Submission to the Senate Standing Committee on Economics

Inquiry into the Economic Security for Women in Retirement

November 2015

Bankwest Curtin Economics Centre

Associate Professor Rebecca Cassells

Professor Alan Duncan

Associate Professor Rachel Ong

Bankwest Curtin Economics Centre, Curtin Business School, Curtin University

Postal | GPO Box U1987, Perth WA 6845

Web | business.curtin.edu.au/bcec

Email | bcec@curtin.edu.au

Submission to the Senate Standing Committee on Economics
Inquiry into the Economic Security for Women in Retirement

1. Introduction

Women's increasing workforce participation has contributed significantly to Australia's economic growth and to women's financial independence. However, significant socio-economic disparity remains between men and women. Given accelerated rates of population ageing and the over-representation of women among the older population, the economic resources that women can access in retirement is an urgent policy issue that extends beyond fiscal concerns to influence the economic and social fabric of Australia's ageing population.

This submission brings together evidence of research conducted by members of the Bankwest Curtin Economics Centre (BCEC) around the drivers of economic security in retirement, including income and wealth differentials and the consequences of economic insecurity in retirement.

The submission covers the following all areas relevant to the inquiry's terms of reference:

i. the impact inadequate superannuation savings has on the retirement outcomes for women,
ii. the extent of the gender retirement income gap and causes of this gap, and its potential drivers including the gender pay gap and women's caring responsibilities,
iii. whether there are any structural impediments in the superannuation system [impacting on the superannuation savings gap],
iv. the adequacy of the main sources of retirement income for women, and
v. what measures would provide women with access to adequate and secure retirement incomes; including:
    A. assistance to employers to assist female employees' superannuation savings,
    B. government assistance, with reference to the success of previous schemes, and
    C. any possible reforms to current laws relating to superannuation, social security payments, paid parental leave, discrimination, or any other relevant measure.

2. Gendered differences in wealth accumulation

The most commonly deployed measure of gender economic inequality is the gender wage gap. Although this is a useful measure, the gender wage gap does not present a comprehensive picture of gender differences in economic security. In particular, the gender wage gap does not completely account for gender differences in economic security in retirement. It is generally understood that income and wealth are both related to age trajectories. Income (including wages) generally peaks in mid-life, followed by a decline in later stages of the life course. However, wealth rises with age, reflecting the period over which one has had to accumulate assets and pay off debts, before tailing off in old age when asset divestment is more common to supplement relatively low levels of income. The income and wealth trajectories are therefore very different. Arguably, from a life cycle perspective, wealth is the more important source of economic security in retirement.

In later life, when both men and women are more vulnerable to adverse life events such as ill health and bereavement, wealth can provide a buffer against biographical life shocks. In general, wealth can assist with consumption smoothing and supplement low incomes in retirement. Assets can act as collateral to secure credit, and some assets generate income in the form of rents, shares and dividends (Deere and Doss, 2006). The importance of wealth as a measure of inequality is clearly articulated by Denton and Boos (2007:106) – "beyond income, wealth is also an important measure of economic well-being, because while income captures the current state of inequality, wealth has the potential for examining accumulated and historically structured inequality."

2.1 The gender wealth gap

Currently, the available Australian evidence on differential gendered access to wealth is scarce. The first published study of the gender wealth gap in Australia by Austen, Jefferson & Ong (2014a) found that the accumulated wealth of single adult men in 2006 was, on average, 14.4% higher than that of single women. The key findings in this paper show that single women are under-represented amongst Australian households with high net worth. Hence, despite historically rising levels of female labour market participation, the rate of wealth accumulation by single women to finance retirement needs has been slower than that of single men's. As shown in Table 1, subsequent analysis by the authors revealed that the gender wealth gap among single men and women more than doubled from 10.4% to 22.8% between 2002 and 2010 (Austen, Ong et al. 2014b).

The factors contributing to the gender wealth gap extend beyond commonly identified labour market differences between men and women (e.g. lower rates of labour force participation and lower wage rates). Indeed, the negative impacts of single parenthood are particularly severe for

women, and additional barriers to wealth accumulation exist for women from culturally and linguistically diverse backgrounds and those living in rural areas (Austen, Jefferson & Ong 2014a).

Table 1: Real[a] asset and debt values of single adult Australian households, by household type, 2002-2010, $'000

Asset/debt	2002		2006		2010	
	SFH[b]	SMH[c]	SFH[b]	SMH[c]	SFH[b]	SMH[c]
Mean Total Assets	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	175.6	193.9	210.5	239.6	206.1	253.0
Gender wealth gap (measured at mean values)	10.4%		13.8%		22.8%	

Notes: a. Real values have been calculated by deflating the mean values of assets and debt by using CPI taking 2002 as the base year. b. SFH = single female households. c. SMH = single male households.
Source: Estimates from the HILDA Survey, extracted from table 1 of Austen et al. (2014b)

2.2 Gender differences in asset composition

Apart from the size of the gender wealth gap, differences in the composition of men and women's asset portfolios can also affect their economic security differentially in retirement. As Table 2 shows, the asset and debt portfolio of single older men mirror that of partnered older persons. However, single older women stand out as a visibly vulnerable group. Over 60% of their total assets, and 74% of their total debt, are tied up in the primary home. Hence, single older women's asset portfolios feature lower levels of diversity than single men, with strong reliance on the family home and lower levels of access to superannuation and liquid assets than older men (Ong et al. 2013a).

These patterns are expected when a woman's labour market participation during working lives is more likely to be interrupted by child-bearing and care responsibilities. Post-divorce settlements are also more likely to leave housing wealth with the woman while men are more likely to a greater share of the couple's superannuation. Hence, women are much more exposed to risks associated with reliance on housing assets in retirement than men.

Table 2: Composition of asset and debt of older Australians aged 45+ years, by gender and relationship status, 2010, per cent by column

	Single women	Single men	Partnered persons
Asset			
Primary home	62.2	49.5	43.9
Other property	11.0	12.0	16.2
Superannuation	12.4	18.8	21.3
Business	0.0	0.0	3.5
Savings and investments	12.6	16.4	12.3
Other	1.9	3.2	2.8
Total	100.0	100.0	100.0
Debt			
Primary home	74.1	64.0	61.8
Other property	21.3	28.2	30.9
Business	0.1	3.9	5.5
Credit card	2.9	2.9	1.4
Other	1.6	0.9	0.4
Total	100.0	100.0	100.0

Source: Estimates from the HILDA Survey, extracted from table 8 of Ong et al. (2013a)

2.3 The role of housing assets in retirement

Given the prominent role of housing in the asset portfolios of both older men and women, but particularly older women, it is likely that housing assets will feature prominently in older women and men's retirement income plans. The policy assumption has typically been that older, low-income outright owners will have negligible housing costs because they are no longer paying off mortgages, and can therefore get by on smaller pensions (Ong et al. 2013a). Furthermore, following deregulation of financial markets in the 1980s, a range of new mortgage products have transformed housing wealth from an illiquid asset into a liquid resource that home owners can dip into to meet spending needs when required (Ong et al. 2013c). The tendencies towards drawing down on housing wealth to release equity through flexible mortgage products have been more evident in countries such as Australia and the UK than other developed countries (Haffner, Ong & Wood 2015).

Table 3 below shows the gender distribution across three styles of housing equity withdrawal among those aged 45+ years. In situ mortgage equity withdrawal is an increasingly common wealth management tactic, which allows home owners to release housing equity without moving by adding to their mortgage debt. Downsizing allows owner-occupiers to release their housing equity by selling their home and purchasing a lower valued home to move into. Selling up results in a move into the

rental tenure. The table shows clearly that housing equity withdrawal styles differ with respect to gender among home owners aged 45+ years. Downsizing and selling up are more likely to be options taken up by older women than men. While not presented here, research by Ong et al. (2013b) also show downsizing and selling also appear to be 'last resort' options taken up by those experiencing adverse life events such as marital breakdown, bereavement and ill health. These findings are supported by Wood and Nygaard (2010), who show that single female households are more likely than other demographic groups to expect to downsize or sell up in retirement in order to help fund retirement spending. This suggests that there is a potentially important role for housing or asset based welfare in retirement.

Table 3: Gender distribution of older home owners aged 45+ years, by housing equity withdrawal mechanism, 2001-10, per cent by row

Housing equity withdrawal mechanism	45-64 years		65+ years	
	Women	Men	Women	Men
In situ mortgage equity withdrawal	48.6	51.4	45.9	54.1
Downsizing	55.2	44.8	57.5	42.5
Sell up	52.7	47.3	56.3	43.7
No housing equity withdrawal	53.3	46.7	54.0	46.0

Source: Estimates from the HILDA Survey, extracted from table 6 of Ong et al. (2013b)

2.4 Gendered differences in superannuation coverage and wealth

Together with the Aged pension and voluntary private savings, superannuation makes up the three pillars of Australia's retirement income system. Since its introduction in 1992, the importance of private retirement savings in the form superannuation has increased as Australia's population ages. There is a great expectation for superannuation to reduce the burden of future welfare expenditure, as younger generations move through life accumulating enough assets to see them source a comfortable income stream through these private savings.

However, a number of inadequacies and inequities exist within the current superannuation system that are likely to destabilise the overall objective of the Super Guarantee. The first is that Australia's private retirement system does not follow international best practice as laid out by the OECD, which recommends taxing superannuation on withdrawal of funds, rather than on contribution as an optimum and more equitable strategy (OECD 2004). While retirement savings have improved, the likelihood of these savings being used to sustain adequate living standards in retirement remain under a cloud (Cassells, Duncan, Kelly & Ong 2015a). The tax concessions available through

superannuation make it attractive to contribute but the option of taking superannuation as a lump sum and the ability to invest in residential real estate (through a Self-Managed Superannuation Fund) mean many see it as a tax effective way to invest in housing or to gift a home deposit to a young relative. This is inconsistent with the original intention of the policy, with tax concessions received supposedly improving living standards in retirement and reducing reliance on the government.

Secondly, the Super Guarantee was implemented at a time where home ownership was likely for most people and would contribute to the standard of living one was able to access in retirement[1]. Home ownership is becoming less achievable for younger generations, with housing affordability and accessibility at a record low in many areas throughout Australia (Cassells & Duncan et al. 2014b). The implications of not owning a home outright upon retirement are many, including the use of the lump sum to either pay –out or purchase a home, leaving less or no superannuation from which to draw an income stream from in retirement.

