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Productivity Commission

Labour Force Participation of Women Over 45

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Staff Working Paper

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The findings and views in this paper are those of the authors and should not be attributed to the Productivity Commission, FaHCSIA or the Melbourne Institute.

Abbreviations

Abbreviations

ABS	Australian Bureau of Statistics
AWOTE	Average Weekly Ordinary Time Earnings
DEEWR	Department of Education, Employment and Workplace Relations
EEBTUM	Employee Earnings, Benefits and Trade Union Membership
EEH	Employee Earnings and Hours
HILDA	Household, Income and Labour Dynamics in Australia Survey
OECD	Organisation for Economic Cooperation and Development
PC	Productivity Commission

OVERVIEW

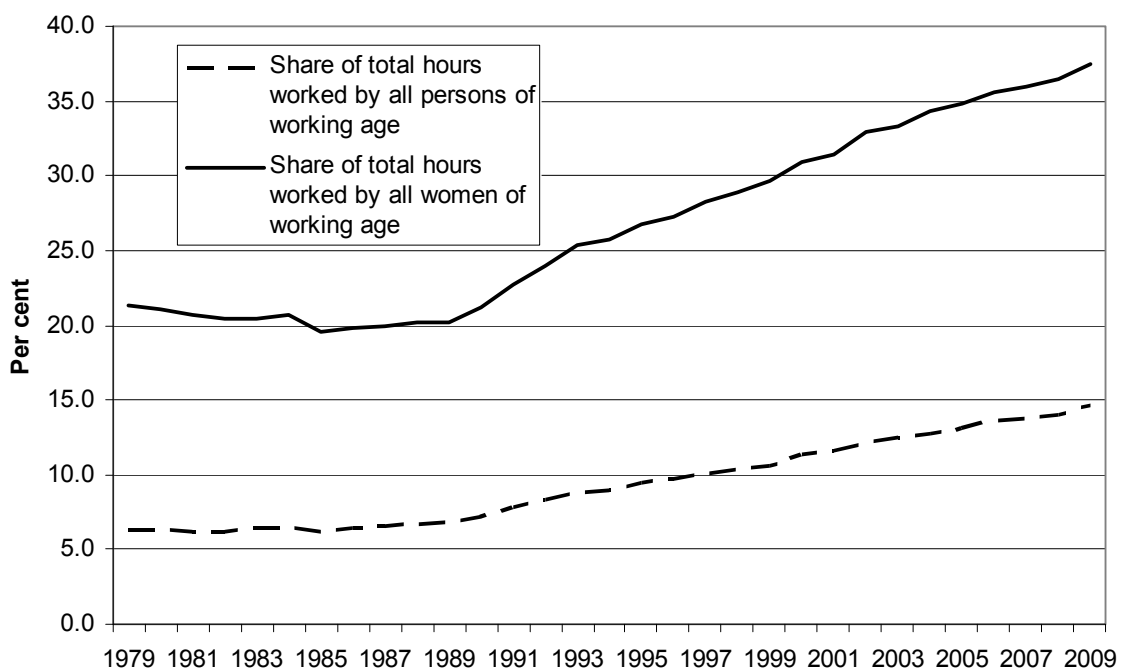
Key points

- The contribution of mature aged women (aged 45 to 64 years) to total hours worked in the economy by people of working age has increased from 6 to 15 per cent over the past three decades.
 - Over 40 per cent of this growth has resulted from an increase in the share of mature aged women in the working age population; the rest is due mainly to a steady increase in the labour force participation rate. Work intensity has hardly changed.
- The share in employment accounted for by mature aged women has increased across nearly all industries, including those where they have traditionally not been employed in large numbers.
- Younger women today have both higher levels of education and labour force participation than mature aged women had when they were younger. It is likely, therefore, that participation rates for mature aged women will continue to rise as these younger women enter older age groups.
- A woman's health status and caring responsibilities also influence her likelihood of participating in the labour force in later life. A mature aged woman is more likely to be in the labour force the longer her previous period of labour force engagement.
- Currently, proportionately fewer mature aged women participate in the labour force than either mature aged men in Australia or mature aged women in similar OECD countries. However, the gaps in participation have narrowed considerably over the past three decades.
- Most mature aged women who are not in the labour force appear to prefer not to work.
- Around 7 per cent of mature aged women could potentially be induced to enter the labour force. However, the barriers or obstacles to participation of many in this group are significant and difficult to address.
- Almost one quarter of mature aged women working part time want to increase their hours of work. However, one half of women working full time want to work less hours. If all mature aged women were to work the hours they preferred, the net effect would be a fall in total hours worked of nearly 11 per cent.
- As in most OECD countries, women retire earlier than men, although the gap is narrowing.
 - The decision to retire is influenced mainly by considerations of financial security and health/physical ability.
- Over the next couple of decades, the contribution of mature aged women to total hours worked will continue to rise steadily. However, the potential for additional growth in participation and average hours worked for the *current* cohort of mature aged women appears limited.

Overview

Mature aged women have greatly increased their participation in paid employment over the past three decades. The contribution to total hours worked by people of working age of women aged 45 to 64 years has increased from just over 6 per cent in 1979 to almost 15 per cent in 2009. Moreover, their contribution increased relative to other age groups, with their share of total hours worked by women of working age rising from 21 per cent to 38 per cent (figure 1).

Figure 1 A growing contribution to hours worked



These trends reflect greater societal acceptance of women in the workforce, increased education levels of women and greater diversity of household living arrangements. Increasing involvement of mature aged women in the workforce is also related to greater diversity in working arrangements, including growth in part time employment and increased workplace flexibility.

Why has mature aged women's contribution increased?

The change in share of total hours worked by mature aged women can be partitioned into changes in the relative share of mature aged women in the population (*demographic effect*), the proportion of these women who are in the labour force (*labour force participation effect*) and the average hours that they work (*work intensity effect*).

Demographic effect

Part of the reason for the increase in the share of total hours worked by mature aged women is simply that they make up an increasing share of the working age population — up by 3.6 percentage points over the past three decades (figure 2). This demographic effect accounts for over 40 per cent of the rise in the share of total hours worked by this group since 1979. The balance (of just under 60 per cent) is accounted for mainly by increasing rates of participation.

Labour force participation effect

Over the past three decades the participation rates for mature aged women have also increased significantly relative to other demographic groups. For women aged 45 to 54 years, participation rates have increased from 47.1 to 78.0 per cent, for women aged 55 to 59 years from 27.8 per cent to 63.4 per cent and for women aged 60 to 64 years from 12.8 per cent to 41.2 per cent (figure 3). In contrast, the participation rates of younger women have increased to a far lesser extent, while the participation rates for men in all age groups, apart from those aged 60 to 64 years, have fallen over the period.

The long term increase in participation of mature aged women is primarily due to broad cohort effects. Increases in labour force participation within an age group tend to be retained by that cohort as it ages over time. Such trends are driven by underlying influences, such as changes in attitudes to women working, expectations and career aspirations, increasing education levels and by growing labour market opportunities during earlier years.

Figure 2 Mature aged women's growing share of the population is helping to drive their contribution to hours worked

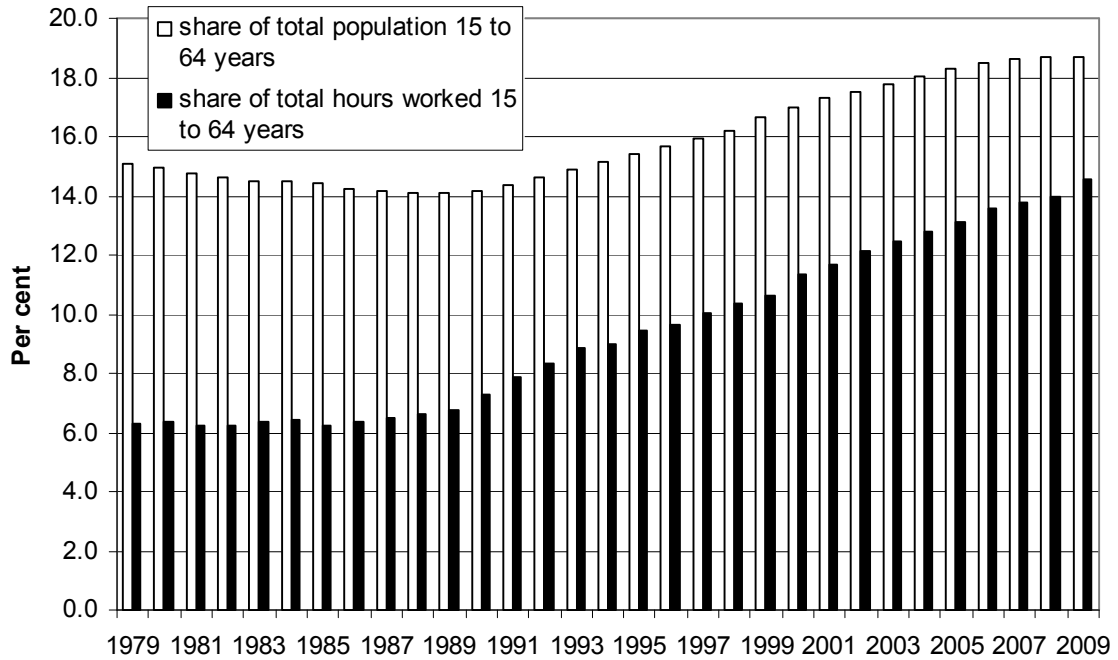
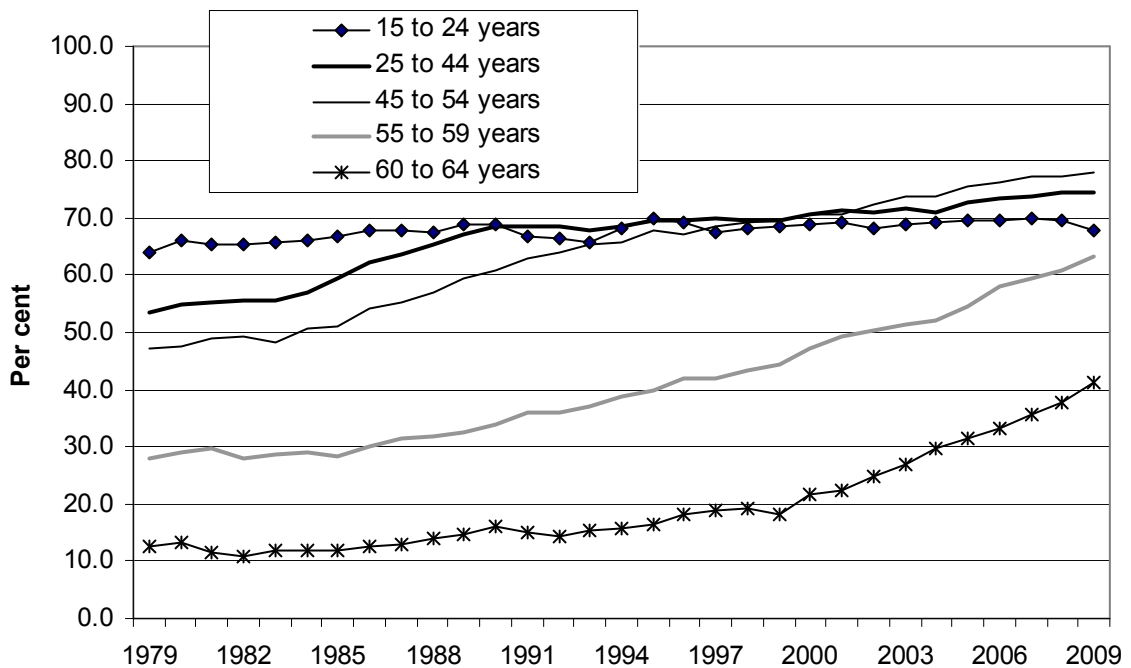


Figure 3 Mature aged women's participation rates are rising too

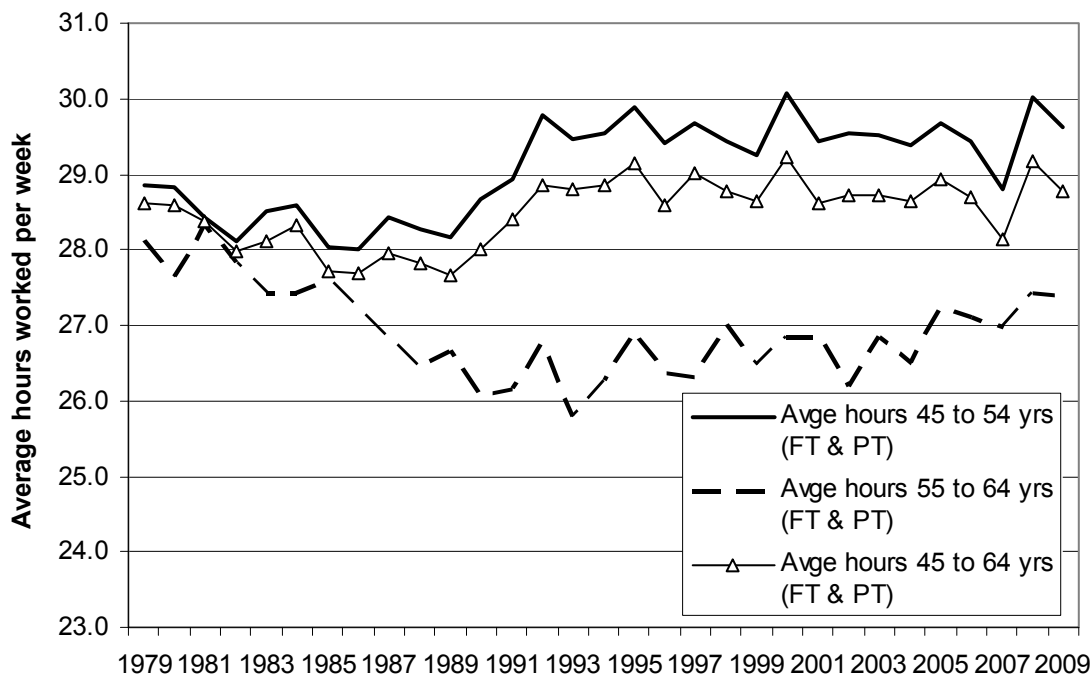


Work intensity effect

In 2009, women aged 45 to 64 years accounted for 16.7 per cent of employed people aged 15 to 64 years in Australia, while their share of hours worked was only 14.6 per cent. The disparity reflects the relatively lower average hours worked by employed mature aged women.

