, and 1009 SFHs and 910 SMHs in 2010.

The wealth holdings of SMHs and SFHs are measured by net worth, defined as total assets less total debt. These totals are derived from data on the various categories of assets and debts, namely, primary home, other property, superannuation, business and financial assets (i.e. equity and cash investments, bank accounts, trust funds and cash redeemable life insurance), and primary home, other property, business and other debt (i.e. credit card and HECS debt).

To assess the extent and direction of changes in the relative wealth position of SFHs and SMHs, we measure the gender wealth gap, calculated as the difference between SMHs' net worth and SFHs' net worth, expressed as a proportion of SFHs' net worth. We first report the gender wealth gap and compare the composition of SFH and SMH wealth for different age groups (less than 35 years, 35–55 years and more than 55 years) and household types (never-married and divorced/separated from a previous partner) and in each year. This enables us to take into account the differences in wealth accumulation across different stages of the life cycle and between individuals who have/have not been married. To take account of the skewed nature of the wealth distribution, we also report on changes in the median wealth of SFHs and SMHs and compare the gender wealth gap in the various quartiles of the wealth distribution.

Our exploration of the sources of change in the gender wealth gap between 2002 and 2010, including differences in portfolio composition, utilises decomposition techniques. These are designed to quantify, first, the impact of observed differences in the growth in various SMH and SFH assets on changes in the gender wealth gap. Our decomposition analysis also quantifies the effect of observed changes in the profile of single households (with regard to their age, wealth and composition) on the gender wealth gap between 2002 and 2010. The details of these techniques are outlined in section 'Decomposing changes in the gender wealth gap between 2002 and 2010', following a description of how the gender wealth gap changed over the 8-year period.

Table 1. Real^a asset and debt values of single adult Australian households, by household type, 2002–2010 (AUD'000).

Asset/debt	2002		2006		2010	
	SFH	SMH	SFH	SMH	SFH	SMH
Mean total assets ^b	209.2	231.2	252.3	290.2	262.4	311.1
Mean total debt	33.5	37.2	41.8	50.6	56.3	58.0
Mean net worth ^c	175.6	193.9	210.5	239.6	206.1	253.0
GWG ^d (measured at mean values)	10.4%		13.8%		22.8%	
Median total assets	85.6	91.0	62.3	94.1	82.5	119.1
Median total debt	2.3	2.4	3.5	5.5	1.9	3.5
Median net worth	54.9	65.1	49.5	67.4	54.8	93.2
GWG ^d (measured at median values)	18.5%		36.1%		70%	

GWG: gender wealth gap; SFH: single female household; SMH: single male household; CPI: consumer price index; HILDA: Household, Income and Labour Dynamics in Australia.

Source: Authors' own calculations from the confidentialised unit record files of the 2002, 2006 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^cGender difference is statistically significant (as measured by a *T* test of the difference in mean values) at the 1% level in each year.

^dGender wealth gap.

Changes in the gender wealth gap: 2002–2010

The HILDA data reveal a substantial gender wealth gap among single Australian households. As shown in Table 1, in 2010, the average net worth holdings of SMHs in Australia was AUD46,900 greater than SFHs, representing a gender wealth gap of 22.8%. The data also indicate that the gender disparity in wealth increased between 2002 and 2010, with the gender difference in average net worth increasing from AUD18,300 in 2002 to AUD29,100 in 2006 and to AUD46,900 in 2010 (a 156.3% increase). The gender wealth gap more than doubled from 10.4% in 2002 to 22.8% in 2010.

The gender wealth gap and the distribution of wealth

The data in Table 1 also highlight the inequality in the distribution of Australian wealth. Median SMH net worth in 2010 was AUD93,200, while the average net worth of SMHs was AUD253,000, indicating a large concentration of SMH wealth at the top of the wealth distribution. This finding is in line with those of a number of other Australian studies of wealth inequality (see Bloxham and Betts, 2009; Headey et al., 2005). Gender disparities remain apparent at the median values reported in Table 1. Furthermore, the gender wealth gap at median values increased from AUD10,200 in 2002 to AUD38,400 in 2010, and the gender wealth gap at these values increased from 18.5% to 70%.

Table 2. Real^a asset and debt values of single adult Australian households, by household type and quartile in the wealth distribution, 2002–2010 (\$'000).

Average net worth	2002			2006			2010		
	SFH	SMH	GWG ^b %	SFH	SMH	GWG ^b %	SFH	SMH	GWG ^b %
Quartile 1	-2.2	-2.3	-4.5	-6.4	-3.7	42.2	-3.8	-1.8	52.6
Quartile 2	21.4	29.9	39.7	19.6	31.4	60.2	22.8	47.1	106.6
Quartile 3	123.4	123.4	0	145.1	150.7	3.9	154.9	183.4	18.4
Quartile 4	562.7	626.7	11.4	684.3	781.5	14.2	651.8	785.7	20.5

GWG: gender wealth gap; SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index.

Source: Authors' own calculations from the confidentialised unit record files of the 2002, 2006 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

Further insights into the unequal nature of wealth distribution in Australia are available from the data in Table 2 and Figure 1. These report the net worth of SMHs and SFHs according to their position in their respective wealth distributions. The very low net worth of many Australian single households is evident in this data (in each year close to 40% of SMHs and SFHs had negligible net worth), as is the very high net worth of top percentile households. Furthermore, the figures show that increases in wealth over 2002–2010 occurred primarily in top decile households. The households in the lowest quartile of the SFH wealth distribution in 2010 recorded, on average, a level of net worth that was AUD1600 lower (in real terms) than that recorded by their counterpart households in 2002. In comparison, the households in the top quartile of the SFH wealth distribution achieved a level of net worth in 2010 that was, on average, AUD89,100 higher than their counterpart households in 2002. The changes in wealth across SMHs followed a similar pattern with the average net worth of low quartile households increasing by only AUD500, while the increase recorded in the top quartile was AUD159,000.

The data also show that the gender differences in wealth favouring men are relatively large between high net worth SFHs and SMHs. In 2010, for example, the average net worth of the top quartile SMHs was AUD133,900 larger than the counterpart SFHs. At the median, the gender wealth gap was AUD17,911. Between 2002 and 2010, the gender wealth gap increased in favour of SMHs in all parts of the wealth distribution.