Further, household behaviour shows that retirees are taking a growing level of debt into retirement. Using the equity in their home as an ATM is becoming easier and, for most households, provides a flexible option to manage household finances over the life cycle (Cassells, Duncan, Kelly and Ong 2015a). The comfort in so doing is reinforced for those with a large superannuation lump sum coming in the future. However, there are risks that such flexibilities may reduce the level of financial security or independence for some. A number of reviews have suggested that superannuation should only be available for use in its primary purpose – providing an income in retirement – and there is a case to review how the lump sum policy is impacting on levels of retirement savings. As superannuation is accumulated at an individual level and reflects the level of wages and salary as well as current and future financial wellbeing, it is important to understand super accumulation for individual groups. Women are more likely to earn less over their lifetime than men, often in less well remunerated or more highly casualised occupations (Cassells 2009a). This leads to reduced accumulation of private retirement savings and lower economic security in later life.

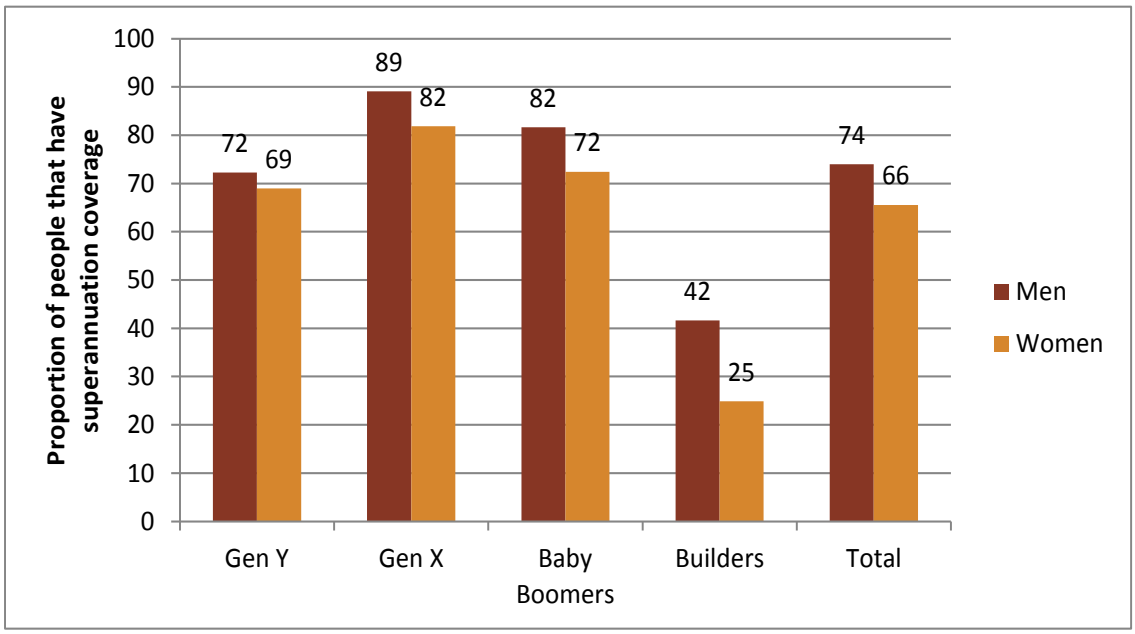
2.4.1 Superannuation coverage

Superannuation coverage has been increasing for both men and women over time, however, gender gaps are still evident and concerning, particularly for younger generations. Women are less likely to have coverage by the Superannuation Guarantee than men across all generations (**Figure 1**). Overall, around three-quarters of men have some form of superannuation, compared to only two-

[1] This is reflected in a number of retirement living standards, including the ASFA retirement standards

thirds of women. The biggest gap is observed for the older generation – with 42% of men having some super, compared to only one-quarter of women. Generation X (those currently in their 30s to 40s) have the highest coverage rates, however a gap between men and women still exists.

Figure 1: Coverage of Superannuation Guarantee, by generation and sex, per cent



Source: Cassells estimates from 2011-12 Survey of Income and Housing Unit Record Data.

Lower coverage for women compared to men is driven by a number of factors including generational and behavioural elements. Women from older generations did not have the opportunities to be in paid employed at the same rates as younger generations and spent less of their working life under the compulsory superannuation guarantee. On the other hand, younger generations of women are more likely to delay entry to jobs that will see them begin to accumulate superannuation. Instead young women are more likely to pursue higher education, with around 80,000 more women than men enrolled in a Bachelor degree (Cassells 2009a). Another factor that is likely to impact negatively upon lower coverage rates for women is the $450 monthly threshold that has remained unchanged since the SGs introduction in 1992. Anecdotal evidence suggests that employer behaviour will seek to avoid the SG payment through minimising employee work hours, particularly where an employee is working two or more jobs across related employers.

Gender gaps in superannuation coverage and balances can have a pronounced spatial dimension (Cassells, Duncan & Gao 2014a). It is important to consider these spatial dimensions for a number of reasons, including understanding where inequality and deprivation exists both now and in the

future, the potential for policy targeting and efficient service allocation (Vidyattama & Cassells et al. 2011).

Greater gender gaps in SG coverage are evident throughout Australia's capital cities and state balances (**Table 4**). Sydney is ranked first in terms of the superannuation coverage gender gap, where 73.8 per cent of men own some superannuation, compared to 63.2 per cent of women. Melbourne has the second highest gap – a 10 percentage point differential, followed by the balance of Victoria and NSW.

Table 4: Gender gap – superannuation ownership, by capital city and balance of state, 2011-12, per cent

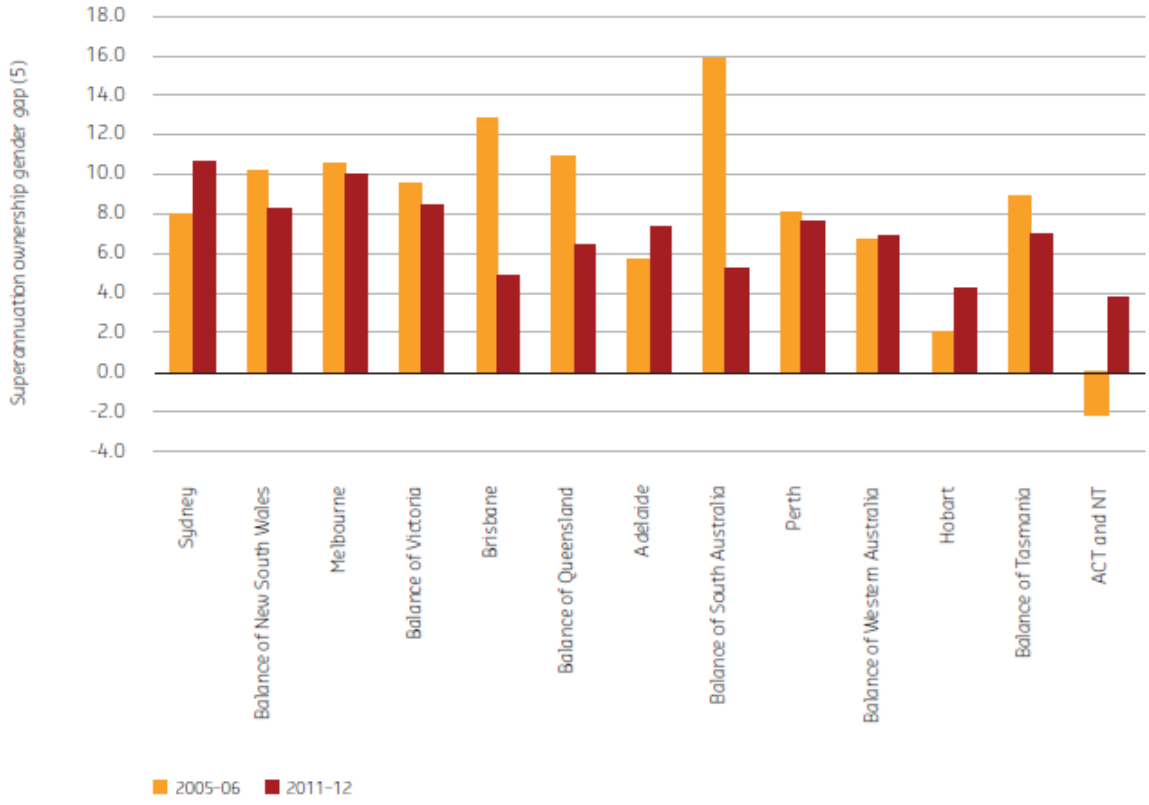
Area	Men	Women	% point difference	% point rank 2011-12
Sydney	73.8	63.2	10.7	1
Melbourne	78.5	68.5	10.0	2
Balance of Victoria	72.5	64.0	8.5	3
Balance of New South Wales	71.3	63.1	8.2	4
Perth	77.4	69.7	7.7	5
Adelaide	76.0	68.6	7.4	6
Balance of Tasmania	70.3	63.3	7.0	7
Balance of Western Australia	76.4	69.6	6.9	8
Balance of Queensland	69.1	62.5	6.5	9
Balance of South Australia	72.7	67.5	5.2	10
Brisbane	78.6	73.7	5.0	11
Hobart	75.7	71.5	4.3	12
ACT and NT	80.1	76.3	3.8	13
Australia	74.8	67.8	7.0	

Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Survey of Income and Housing, see Cassells et al 2014a.

Changes in the gender gap of superannuation ownership between 2005-06 and 2011-12 throughout capital cities and the balance of Australian states demonstrate an overall improvement in a relatively short period of time (**Figure 2**). The gender gap in superannuation ownership across this period has closed throughout the majority of states and territories, with the exception of Sydney, Adelaide and the ACT/NT (which started out with a gap in favour of women). Brisbane and the state balances of Queensland and South Australia have seen the biggest improvements, with the gender gap in the balance of South Australia decreasing from 16 to 5.2 per cent. Sydney currently fares the worst, with a gap of more than 10 percentage points between men and women in superannuation ownership – up two percentage points since 2005–05. Perth is ranked fifth, with an ownership gap just under

eight percentage points, and has seen little movement in the period. The balance of Western Australia is ranked eighth – with around a seven percentage point gap.