Over the thirty years to 2009, hours worked by women aged 45 to 64 years increased on average by just 12 minutes per week. For women aged 45 to 54 years, hours worked declined slightly in the 1980s, but have risen slightly again since. For women aged 55 to 64 years, hours worked trended down from the early 1980s to the mid 1990s, but have subsequently risen slightly (figure 4).

Figure 4 Mature aged women's hours worked have changed little



What scope is there for further increases in participation?

Will the strong growth in mature aged women's participation in the labour force continue? The cohort effects described above suggest that participation will indeed increase, at least for the next three decades. The current higher participation rates of younger women will flow through to increased participation as they enter older age groups but how high is it likely to go? It is useful to look at some benchmarks.

One is the level of labour force engagement of mature age *men* in Australia. The question is whether mature aged women's engagement will converge to that of mature aged men, or follow a different pathway. Another benchmark is the level of participation of mature aged women in other countries.

How do mature aged women compare to mature aged men?

Women in the mature age groups still participate at a lower rate than men in the same age groups, though the gaps have narrowed considerably. For example,

- the gap in participation between women and men aged 45 to 54 years in 1979 was 44.5 percentage points (table 1). This gap had narrowed to only 10.6 percentage points by 2009
- the participation gap between women and men aged 55 to 59 years narrowed from 54.3 percentage points to 14.9 percentage points, while the gap between women and men aged 60 to 64 years narrowed from 41.6 percentage points to 18.2 percentage points.

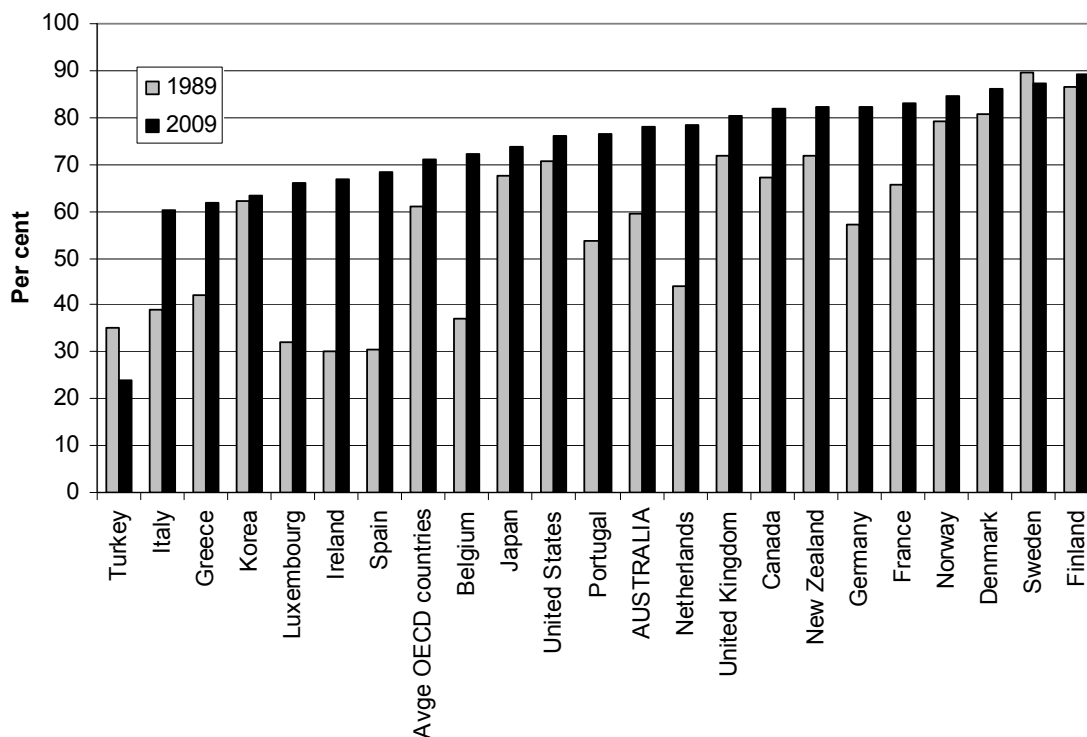
Table 1 The participation gap between women and men has shrunk

Age Group	1979			2009		
	Women	Men	PR gap	Women	Men	PR gap
	(%)	(%)	% pts	(%)	(%)	% pts
15 to 19 yrs	58.6	64.1	-5.5	58.2	56.0	2.2
20 to 24 yrs	69.3	90.9	-21.6	76.6	84.3	-7.7
25 to 34 yrs	51.0	96.2	-45.2	73.3	91.2	-17.9
35 to 44 yrs	57.2	95.9	-38.7	75.3	91.2	-15.9
45 to 54 yrs	47.1	91.6	-44.5	78.0	88.6	-10.6
55 to 59 yrs	27.8	82.1	-54.3	63.4	78.3	-14.9
60 to 64 yrs	12.8	54.4	-41.6	41.2	59.4	-18.2
65 plus	2.4	11.6	-9.2	5.9	15.1	-9.2

How do mature aged Australian women compare to those in other countries?

Participation rates in Australia for mature aged women were above the OECD average in 2009, but below those for some similar OECD countries (figure 5). For example, in 2009, the participation rate for women aged 45 to 54 years in Australia (of 78.0 per cent) was below the rates recorded for Finland (89.4 per cent), France (83.1 per cent), New Zealand (82.2 per cent) and the United Kingdom (80.3 per cent), among others.

Figure 5 Getting close to the participation rates of OECD leaders
Selected OECD Countries



Australia was ranked 18th of 33 OECD countries in 2009 in terms of participation for women aged 45 to 54 years, and equal 12th for women aged 55 to 64 years.

Given these cross-country comparisons, this suggests that scope remains for the labour force engagement of mature aged women in Australia to grow further. Nonetheless, the narrowing of the gap between Australian participation rates and those in leading OECD countries suggests that this may be more limited than in the recent past.

Why do mature aged women choose to enter the labour force?

Different women will be influenced by different things. For many women, a decision may hinge on broader lifestyle issues or values that can be insensitive to economic incentives and opportunities. For other women, the decision to work will be predominantly driven by financial considerations, particularly where they have the capacity to respond to those opportunities through possessing relevant skills and training which are attractive to employers.

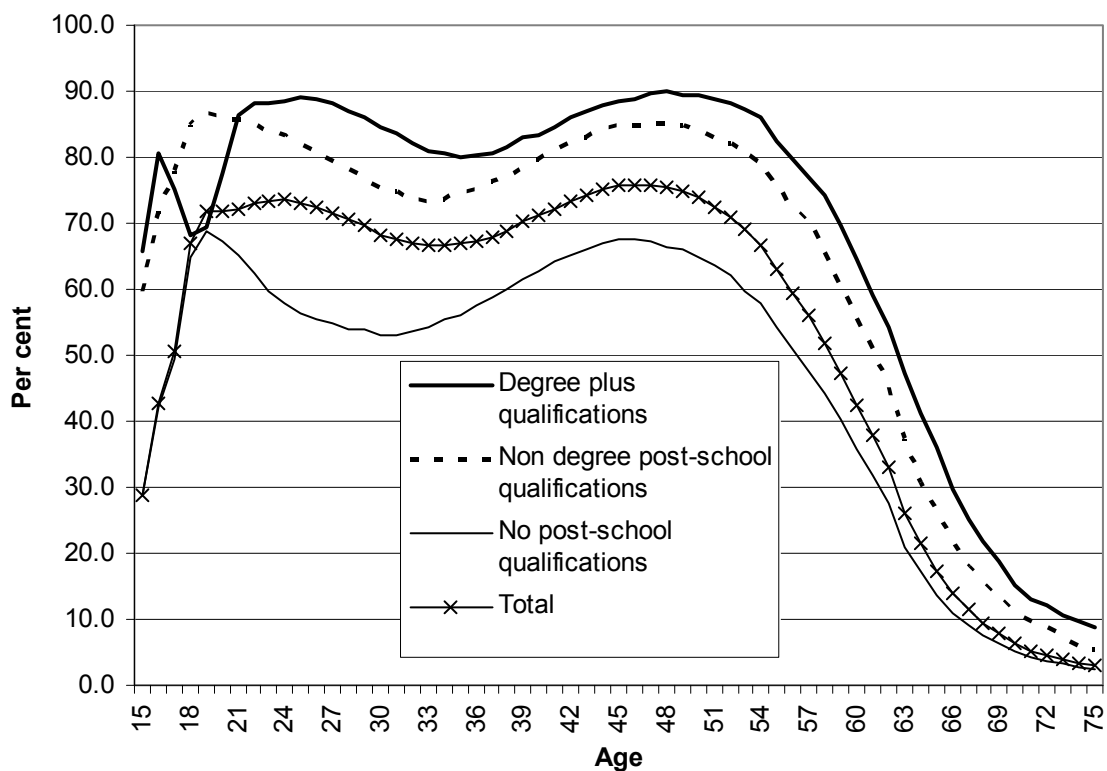
For these women, decisions to enter the labour force involve weighing up the relative costs and benefits of allocating time between paid work and other activities

such as education, work, leisure, domestic activities and child care. These factors will vary over the life cycle.

Education levels

Education levels affect the financial rewards from work and preferences for work, and as a result have an important influence on women's participation in the labour force. Figure 6 shows that women with higher educational attainment have consistently higher rates of participation than women with no post-school qualifications, except for the ages when most undertake additional non-compulsory education. The figure also shows the 'M shaped' labour force participation curve for women over the lifecycle is far more muted for relatively highly educated women.

Figure 6 Education raises participation

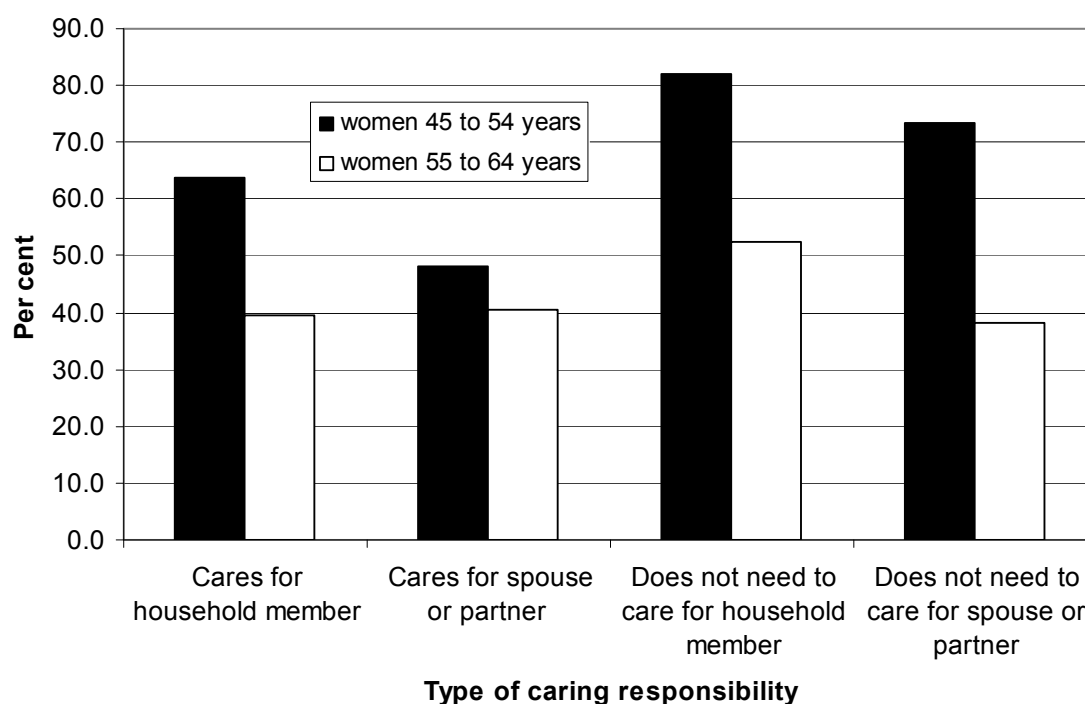


This robust relationship between labour force participation and level of educational attainment suggests likely continued strong growth in participation of mature aged women in the future. Younger women today have higher levels of educational attainment on average than mature aged women. The labour force participation of mature aged women is likely to continue to grow as these more highly educated women move into older age groups in the future.

Caring responsibilities

Mature aged women who care for a spouse, partner or household member with a long term health condition have much lower participation rates (figure 7). Women with caring responsibilities are less likely to be employed and, if working, are more likely to be employed part time.

Figure 7 Caring responsibilities lower participation



Wage levels

Mature aged women appear relatively unresponsive on average to wage movements, particularly women in the 55 to 64 years group. The effect of an increase in wages was more likely to have an impact on participation decisions rather than on hours worked. Many mature aged women appear to have made a lifestyle choice either not to work or to work only part time.

Health status

Health status has a significant impact on the labour force participation of mature aged women. Poor health can be seen as constraining the choice of those women who would have otherwise chosen to work. For example, of those women aged 50

to 69 years who have retired, poor health is cited by 23 per cent as the major reason for their retirement.

Previous labour force experience

There is a positive relationship between mature aged women's labour force participation and prior experience. In particular, the more labour market experience a woman has in her younger years, the more likely it is that she will participate in the labour force in later life (this is termed labour force 'persistence').

Labour force persistence is relevant for understanding the nature of the barriers that mature aged women are likely to face when seeking to re-enter the labour force. These barriers are particularly relevant for mature aged women who are marginally attached to the labour force. This also points to the importance of assisting younger women to remain in contact with the workplace, if they desire, during their child bearing/raising years. The provision of universal paid parental leave may assist in this respect.

Is there potential to increase the labour supply of mature aged women in the short run?

ABS Labour Force Survey data indicate that most women (around 85 per cent) not in the labour force do not want to work, are unable to work or, if they expressed an interest in working, are not actively looking for work and unable to do so.