The gender wealth gap and age structure

A key component of wealth inequality is age-related difference in net worth. Individuals and households commonly accumulate wealth over the life course, and thus, the net worth of older people is typically substantially higher than that of younger people. The data in Table 3 summarise the asset and debt holdings of SMHs and SFHs in three broad groups based on the age of the household head: under 35 years, 35–55 years and over 55

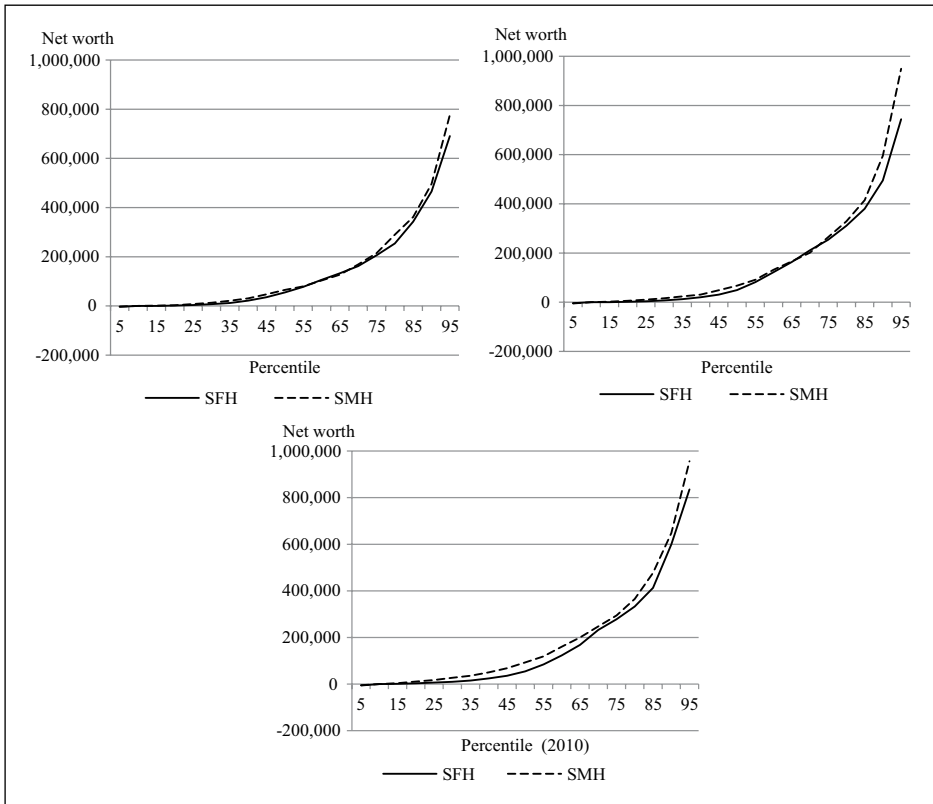


Figure 1. Net worth of single male and single female households, by percentile, 2002–2010. HILDA: Household, Income and Labour Dynamics in Australia; SFH: single female household; SMH: single male household. Source: Authors’ own calculations from the confidentialised unit record files of the 2002, 2006 and 2010 HILDA Survey.

years. As expected, net worth is higher in older age groups. In 2010, for example, the average net worth of ‘younger’ SFHs was AUD63,500; for ‘mid-age’ (35–55 years) SFHs, average net worth was AUD212,700 and for ‘older’ SFHs, average net worth reached AUD410,000. Relatedly, debt–asset ratios fall with age. In 2010, the debt–asset ratio was 48.1% among ‘younger’ SFHs and 25.0% among ‘mid-age’ SFHs, but fell to 6.0% among ‘older’ SFHs.

Gender differences in net worth, measured at the mean, increased substantially in the ‘younger’ group of households between 2002 and 2010, rising from AUD9000 in 2002 to AUD56,700 in 2010. The gender wealth gap increased from 16% to 89% in this age group. In the ‘mid-age’ group, the average gender difference in net worth increased from AUD9100 in 2002 to AUD58,500 in 2010, with the gender wealth gap rising from 4% to 28%. However, in the ‘older’ age group, the gender difference in net worth fell from AUD45,500 to AUD10,000 between 2002 and 2010, with the gender wealth gap falling from 15.7% to 2.4%.

Table 3. Real^a asset and debt values of single adult Australian households, by household type and age group, 2002–2010 (AUD'000).

Age group	2002		2006		2010	
	SFH	SMH	SFH	SMH	SFH	SMH
<35 years						
Mean total assets ^b	85.5	103.3	91.7	128.6	122.4	165.7
Mean total debt	29.4	38.2	32.2	47.3	58.9	45.5
Mean net worth	56.1	65.1	59.5	81.2	63.5	120.2
GWG ^c	16%		36.5%		89.3%	
35–55 years						
Mean total assets	269.5	280.0	337.6	336.4	283.8	360.5
Mean total debt	46.6	48.0	63.3	61.3	71.0	89.3
Mean net worth	222.9	232.0	274.3	275.1	212.7	271.2
GWG ^c	4.1%		0.3%		27.5%	
>55 years						
Mean total assets	305.3	349.5	378.1	499.4	437.0	444.4
Mean total debt	16.4	15.0	18.3	35.2	26.9	24.3
Mean net worth	288.9	334.4	359.9	464.2	410.0	420.0
GWG ^c	15.7%		29.0%		2.4%	

GWG: gender wealth gap; SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index.

Source: Authors' own calculations from the confidentialised unit record files of the 2002, 2006 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^cGender difference is statistically significant (as measured by a *T* test of the difference in mean values) at the 1% level in each year.

The gender wealth gap and household type

Wealth inequality among single households can also arise from differences in the net worth of different types of single households, such as between households comprising individuals who have never married and those comprising individuals who are divorced or separated. Individuals in the latter group may have benefited from the greater ability of couple households to accumulate wealth, if they were able to retain a share of these benefits on divorce or separation. They are also likely to be older than the never-married individuals and have higher wealth as a result. Table 4 summarises the asset and debt holdings of SMHs and SFHs in the two household types. As anticipated, net worth is higher in separated or divorced households. In 2010, for example, the average net worth of separated/divorced SFHs was AUD286,900, while for never-married SFHs average net worth was only AUD138,800. For SMHs, these figures were, respectively, AUD347,900 and AUD205,600.