Figure 2: Gender gap – superannuation ownership by capital city and balance of state, 2005-06 and 2011-12, per cent



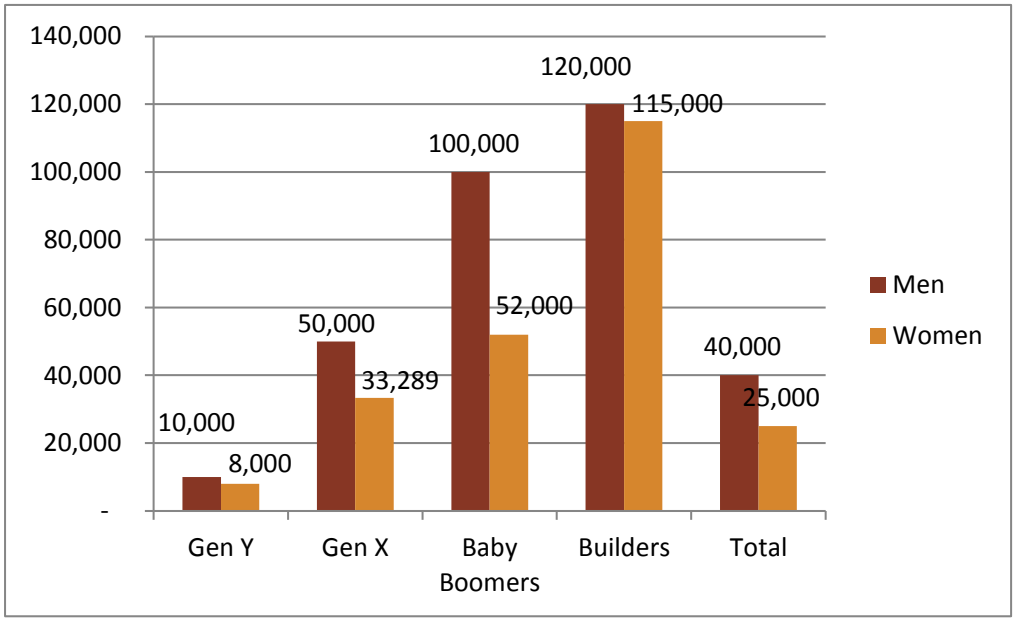
Notes: All dollars in 2011-12. Values are for those with positive superannuation balances.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Survey of Income and Housing, see Cassells, Duncan & Gao 2014a.

2.4.2 Superannuation balances

Taking into account the differences that exist in terms of ownership of superannuation, we can see that gender gaps are prevalent in terms of the value of superannuation held. These differences are most pronounced for the Baby Boomer generation, where the median superannuation holding is $52,000 among women with positive super balances, whereas men from this generation have almost double the amount - $100,000. When observing the median difference in superannuation balances amongst those who record a positive balance shows something close to parity between men and women in the Builders generation. However the real discrepancy here is in the proportion of Builders who hold positive super balances (see **Figure 1**). Our youngest generation has the second smallest gender superannuation gap, however, women still hold 20 per cent less super than men on

average. Generation X women that have super, hold on average two-thirds of the median balance of men from the same cohort.

Figure 3: Gender superannuation gap (median) by generation and sex



Note: Calculations are for those persons that hold superannuation.
Source: Cassells estimates from 2011-12 Survey of Income and Housing Unit Record Data.

As well as a gender gap in superannuation ownership, the gap in superannuation balances between men and women is considerably higher in some areas than others throughout Australia. **Table 5** shows a mixed pattern of gender superannuation gaps between men and women in regional areas across Australia. The balance of Western Australia has the second-highest median gap of $25,000 in 2011–12, whereas the gender gaps in regional NSW (at $15,127) and regional South Australia (at $13,800) are among the lowest. Median superannuation balances in Perth are more even than in the rest of Western Australia, with WA men holding $18,598 more in superannuation than women. However, one concern worth highlighting is the trend in the state's capital: over the eight years to 2011–12, the gender superannuation gap in Perth has deteriorated the most across all major cities and regional areas of Australia – with the gap in median balances between men and women widening by $7,620, or 69 per cent in real terms. Conversely, the gap in median balances in Hobart, South Australia, Tasmania and the balance of NSW has reduced over the same period.

Table 5: Gender superannuation gap (median), capital city and balance of state, 2005-06 and 2011-12

	Median gender superannuation gap in 2011 $s		Increase from 2005–06 to 2011–12		Rankings by state/ territory and region		
City or state/ territory region	2005–06	2011–12	$ change	% change	2005–06	2011–12	% change
Hobart	31,919	28,000	-3,919	-12%	1	1	11
Balance of Western Australia	18,683	25,000	+6,317	+34%	8	2	3
ACT and NT	20,453	23,000	+2,547	+12%	4	3	6
Balance of Victoria	20,403	22,511	+2,108	+10%	5	4	7
Balance of Queensland	14,955	22,000	+7,045	+47%	10	5	2
Melbourne	15,601	20,460	+4,859	+31%	9	6	4
Balance of Tasmania	20,825	20,000	-825	-4%	3	7	9
Adelaide	20,831	19,645	-1,186	-6%	2	8	10
Perth	10,978	18,598	+7,620	+69%	13	9	1
Sydney	14,875	17,042	+2,167	+15%	11	10	5
Balance of New South Wales	19,457	15,127	-4,330	-22%	7	11	12
Brisbane	14,280	14,149	-131	-1%	12	12	8
Balance of South Australia	20,174	13,800	-6,374	-32%	6	13	13
AUSTRALIA							

Notes: All dollars in 2011-12. Values are for those with positive superannuation balances.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Survey of Income and Housing, see Cassells, Duncan & Gao 2014a.

3. Drivers of retirement income gaps

The economic security and standard of living an individual is able to discern in retirement is largely driven by the income and wealth they are able to accumulate over their paid working lives. Historically, women have not been able to access similar levels of pay, education, employment and wealth when compared with men. This has been largely driven by social constraints and expectations along with outdated systems and both overt and unconscious discrimination.

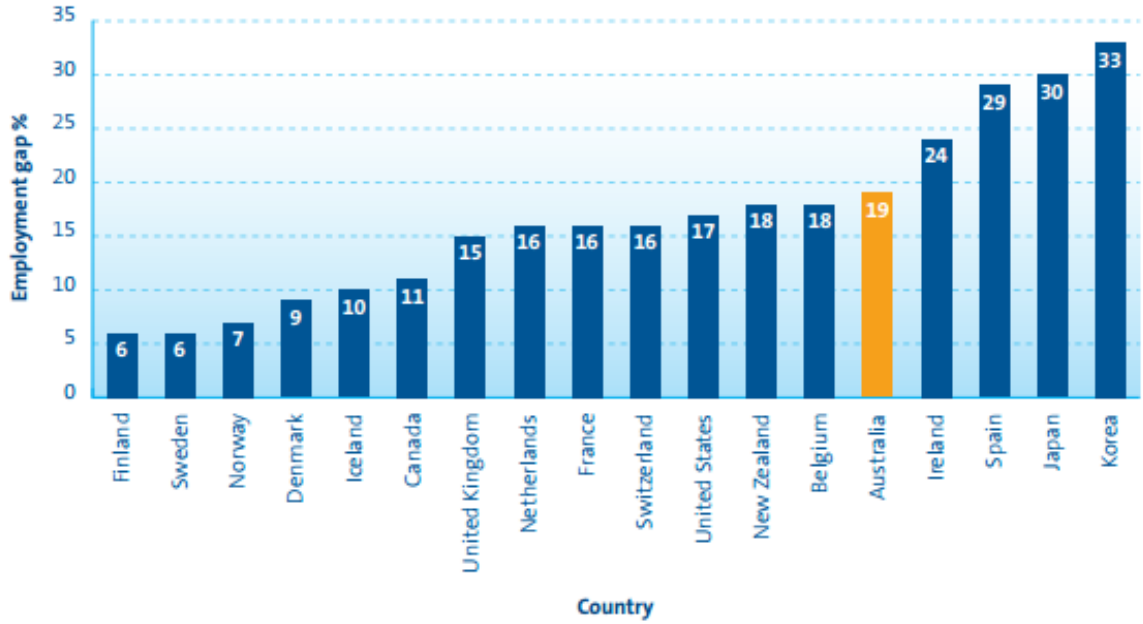
Over the past few decades, women have gained substantial ground in areas of education, income and wealth accumulation, however, there is substantial ground to be made up. Large gaps still remain between women and men in both paid and unpaid work, and areas of wealth, income and superannuation (Cassells et al 2009). These gaps, together with structural impediments in private retirement systems work together to drive income gaps in retirement and jeopardise the economic security that women are able to access.

3.1 Gender employment gap

While participation in the paid labour force has increased substantially over the past 30-40 years, significant gender gaps in employment remain a feature of the Australian labour market. These gaps can impact upon current and lifetime earnings and wealth accumulation and consequently the economic security of women in retirement. Gaps stem from the way in which women participate in the labour force, including whether they are engaged in full, part-time or casual employment; the type of occupations they work in; and time taken out of the paid workforce to care for children and others.

Gender employment gaps for selected OECD countries (where men and women have similar tertiary education levels to Australia) reveal that Australian women's employment rate is around 19 per cent lower than that of Australian men (Cassells 2009a). The employment gap in these OECD countries ranges between 6 and 33 per cent. The smallest gap is recorded for Finland, while the highest employment gap is in Korea.

Figure 4: Gender employment gap – selected OECD countries, per cent

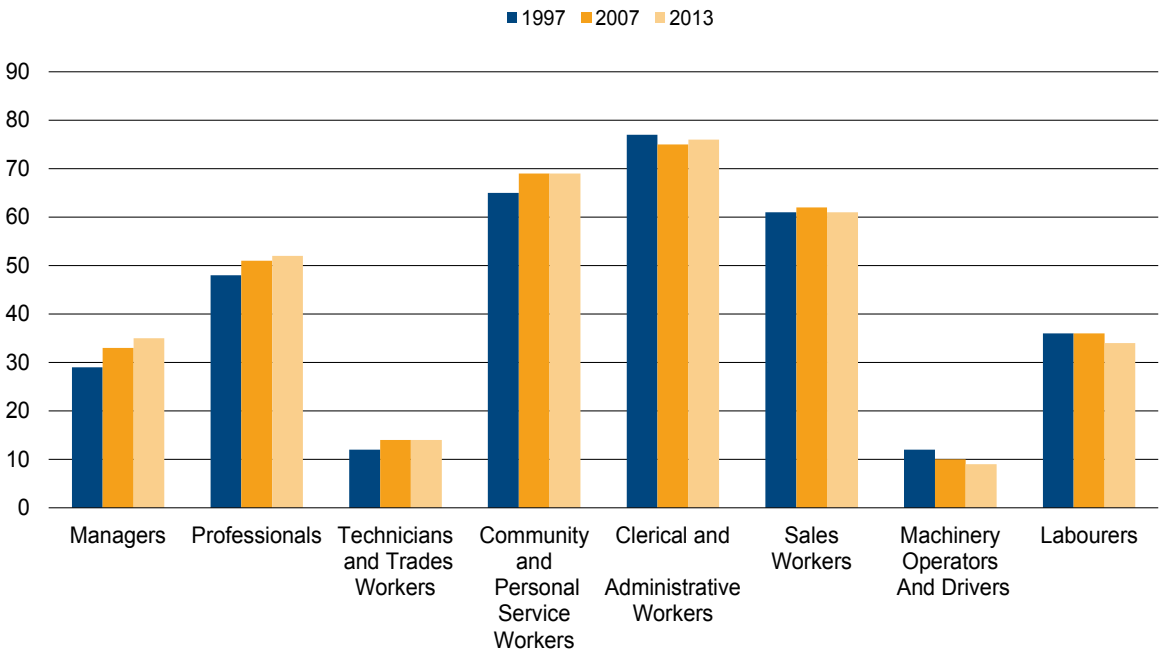


Source: Cassells et al. 2009

When engaged in paid work, women are also more likely to work part-time in order to care for children, an option that many Australian women wish to pursue. Women are over-represented in part-time work, currently holding around 70 per cent of all part-time positions (Cassells 2009a).