However, up to 7 per cent of the population of mature aged women (or 199 800) could potentially enter the labour force if their circumstances changed. This group includes:

- the marginally attached (5.1 per cent or 138 700 women)
- women who stated in the ABS Labour Force survey that they wanted to work, but were not actually looking or available for work (representing 2.2 per cent or 61 100 women).

Together, these two groups of women are the most likely candidates to contribute to an increase in the participation rate, in the short to medium term, as they expressed some interest in wanting to work. If all such women did enter the labour force they *potentially* could increase the participation rate of mature aged women by over 7 percentage points.

But this would require changes in the circumstances of many that have prevented their participation in the past. These include poor health and disability, lack of

available jobs in the local area, inadequate education and training, language difficulties and lack of availability of jobs with suitable hours. There is limited scope to address many of these impediments to entering the labour force. Clearly, ill health and disability can be difficult issues to address fully. Also, it is not clear how strongly preferences are held and the extent to which individuals would actually enter the labour force if the barriers they identified could be addressed. These are questions that require further research.

Another potential source of additional labour supply in the short term is from expanding the hours of those women who are currently employed and who prefer to work longer hours. The Household, Income and Labour Dynamics in Australia (HILDA) data base provides information on desired and usual hours worked of employees working on a part time and full time basis. As a result, it gives a picture of potential supply of mature aged female workers if their preferences for work-life balance could be realised.

While almost 25 per cent of mature aged women working part time want to increase their hours of work, this would be more than offset by the 50 per cent of mature aged women working full time who want to reduce their hours of work. In net terms, there would be a 10.8 per cent reduction in working hours for all mature aged employed women if their preferences for hours were met. This suggests that, in the short term, there appears to be limited potential to increase the intensity of work of mature aged women in aggregate.

What are the benefits from working?

Decisions to work depend in part on the benefits, including income and conditions of employment such as flexible hours that suit lifestyle preferences. The quality of the workplace environment and learning opportunities offered by the workplace also influence the attractiveness of working.

Working conditions

The availability of flexible working conditions, such as being able to negotiate start and finish times of work, is likely to have contributed to mature aged women staying in the labour force. It is also likely to have attracted some women back into the workforce after child caring responsibilities diminish. HILDA survey data show that around 60 per cent of mature aged women are satisfied with the flexibility offered by their workplaces to balance work and non-work commitments, with less than 10 per cent expressing some dissatisfaction.

Access to training and learning opportunities at work plays an important role in the development of human capital and improves workers' productivity. Provision of training gives an indication of the level of investment employers are willing to make in their employees in order to reap potential dividends in the form of more highly productive workers. From an employee perspective, the greater the access to training in the workplace the higher is the likelihood of them having the skills that are current and in demand from other employers.

HILDA data show that women aged 45 to 54 years are slightly more likely to have participated in some form of training in the workplace in the previous 12 months than men of the same age or younger women. Women in the older group, 55 to 64 years, also experience levels of training which are higher than that for men of similar age and around the same level as younger women.

Access to promotional opportunities is also a factor in attracting and, especially, retaining mature aged women in the workforce. The HILDA data indicate two key patterns which are particularly relevant to mature aged women:

- the probability of being promoted is much lower than for younger women and the promotion rate for part time mature aged women is lower than that for similarly aged men working part time
- the rate of promotion for full time mature aged women exceeds that for full time mature aged men.

Pay

On average, women's wages, as measured by the median hourly wage rate, initially increase as they grow older and then gradually flatten out and fall from the age of 35 years (figure 8). The increase in remuneration up to 35 years is associated with the increasing work experience of women as they grow older, which in turn increases their productivity and allows them to achieve promotions.

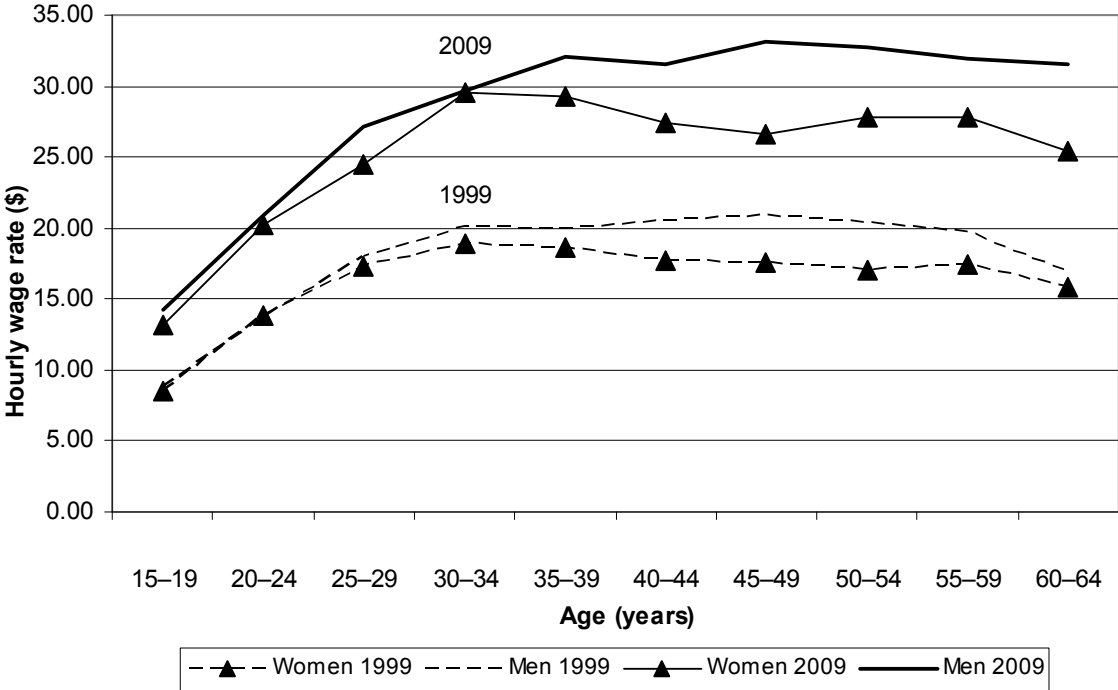
The pattern of declining earnings between 35 and 45 years reflects the impact on earnings of reduced attachment to the workforce during child bearing and caring years. The hourly rate of earnings for women with children never recovers in successive years.

The pattern for men differs, with almost continued growth in earnings through middle age years up to 45 to 49 years. The pay gap between men and women largely arises as men's wages continue to grow between the ages of 30 and 49 years as wages for women fall.

There has been considerable research undertaken to determine the reasons behind the gender pay gap in Australia. This research points to a number of explanatory factors, other than possible discrimination by some employers, including differences between men and women in hours worked (even for full time jobs); differences in educational attainment; the length and continuity of employment experience; and different employment patterns between men and women in terms of occupation and industry segmentation.

Employment experience plays a large part in explaining gender pay differences. Women tend to have more career interruptions than men, particularly when they have children. This has an adverse impact on work experience and subsequent earnings capacity and is highlighted by the difference in earnings between women with children and those without children. Indeed women without children appear to suffer no pay gap with men that have similar work experience.

Figure 8 The gender wage gap grows with age



The lower earnings of women with children may also in part be explained by lifestyle choices. Employment experience is likely to be a less important factor explaining relative earnings where women with children decide to step back from higher paying employment opportunities and career progression to focus on family responsibilities.

In summary, it is notable that:

- women with children earn less than women without children, even where they have similar levels of employment experience
- the wage profile of women without children more closely resembles that for men, with such women earning up to 4 to \$5 per hour (or 20 to 25 per cent) more than women with children after 6 to 10 years of work experience.

As explained above, differences between women and men in employment patterns, length of work experience and hours worked explain much of the gender wage gap. There remains a reduced gender pay gap possibly explained by more intangible actions of women themselves — in terms of lifestyle choices, the extent of their career orientation — as well as employer attitudes towards mature aged women with children (where discrimination also cannot be ruled out). This will remain a topic for future research.

Where do mature aged women work?

Notwithstanding that mature aged women's labour force participation has grown strongly over the past three decades, their unemployment rates have remained low. This means that demand for mature aged women workers has also grown strongly over this period.

The employment of mature aged women has responded to the strong growth in employment in the industries in which they are predominantly employed; that is, in the services industries such as health care and social assistance; education and training; and retail trade.

A major feature of mature aged women's employment, however, has been their increase in employment *within* industries. Mature aged women's share of employment has increased, sometimes quite markedly, within all industries, except mining where it remained unchanged. Large increases were recorded in industries even where mature aged women have represented very small shares of employment in the past, such as electricity, gas and water; wholesale trade; and information, media and telecommunications.

Thus, the employment of mature aged women has benefited from both the structural shift of employment towards the industries within which they are predominantly employed as well as strong growth of employment within industries where they have not been traditionally employed in large numbers.

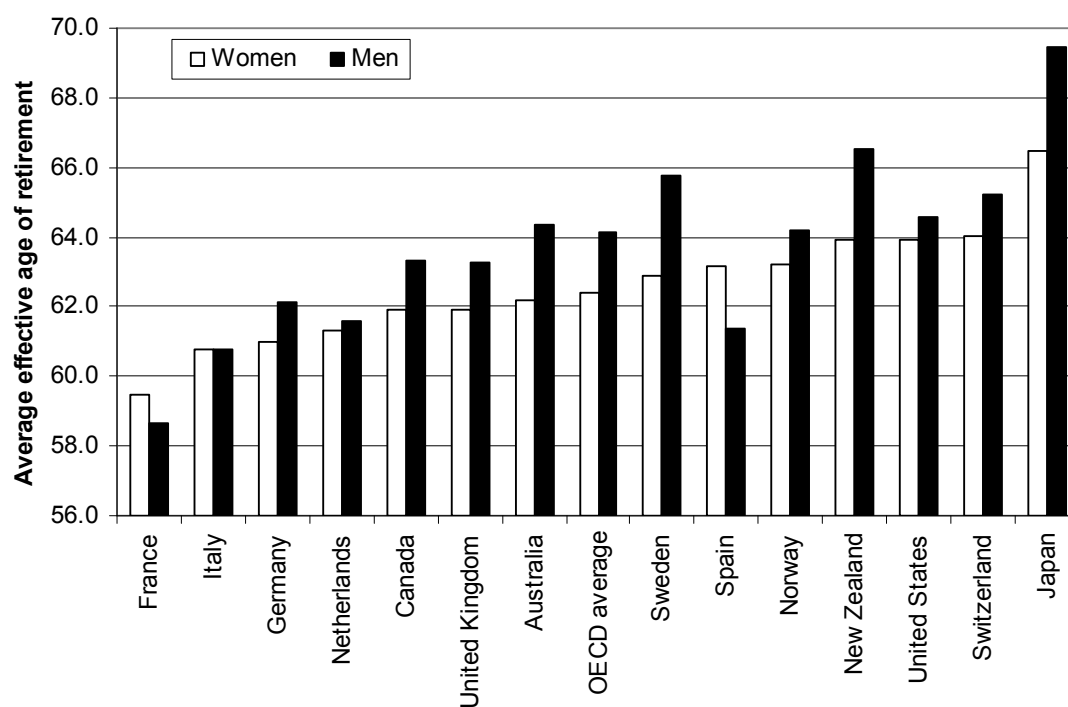
What influences the decision to retire?

Retirement is influenced by various personal factors, such as health status, interest in work, desire for recreation and to spend more time with family. But it can also be influenced by government policies, such as eligibility for the pension and tax rates.

Women retire earlier than men in most OECD countries. The average ages of retirement for Australian women and men are very close to the OECD average, but younger than in comparable countries such as New Zealand and the United States (figure 9).

That said, average retirement ages for women in Australia have been rising and the gap between women's and men's retirement ages has narrowed. This has had a positive impact on participation rates for mature aged women.

Figure 9 Age of retirement close to the average



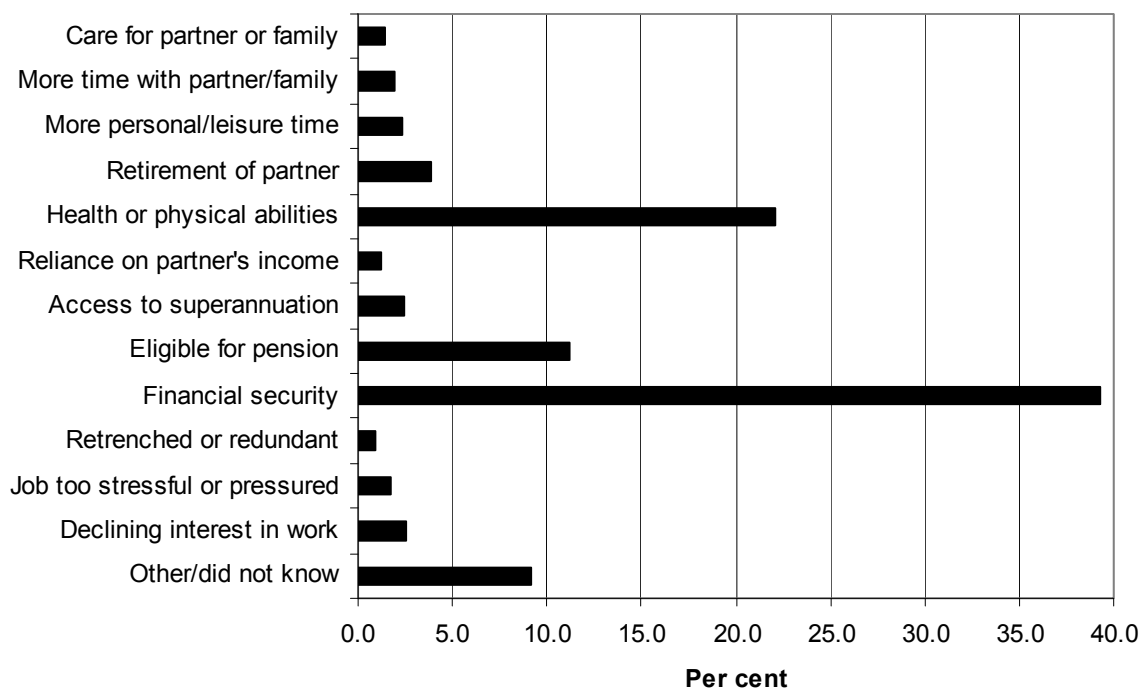
Amongst women currently participating in the labour force, financial security or personal health/physical condition are reported, in ABS surveys, as the main factors expected to influence their retirement decisions (figure 10). Reaching the pension age, declining interest in work, or the retirement of their partner, were cited by fewer women as main factors.