Table 4. Real^a asset and debt values of single adult Australian households, by household type and marital status, 2002–2010 (AUD'000).

Marital status	2002		2006		2010	
	SFH	SMH	SFH	SMH	SFH	SMH
Separated/divorced						
Mean total assets	255.9	282.4	345.7	409.2	342.4	403.1
Mean total debt	33.9	42.7	48.7	63.8	55.5	55.2
Mean net worth	221.9	239.7	297.1	345.3	286.9	347.9
GWG ^b	8.0%		16.2%		21.3%	
Never married						
Mean total assets	155.1	193.3	168.0	222.4	195.9	265.0
Mean total debt	33.1	33.2	35.7	43.1	57.1	59.4
Mean net worth	121.9	160.0	132.4	179.3	138.8	205.6
GWG ^b	31.2%		35.4%		48.1%	

GWG: gender wealth gap; SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index.

Source: Authors' own calculations from the confidentialised unit record files of the 2002, 2006 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

Between 2002 and 2010, average net worth grew particularly strongly (by 45.1%) in the group of separated/divorced SMHs. Average separated/divorced SFH net worth grew by 29.3%, average never-married SFH net worth increased by 13.9% and average never-married SMH net worth rose by 28.5%. As a result of these different trends, and as shown in Table 4, the gender difference in net worth, measured at the mean, increased in both groups of households between 2002 and 2010. The gender wealth gap increased from 8.0% to 21.3% in the group of separated/divorced households and from 31.2% to 48.1% in the group of never-married households.

Gender wealth gaps and portfolio composition

As Bolin and Palsson (2001) suggest, further insights into gender-based wealth inequality can be gained by comparing the composition of the wealth portfolios of SMHs and SFHs. The data in Table 5 enable such a comparison, and this reveals the greater importance of primary home assets in the asset portfolios of SFHs across the survey period and in each age group. In the group of 'mid-age' SFHs, for example, primary home assets comprised 52.6% of total assets in 2010. The comparative figure for SMHs was lower at 42.3%. In part, these gender differences reflect the relatively small level of other assets in SFHs, especially business assets and financial instruments. In 2010, business assets accounted for less than 2% of the total assets held by SFHs in each age group, whereas they accounted for close to 5% of the assets of SMHs.

Table 5. Composition of real^a assets and debts of single adult Australian households, by household type and age group, 2002 and 2010 (per cent by column).

	SFH						SMH					
	35–55 years		55+ years		<35 years		35–55 years		55+ years		<35 years	
	2002	2010	2002	2010	2002	2010	2002	2010	2002	2010	2002	2010
Assets												
Primary home	45.3	44.4	51.4	52.6	53.3	52.7	40.4	41.2	38.3	42.3	33.7	42.8
Other property	15.3	23.1	10.4	14.0	5.8	10.7	8.2	19.0	12.7	15.5	6.1	11.1
Superannuation	20.1	10.3	18.1	17.0	12.3	16.9	16.6	11.8	23.9	19.6	16.9	17.5
Business assets	0.4	0.7	2.3	1.7	8.6	1.1	5.0	4.6	4.5	4.6	14.6	4.8
Financial instruments ^b	10.2	16.3	12.6	11.1	16.9	16.4	20.3	16.1	15.5	12.6	23.4	20.7
Total assets ^c	100	100	100	100	100	100	100	100	100	100	100	100
Debt												
Primary home	69.9	56.1	71.8	64.6	61.5	65.6	63.2	55.7	59.9	61.5	34.7	42.4
Other property	7.9	30.2	14.0	19.6	16.9	28.6	12.9	21.1	20.6	22.2	5.5	36.3
Business	0.0	0.0	1.5	4.2	2.6	0.2	4.0	1.0	3.6	2.3	43.2	8.4
Other ^d	22.2	13.7	12.7	11.6	19.0	5.6	20.0	22.2	15.9	13.9	16.6	12.9
Total debt	100	100	100	100	100	100	100	100	100	100	100	100

SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index; HECS: Higher Education Contribution Scheme.

^aSource: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

^bReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^cFinancial instruments comprise equity and cash investments, bank accounts, trust funds and redeemable life insurance.

^dThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^eOther 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.

Table 6. Composition of real^a assets and debts of single adult Australian households, by household type and marital status, 2002 and 2010 (per cent by column).

	SFH				SMH			
	Separated/ divorcees		Never married		Separated/ divorcees		Never married	
	2002	2010	2002	2010	2002	2010	2002	2010
Assets								
Primary home	51.3	52.9	50.7	49.1	35.1	38.8	39.3	44.9
Other property	8.5	11.9	12.0	17.5	10.0	14.9	9.6	14.5
Superannuation	14.0	15.6	21.3	16.4	20.7	19.0	20.1	16.2
Business assets	5.7	1.9	1.0	0.5	11.4	7.3	4.1	2.7
Financial instruments ^b	15.4	14.8	10.3	13.0	17.3	15.1	20.5	16.7
Total assets ^c	100	100	100	100	100	100	100	100
Debt								
Primary home	68.4	64.2	72.1	59.4	50.8	48.9	66.6	62.2
Other property	14.2	21.9	10.1	26.6	19.6	28.9	13.4	20.7
Business	1.9	4.8	0.1	0.1	12.7	7.3	2.0	0.4
Other ^d	15.5	9.1	17.7	13.8	16.8	14.8	18.0	16.8
Total debt	100	100	100	100	100	100	100	100

SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index; HECS: Higher Education Contribution Scheme.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bFinancial instruments comprise equity and cash investments, bank accounts, trust funds and redeemable life insurance.

^cThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^dOther 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.

Similar patterns are evident in the data on the wealth portfolios of never-married and separated/divorced households in Table 6. Primary home assets comprise a relatively large (52.9%) share of the assets of separated/divorced SFHs and a relatively small (38.8%) share of the assets of separated/divorced SMHs.