Men and women are often employed in different types of jobs. Labour market segregation can contribute to the gender earnings gap if women are segregated into a few low-paying jobs and if female dominated occupations and industries are valued less. Occupation and industry gender segregation are a permanent feature of the Australian labour market, and are likely to play a significant role in determining the level of economic security women have access to in retirement. Women are more likely to work in lower paid occupations, particularly as community and personal service workers, clerical and administrative workers and sales workers (**Figure 5**). Workers in these occupations typically have less access to over-time and bonuses. Women are also less represented in higher paying managerial roles.

Figure 5: Occupational segregation, 1997-2013, per cent



Source: BANKWEST CURTIN ECONOMICS CENTRE | AUSTRALIAN BUREAU OF STATISTICS Cat No 6291.0.55.003.

3.2 Unpaid work and care

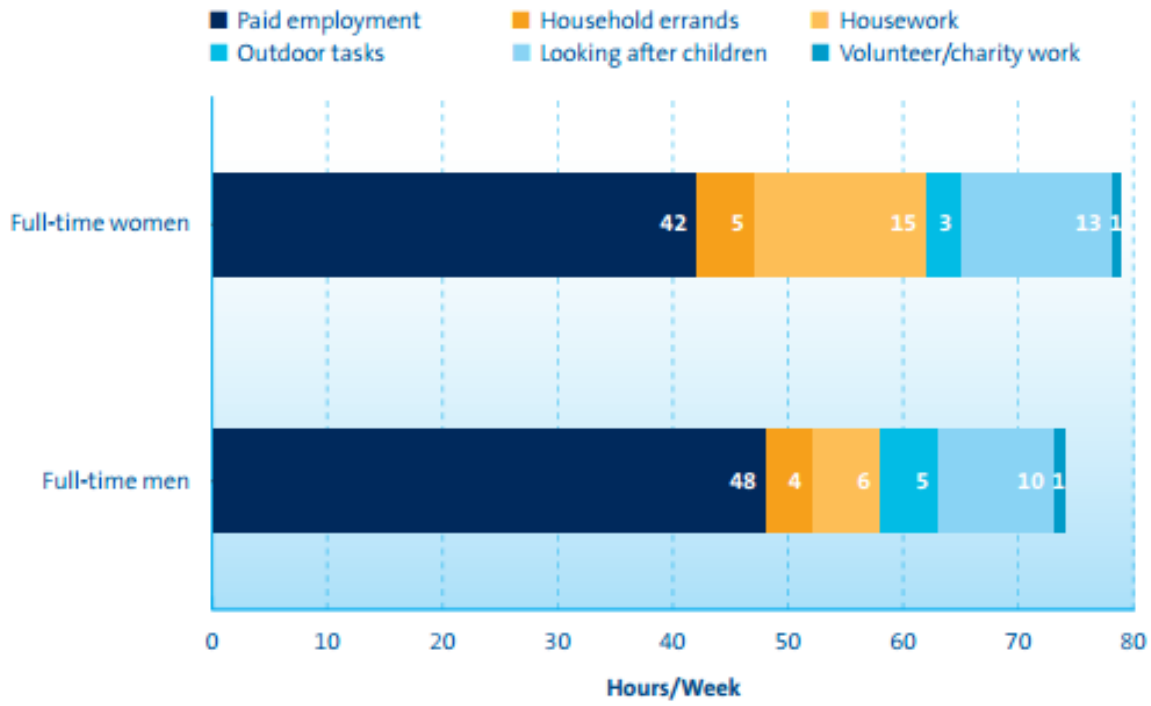
The value of unpaid work and care is not always taken into account in policy responses to issues such as retirement income gaps and labour force participation for minority groups including single parents. In 1997, the Australian Bureau of Statistics estimated the value of unpaid work at $261 billion. However, other benefits of unpaid work and caring activities are not always recognised or monetised. Unpaid caring activities in particular can have economic and social benefits well beyond

those conceptualised in the ABS estimates. These include the value of social capital and child-parent relationships.

Women's presence in the labour force has increased considerably over time, and during the past 30 years, women's labour force participation rate has escalated from 45.7 per cent in 1985 to 59.1 per cent in 2015. Labour force participation of women with dependant and young children has also been on the rise. However, this shift towards increasing paid work for women has not been met with an equivalent decrease in unpaid work.

Women with dependent children and working full-time may work fewer hours in paid work on average per week than full-time men with dependants, but they are still doing the lion's share of the child rearing and housework (Cassells 2009a). Women employed full-time with dependent children spend on average 78 hours per week in paid and unpaid work, while fulltime men spend on average 74 hours per week (**Figure 6**). The gender division in paid and unpaid work is even more pronounced for part-time workers, with part-time women averaging around 74 hours per week, and part-time men only managing 58 hours (Cassells 2009a).

Figure 6: Average hours spent per week on selected activities, men and women full-time workers with dependent children

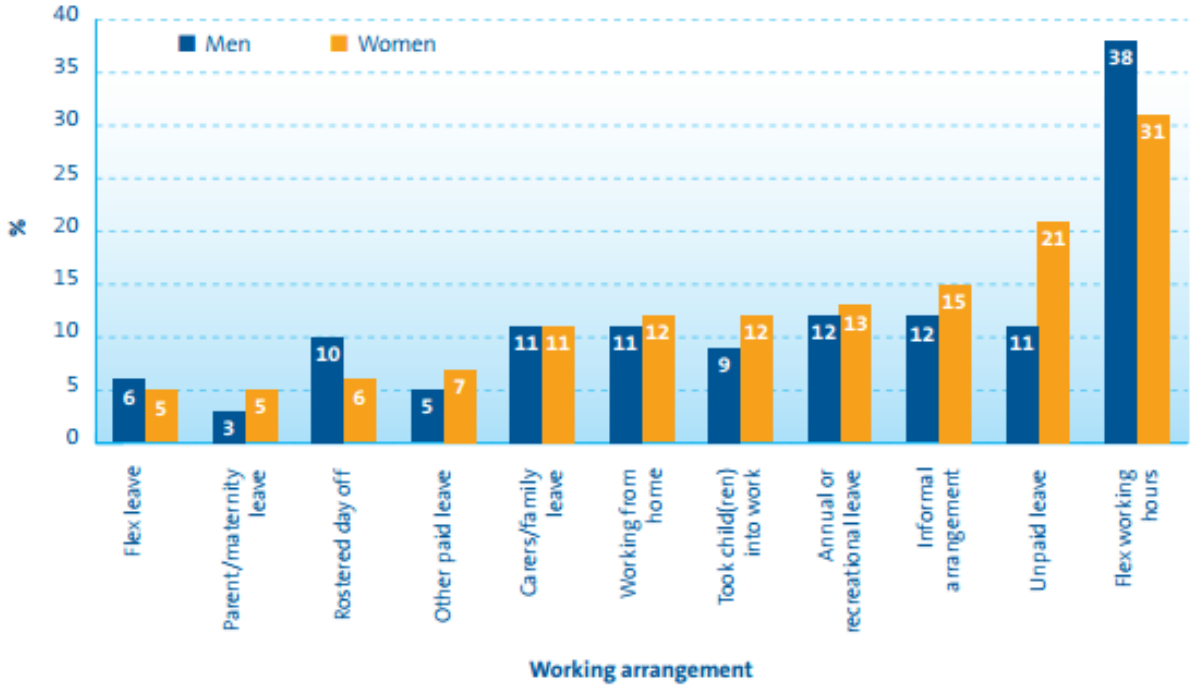


Source: Cassells 2009a

As life becomes more demanding for men and women, the pressure to combine work and a family's caring needs can be intense. Today an assortment of working arrangements are used in order to meet the demands placed upon them. The working arrangements of employed persons with dependant children who provide care to someone demonstrate.

Flexibility in the workplace is crucial to allow both men and women to balance work and family needs, whilst somewhat outdated due to the decommissioning of this survey, flexible working hours were one of the most predominant working arrangement for parents (**Figure 7**).

Figure 7: Working arrangements used by parents in order to care for someone, per cent



Source: Cassells 2009a

Flexible working hours are the most common working arrangement used by both women and men with dependent children, to care for someone - 31 and 38 per cent respectively. Flexible working hours are likely to be the most common work arrangement used by men to care for children as they are more likely to be engaged in full-time work, making these arrangements more accessible. However, women who are more likely to be working part-time, are likely to have less access to these flexible arrangements, as often part-time work has fixed hours that cannot be renegotiated.

Of concern is that for women with children, unpaid leave ranks as the second most frequent working arrangement used to care for others. Over one-fifth of employed women engaged in this arrangement, compared with only 11 per cent of men. The high proportion of women taking unpaid

leave to provide care indicates that women are more likely to sacrifice wages to meet a family's caring needs. This has a number of implications.

3.3 Gender pay gaps

Persistent gender wage gaps have been shown to negatively affect economic growth through disincentivising labour force participation (Cassells et al. 2009b; KPMG 2009). Gender wage gaps also manifest themselves in other ways, restricting the accumulation of wealth in the form of property and superannuation, and increasing the reliance on government assistance over the life-course.
The persistence of the full-time gender wage gap is surprising given the advancements women have made in education, particularly younger generations.