Superannuation balances for women have been rising, but on average do not match those of men. Given the importance of financial security considerations, growth in superannuation entitlements for women are likely to have an impact on women's retirement decisions in coming decades.

Transitions to retirement

A transition to retirement strategy appears to be important for a large number of workers. As part of such a strategy, many workers transition to retirement by first reducing their workload before withdrawing permanently. In 2007, around half of the women and men surveyed intended to pursue a strategy of working part time before retiring.

Figure 10 What influences retirement plans?



A transition to retirement strategy depends on the availability of suitable work. The availability of part time employment can encourage older workers to delay full retirement. More flexible work arrangements for mature aged workers may also impact on labour force participation. In this context, employment growth for women aged 55 years and over has comprised a mix of both full time and part time employment. However, while the labour market has displayed flexibility overall in the type of work available, in many instances workers have had to change employers to achieve their desired working hours. Individual workplaces cannot

always provide sufficient flexibility to accommodate the changing preferences of their workforces.

The Age Pension

The Age Pension remains the most important source of income for retirees. In 2008, 67 per cent of the aged population were recipients, at either the part or full rate. Some 58 per cent of women were paid at the full rate compared to 54 per cent of men.

The extent of the impact of changes in the pension eligibility age on the participation rate of mature aged women is uncertain. Expectations of those women currently in the workforce differs from the actual experience of existing retirees. Only a small proportion of women currently working cite eligibility for the pension as the main factor likely to influence their decision to retire in the future (just over 10 per cent) (figure 10). But over a third of existing retirees stated eligibility for the pension as the main reason for ceasing their last job.

An impressionistic view of the impact on retirement can be gained by comparing participation rates for women aged 60 to 64 years in a number of OECD countries. This comparison suggests a positive relationship exists between higher participation rates and higher eligibility ages for the age pensions. But there is considerable variation within this relationship and the *extent* to which changing the eligibility age for the age pensions will, by itself, lead to a change in participation rates is uncertain.

In summary, the survey evidence of mature aged women's reasons for retiring and the international evidence of participation rates and eligibility ages for pensions suggest that changing age pension eligibility requirements will be factors for consideration by some mature aged women when deciding to retire. But the extent to which such changes will increase the overall participation rate of mature aged women is uncertain. Many other factors also affect the decision of mature aged women to retire. They include sufficient workplace flexibility to allow working hours to be tailored to individual preferences, whether their partner is working, whether they have caring responsibilities and their own health status.

1 Introduction

The last few decades have seen a strong increase in female labour force participation in Australia and in most other developed nations. The increase has been an important source of labour supply growth and has also boosted economic growth. Indeed, *The Economist* indicated that:

The increase in female employment has also accounted for a big chunk of global growth in recent decades ... over the past decade or so, the increased employment of women in developed economies has contributed much more to global growth than China has. (*The Economist*, 12 April 2006, www.economist.com/node/6802551)

The contribution to total hours worked by people of working age in the Australian economy by mature aged women (women aged 45 to 64 years) has more than doubled over the past two decades from 6 per cent in 1989 to 15 per cent of total hours in 2009. Further, the share of total hours worked by all women of working age accounted for by women aged 45 to 64 years has almost doubled from 21 per cent to 38 per cent. This represents a dramatic change after the previous decade of stability in the size of their contribution.

Women in the older age groups still participate at a lower rate than men in the same age groups though the gaps have narrowed considerably. For example, in 1979 the gap in participation between women and men aged 45 to 54 years was 44.5 percentage points. This gap had narrowed to only 10.6 percentage points by 2009. Similarly, the participation gap between women and men aged 55 to 59 years narrowed from 54.3 percentage points to 14.9 percentage points, while the gap between women and men aged 60 to 64 years narrowed from 41.6 percentage points to 18.2 percentage points.

Understanding the reasons behind these differences can help in identifying opportunities for promoting participation outcomes that better reflect work preferences. Such insights can also be helpful in determining the extent to which the historical trend for increasing mature age women's participation can continue.

Moreover, continued increases in the participation of mature aged women can assist in reducing the impact on living standards from an ageing population. The *Intergenerational Reports* (Australian Government 2002, 2007, 2010) and the Commission's own study for COAG on the *Economic Implications of an Ageing Australia* (PC 2005), identify this important contribution to continued prosperity.

1.1 Projected labour force ‘shrinkage’ heightens interest in participation

Interest in labour force participation has heightened in recent years due to projections of labour force ‘shrinkage’ and lower (per capita) economic growth associated with population ageing. The 2007-08 *Budget Paper No. 1*, for example, stated that:

Labour force utilisation is one of two key policy priorities identified in the Intergenerational Report 2007, released in April 2007, for addressing the inevitable slowing of economic growth arising from demographic change. (2007-08 Budget Paper No. 1, Statement 4, p. 4-3)

And, in an international context, *The Economist* observed that:

Despite the increased economic importance of women, they could become more important still: more of them could join the labour market and more could make full use of their skills and qualifications. This would provide a sounder base for long-term growth. It would help to finance rich countries’ welfare states as populations age. (*The Economist*, 12 April 2006, www.economist.com/node/6802551)

In the absence of changes to current policy settings, the aggregate participation rate in Australia is projected to fall from 65 per cent in 2005-06 to 57 per cent by 2046-47 due to ageing of the population (Australian Government 2007). Greater involvement in paid work by mature aged women offers one way of offsetting lower labour supply growth. And, to the extent that women’s participation is lower than it would otherwise be due to policies that distort work choices, higher participation of women could result in higher economic welfare.

Higher workforce participation by women could also serve social inclusion and equity goals. As Jaumotte argues:

... the issue of female participation is also the nexus of concerns about gender equity, poverty and child well-being. Gender equity and poverty reduction (particularly in the case of marital separation) provide grounds to advocate an increase in female participation. (Jaumotte 2004, p. 53)

1.2 Scope to lift female workforce participation?

There is, however, the question of to what extent is there scope to lift female workforce participation in Australia? Various benchmarks can be used to provide an indication of the scope to increase participation rates.

These benchmarks can include the use of various ABS measures of ‘underutilisation’ of labour resources such as ‘marginal attachment to the labour

force’, as well as comparisons of mature aged women’s participation with mature aged men and comparison with the participation of mature aged women in other OECD countries such as New Zealand, Canada and the United Kingdom. Each of these benchmarks suggest that there is some potential to increase participation rates of mature aged women in Australia, but those increases are likely to be more limited than over the past three decades.

There are a wide range of policy measures that may influence decisions by individuals about whether or not to participate in the labour force, or to adjust their hours worked. These include the age at which people can access their accumulated superannuation, eligibility criteria for accessing aged and disability support pensions, changes to income taxation arrangements, availability of child care places and subsidies for child care payments, the provision of more flexible and diverse working arrangements to facilitate work and caring, the provision of high quality education, training and health care.

Some of these measures, such as pension eligibility and flexible workplaces, can influence the participation of mature aged women directly. Other measures, such as the provision of child care and education and training, will assist by encouraging and enabling younger women to increase and maintain their involvement in the labour market, which can have positive flow-on effects on mature aged women’s participation in the future when these women enter older age groups.

But in considering policies to raise participation rates, it is important to recognise that increasing participation is not an end in itself. As was noted in the Commission’s Annual Report 2006-07:

... many people in Australia work until they have accumulated sufficient resources for a comfortable retirement. In contrast, labour force participation of the elderly is high in poor countries because people there have no alternative but to continue working.

There are reasons for some Australians preferring not to participate in the workforce, or wishing to lessen their involvement, that are entirely consistent with community wellbeing. (Productivity Commission Annual Report 2006-07, p. 2)

There may also be circumstances in which the shift of mature aged women from labour force inactivity to workforce engagement results in little, if any, benefit to the community. For example, caring for sick, disabled or elderly people is seen as a barrier to employment for some mature aged women and entails opportunity costs in the form of income foregone to individuals due to their involvement in caring activities.

However, if informal care provided by mature aged women is replaced by paid care services to encourage women back into the workforce, this involves a cost in terms

of providing the paid caring services. This replacement cost is an offset, at least partially, to the increased contribution of mature aged women to total hours worked in the economy. The issue in this situation is not the increase of mature aged women's contribution to the economy through greater labour force participation, but the recognition of their current contribution.

1.3 Objectives of the study

This study does not seek to make policy recommendations. Rather, it seeks to draw on research that examines the factors affecting the labour force participation of mature aged Australian women and possible lessons for policy, including from other countries' experiences, to better inform future policy development.

More specifically, the study seeks to identify the characteristics of, and the changes in, labour force participation of mature aged women over the last three decades including the demand and supply factors affecting these levels of participation and retirement decisions.

This study sits as a companion piece to previous work undertaken by the Productivity Commission, including *Potential Benefits of the National Reform Agenda* (PC 2006); *Workforce Participation Rates: How Does Australia Compare?* (Abhayaratna and Lattimore 2006), *Men Not at Work: An Analysis of Men Outside the Labour Force* (Lattimore 2007) and *Part Time Employment: the Australian Experience* (Abhayaratna et al. 2008).

1.4 Guide to the study

Chapter 2 provides an overview of the changes in mature aged women's participation over the past three decades. As well, it compares the experience of mature aged women in Australia with those in other OECD countries and with mature aged Australian men to place their experience in a broader context.

Chapter 3 describes the nature of the decisions women make when considering whether to work and investigates the extent to which their preferences are being met in terms of obtaining the employment they want and, if they do work, the hours that they work.

Chapters 4 and 5 describe the interplay of demand and supply factors that affect the labour force participation rates of mature aged women.

Chapter 6 examines the returns, both financial and non-financial, that mature aged women derive from working.

Chapter 7 provides an account of the retirement decisions of women and the extent to which they may be affected by ill health, financial security, eligibility for the age pension and other lifestyle considerations.

2 Trends in labour force engagement

Key points

- Women aged 45 to 64 years have been the fastest growing contributor to total hours worked in Australia over the last three decades, albeit from a low base.
 - In 2009 this group accounted for 15 per cent of total hours worked by people of working age (15 to 64 years), up from 6 per cent in 1979.
- This is due in part to the increasing share of the working age population accounted for by this demographic group (up by 3.6 percentage points to 18.7 per cent), but the greatest impact has been the increase in labour force participation of women aged 45 to 64 years.
- Hours worked per mature aged woman employed contributed little. After falling in the 1980s, average hours worked per week by mature aged women have steadily increased over the past 20 years. However, over the past three decades average hours worked per week has increased by only around 10 minutes per week.
- The 45 to 54 years age group has the highest rate of participation of all age groups of women (at 78.0 per cent) in 2009. Women in this age group are more likely to work full time and work slightly longer hours than older women.
- Participation for women aged 55 to 59 years drops to 63.4 per cent and participation for those nearing retirement (aged 60 to 64 years) drops further to 41.2 per cent.
- Participation at older ages appears to be driven largely by decisions to engage, and remain, in work taken earlier in women's working lives.
- This trend increase in participation by mature aged women is likely to continue in the near future (reflecting cohort effects of higher labour force participation rates of women in younger age groups entering mature age), but the rate of growth is likely to slow.
 - Participation rate gaps have narrowed considerably in recent decades between mature aged women and mature aged men in Australia and mature aged women in other OECD countries. Both these comparisons suggest that further growth in participation may be more limited than over the past three decades.
- There is also some scope for labour supply growth of mature age women from growing intensity of work, that is by increasing their average hours worked per week.

Mature aged women, aged 45 to 64 years, have been making a growing contribution to total hours worked in Australia. This chapter looks at the main influences behind this trend, and considers the scope for this trend to continue. This is affected by:

- demographic effects as mature aged women's share of the population grows
- changes in the life cycle pattern of female participation
- broader trends in labour force participation for mature aged women reflected, for example, in trends in other OECD countries, and trends for mature aged men.

2.1 The contribution made to total hours worked

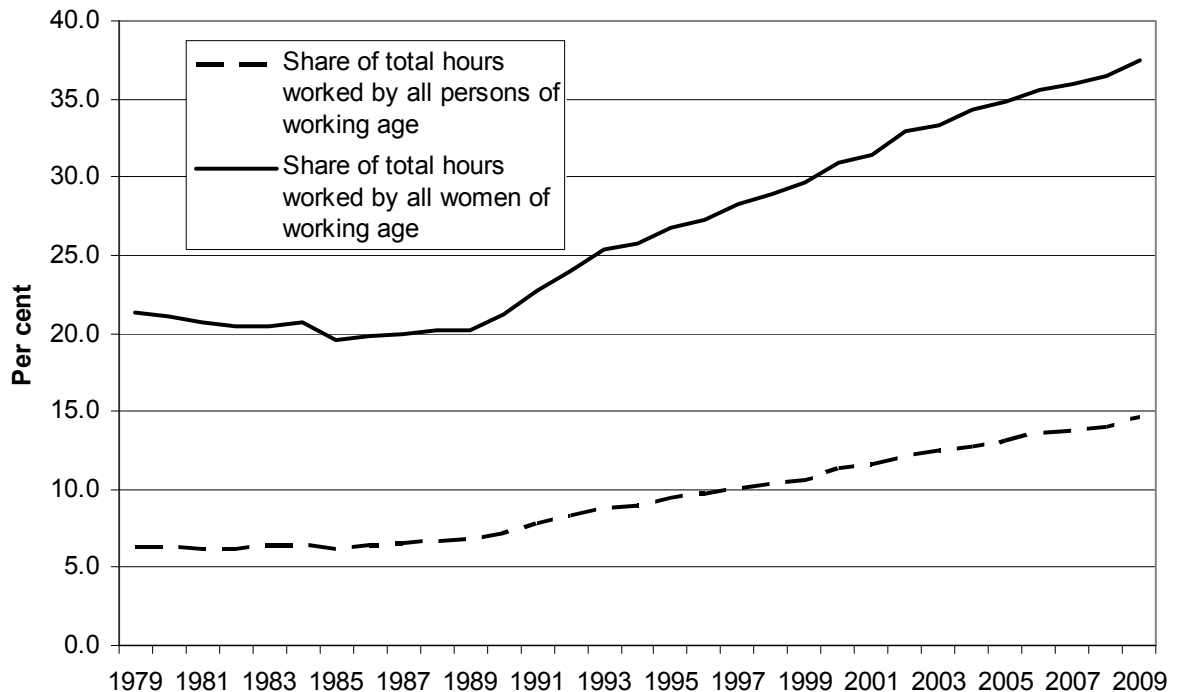
Women 45 to 64 years contribute an increasing share of total hours

The contribution made by mature aged women aged 45 to 64 years to total hours worked by people of working age (that is, those aged 15 to 64 years¹) has more than doubled over the past three decades, from 6 per cent in 1979 to 15 per cent in 2009. Further, mature aged women accounted for 38 per cent of the total hours worked by women of working age in 2009, up from 21 per cent in 1979 (figure 2.1).