A key focus of this article is on the effect of gender differences in portfolio composition on the evolution of the gender wealth gap. The data in Table 7 show different patterns of growth in assets and debts across SMHs and SFHs in the three age groups. Table 8 shows the patterns of growth in assets and debts of never-married and separated/divorced households. Of greatest importance to the evolution of the gender wealth gap are the different growth rates for primary home assets (given the significance of these assets in wealth portfolios). It is important to note that in this asset class, growth rates favoured SMHs in each age group and in each household type. For example, the average value of primary home assets held by SMHs climbed by 63.5% in the 'younger' age group, by 42.2% in the 'mid-age' group and by 61.6% in the 'older' age group. The comparative rates in SFHs were 40.6%, 7.9% and 41.8%, respectively. The average value of primary home assets increased by 57.7% in the group of separated/divorced SMHs and by 56.6% in the group of never-married SMHs. The comparative figures for SFHs were 38.0% and 22.3%.

Table 7. Growth of real^a assets and debts of single adult Australian households, by household type and age group, 2002 and 2010 (per cent by column).

	SFH			SMH		
	<35 years	35–55 years	55+ years	<35 years	35–55 years	55+ years
	2002–2010	2002–2010	2002–2010	2002–2010	2002–2010	2002–2010
Assets						
Primary home	40.6	7.9	41.8	63.5	42.2	61.6
Other property	115.3	40.9	162.9	275.0	57.3	130.3
Superannuation	-25.7	-0.8	98.6	14.0	5.5	31.8
Business assets	166.7	-22.2	-82.1	49.0	31.7	-58.4
Financial instruments ^b	129.9	-7.1	40	27.3	4.6	12.5
Total assets ^c	43.2	5.3	43.1	60.4	28.8	27.1
Debt						
Primary home	60.2	37.0	77	5.0	90.6	98.1
Other property	673.9	113.8	185	95.9	100	1000
Business assets	800.0	328.6	-87.5	-66.7	23.5	-68.4
Other ^d	24.6	39.0	-51.6	32.9	63.2	25.2
Total debt	100.3	52.4	64	19.1	86	62

SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index; HECS: Higher Education Contribution Scheme.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bFinancial instruments comprise equity and cash investments, bank accounts, trust funds and redeemable life insurance.

^cThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^dOther 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.

In the 'younger' and 'mid-age' groups, the growth of other property and superannuation assets also favoured SMHs. The average value of other property assets held by SMHs grew by 275.0% in the 'younger' age group and by 57.3% in the 'mid-age' group. The comparative rates in SFHs were 115.3% and 40.9%. The average value of superannuation assets held by 'younger' and 'mid-age' SFHs fell over the study period (by 25.7% and 0.8%, respectively), while increases occurred in the average superannuation balances of 'younger' and 'mid-age' SMHs (by 14.0% and 5.5%). Among 'older' households, a different pattern of growth occurred across SMHs and SFHs. SFHs in this age group recorded a relatively high rate of growth in the average value of both other property and superannuation assets (162.9% and 98.6%, respectively). The comparative rates in older SMHs were 130.3% and 31.8%.

Decomposing changes in the gender wealth gap between 2002 and 2010

The above discussion alludes to the complexities associated with assessing the 'drivers' of the gender wealth gap among single households. Observed wealth gaps between

Table 8. Growth of real^a assets and debts of single adult Australian households, by household type and marital status, 2002 and 2010 (per cent by column).

	SFH		SMH	
	Separated/ divorcees	Never married	Separated/ divorcees	Never married
	2002–2010	2002–2010	2002–2010	2002–2010
Assets				
Primary home	38.0	22.3	57.7	56.6
Other property	88.5	84.6	112.3	106.9
Superannuation	49.3	-2.6	30.6	10.5
Business assets	-55.8	-42.6	-9.2	-8.5
Financial instruments ^b	29.2	60.5	24.8	11.5
Total assets ^c	33.8	26.3	42.7	37.1
Debt				
Primary home	53.4	42.0	24.4	66.8
Other property	152.9	352.3	89.9	176.5
Business	350	150	-25.0	-68.0
Other ^d	-3.9	34.7	13.8	66.0
Total debt	63.7	72.4	29.2	78.7
Net worth	29.3	13.9	45.1	28.5

SFH: single female household; SMH: single male household; HILDA, Household, Income and Labour Dynamics in Australia; CPI: consumer price index; HECS: Higher Education Contribution Scheme.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

^aReal values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year.

^bFinancial instruments comprise equity and cash investments, bank accounts, trust funds and redeemable life insurance.

^cThis is the sum of wealth stored in the primary home, other property, superannuation, business, financial instruments, vehicles and collectibles. The value of vehicles and collectibles combined comprises only around 3.5% of average asset values and so is not reported separately in the table.

^dOther 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.

SMHs and SFHs clearly vary across groups of households defined by the age of the household head and by the household type. The gender gap also varies across different types of assets and debts. For similar reasons, changes in the gender wealth gap over time could have a number of sources, including differential growth rates in the value of different types of assets, change in the participation of different household types in these assets, change in the level of debt of different types of households and change in the demographic characteristics of households.

In the following paragraphs, we explore these various possibilities in turn using decomposition techniques designed specifically to quantify the impact of observed differences in the growth in SMH and SFH assets, and other characteristics on changes in the gender wealth gap. It is important to note the specific type of decomposition technique used in

this article. We are *not* using the standard (Oaxaca–Blinder) decomposition methodology because we are *not* attempting to measure how much of the gender wealth gap (at a particular point in time) can be attributed to gender differences in characteristics, such as age and income. Austen et al. (2014) conducted such an exercise using 2006 HILDA data (international examples include Sierminska et al., 2010). In this study, because our research question is about the sources of *change* in the gender wealth gap, our decomposition technique is quite different.

We first decompose the gender wealth gap (measured at mean values) into its key asset components

$$GWG^t = (NW_m^t - NW_f^t) \quad (1)$$

where GWG is the gender wealth gap at time t , NW_m is the average net worth of SMHs and NW_f is the average net worth of SFHs. In this formulation, GWG is expressed as an absolute gap. To facilitate interpretation of its meaning (especially to international audiences), we report the derived measures of the GWG as the difference divided by SFH net worth.

The average net worth of each household group can be expressed in terms of its component parts

$$NW^t = PH^t + OP^t + B^t + S^t + F^t \quad (2)$$

where PH^t is the average net value of primary home assets in year t , OP is the average net value of other property assets, B is the average net value of business assets, S is the average net value of superannuation assets and F is the average net value of financial assets.