Despite major advances for women in educational attainment and workforce participation, the full-time gender pay gap has remained relatively constant over the last two decades and currently sits at 18 per cent. That is, women earn on average only 82 per cent of a man's wage and would have to work an additional 65 days each year to earn the same as a man (WGEA 2015).

How much a person is paid for the work they do is determined by a number of characteristics related to both the labour market, the firm and the individual. The way in which people work such as their weekly hours, the type of occupation and industry they work in and the amount of overtime they do, will influence the pay they receive. Human capital characteristics that individuals have acquired including their level of education and relative experience will also play a key role in the wage individuals command. Other factors can also play a role including the location of where a person works; individual motivation and how a firm sets pay internally. Many of these factors that influence wages are considered to be somewhat defensible in explaining differences observed between the pay of workers when compared with others – also known as "explained characteristics". However, once accounting for these factors there is more often than not a component that cannot be explained by understandable mechanisms. In Australia, a number of studies have found that there exists a considerable component of the gender pay gap that cannot be explained, particularly in higher paid occupations (see for example Cassells et al. 2014c, Cassells et al. 2009a, Chzhen 2013, Watson 2010, Kee 2006 and Miller 2005).

To determine the drivers of the wage gap a decomposition technique is required to separate the wage gap into factors that are related to human capital endowment and labour market characteristics – the explained component of the wage gap, and a component that cannot be explained by observable characteristics (unexplained). In a recent Bankwest Curtin Economics

Centre report we sought to do this for both Australia and Western Australia (Cassells et al. 2014 c). A summary of the decomposition findings, suggest that the wage gap resulting from gender differences in observable characteristics is larger in WA compared to Australia (. That is, more of the gender wage gap in WA can be explained – 58.4%, compared with 36.4% for Australia. There still remains a substantial proportion of the gender wage gap that cannot be explained by observable characteristics in WA – 41.6%. However, this is much lower than the Australian average of 63.6%. In particular, we find that gender differences in the years spent in paid employment explain 15% of the gap in Australia and 35% of the gap in WA. Similarly, gender differences in the years spent in an occupation explain 3% of the gap in Australia and 9% of the gap in WA.

Figure 8: Decomposing the gender earnings gap, per cent

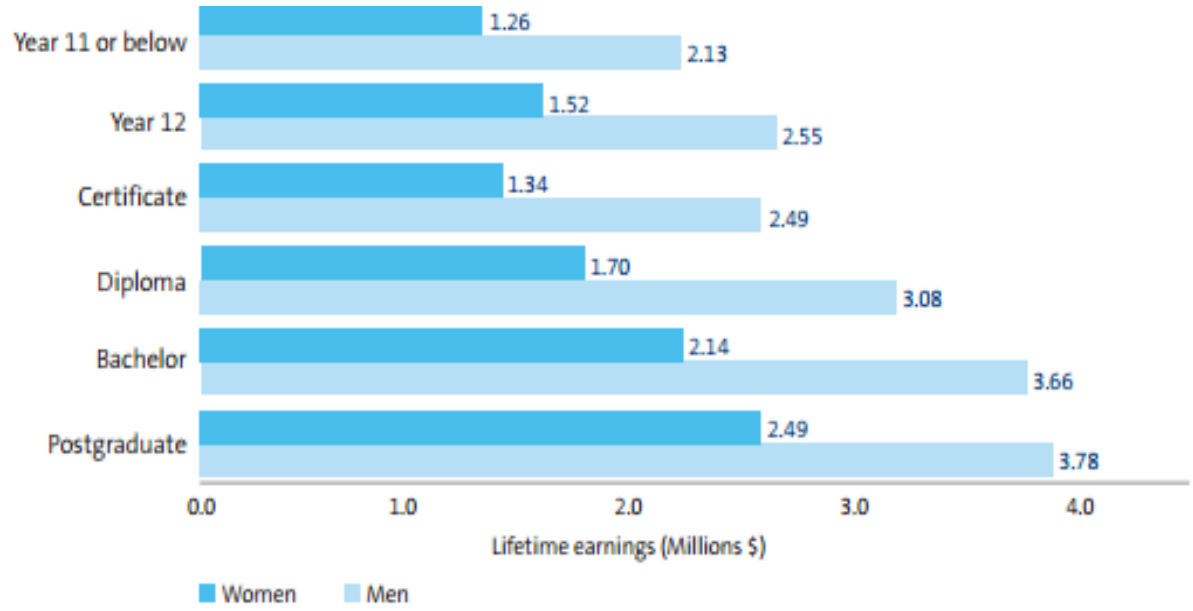
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on HILDA, see Cassells et al 2014c.

3.4 Gender gap in expected lifetime earnings

While level of education is an important factor in a person's lifetime earnings prospects, men and women tend to have different outcomes. Employment and earnings patterns of women are often disrupted through childbirth, childcare and other caring responsibilities, and women are more likely to work part rather than full-time (Cassells 2012). Further, as demonstrated above, gender pay gaps driven by both explained and unexplained elements exist across the labour market, resulting in women earning less than men on average across their working lives. These differences are eventually reflected in lifetime earnings prospects.

While it is true that the higher the educational achievement, the better the prospect of lifetime earnings, this is compromised by gender (**Figure 9**). In general, the gender gap in prospective lifetime earnings is pervasive across all educational groups. If the current age patterns of earnings prevail into the future, a postgraduate woman aged 25 years can expect to earn $2.49 million, just two-thirds of her male counterpart's lifetime earnings ($3.78 million). More striking is the fact that women with post-graduate qualifications would earn only as much on average over their lifetime as men with a certificate or Year 12.

Figure 9: Gender gap in lifetime earnings, million dollars



Notes: Values are in 2011–12 dollars. Lifetime earnings estimates are derived from all employees, including those working part-time. Some fields of study have not been shown due to small sample sizes.
Source: Cassells et al. 2012

4. Older women's workforce vulnerabilities

4.1 Gendered ageism in labour markets

Decomposing markers of insecure labour market attachment by age and gender can provide us with an indication of the workforce vulnerabilities that women face through their life-course. Li, Duncan and Miranti (2015) looked at one particular marker – that of *underemployment* – to see whether labour market vulnerabilities are more pronounced by women as they age. Previous literature on this topic established associations between underemployment and job insecurity, increased casualization and lower savings. From a macroeconomic standpoint, underemployment also signals the inefficient use of high labour skills among women who would like to give more to the labour market but are prevented from so doing through barriers to increases in participation.

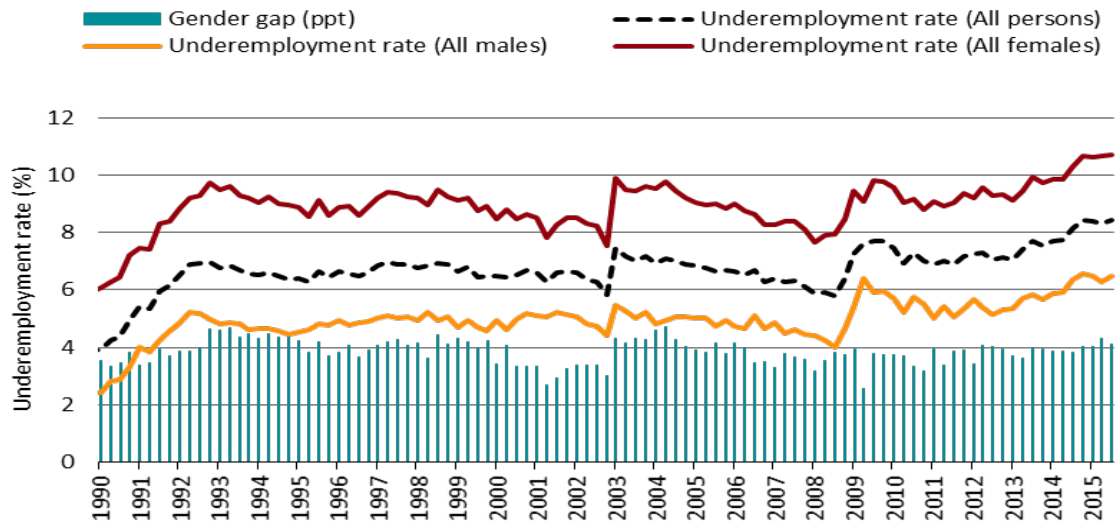
The International Labour Organization (ILO) definition of (time-related) underemployment relates to a deficiency in the number of hours worked (ILO, 1998; Hussmanns, 2007), and specifically, a labour market situation where a worker is:

1. willing to work additional hours during a reference period; and
2. available to work additional hours within a specified subsequent period; yet
3. worked fewer hours than a *working time threshold*, based on 'national circumstances'.

The Australian Bureau of Statistics (ABS) publish underemployment statistics using the ILO definition, with underemployment defined according to a threshold of 35 hours in the reference week to differentiate between full-time and part-time work.

Two important trends in underemployment in Australia are apparent from ABS data. The first is that underemployment varies substantially by gender. Figure 10 shows a comparison of underemployment rates for men and women in Australia over the last 25 years from 1990 to 2015 (ABS 2015). The principle finding - shown also in Li, Duncan and Miranti (2015) - is that the underemployment rate is systematically higher for women than for men. Recent trends show a reversal of the post-GFC decline in underemployment, with rates now the highest for 25 years. The most recent figures for the August 2015 quarter show an underemployment of 10.8 per cent for women, compared with 6.6 per cent for men – a gender gap in underemployment of some 4.2 percentage points.