The last three decades has seen marked shifts in the pattern of labour force participation of different demographic groups. Compared to other demographic groups, the growth in the share of hours worked by mature aged women has been very strong. The relative contribution of younger women, aged 15 to 44 years, to total hours worked by people of working age is very similar to the contribution made three decades earlier (24 per cent versus 23 per cent). The share of hours worked accounted for by mature aged men has only increased slightly (from 20 to 23 per cent). The increase in the shares of mature aged workers has been offset by a fall in the contribution of younger men to total hours worked (from 50 to 38 per cent) (table 2.1).

¹ Population of working age as defined by the ABS.

Figure 2.1 **Contribution of women aged 45 to 64 years to hours worked by people of working age, 1979 to 2009^a**



^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

The change in total hours worked among various age and gender groups can be considered to be the result of the following three effects:

1. the demographic effect — the extent to which the share of total hours worked by a group changes simply because of demographic changes affecting their share of the working age population
2. the participation effect — the extent to which the share of total hours worked by a group is affected by changes in their propensity to enter the workforce, that is the participation rate (which includes those seeking, but yet to have found, work)
3. the work intensity effect — the extent to which the share of total hours worked is affected by individuals finding employment and the hours they work in their jobs. The work intensity effect includes changes in the relative employment rate of mature women and the changes in the average hours worked for those in employment.

Table 2.1 Contribution to total hours worked by people of working age, 1979, 1989, 1999 and 2009^a

	1979	1989	1999	2009
	(% of total)	(% of total)	(% of total)	(% of total)
Women				
15 to 24 yrs	10.0	8.8	6.5	6.3
25 to 44 yrs	13.2	17.8	18.7	18.1
45 to 54 yrs	4.5	5.1	8.3	9.6
55 to 59 yrs	1.3	1.1	1.8	3.3
60 to 64 yrs	0.5	0.5	0.6	1.7
TOTAL	29.5	33.5	35.8	38.9
Men				
15 to 24 yrs	14.5	11.8	8.6	8.1
25 to 44 yrs	35.6	36.7	34.2	30.0
45 to 54 yrs	12.9	11.9	15.0	14.3
55 to 59 yrs	5.0	3.8	4.3	5.3
60 to 64 yrs	2.5	2.3	2.1	3.4
TOTAL	70.5	66.5	64.2	61.1

^a 12 month averages for each year. Individual categories for age groups may not sum to sub totals for women and men due to rounding.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

The demographic effect — mature aged women are a growing share of the population

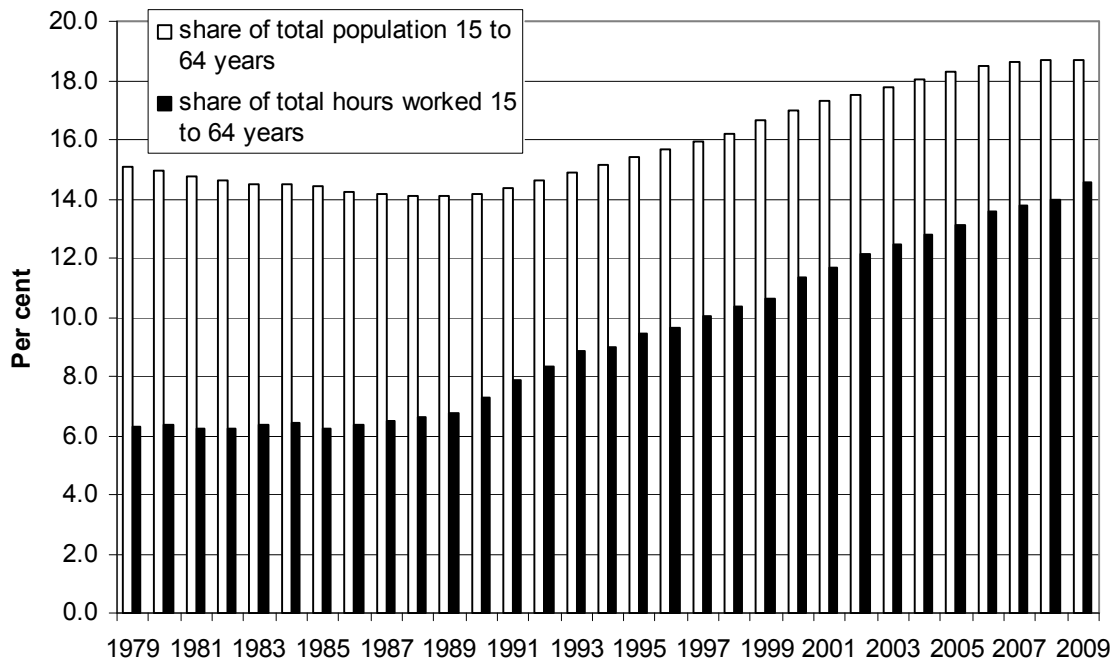
Compared to 30 years ago, women aged 45 to 64 years account for a larger share of the working age population — up by 3.6 percentage points to 18.7 per cent in 2009 (figure 2.2). This demographic effect accounts for over 40 percent of the rise in the share of total hours worked by this group over the 30 year period.²

The participation effect — there has been strong growth in the participation rates of mature aged women

Over the last 30 years, participation rates have risen for all age groups of women. They have changed the least for the 15 to 24 years and 25 to 44 years age groups and the most for the three older age groups of women. Indeed, women aged 45 to 54 years now have the highest participation rate (at 78.0 per cent) of all age groups of women (figure 2.3).

² This is derived by dividing the change in mature aged women's share of the working age population (3.6 percentage points) by the overall change in their share of total hours worked (8.3 percentage points).

Figure 2.2 **Women aged 45 to 64 years share of working age population and total hours worked, 1979 to 2009^a**



^a 12 month averages for each year.

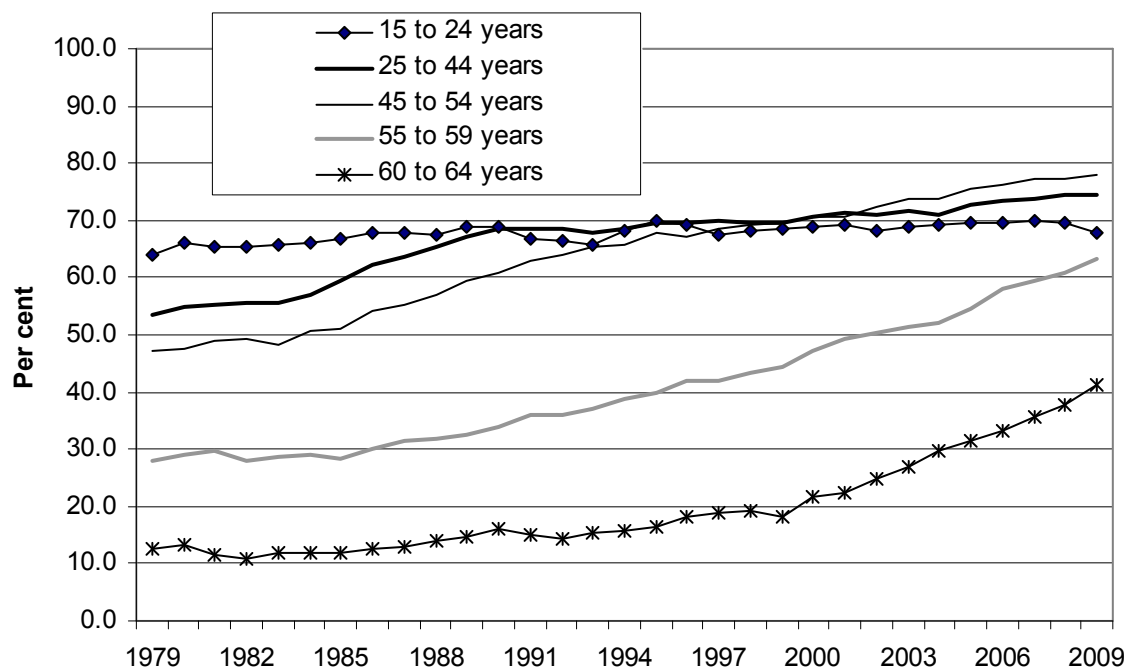
Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

This contrasts with the period up to the mid 1980s when this age group had much lower labour force participation rates compared to younger age cohorts of women. Several factors appear to be at work here. One is the effect of women remaining in the labour force as they enter mature age. The rate at which women re-enter the labour force after a period of absence while raising children may also be changing.

Lifecycle influences on participation rates

It has long been recognised that married women tend to have an ‘M shaped’ labour force participation pattern (Mincer 1962). For both women and men, participation generally rises with the completion of compulsory and further education, then falls again toward retirement age. For women there is a decline in participation in the prime age group (25 to 45 years) associated with child bearing and child raising responsibilities, and participation subsequently starts to rise once child raising responsibilities diminish when children commence schooling.

Figure 2.3 Changes in female participation rates by age group, 1979 to 2009^a



^a 12 month averages for each year.

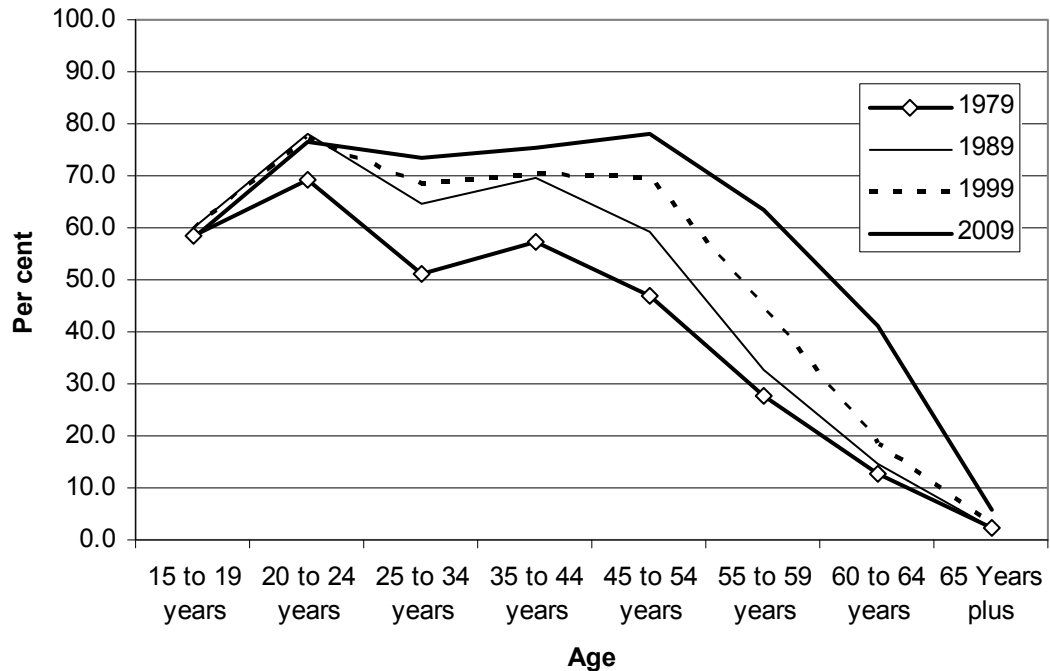
Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

The most obvious change in the lifecycle pattern of participation over the past three decades is the flattening of the ‘M’ profile with women being far less likely to leave the labour force (or they are likely to stay out for a shorter time) during child caring years than in the past (figure 2.4). This has led to successive upward pivots in the age participation curves with older age groups increasing labour force participation rates the most.

Cohort effects — increasing lifetime labour force participation for women

Much of the long term change in labour force behaviour noted above is due to cohort effects. That is, structural changes that increase labour force participation within an age group tend to be retained in that cohort as it ages over time. Cohort effects include any factors associated with particular birth years, arising from the common social and economic environment and experiences of people born around the same time, for example, increasing levels of education attainment.