Thus, the gender wealth gap can be decomposed into

$$GWG^t = (PH_m^t - PH_f^t) + (OP_m^t - OP_f^t) + (B_m^t - B_f^t) + (S_m^t - S_f^t) + (F_m^t - F_f^t) \quad (3)$$

where, for example, PH_m^{10} is the average net value of SMH primary home assets in 2010. To focus on how the gender wealth gap was affected by differences in the rate of growth of SMH and SFH assets, we consider, for each asset class, a particular counterfactual: that the real value of SMH assets grew at the same rate as SFH assets between 2002 and 2010. By comparing the 2010 gender wealth gap in each counterfactual situation with the actual 2010 wealth gap, we achieve a measure of the impact of observed differences in the growth in SMH and SFH assets on the gender wealth gap.

This analysis provides important insights into the different experiences of single men and women in various asset and debt markets over the study period and how these

differences impacted the inequality in the distribution of wealth. The exercise also tests the oft-mooted hypothesis in the wider literature that men are more prepared to invest in 'risky' assets such as shares and that their higher wealth is due to these investment strategies. Using our decomposition strategy, we are able to assess whether this hypothesis is applicable to Australian experience in recent decades.

The evolution of the gender wealth gap over the study period may have also been affected by changes in the age structure of SMHs and SFHs and by changes in the representation of divorced and separated (as compared to never-married) individuals in the sample. To account for these impacts, we follow a similar approach to the one outlined above. That is, we first decompose the net worth of each household group into a number of different parts. In the case of the age structure, we define the gender wealth gap (at mean values) in each year as the weighted sum of the mean net worth of each age group in the year

$$NW^t = \left(\sum_{j=1}^3 s_j NW_j \right)^t \quad (4)$$

where $j = 1$ for those under 35 years, $j = 2$ for those aged 35–55 years and $j = 3$ for those aged over 55 years; s is the population share of age group j at time t and NW is the average net worth for the age group at time t . We measure the effects of changes in the age structure on the wealth gap by comparing the actual wealth gap in 2010 with the one that would have been obtained in the counterfactual situation, where the population share of each age group remained unchanged from 2002 values. A similar approach is taken to assessing the effects on the gender wealth gap of changes in the distribution of single households across never-married and separated/divorced types.

To isolate the importance of changes in wealth gaps in each age group on the overall gender wealth gap, we compare the actual wealth gap in 2010 with the one that would have been obtained in three counterfactual situations: (a) where SFH and SMH wealth in the 'younger' age group grew at the same rate between 2002 and 2010, (b) where SFH and SMH wealth in the 'mid-age' group grew at the same rate between 2002 and 2010 and (c) where the wealth of SFHs and SMHs in the 'older' age group grew at the same rate between 2002 and 2010. This approach is replicated to examine the effect on the overall gender wealth gap of changes in the gaps affecting never-married and separated/divorced households and to examine how changes in wealth gaps in different parts of the wealth distribution affected the evolution of the overall gender wealth gap between 2002 and 2010.

The role of portfolio composition in explaining the evolution of the gender wealth gap

We first measure the impact on the gender wealth gap of different rates of growth in the assets held by SMHs and SFHs over the study period. This is achieved by considering, for each asset class and each age group, the counterfactual: that growth in the value of the SMH asset occurred at the same rate as the growth in the value of the SFH asset

between 2002 and 2010. We estimate a ‘synthetic’ gender wealth gap in 2010 based on this counterfactual and compare this with the 2010 gender wealth gap. The difference between the synthetic and actual gender wealth gaps in 2010 is our measure of the impact of the differential rate of growth in the particular asset across SMHs and SFHs.

The actual gender wealth gap (measured in levels) in 2010, in each age group, is given by

$$GWG^{10} = (PH_m^{10} - PH_f^{10}) + (OP_m^{10} - OP_f^{10}) + (B_m^{10} - B_f^{10}) + (S_m^{10} - S_f^{10}) + (F_m^{10} - F_f^{10}) \quad (5)$$

A synthetic estimate of the 2010 wealth gap that removes the influence of differential changes in the growth in SMH versus SFH primary home asset values is given by

$$GWG^{10*} = (PH_m^{10*} - PH_f^{10}) + (OP_m^{10*} - OP_f^{10}) + (B_m^{10*} - B_f^{10}) + (S_m^{10*} - S_f^{10}) + (F_m^{10*} - F_f^{10}) \quad (6)$$

where PH_m^{10*} is derived by increasing PH_m^{02} by the growth rate in PH_f between 2002 and 2010. The same approach yields synthetic estimates of the 2010 wealth gap that remove the influence of different growth rates in the other types of assets and debts. A comparison of the actual and synthetic wealth gaps in each age group (expressed as a proportion of SFH net worth) is provided by the data in Table 9.

The data in Table 9 elucidate some important features of the change in the wealth gap between SFHs and SMHs between 2002 and 2010. Most importantly, the data show that, across the age groups, the increase in the gender wealth gap from 10.4% to 22.8% was largely driven by the relatively high rate of growth in average SMH primary home asset values. Between 2002 and 2010, the average value of SMH primary home assets climbed by 53.1%, while the average value of SFH primary home assets grew by only 26.1%. As these assets account for a large share of total assets and net worth, the differential growth rate had a large bearing on the change in the gender wealth gap. Indeed, the data in Table 9 show that, if primary home assets had grown in value at the same rate in SMHs as it did in SFHs, the gender wealth gap in 2010 would have reached only 11.7% (in comparison with its actual level of 22.8%). The same pattern applies to the gender wealth gap in each age group. If the primary home assets of ‘younger’ SMHs had increased at the same rate as those of SFHs, the gender wealth gap in the ‘younger’ group of households would have reached 74.2% in 2010, 15.2 percentage points lower than the actual 2010 level of 89.4%. Among ‘mid-age’ single households, the differential between the actual and synthetic gender wealth gap is 17.3 percentage points. In the ‘older’ group of households, without the relatively favourable change in SMH primary home assets, the gender wealth gap in 2010 would have been in women’s favour (by 3.2%), while the actual gap in 2010 favoured men by 2.4%.

It is interesting to note that the data in Table 9 show that, across the age groups, the relatively high rate of growth in SMH primary home assets was *not* matched by the growth in their primary home *debts*. Indeed, if SMH primary home debt had grown at the same rate as SFH primary home debt between 2002 and 2010, the gender wealth gap

Table 9. GWGs in 2010 under alternative scenarios relating to asset and debt growth rates, by type of asset and age.