Figure 10: Trends in underemployment by gender: 1990 to 2015

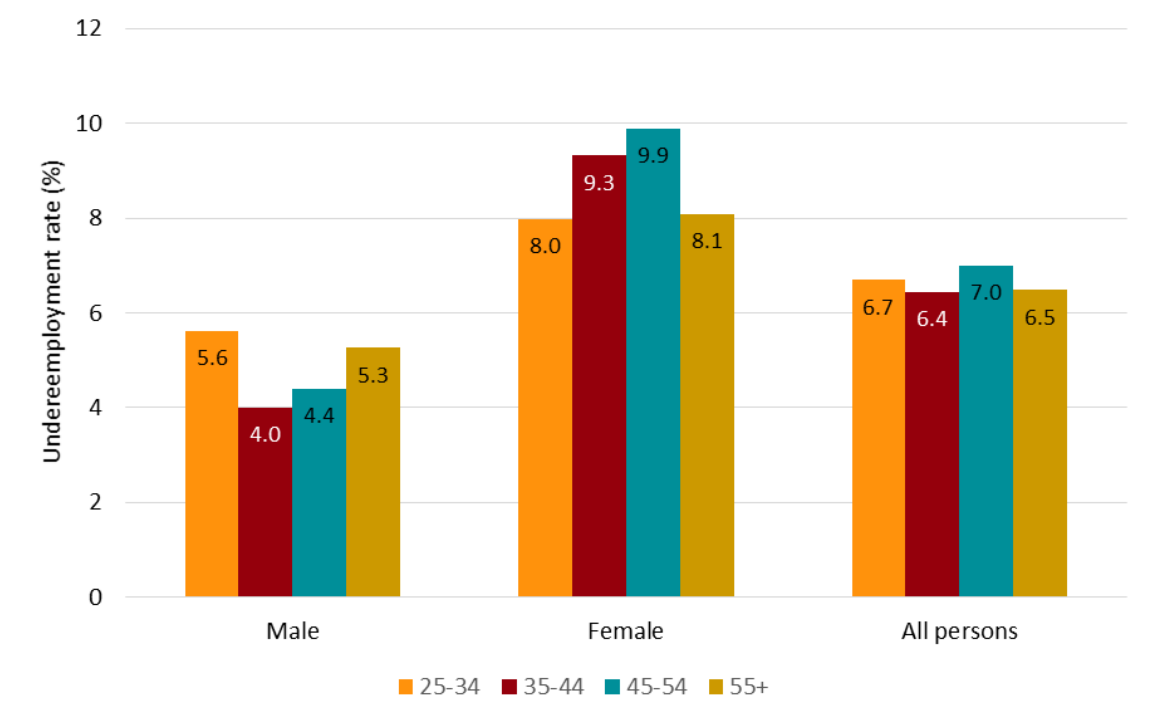


Notes: Trends are presented using the quarterly, seasonally-adjusted underemployment rate (ie. underemployment expressed as a percentage of the labour force).
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Cat. No. 6202.0. Figures have been updated from those provided in Li, Duncan and Miranti (2015).

Underemployment rates vary by age, but differently for men and women. Around one in five women between 15 and 24 state themselves to be underemployed according to the ILO definition compared with 15 per cent of young men, although reliable data for this age band tends to be complicated by a significant group who combine work with education.

Figure 11 shows the relationship between underemployment and gender among those in the 25+ age band. Underemployment rates rise consistently with age for women, to a rate of 9.9 per cent for those age 45 to 54. The rate declines to 8.1 per cent among women in the older age band of 55 and over. This compares with far lower rates for men – at 4.4 per cent for those aged 45 to 54, for example, the rate for men is less than half that for women.

Figure 11: Average underemployment rates by age and gender: 2015



Notes: Underemployment rates are averages for 2015, using seasonally-adjusted quarterly data for the number of underemployed as a percentage of the labour force.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Cat. No. 6202.0. Figures have been updated from those provided in Li, Duncan and Miranti (2015).

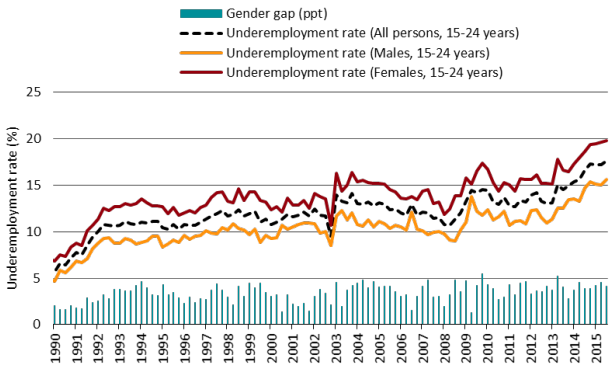
We are also able to see from **Figure 12** that rates of underemployment among women aged 45 to 54 (panel iv.) have increased significantly over the last year to August 2015. Underemployment is now almost twice as prevalent for women as it is for men in this older age cohort. There has been a general rise in underemployment for the youngest 15 to 24 year old age cohort, but the gender gap is narrower and patterns of change over time are mirrored for men and women.

Li, Duncan and Miranti (2015) show the risks that high underemployment rates pose to future labour market attachment and economic security. Specifically, they find significant 'path dependency' in underemployment – which means that previous or current underemployment increase the chances of further periods of underemployment into the future. This raises obvious concerns regarding the economic security of women.

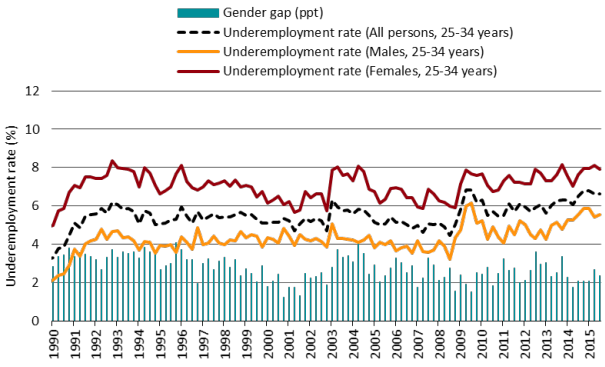
Although underemployment is not as potentially detrimental to workers as unemployment, it can nevertheless have long-term consequences for career progression, earnings potential and the accumulation of retirement income. If underemployment begets further periods of underemployment, then this will amplify the adverse or disadvantageous economic outcomes - superannuation balances, savings, wage and career progression - that women face from inferior labour market opportunities compared with men.

Figure 12: Trends in underemployment by age and gender, 1990 to 2015

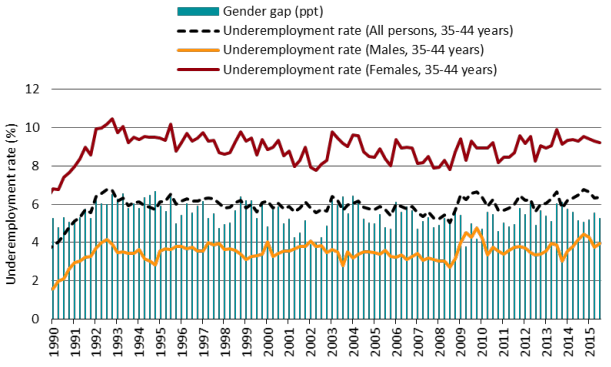
(i) 15-24 years



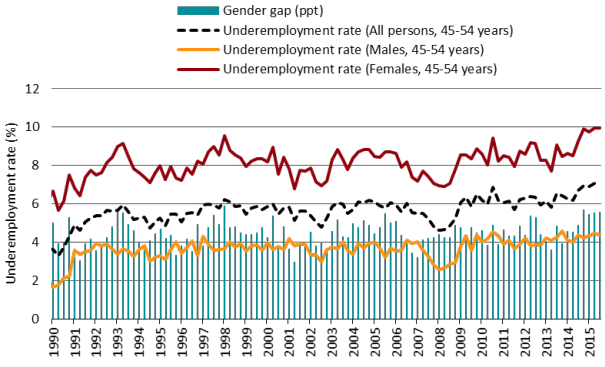
(ii) 25-34 years



(iii) 35-44 years



(iv) 45-54 years



Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations based on ABS Cat. No. 6202.0.

5. Older women and poverty

This section summarises some of the key findings from recent research published by the Bankwest Curtin Economics Centre (BCEC) looking at the incidence of poverty in Australia. Specifically, the BCEC's 'Falling Through The Cracks' report into poverty and disadvantage[2] compares the prevalence of economic disadvantage across Australian households using both 'standard' and severe measures of income poverty. The report provided a broad assessment of the incidence of income poverty, with results differentiated by both age and gender.

5.1 Measurement of poverty

The rate of income poverty is assessed by calculating the percentage of people whose real *equivalised* household disposable incomes fall below different fractions of the median[3]. Housing costs are controlled for by deducting housing costs from household disposable income before poverty rates are assessed – the so-called *after housing costs* measure of poverty.

A standard measure of income poverty is based on the proportion of people with equivalised household income below 50% of the national median. However, many households have access to far less income than this benchmark. BCEC research has also examined the prevalence of deeper financial hardship by evaluating the incidence of severe poverty by gender and other characteristics. Severe poverty rates were assessed by calculating the share of those with household equivalised after-housing costs incomes below 30% of median household income.

In 2011-12 more than one million persons were in severe income poverty, having access to household income of less than 30% of the national median. This equates to around 5% of Australia's population.

5.1 Poverty, age and gender

Table 6 seeks to uncover which types of families are most prone to persistent poverty and disadvantage by looking at the number of years spent in relative poverty over the last decade separately by household types.

These findings emphasise that persistent poverty is far more prevalent among single adult households and elderly single females. More than 60% of single parents experienced poverty (with incomes below 50% of the median) for at least one year in the last 10, while nearly 15% were poor

[2] All reports in the BCEC's Focus on The States and Focus on Western Australia series are available from the Centre's website at http://business.curtin.edu.au/bcec, with hard copies also available by request.
[3] *Equivalisation* is a method of standardising income to take account of household size and composition differences. The BCEC's *Falling Through The Cracks* report uses the OECD modified equivalence scales to standardise income. These scales apply 1.0 for the first adult in the household, 0.5 for any subsequent adults and 0.3 for children.

for at least five years in the last decade on standard measures. Around one half of non-elderly single females experienced at least a year of poverty, with one in seven single women spending half of the last decade in poverty. This compares with one in ten non-elderly single men.

Rates of poverty among elderly single women – those aged 65 and over –are even starker. On the standard measure – those below 50 per cent of median income - more than one in seven elderly single women have spent 3 to 4 years in the last decade in poverty, with a further one in four in poverty for five or more years in the last decade.