Figure 2.4 The life cycle participation rate of women, 1979, 1989, 1999 and 2009^a



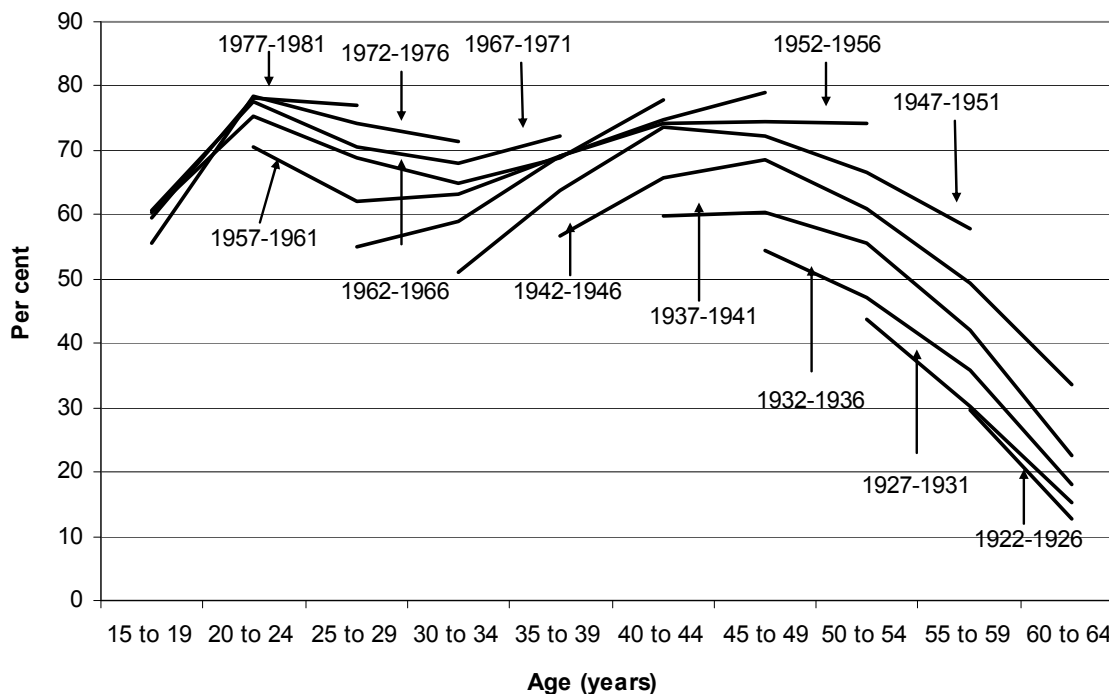
^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Changes in participation rates over five year intervals are shown in figure 2.5 for various age cohorts born from 1922-26 up to 1977-81. The period is not long enough to reflect a full life-cycle for any one age cohort, but it is clear that each progressive cohort of women is participating at a higher rate than the previous cohort. Participation has increased the most for the older age groups. For example, the cohort of women born between 1932 and 1936 had a participation rate of 54.5 per cent when they were aged between 45 and 49 years, whereas women born between 1957 and 1961 had a participation rate of 79.1 per cent when they were in the same age group.

Similarly, women born between 1927 and 1931 had a participation rate of 43.8 per cent when they were aged 50 to 54 years whereas women born between 1947 and 1951 had a participation rate of 66.5 per cent when they were aged 50 to 54 years. If these trends continue we would expect women born more recently to have much higher participation rates than earlier age cohorts when they reach the age of 45, and that they will continue to have higher participation rates through to retirement.

Figure 2.5 Age participation rates for women by cohort, as at 1982, 1987, 1992, 1997, 2002 and 2007^a



^a Each point for each age cohort represents their participation rate for a different year between 1982 and 2007. The age cohorts range from those born between 1922 and 1926 to those born between 1977 and 1981.

Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

The aggregate growth in women’s participation over the past three decades reflects a mix of three effects.

- The short term annual variations in employment affecting all demographic groups (called *year effects*). Year effects capture the effect of factors occurring commonly across all cohorts and age groups in a given year. The main factors influencing year effects are changes in the economic environment, particularly the labour market. Other factors which affect the decision or ability to work in the short term can also be considered as part of the year effect.
- Different age groups experience different levels of participation (called *age effects*). The age effect reflects the pattern of women’s participation as they age. As noted above, women’s participation rates are currently at their highest in the 20 to 24 and 45 to 54 years age groups.
- Longer term changes in the levels of participation for groups who were born at a given time (called *cohort effects*). Cohort effects arise from the common cultural and economic environment and experiences of women born at the same time. These common environments and experiences differ from those of individuals

born at other times and can produce different group behaviour. For example, women in younger age cohorts are better educated and have lower fertility rates than older cohorts, factors which, in turn, may affect their labour force participation as they age.

The Commission tested a number of models to determine the relative contribution of each of these effects. Details of the different model specifications can be found in appendix A. The alternative specifications produced broadly consistent findings.

The upward movement in the level of women's participation, shown in figure 2.5, is almost entirely explained by the age and cohort effects. Indeed, the results (appendix A) indicate that these two effects explain around 80 to 90 per cent of the variation in participation among cohorts over the past three decades.

The year or macroeconomic effect had little impact on this long term upward trend in participation. This is unsurprising as macroeconomic conditions (as measured by the unemployment rate for prime age men) have varied widely over the last 30 years, but with no sustained trend towards tighter or weaker labour markets.

The results generated by the model confirm that there is little interaction between the age and cohort effects, that is the cohort effects have operated broadly similarly across all age groups. The rise in participation by mature aged women is part of the overall rise in participation by women and does not reflect specific factors affecting this age group.

The work intensity effect — average hours worked by mature aged women have remained steady

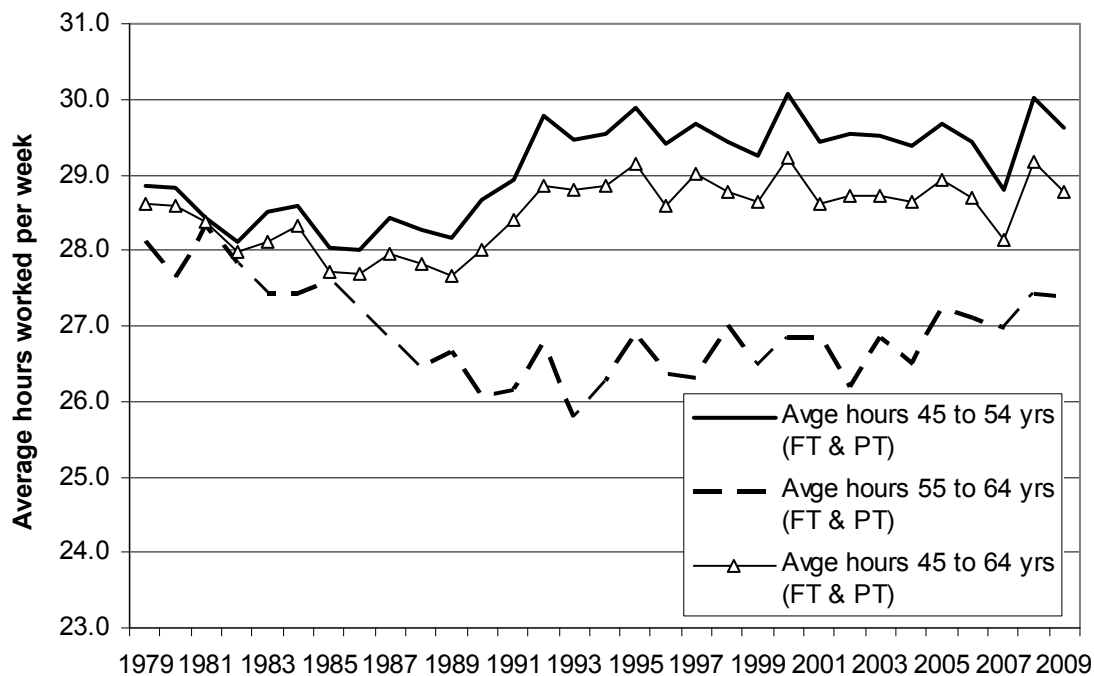
The final factor affecting the share of hours worked by mature aged women is the intensity of their work effort.

In 2009, women aged 45 to 64 years accounted for 16.7 per cent of total employment in Australia, while their share of hours worked was only 14.6 per cent.³ This disparity reflects the relatively lower average hours worked per week by employed women in this age group.

Over the thirty years to 2009, average hours worked by women aged 45 to 64 increased by just 0.16 hours per week (or 9.5 minutes). For women aged 45 to 54, hours worked declined slightly in the 1980s, but have risen slightly again since. For women 55 to 64, hours worked trended down from the early 1980s to the mid 1990s, but have subsequently risen slightly (figure 2.6).

³ Based on data from Labour Force Survey 96 STE07_Aug and ABS (2009) Labour Force Survey ST LM1.

Figure 2.6 Average hours worked for women aged 45 to 64 years, 1979 to 2009^a



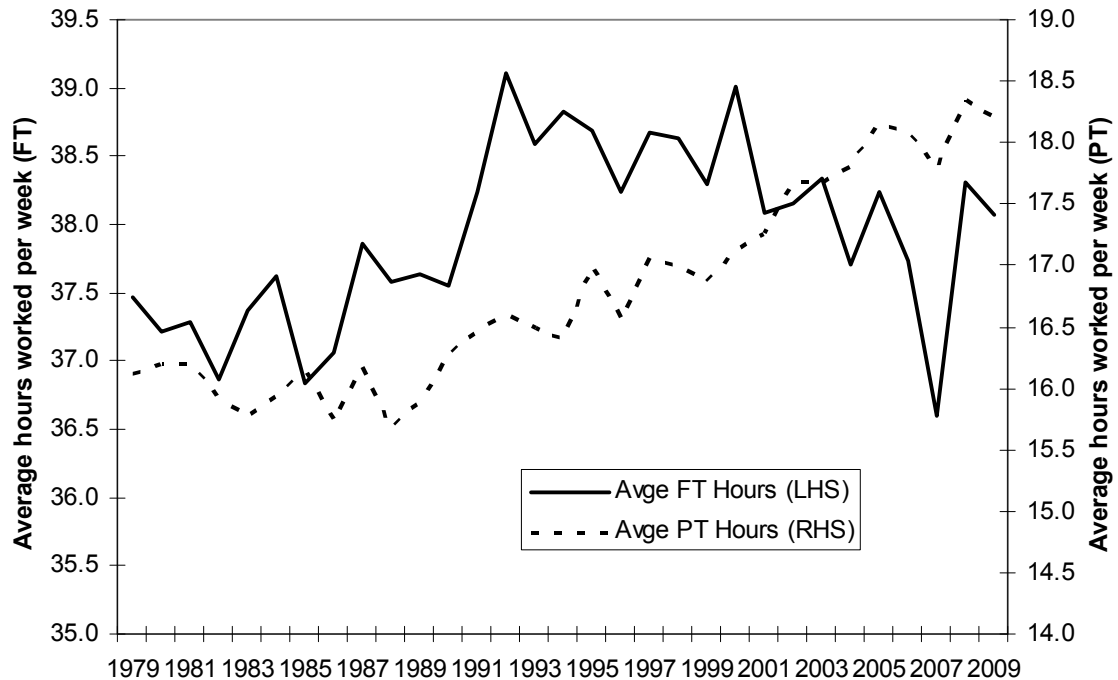
^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

The very small increase overall in average hours worked by mature aged women over the past thirty years, added slightly to the much stronger effect of the growth in participation and demographic changes on the growth in total hours worked by this group.

The changes in average hours worked reflect trends in the share of full time and part time employment and hours worked for those employed part time. For full time workers (that is those working more than 35 hours per week) there was, up until 2000, a rising trend (with some volatility) in average hours worked, but average hours have been trending down since (figures 2.7 and 2.8). For part time workers, average hours have been rising steadily since the early 1990s, for those in the 45 to 54 years age group, (figure 2.7), whereas for those in the 55 to 64 years age group (figure 2.8) average hours worked have been more stable and have increased only slightly in the period since 1979.

Figure 2.7 **Average hours worked for women aged 45 to 54 years — full time and part time, 1979 to 2009^a**

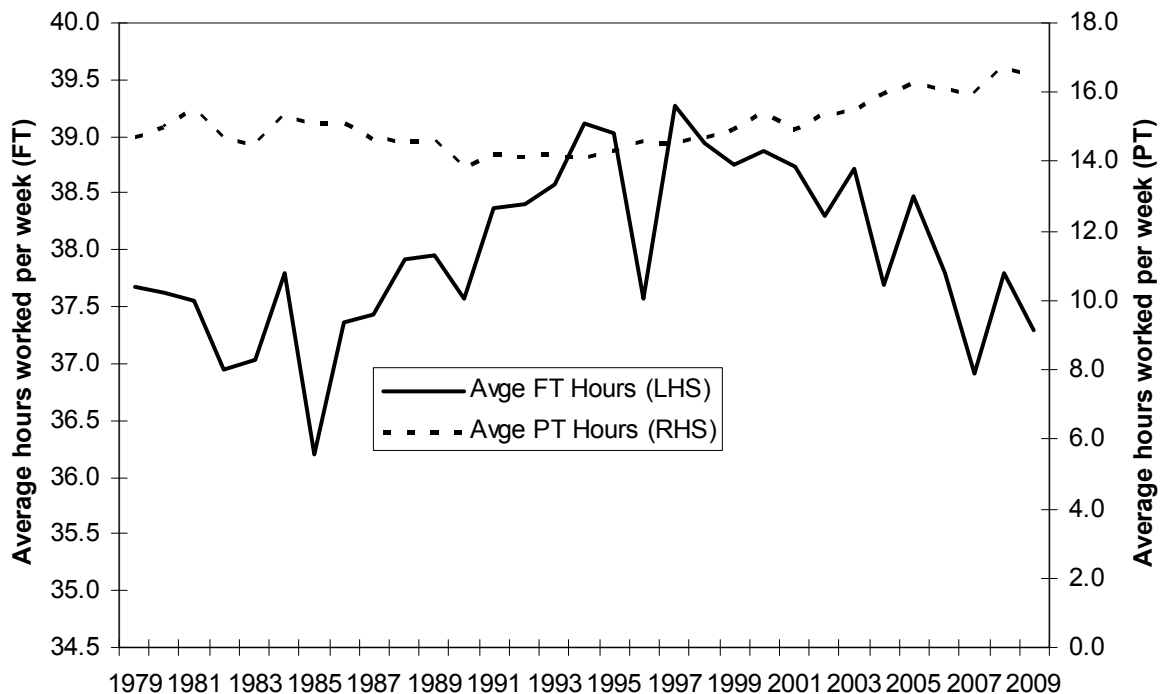


^a 12 month averages for each year. Full time work is defined as those working 35 hours per week or more.
 Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

Balanced growth in full and part time employment

Overall, both full time and part time employment offered growing employment opportunities for mature aged women. The shares of women 45 to 54 employed part time and full time remained fairly stable over the period from 1979 to 2009. There was, however, a slight increase in the share of older mature aged women (55 to 64) working part time (by around 5 percentage points). The decline in average hours worked by women aged 55 to 64 years can be largely explained by this modest shift towards part time employment (figure 2.9).