Counterfactual	GWG All age groups (actual = 22.8%)	GWG <35 years (actual 89.4%)	GWG 35–55 years (actual 27.5%)	GWG >55 years (actual 2.4%)
Primary home assets grew at the same rate in SMHs and SFHs	11.7%	74.2%	10.2%	–3.2%
Other property assets grew at the same rate in SMHs and SFHs	20.9%	68.2%	24.8%	4.1%
Superannuation assets grew at the same rate in SMHs and SFHs	24.2%	78.6%	25.5%	12.1%
Business assets grew at the same rate in SMHs and SFHs	19.2%	98.7%	24.3%	–0.6%
Financial assets grew at the same rate in SMHs and SFHs	25.9%	123.1%	25.1%	7.9%
<i>The total assets of SMHs grew at the same rate as those of SFHs</i>	12.6%	61.2%	–3.4%	16.1%
Primary home debt grew at the same rate in SMHs and SFHs	23.4%	68.3%	34.8%	2.7%
Other property debt grew at the same rate in SMHs and SFHs	19.4%	44.7%	26.9%	4.0%
Business debt grew at the same rate in SMHs and SFHs	23.0%	68.8%	25.1%	2.7%
Other debt grew at the same rate in SMHs and SFHs	23.5%	90.3%	28.4%	2.9%
<i>The total debt of SMHs grew at the same rate as that of SFHs</i>	20.6%	40.4%	35.1%	2.4%

GWG: gender wealth gap; SMHs: single male households; SFHs: single female households; HILDA: Household, Income and Labour Dynamics in Australia.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

in 2010 would have been marginally higher (at 23.4%) than it actually was (at 22.8%). This reflects the fact that, across the age groups, SFH primary home *debts* grew faster than SMH primary home debts, while the opposite was true for their primary home *assets*. The one exception to this pattern was in the group of 'younger' single households, where SFH primary home debt increased by a relatively large amount.

The fact that the primary home assets of mid-life and older SMHs values grew relatively quickly over the study period, but their primary home debt did not, suggests that particular phenomena were affecting their wealth outcomes. In particular, the data

suggest, first, that SMHs benefited from an escalation in the value of properties that had been purchased before or soon after 2002. In these situations, SMHs could have benefited from rising primary home asset values without a matching increase in their primary home debt. The observed patterns in the data are also consistent with mid-life and older SMHs acquiring primary home assets during the study period without much debt. However, the proportion of SMHs with primary home assets actually fell over the study period (from 42.5% to 38.9%), which is not supportive of a hypothesis that SMHs ‘moved into’ primary home assets in a significant way. Thus, of the two possible explanations for the relatively large rise in SMH primary home wealth, an increase in the value of the primary home assets held by SMHs at or near the start of the study period is the most likely.

Another noteworthy feature of the data in Table 9 is the evidence they provide on the relatively high rates of growth in the value of superannuation and financial assets held by SFHs over the study period and show how these changes exerted a negative impact on the gender wealth gap. For example, between 2002 and 2010, the average value of SFH and SMH superannuation grew by 20.9% and 14.6%, respectively. In the absence of this differential, the gender wealth gap would have reached 24.2% in 2010. However, these positive changes were limited to the ‘older’ age group. In this age group, in the absence of the relatively high rate of growth in the superannuation assets of SFHs, the gender wealth gap in 2010 would have reached 12.1% (as compared to the actual 2.4% level). However, in the ‘younger’ and ‘mid-age’ groups, the rate of growth in superannuation assets favoured men. Without these differentials, the gender wealth gap in the ‘younger’ age group would have reached 78.6% (rather than 89.4%) and in the ‘mid-age’ group the gap would have reached 25.5% (rather than 27.5%).

The role of age structure and household composition in explaining the evolution of the gender wealth gap

The second part of our decomposition analysis examines whether observed changes in the gender wealth gap were affected by changes in the age structure and distribution of household types across SMHs and SFHs. This step in our analysis is important because, if changes in the age structure and/or the distribution of household types had a large impact on the gender wealth gap during the study period, the importance of differential rates of growth in the assets held by SFH and SMH will fall.

We explore the impact on the gender wealth gap of changes in the age structure by posing the question ‘What would the gender wealth gap in 2010 have been if the population shares of each age group had remained unchanged since 2002?’ Similarly, the impact on the gender wealth gap of changes in the distribution of household types (i.e. never-married and divorced/separated types) is estimated by posing the question ‘What would the gender wealth gap in 2010 have been if the population shares of each household type had remained unchanged since 2002?’

The average net worth of SMHs in 2010 is given by

$$NW_m^{10} = s_{m,<35}^{10} NW_{m,<35}^{10} + s_{m,35-50}^{10} NW_{m,35-50}^{10} + s_{m,>50}^{10} NW_{m,>50}^{10} \quad (7)$$

Table 10. The GWG in 2010 under alternative scenarios relating to changes in the age structure and the representation of different household types in SMHs and SFHs.

Counterfactual	GWG in 2010 (actual = 22.8%)
Population share of each age group remained unchanged at 2002 levels	23.7%
Population share of each household type (never married and separated or divorced) remained unchanged at 2002 levels	21.9%

GWG: gender wealth gap; SMHs: single male households; SFHs: single female households; HILDA: Household, Income and Labour Dynamics in Australia.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

and the average net worth of SFHs in 2010 is given by

$$NW_f^{10} = s_{f,<35}^{10}NW_{f,<35}^{10} + s_{f,35-50}^{10}NW_{f,35-50}^{10} + s_{f,>50}^{10}NW_{f,>50}^{10} \quad (8)$$

where, for example, $s_{f,<35}^{10}$ is the share of SFHs in the younger age group in 2010.

The gender wealth gap in 2010 (in levels) is given by

$$GWG^{10} = (NW_m^{10} - NW_f^{10}) \quad (9)$$

A synthetic gender wealth gap for 2010, which removes the influence of changes in the age structure of single households since 2002, is achieved by replacing the values for each of the s terms in the above equations with 2002 values. A similar approach is used to examine the effects of changes in the representation of single versus divorced/separated individuals in SFHs and SMHs. The results of these exercises are summarised in Table 10.