Table 6: Poverty persistence by age and gender, 2012

Number of years in poverty	Proportion of people spending different numbers of years in poverty (below 50% and 30% of equivalised household disposable income after housing costs) between 2003 and 2012							
	Proportion of people in recurrent poverty (%)				Number of people in recurrent poverty ('000s)			
By family composition	Never in poverty	1-2 years	3-4 years	5+ years	Never in poverty	1-2 years	3-4 years	5+ years
Standard (50% median) poverty								
Non-elderly couple only	77.5	17.1	3.3	2.2	3,426	756	145	97
Non-elderly couple with children	72.8	21.2	3.7	2.4	6,211	1,806	314	202
One parent with children	38.4	34.4	12.5	14.6	649	581	211	247
Non-elderly single male	48.1	31.1	10.2	10.5	352	228	75	77
Non-elderly single female	50.7	27.6	9.1	12.6	275	150	49	69
Elderly couple	55.4	30.6	8.5	5.5	981	542	151	97
Elderly single male	34.9	31.6	8.6	24.9	86	78	21	61
Elderly single female	29.3	31.5	13.9	25.4	147	158	70	127
Severe (30% median) poverty								
Non-elderly couple only	88.3	10.5	1.0	0.2	3,905	464	46	9
Non-elderly couple with children	87.5	11.6	0.7	0.2	7,464	989	59	20
One parent with children	67.1	26.9	4.3	1.7	1,131	454	73	29
Non-elderly single male	64.4	27.4	4.9	3.3	472	201	36	24
Non-elderly single female	64.8	26.9	5.7	2.6	351	146	31	14
Elderly couple	78.6	19.6	1.5	0.4	1,391	347	26	8
Elderly single male	62.7	29.6	5.1	2.6	154	73	13	6
Elderly single female	62.3	28.3	5.7	3.7	312	142	29	19

Notes: (a) Cell size too small for reliable estimates. Poverty rates are assessed by calculating the percentage of people whose real equivalised household disposable incomes (after housing costs) fall below different fractions of the median. Nil and negative incomes are excluded from all poverty calculations. Data are re-based to 2014 prices. Housing costs included mortgage repayments, rent and property rates.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations from the 2012 HILDA longtidinal survey, wave 12. See Cassells, Dockery and Duncan and Gao (2014).

5.2 Poverty, gender and housing

Table 7 looks at poverty incidence for Australian families at different stages of their lives, with a particular focus on the relationship between income poverty and housing tenure. Results are presented for poverty rates at 50% ('standard') and 30% (severe) of median equivalised household income, and according to three main tenure states: owners with no mortgage; owners with mortgages; and renters.

Table 7: Poverty rates by gender, life-course stage and housing tenure: 2011-12

Proportion of people in different depths of poverty	Proportion of people falling below different fractions of equivalised household disposable income (after housing costs)					
	'standard' poverty (below 50% median)			severe poverty (below 30% median)		
By life-course family composition and tenure	owners no mortgage	owners with mortgage	renters	owners no mortgage	owners with mortgage	renters
Young households and families						
Lone person, aged <35	(a)	19.6	28.9	(a)	10.8	13.4
One parent with dep kids - oldest 0-4	(a)	9.4	35.0	(a)	9.4	14.3
Couple with dep kids - oldest 0-4	(a)	12.9	21.4	(a)	5.2	9.3
Couple only, reference aged <35	(a)	1.5	7.6	(a)	1.0	4.7
Moving to middle age						
Lone person, aged 35-54	5.3	13.2	38.4	1.0	8.9	14.8
One parent with dep kids - oldest 5-14	(a)	26.7	34.2	(a)	15.7	12.2
One parent with dep kids - oldest >14	3.7	12.1	25.4	1.1	12.2	13.9
Couple with dep kids - oldest 5-14	6.9	9.6	24.5	2.5	3.9	9.1
Couple with dep kids - oldest >14	4.7	8.4	16.5	3.6	3.4	7.7
Couple only, reference aged 35-54	5.6	7.0	12.5	4.5	4.2	5.9
Older age, pre retirement						
Lone person, aged 55-64	9.2	21.9	55.1	5.2	11.5	19.0
Couple with dep+non-dep kids	2.7	7.8	14.7	1.2	4.2	4.3
Couple only, reference aged 55-64	7.8	10.8	26.8	3.6	5.1	6.8
Retirement age						
Lone person, aged 65+	8.7	43.0	68.8	3.6	5.4	12.6
Couple only, reference aged 65+	6.8	21.6	37.3	1.9	6.9	5.4
ALL PEOPLE	**6.8**	**10.0**	**22.6**	**2.8**	**4.4**	**8.1**

Notes: (a) Cell size too small for reliable estimates. Poverty rates are assessed by calculating the percentage of people whose real equivalised household disposable incomes (after housing costs) fall below different fractions of the median. Nil and negative incomes are excluded from all poverty calculations. Data are re-based to 2014 prices. Housing costs included mortgage repayments, rent and property rates.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations from ABS Survey of Income and Housing unit record data. See Cassells, Dockery and Duncan and Gao (2014).

A significant feature of the results presented in **Table 7** is that poverty rates for renters in Australia are more than twice those for mortgage holders (22.6% against 10.0%) and three times the rate for owners without mortgages (at 6.8%). Even more striking is the huge increase in poverty across the life-course for those families in rental accommodation. Around 29% of lone renters aged less than 35 are in poverty, but the rate rises to nearly four in 10 for lone persons aged 35 to 54, and more than one in two (55%) for those approaching retirement age. Indeed, nearly one in five lone renters aged 55 to 64 are found to be in severe poverty.

Single parent families in rented accommodation are facing particularly serious financial disadvantage – more than a third of single parents with primary or secondary school-aged children are in poverty, and around one in seven single parents with pre-school children suffer severe poverty.

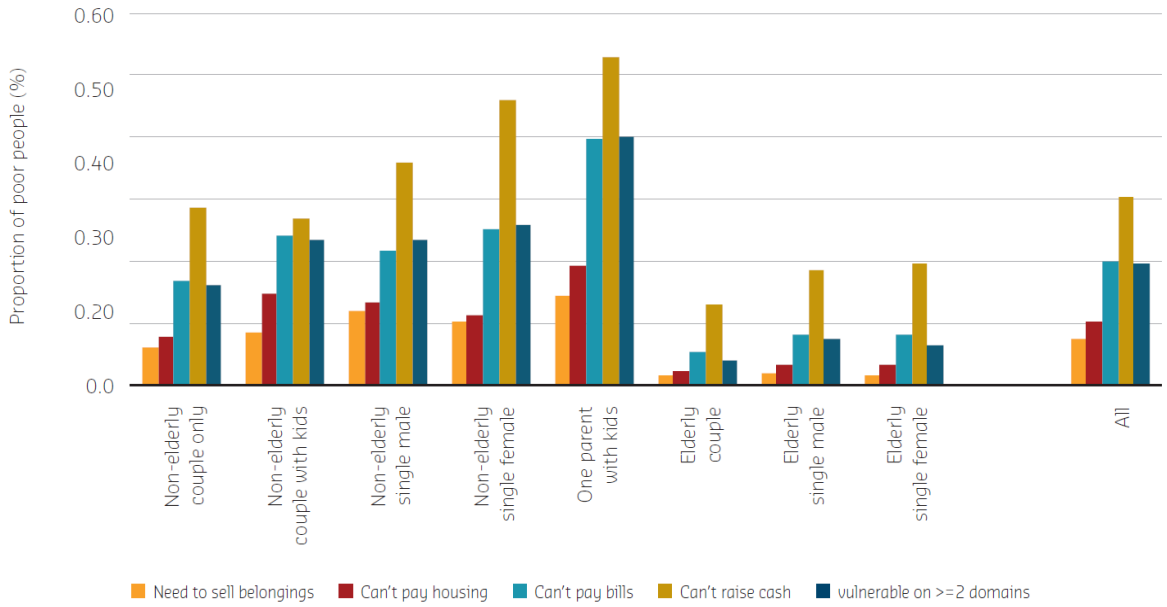
5.3 Gender, financial hardship and deprivation

Figure 13 looks at the relationship between income poverty and different measures of financial hardship. The chart presents the prevalence of individual hardship measures – an inability to pay bills, inability to meet housing costs, or lack of ability to raise cash - for households in poverty.

The most common hardship for those in 'standard' income poverty is the inability to raise cash in an emergency – from 12.9% of elderly couple households to more than 50% of single parent households. Non-elderly single females and males in poverty are far more likely to experience other forms of financial hardship, with one in four non-elderly single females and one in five non-elderly males unable to pay bills.

Elderly single men and women living in income poverty have lower levels of financial hardship in general, a result likely to be driven by a number of factors, including the relative adequacy of the Age Pension; the greater likelihood that older households own their own home; the different needs of households at different life cycle stages; and differences in attitudes towards financial hardship across generations.

Figure 13: Poverty, gender and financial hardship

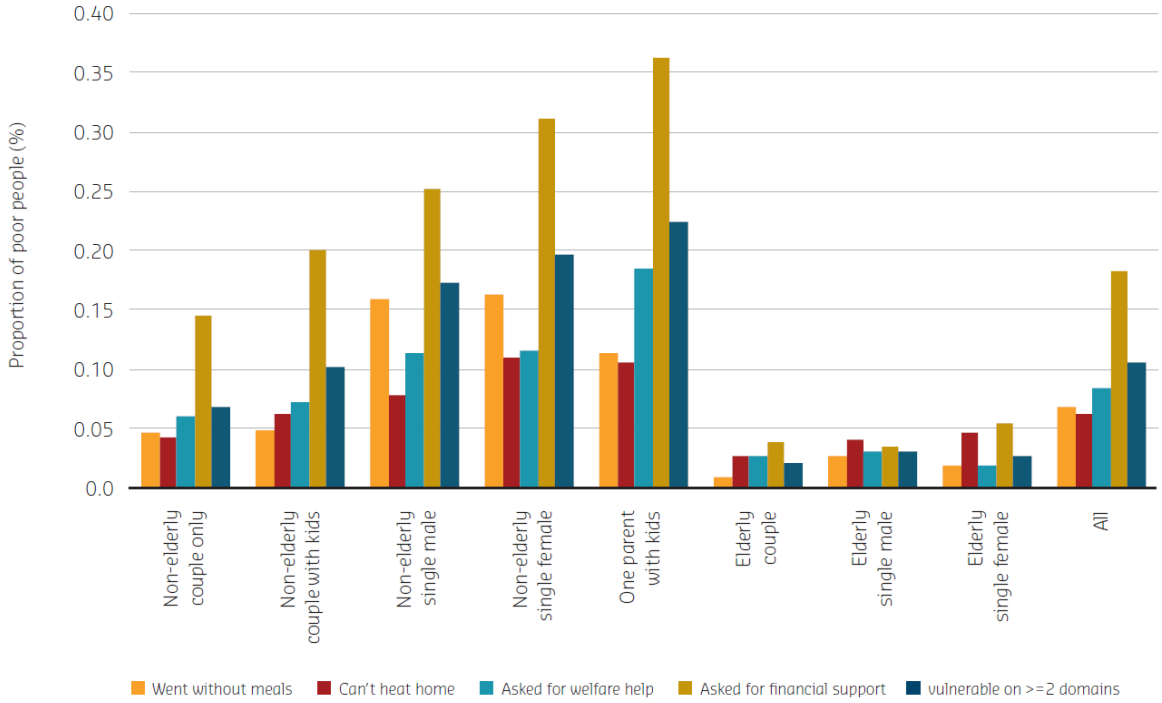


Note: Poverty rates are assessed by calculating the percentage of people whose real equivalised household disposable incomes (after housing costs) fall below different fractions of the median. Nil and negative incomes are excluded from all poverty calculations. Data are re-based to 2014 prices. Housing costs included mortgage repayments, rent and property rates. See technical notes for further detail.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations from ABS Survey of Income and Housing unit record data.