Figure 2.8 Average hours worked for women aged 55 to 64 years — full time and part time, 1979 to 2009^a

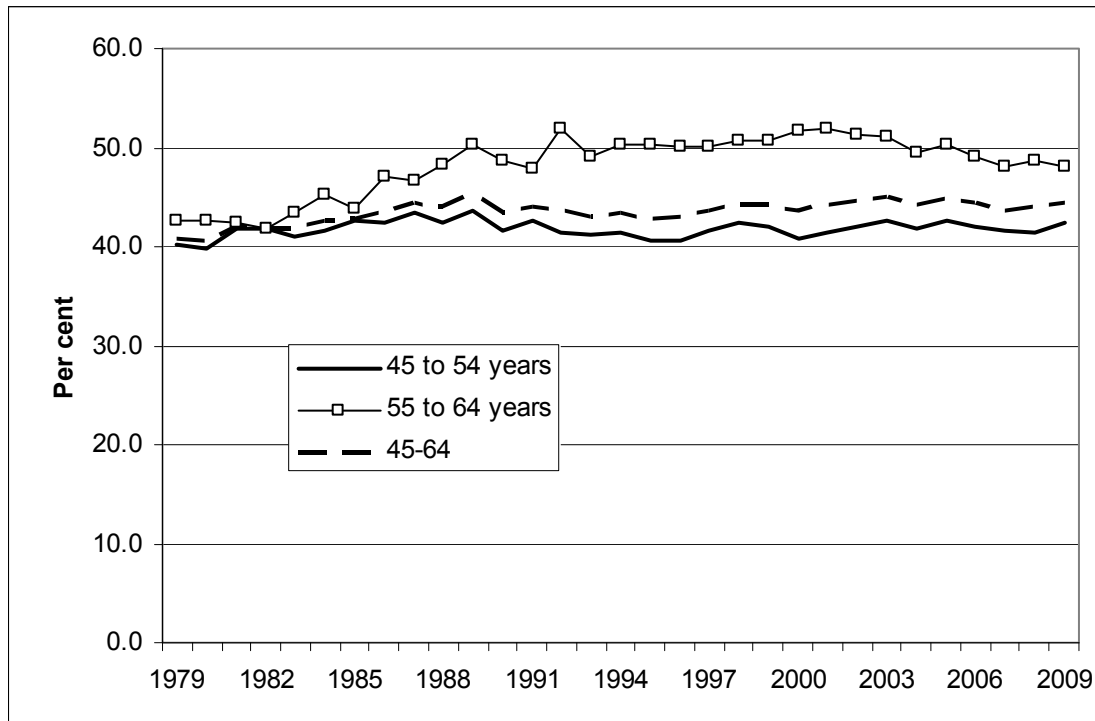


^a 12 month averages for each year. Full time work is defined as those working 35 hours per week or more.
 Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

In summary, the main drivers of mature aged women’s increased contribution to total hours worked is their increased participation in the labour force supported by their increased share of the working age population. Increased work intensity has provided further, albeit relatively subdued, support over the past twenty years.

The decline in work intensity for the older age group is a result of the rising share of part time workers, stable hours worked by part time workers and falling hours of full time workers. The rise in work intensity for women aged 45 to 54 years has been driven by increased hours of work by women in this age group working part time, which exceeds the dampening impact of falling hours of work for women working full time. The expansion of part time employment opportunities for the older age group may well have underpinned the growth in their participation over the period and contributed positively to the growth of total hours worked by women. It also points to changes in preferences for this age group, with respect to working hours, as they near retirement. This issue is taken up in chapter 7.

Figure 2.9 **Share of the female workforce employed part time by age group, 1979 to 2009^a**



^a 12 month averages for each year.

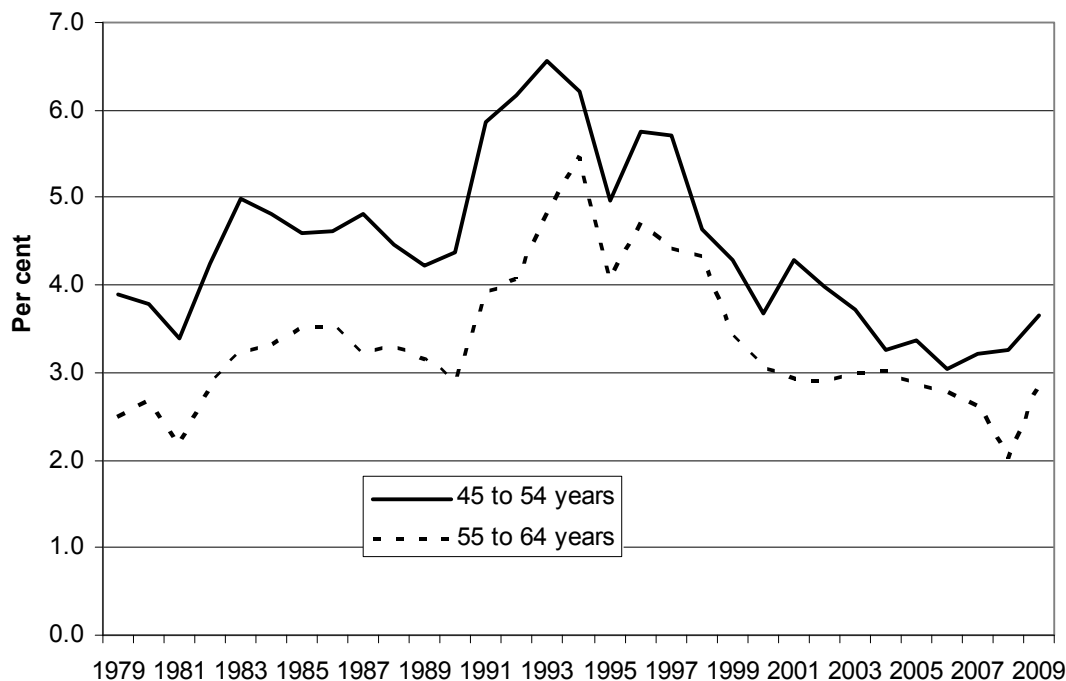
Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube EM1).

The other factor affecting the hours worked by women, given their participation in the labour force, is whether or not they have translated their entry to the labour force into employment. This is a fairly minor issue in terms of explaining the increase in the contribution to hours worked as, in general, mature age women have experienced relatively low unemployment rates, which have not changed in a consistent trend over the past three decades.

Trends in unemployment

The unemployment rate (figure 2.10) trended upwards for both the 45 to 54 and 55 to 64 years age groups from the late 1970s until the early 1990s. Since then there has been a declining trend with some increases (for example around 2001 and more recently with the economic slowdown following the Global Financial Crisis). Those aged 45 to 54 years consistently record slightly higher unemployment rates than those aged 55 to 64 years.

Figure 2.10 Unemployment rate (total) for women aged 45 to 64 years, 1979 to 2009^a



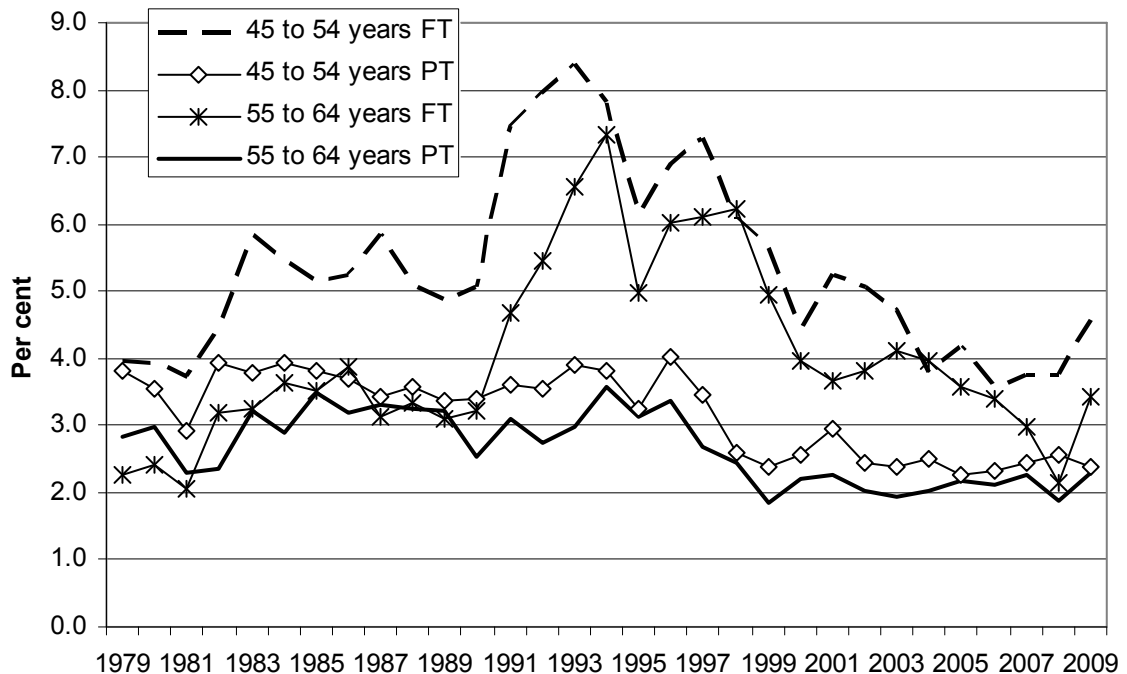
^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Figure 2.11 disaggregates the unemployment data showing rates for those seeking full time and those seeking part time work. The chart shows that full time unemployment rates are much higher than part time unemployment rates and part time unemployment rates also appear to be much more stable, only rising very slightly during periods of economic downturn.

Unemployed mature aged women and men are more at risk of becoming long-term unemployed than their younger unemployed counterparts. For example, in August 2010 just under one quarter (23.2 per cent) of unemployed women aged 45 to 64 years had been unemployed for 12 months or more. This compares with 19.1 per cent of unemployed women aged 25 to 44 years and 12.9 per cent of unemployed women aged 15 to 24 years (ABS (2010a)).

Figure 2.11 Part time and full time unemployment rates for women aged 45 to 64 years, 1979 to 2009^a



^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Despite around one quarter of unemployed mature aged women being long-term unemployed, the strength of economic conditions over the past decade has contributed to a steady fall in the incidence of long-term unemployment⁴ for unemployed mature aged women. Historically, mature aged men were more likely to be long-term unemployed than mature aged women. However, the gap between the two has narrowed considerably over the past decade to the point where mature aged women are now only slightly more likely to be long-term unemployed than unemployed mature aged men.

The average duration of unemployment has historically been much higher for mature aged men than for mature aged women. However, in recent years there has been substantial convergence (figure 2.12).

⁴ Long-term unemployment as a share of total unemployment.

Figure 2.12 Average duration of unemployment for mature aged women and men, 1998 to 2009^a



^a 12 month averages for each year. Refers to average duration of unemployment since last full time job held for unemployed women and men aged 45 to 64 years.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube UM3).

2.2 The scope to increase labour force engagement

The central question about mature aged women’s labour force engagement is the extent to which it is likely to increase further — both in terms of participation and in terms of work intensity. The cohort effect described above suggests that participation will increase, at least for the next few decades, as the current higher participation rates flow through to increased participation rates at older ages. In considering how high is it likely to go, it is useful to look at some benchmarks that may point to future trends and possible limits to future growth.

One benchmark is the level of workforce engagement of men in Australia. The question is whether older women’s engagement will converge to that of mature aged men, or follow a different pathway. Another benchmark is the levels of participation of mature aged women in other countries.

Participation rates of mature aged women still lag behind those of men

Women in mature age groups participate at a lower rate than men of the same age, though the gaps have narrowed considerably in the past three decades. For example, the gap in participation between women and men aged 45 to 54 years in 1979 was 44.5 percentage points (table 2.2). This gap had narrowed to only 10.6 percentage points by 2009. Similarly the participation gap between women and men aged 55 to 59 years narrowed from 54.3 percentage points to 14.9 percentage points, while the gap between women and men aged 60 to 64 years narrowed from 41.6 percentage points to 18.2 percentage points.

The peak age of participation for women in 1979 was in the 20 to 24 year age group followed by the 15 to 19 year age groups (69.3 per cent and 58.6 per cent, respectively). By contrast, four age groups for women had participation rates exceeding 70 per cent in 2009, with the highest being for women aged 45 to 54 years at 78.0 per cent, up from 47.1 per cent in 1979. However, this is still well below the rate recorded by men aged 45 to 54 years (88.6 per cent).

Table 2.2 Narrowing participation rate gap between women and men by age group, 1979 and 2009^a

Age Group	1979			2009		
	Women (%)	Men (%)	PR gap % pts	Women (%)	Men (%)	PR gap % pts
15 to 19 yrs	58.6	64.1	-5.5	58.2	56.0	2.2
20 to 24 yrs	69.3	90.9	-21.6	76.6	84.3	-7.7
25 to 34 yrs	51.0	96.2	-45.2	73.3	91.2	-17.9
35 to 44 yrs	57.2	95.9	-38.7	75.3	91.2	-15.9
45 to 54 yrs	47.1	91.6	-44.5	78.0	88.6	-10.6
55 to 59 yrs	27.8	82.1	-54.3	63.4	78.3	-14.9
60 to 64 yrs	12.8	54.4	-41.6	41.2	59.4	-18.2
65 plus	2.4	11.6	-9.2	5.9	15.1	-9.2

^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Long term trends in participation for mature aged women and men are shown in figure 2.13. While this paper concentrates on outcomes for mature aged women, it is interesting to note that in the past decade there has been a reversal in the trend towards early retirement for men with a gradual lift in participation for men aged 55 to 64 years. The participation rate for men aged 45 to 54 years has risen slightly in the past 10 years — by 1.3 percentage points — but increases in participation recorded by men aged 55 to 59 years and those aged 60 to 64 years have been much

greater — up 5.8 percentage points and 12.7 percentage points, respectively (figure 2.13).

Thus, the narrowing of the gender gap in participation in the past decade for mature aged women has occurred at the same time as a slight increase in the participation rate of similarly aged men. These trends suggest complementarity, at the macro labour market level, rather than any substitution in labour force participation between men and women as they approach retirement.

Participation, however, is only part of the story. Because participation rates are a head-count measure (they cover those working full time and part time, as well as those unemployed), if women work less hours than men, comparisons of participation rates alone will tend to overstate the narrowing of the gap between the contribution to total hours worked in the economy of women and men.