The figures in Table 10 indicate, first, that changes in the age structure had a negligible impact on the overall gender wealth gap between 2002 and 2010. In the absence of changes in the population shares of the three age groups in this study, the gender wealth gap would have reached 23.7% (rather than 22.8%) in 2010. Changes in the population shares of the never-married and separated/divorced over the study period also had a negligible influence on the evolution of the gender wealth gap. The figures in Table 10 show that the gender wealth gap in 2010 would have been 21.9% (rather than 22.8%) without these changes, *ceteris paribus*.

The evolution of the gender wealth gap in different parts of the age structure and in different types of single households

The third part of our decomposition analysis explores the effect on the total gender wealth gap of changes in wealth gaps in different parts of the age structure and in

Table 11. The GWG in 2010 under alternative scenarios relating to changes in the growth of SMH and SFH net worth within household groups and changes in the household structure.

Counterfactual	GWG in 2010 (actual = 22.8%)
Net worth of <35 years SMHs grew at the same rate as that of SFHs	14.8%
Net worth of 35–55 years SMHs grew at the same rate as that of SFHs	13.1%
Net worth of more than 55 years SMHs grew at the same rate as that of SFHs	29.2%
Net worth of never-married SMHs grew at the same rate as that of SFHs	15.3%
Net worth of separated or divorced SMHs grew at the same rate as that of SFHs	16.8%

GWG: gender wealth gap; SMHs: single male households; SFHs: single female households; HILDA: Household, Income and Labour Dynamics in Australia.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

never-married, as opposed to separated/divorced, households. Using the counterfactual approach, we pose questions such as 'What would the gender wealth gap in 2010 have been if the net worth of younger/mid-age/older SMHs had grown at the same rate as younger/mid-age/older SFHs?' We utilise equations (7) to (9), replacing the actual measures of $NW_{m,i}^{10}$ with synthetic values, which are derived by inflating $NW_{m,i}^{02}$ by the relevant rate of growth in SFH net worth between 2002 and 2010. A similar approach is used to examine the 2010 gender wealth gap in counterfactual situation where the net worth of never-married and separated/divorced SMHs had grown at the same rate as never-married and separated/divorced SFHs.

The data in Table 11 also show that the change in the gender wealth gap was driven by the large differentials between SMH and SFH net worth in the 'younger' and 'mid-age' groups. If 'younger' SFH and SMH net worth had grown, on average, at the same rate between 2002 and 2010, then, *ceteris paribus*, the gender wealth gap would have been 8.0 percentage points lower than the actual ratio recorded in 2010. If 'mid-age' SFHs had kept pace with 'mid-age' SMHs, then, *ceteris paribus*, the gender wealth gap in 2010 would have only reached 13.1% (a level 9.7 percentage points lower than the rate that was actually recorded). In contrast, if 'older' SFH and SMH net worth had grown at the same rate, then, *ceteris paribus*, the gender wealth gap would have been larger (at 29.2%, compared to the actual 22.8%).

The data in Table 11 also show that the change in the gender wealth gap was driven by the large differentials between the growth of SMH and SFH net worth in *both* the 'never-married' and the 'separated/divorced' households. If 'never-married' SFH and SMH net worth had grown, on average, at the same rate between 2002 and 2010, then, *ceteris paribus*, the gender wealth gap would have been 7.5 percentage points lower than the actual ratio recorded in 2010. If 'separated/divorced' SFH and SMH net worth had grown at the same rate, then, *ceteris paribus*, the gender wealth gap in 2010 would have been 16.8% (a level 6 percentage points lower than the rate that was actually recorded).

Table 12. The 2010 GWG in alternative scenarios relating to changes in the growth of SMH and SFH net worth in different quartiles of the wealth distribution.

Counterfactual	GWG in 2010 (actual = 22.8%)
Net worth of quartile 1 SMHs grew at the same rate as that of SFHs	23.0%
Net worth of quartile 2 SMHs grew at the same rate as that of SFHs	21.0%
Net worth of quartile 3 SMHs grew at the same rate as that of SFHs	19.4%
Net worth of quartile 4 SMHs grew at the same rate as that of SFHs	15.6%

GWG: gender wealth gap; SMHs: single male households; SFHs: single female households; HILDA: Household, Income and Labour Dynamics in Australia.

Source: Authors' own calculations from the confidentialised unit record files of the 2002 and 2010 HILDA Survey.

The evolution of the gender wealth gap across the wealth distribution

The final part of our decomposition analysis explores the effect of changes in wealth gaps in different parts of the wealth distribution on the overall gender wealth gap. Using the counterfactual approach once again, the question we address in this part of the article is 'What would the gender wealth gap in 2010 have been if the average net worth of SMHs in quartiles 1 through 4 had grown at the same rate as the wealth of their counterpart SFHs between 2002 and 2010?' We use a similar approach to that used to examine the 2010 gender wealth gap in the counterfactual situations relating to age structure and household type. The results are summarised in Table 12.

The data in Table 12 show that the change in the overall gender wealth gap was most heavily influenced by the differential rate of growth in the average net worth of top quartile SMHs and SFHs. However, as noted earlier, the rate of growth in net worth favoured SMHs in all quartiles, and thus, the overall increase in the gender wealth gap was due to changes that occurred across the wealth distribution. If, between 2002 and 2010, the average net worth of top quartile SFHs and SMHs had grown at the same rate, then, *ceteris paribus*, the gender wealth gap would have been 7.2 percentage points lower than the actual ratio recorded in 2010. If the average net worth of quartile 3 SFHs had kept pace with their counterpart SMHs, then, *ceteris paribus*, the gender wealth gap in 2010 would have been 3.4 percentage points lower than the gap that was actually recorded. The impact of changes in the lower quartiles on the overall gender wage gap was less, largely as a result of the low share of total wealth held by these groups.

Cohort changes and the evolution of the gender wealth gap

It is also likely that between 2002 and 2010 the composition of SFHs and SMHs changed in ways that affected the observed levels of wealth. For instance, the more recent cohorts of mid-age and older individuals would have benefited from the compulsory superannuation guarantee, which was introduced in the early 1990s (see Parr

et al., 2007). Several compositional changes appear likely to have contributed to the observed increase in the gender wealth gap. For example, between 2002 and 2010, the proportion of highly educated individuals (as proxied by university qualifications) grew more strongly in the group of SMHs than in the SFHs (2.6 percentage points compared to 1.9 percentage points). SMHs' income-earning capacity also grew at a greater rate over this period, with their median disposable incomes rising by 25.1% compared to 19.7% among SFHs. However, some other compositional changes would have acted to reduce the gender wealth gap. For example, the proportion of individuals with children fell more strongly in the group of SFHs than in the SMHs. Thus, on balance, the effects of changes in the composition of SFHs and SMHs over the study period on the evolution of the gender wealth gap are likely to have been small.