Figure 14 show significant gender differences in other forms of deprivation faced by households in poverty. For example, one in three single parent families and one in three single non-elderly women in poverty have asked for financial assistance from a friends or family due to a shortage of money with a further one in five seeking assistance from welfare organisations due to a shortage of money.

Single non-elderly male and female households in poverty are more likely to experience deprivation than their non-elderly counterparts, mainly an inability to heat their homes. Of most concern is the fact that just over 15% of single male and female single non-elderly households in poverty will go without meals due to a shortage of money.

Figure 14: Poverty, gender and deprivation



Note: Poverty rates are assessed by calculating the percentage of people whose real equivalised household disposable incomes (after housing costs) fall below different fractions of the median. Nil and negative incomes are excluded from all poverty calculations. Data are re-based to 2014 prices. Housing costs included mortgage repayments, rent and property rates. See technical notes for further detail.
Source: BANKWEST CURTIN ECONOMICS CENTRE | Authors' calculations from ABS Survey of Income and Housing unit record data.

6. Policy recommendations

The empirical evidence raised in this submission indicate that there is a strong case for government to consider a range of policy issues that affect the economic security of women in retirement. Below we put forward a list of recommendations that target gendered differences in wealth accumulation, drivers of retirement income gaps, older women's workforce vulnerabilities and experience of poverty. The recommendations are as follows.

a. Policy solutions that target a reduction in both explained and unexplained gender wealth gaps.
b. Careful consideration of how a move towards encouraging reliance on personal housing assets in old age might have potentially negative effects on gender equity as older women are much more reliant their primary home assets than men and therefore more vulnerable to the risks and costs associated with housing equity withdrawal.
c. Review of the current superannuation guarantee, including its purpose and whether it is meeting or likely to meet objectives of adequacy in retirement savings for current and future generations.

d. Removal of the $450 per month minimum superannuation threshold.
e. Recognition of the economic and social value of unpaid work including care in policy responses – any private retirement savings scheme based solely on paid work will always result in a bias against women.
f. Policy solutions that target a reduction in both explained and unexplained gender pay gaps.
g. Careful consideration of policies that promote full-time work as the principal solution to gender gaps in retirement incomes, and other gaps that exist within the labour market.
h. Maintenance of adequate connections to the labour market for those who seek it – facilitated through a combination of employment opportunities appropriate to women's demographic circumstances and life course stage, alongside policies that reduce barriers to workforce participation.
i. Targeted strategies to provide affordable housing – this should be a priority as a means to deliver economic security to women, especially in older age, or as parents or carers.
j. Ensuring the adequacy of the Age Pension as a means to delivering appropriate financial protection to women in old age.

References

Austen, S., Bawa, S., Ong, R. & Jefferson, T. (2015), Exploring recent increases in the gender wealth gap among Australia's single households, *The Economic and Labour Relations Review*, 26(1), 3-28.

Austen, S., Jefferson, T. and Ong, R. (2014), The gender gap in financial security: what we know and don't know about Australian households', *Feminist Economics*, 20(3), 25-52.

Cassells, R., Duncan, A., Kelly, S. and Ong, R. (2015a), *Beyond Our Means? Household Savings and Debt in Australia*, Bankwest Curtin Economics Centre, Focus on Australia Report Series, Issue No. 2, June 2015.

Cassells, R., Vidyattama, Y., Miranti, R. and McNamara, J. (2009b), '*The Impact of a Sustained Gender Wage Gap on the Economy*, Report to the Office for Women, Department of Families, Housing, Community Services and Indigenous Affairs.

Cassells, R., Dockery, M., & Duncan, A (2014d), *Falling Through the cracks: Poverty and Disadvantage in Australia*, Bankwest Curtin Economics Centre, Focus on the States Report Series, Issue No.1, October 2014.

Cassells, R., Dockery, M., Duncan, A., Gao, G, Leong, K. & Mavisakalyan, A. (2014c), *Workforce and Skills: Western Australian Labour Markets in Transition*, Bankwest Curtin Economics Centre, Focus on Western Australia Report Series, Issue 14/3, August 2014.

Cassells, R., Duncan, A., Abello, A., D'Souza, G. and Nepal, B. (2012), *Smart Australians: Education and Innovation in Australia*, AMP.NASTEM Income and Wealth Report, Issue 32, October, Melbourne.

Cassells, R., Duncan, A., Gao, G. (2014a), *Sharing the Boom: The Distribution of Income and Wealth in WA*, Bankwest Curtin Economics Centre, Focus on Western Australia Report Series, Issue 14/1, February 2014.

Cassells, R., Duncan, A., Gao, G., James, A., Leong, K., Markkanen, S. & Rowley, S. (2014b) *Housing Affordability: The Real Costs of housing in WA*, Bankwest Curtin Economics Centre, Focus on Western Australia Report Series, Issue 14/2, April 2014.

Cassells, R., Gong, H. & Duncan, A., (2011), *Race against Time: How Australians Spend their Time*, AMP.NASTEM Income and Wealth Report, Issue 30, November, Sydney.

Cassells, R., Miranti, R., Nepal, B. & Tanton, R. (2009), '*She Works Hard for the Money: Australian Women and the Gender Divide*, AMP.NASTEM Income and Wealth Report, Issue 22, April, Sydney.

Chzhen, Y., Mumford, K. & Nicodemo, C. (2013), The gender pay gap in the Australian private sector: Is selection relevant across the earnings distribution?, *Economic Record*, 89(286), 367-381.

Deere, C. D. & Doss, C. R. (2006), The gender asset gap: what do we know and why does it matter?" *Feminist Economics*, 12(1–2), 1-50.

Denton, M. & Boos, L. (2007), The gender wealth gap: structural and material constraints and implications for later life, *Journal of Women and Aging*, 19(3–4), 105-20.

Haffner, M., Ong, R. & Wood, G. (2015), Mortgage equity withdrawal and institutional settings: An exploratory analysis of six countries, *International Journal of Housing Policy*, 15(3), 235-259.

Hussmanns, R. (2007), Measurement of employment, unemployment and underemployment: Current international standards and issues in their application, *Bulletin of Labour Statistics*, 1, 2007-2001.

International Labour Organization (ILO) (1998), '*Resolution Concerning the Measurement of Underemployment and Inadequate Employment Situations*, Adopted by the Sixteenth International Conference of Labour Statisticians (October 1998).

Kee, H. J. (2006), Glass ceiling or sticky floor? Exploring the Australian gender pay gap, *Economic Record,* 82(259), 408-427.

KPMG (2009), *Understanding the Economic Implications of the Gender Pay Gap in Australia*, Report prepared for the Diversity Council Australia.

Li, J., Duncan, A.S. & Miranti, R. (2015), Underemployment among mature age workers in Australia, *Economic Record*, DOI: 10.1111/1475-4932.12219

Miller, P. W. (2005). The role of gender among low-paid and high-paid workers, *Australian Economic Review,* 38(4), 405-417.

OECD (2004), *Recommendation on Core Principles of Occupational Pension Regulation*, Organisation for Economic Cooperation and Development, Paris.

Ong, R., Haffner, M., Wood, G., Jefferson, T. & Austen, S. (2013a), *Assets, Debt and the Drawdown of Housing Equity by an Ageing Population*, Positioning Paper No. 153, Australian Housing and Urban Research Institute, Melbourne.

Ong, R., Jefferson, T., Wood, G., Haffner, M. & Austen, S. (2013b), *Housing Equity Withdrawal: Uses, Risks, and Barriers to Alternative Mechanisms in Later Life*, Final Report No. 217, Australian Housing and Urban Research Institute, Melbourne.

Ong, R., Parkinson, S., Searle, B.S., Smith, S.J. and Wood, G. (2013c), Channels from housing wealth to consumption, *Housing Studies*, 28(7), 1012-1036.

Vidyattama, Y., Cassells, R., Harding, A. & McNamara, J., (2011), Rich or poor in retirement? A small area analysis of australian private superannuation savings in 2006 using spatial microsimulation, *Regional Studies*, DOI: 10.1080/00343404.2011.589829

Watson, I. (2010), Decomposing the gender pay gap in the Australian managerial labour market, *Australian Journal of Labour Economics*, 13(1), 49-79.

WGEA (2015), *Gender Pay Gap Statistics*, Sydney, September.

Wood, G. & Nygaard, C.A. 2010, 'Housing equity withdrawal and retirement: Evidence from the Household, Income and Labour Dynamics in Australia Survey (HILDA), in SJ Smith & BA Searle

(eds.), *The Blackwell Companion to the Economics of Housing: The Housing Wealth of Nations*, Wiley-Blackwell, Chichester, West Sussex, pp.257-78.

Yates, J. & Bradbury, B. (2010), Home ownership as a (crumbling), fourth pillar of social insurance in Australia, *Journal of Housing and the Built Environment*, 25(2), 193-211.

About the Bankwest Curtin Economics Centre

The Bankwest Curtin Economics Centre is an independent economic and social research organisation located within the Curtin Business School at Curtin University. The centre was established in 2012 through the generous support from Bankwest (a division of the Commonwealth Bank of Australia), with a core mission to examine the key economic and social policy issues that contribute to the sustainability of Western Australia and the wellbeing of WA households.

The Bankwest Curtin Economics Centre is the first research organisation of its kind in Western Australia, and draws great strength and credibility from its partnership with Bankwest, Curtin University and the Western Australian government.

The Centre brings a unique philosophy to research on the major economic issues facing the state. By bringing together experts from the research, policy and business communities at all stages of the process – from framing and conceptualising research questions, through the conduct of research, to the communication and implementation of research findings – we ensure that our research is relevant, fit for purpose, and makes a genuine difference to the lives of Australians, both in WA and nationally.

The Centre is able to capitalise on Curtin University's reputation for excellence in economic modelling, forecasting, public policy research, trade and industrial economics and spatial sciences. Centre researchers have specific expertise in economic forecasting, quantitative modelling, micro-data analysis and economic and social policy evaluation. The centre also derives great value from its close association with experts from the corporate, business, public and not-for-profit sectors.