Discussion and conclusion

This article examined how the wealth gap between SFHs and SMHs in Australia changed over the time period 2002–2010. Using data from the wealth modules of the HILDA Survey, we found that the gender wealth gap increased substantially over the study period, from 10% to 23%. The study found dramatic increases in the gender wealth gap in the group of 'younger' single households – from 16% to 89% – and 'mid-age' households (from 4% to 28%). However, the gender wealth gap fell in the 'older' group of single households (from 16% to 2.5%). The gender wealth gap increased in the group of single households comprising individuals who had never married and in those single households headed by a person who was separated or divorced. The gap increased in each of the four quartiles of the wealth distribution.

A key finding of this study is that the increase in the gender wealth gap between 2002 and 2010 was largely driven by a relatively high rate of increase in the average value of primary home assets held by SMHs. This pattern was apparent across the age groups and the different household types. Importantly, the differential rate of growth of primary home assets that favoured SMHs was not matched by the changes in primary home debt. Thus, SMHs achieved a relatively high rate of growth in their primary home assets without a matching increase in their debt.

Although, overall, SFHs recorded relatively strong growth in their superannuation and financial assets, these changes in the wealth portfolios of SFHs, starting from a low base, were not sufficient to offset the impact on the gender wealth gap of the different rates of growth in primary home assets across SFHs and SMHs. In the absence of the differential rate of growth in primary home assets across SMHs and SFHs, the gender wealth gap would have been 11.7% in 2010, rather than the 22.7% level that it actually reached.

These results are an interesting contrast to Bolin and Palsson's (2001) findings from Swedish data for 1978–1992. Bolin and Palsson found a reduction in the gender wealth gap. They linked this change to differences in the risk profile of men's and women's wealth portfolios by arguing that, due to negative developments in financial markets over the period, men's wealth deteriorated faster than women's. The context of our study is clearly different from that of Bolin and Palsson, with many

Australian households experiencing increases in their net worth over the study period. However, it does not appear that the increased gender wealth gap that was recorded in this period was due to the higher participation of SMHs in 'risky' assets such as shares. Rather, the better outcomes that SMHs achieved on primary home assets, typically thought of as a less risky asset, were the key source of the increased gender wealth gap.

The findings of this study also challenge a wider literature that tends to emphasise differences in the risk profiles of men's and women's wealth portfolios (see, for example, Bertocchi et al., 2008) and on how this may result in lower returns to wealth for women (see Schmidt and Sevak, 2006). The volatility in house prices in Australia is significantly less than that of share prices (see, for example, De Silva and Wood, 2011). Hence, the primary home is commonly perceived as a relatively low-risk investment compared to, say, shares. One would expect the primary home to therefore yield lower rates of return than shares. However, in this study, we find that, in the Australian context at least, it is differential growth rates in the value of the primary home in wealth portfolios that can impact heavily on the gender wealth gap.

The study's finding of large gender differences in the changes in value of primary home assets is perplexing but important to consider further, given their economic and policy implications. Some might argue that SFHs pursue lower-risk primary home assets than do SMHs and that this explains the changes in the gender wealth gap over the study period. Alternatively, the findings could indicate gender differences in occupations and pay and how these changed over the study period. For example, the construction sector is male-dominated and relatively well-paid. During the study period, these patterns were accentuated by an increase in the proportion of 'younger' SMHs working in the construction sector (by 10 percentage points), a decrease in the proportion of 'younger' SFHs in the sector and relatively high wage growth in the sector.⁵ As such, at least some SMHs were relatively well placed to improve their net worth.

Our findings could also indicate the barriers to home ownership faced by single parents. SFHs are much more likely to have dependent children than SMHs. In 2010, one-third of SFHs had dependent children living with them, compared to under 5% of SMHs. Hence, it would not be unsurprising to find that SFHs experience greater constraints on their housing choices than SMHs,⁶ associated with the financial cost of raising children and limitations on work hours due to childcare responsibilities.

Overall, our findings are consistent with Smith's (1990) Australian study, which finds that Australian men are able to buy higher priced houses as their opportunities for wealth accumulation are much higher. We find that SMHs are advantaged by their labour market experiences and familial status, which more likely than not excludes dependent children. Labour market policies are thus critical tools for reducing the gender wealth gap over time. These include policies that remedy the current undervaluation of work typically performed in feminised sectors and flexible workplace policies that seek to accommodate child-raising responsibilities. In addition, housing policies that address potential mortgage market discrimination and alleviate housing affordability stress can go some way towards curtailing the widening wealth gap between SMHs and SFHs, by offering greater numbers of SFHs assistance with purchasing and sustaining home ownership in areas with healthy property growth rates.

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Notes

1. Single households comprise persons who, at the time of the interview, were separated, divorced or had never been married before and were living either on their own or with their children only.
2. Defined by total disposable assets and total debts.
3. First established in 1989, the Higher Education Contribution Scheme (HECS) is the proportion of undergraduate university fees paid by a local student, the Commonwealth government paying the balance. The HECS debt can be deferred, with the Commonwealth paying the university and the student subsequently repaying the government through the tax system, once income reaches a certain level.
4. An income unit is a group of persons who share income. In contrast, a household is a group of people living in the same dwelling, and it can be made up of multiple income units. For example, a single young full-time employed adult could be still living in the same house as his parents. He would be classified as a separate income unit from his parents as he has an independent source of income, and his parents' household would be classified as a multiple income unit household. We exclude multiple income unit households from our sample on the grounds that it is not possible to identify who owns household assets in these household types.
5. Average weekly ordinary time earnings (AWOTE) increased by 66.6% in the construction sector between May 2002 and May 2010. Across all industries, wages increased by 45.3% (Australian Bureau of Statistics (ABS), 2013). In female-dominated industries, such as Health Care and Social Assistance, the average wage increased by less than 40%.
6. Wood and Ong (2011) found that sole parents are more prone to experiencing persistent housing stress than singles without dependent children.

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