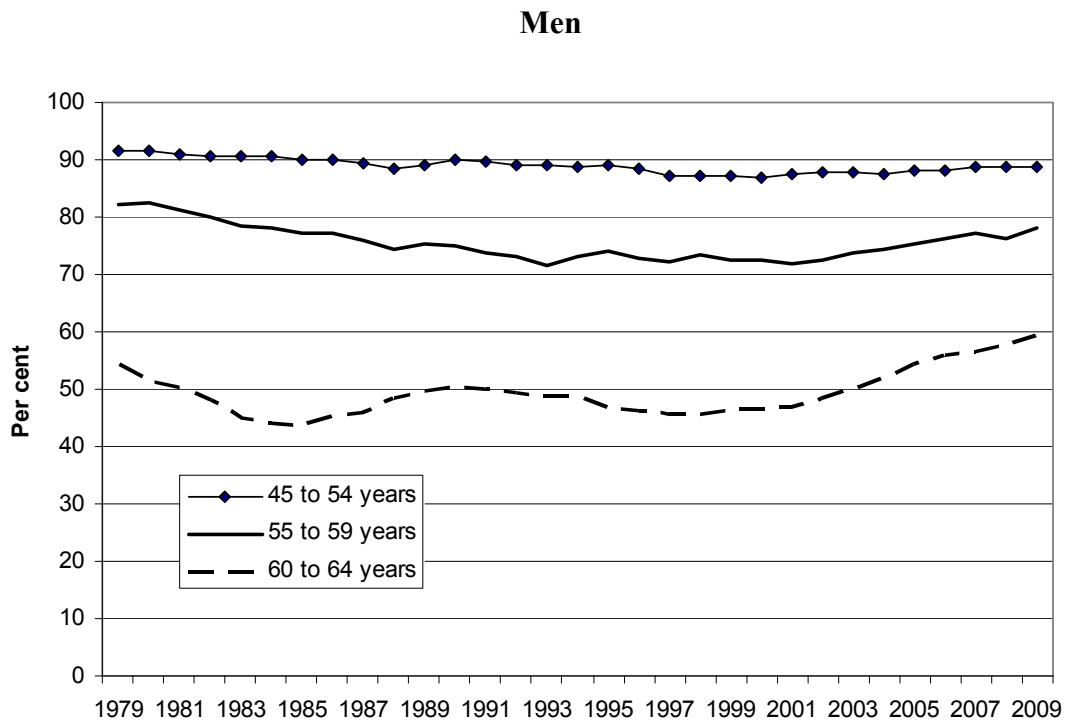
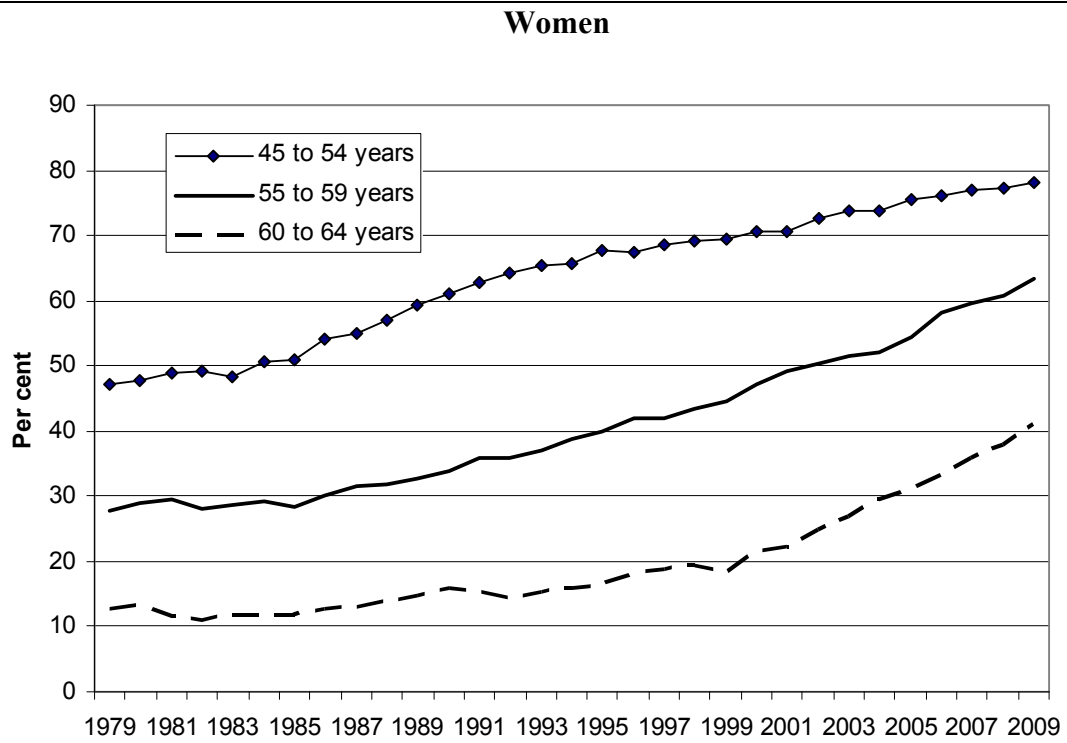
Differences in distribution of hours worked by men and women

Women are much more likely to work part time and are much less likely to work longer hours than men. For example, around 45 per cent of employed women aged 45 to 64 years were working part time in 2009, compared with 12 per cent of men of the same age (ABS (2010a)).

The proportion of employed mature aged women working 34 hours or less in 2009 (which is defined as part time hours) was slightly higher at 53 per cent with the discrepancy being due to some women who normally work full time working shorter hours at the time of the survey.

The proportion of employed mature aged women working a 40 hour week fell from 25 per cent in 1979 to 11 per cent in 2009, while the proportion working 16 to 34 hours rose from 30 per cent to 37 per cent. Over the past three decades there has been a slight increase in the proportion of women aged 45 years or more working longer hours (50 hours per week or more), from 7 per cent to 10 per cent, while the proportion of employed men working these hours rose from 20 per cent to 23 per cent (figure 2.14).

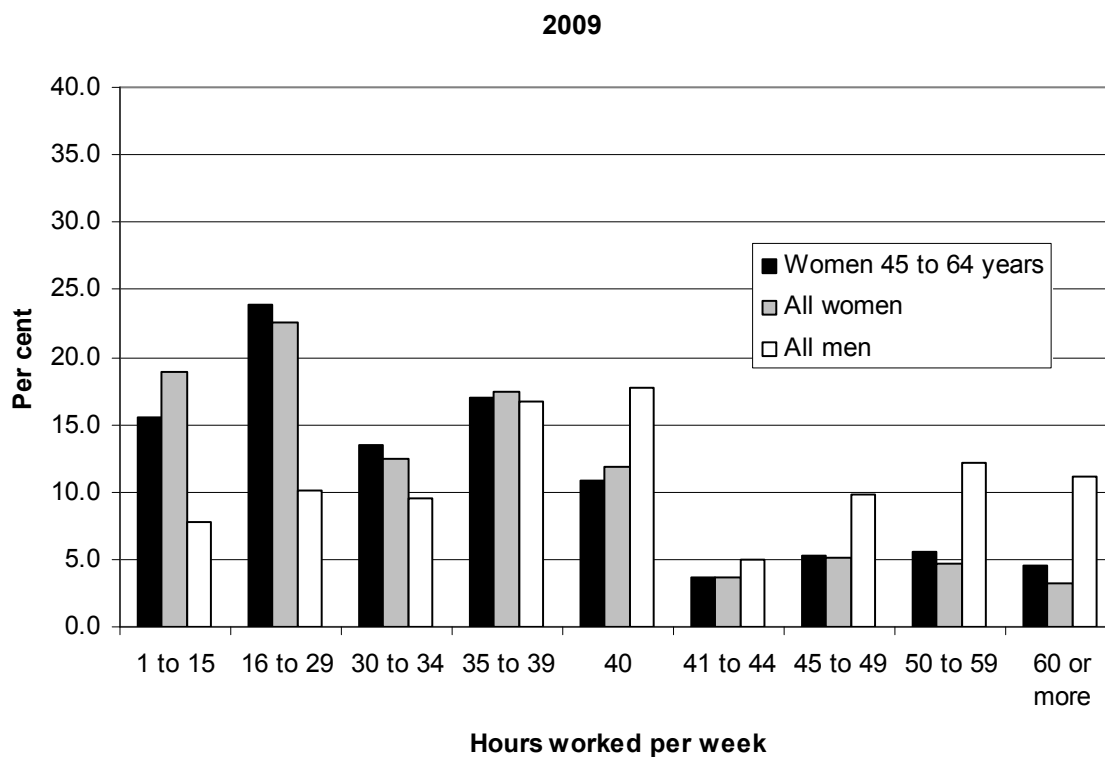
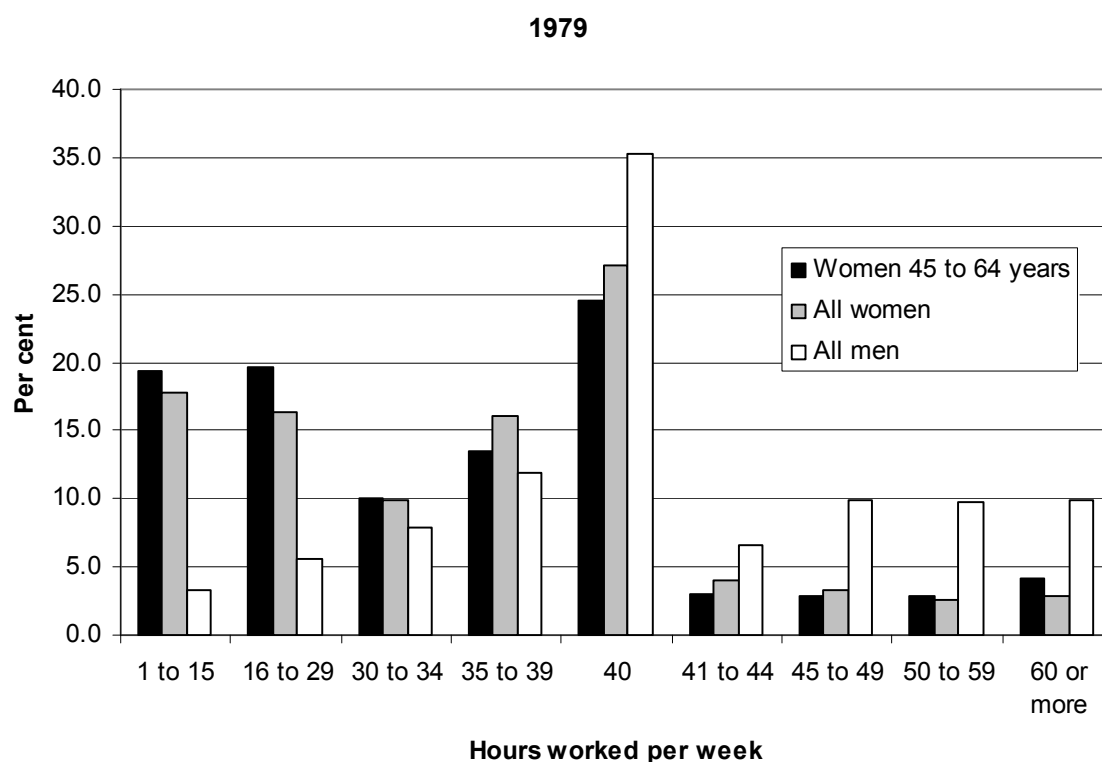
Figure 2.13 Gender trends in participation, 1979 to 2009^a



^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Figure 2.14 Distribution of working hours by gender, 1979 and 2009^a



^a 12 month averages for each year.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Differences in hours worked and employment rates

The gap in average hours worked by mature aged men and women has narrowed over the last three decades, with a slight rise in average hours worked by women aged 45 to 54 years and 55 to 59 years and a fall in the average hours worked by men in all age groups. The gap has widened slightly for those aged 60 to 64 hours as the fall in hours worked by women in this age group was greater than the fall for men (table 2.3).

Nonetheless, there remain large gaps in the work intensity of mature aged women compared to men. This is explained by historically higher rates of part time employment among women.⁵ For example, the part time employment rate for women aged 45 to 54 years was 31.9 per cent in 2009 which compares with only 7.0 per cent for men of the same age.

The full time employment rate of women aged 45 to 54 years has risen by 16.2 percentage points to 43.3 per cent in the thirty years to 2009, and the full time employment rate for women aged 55 to 59 years rose by 19 percentage points (table 2.3). However, the ratio of full to part time employment has remained relatively constant (figure 2.9), so the impact on trends in average hours worked is negligible.

Men aged 45 to 54 years worked an average of 39.8 hours per week in 2009 compared to 29.6 hours per week for similarly aged women — a difference of 10.2 hours per week. The gap between the two has narrowed slightly by one hour per week in the past 30 years.

Employment rates for all age groups of mature aged women — the combination of part time and full time employment rates — have increased considerably over the past thirty years. The employment rate for women aged 45 to 54 years has increased by almost 30 percentage points, while the rate for women aged 55 to 59 years and 60 to 64 years has risen by just over 34 percentage points and almost 28 percentage points, respectively (table 2.3).

Thus, the convergence of employment rates for mature aged women and men over the past thirty years has been due to the combination of an increase in employment rates of women in this age group in both full and part time employment and the decline in employment rates of mature aged men apart from those aged 60 to 64 years.

While there is room for participation of mature aged women to increase in terms of hours worked per week this is constrained somewhat by their strong preference for

⁵ The rate of part time employment is the proportion of women working part time.

part time hours (discussed in chapter 3). However, the growing importance of full time work for this group over the past three decades should not be discounted — particularly for those aged 45 to 59 years.

Table 2.3 Employment rates and average hours worked by age and sex, 1979 and 2009^a

	1979			2009		
	Women	Men	Difference	Women	Men	Difference
PT Employment						
Rate (%) ^b						
45 to 54 yrs	18.2	2.6	15.6	31.9	7.0	24.9
55 to 59 yrs	11.4	3.4	8.0	26.7	10.1	16.6
60 to 64 yrs	5.4	4.7	0.7	22.4	12.7	9.7
FT Employment						
Rate (%) ^c						
45 to 54 yrs	27.1	86.6	-59.5	43.3	78.0	-34.7
55 to 59 yrs	15.6	76.0	-60.4	34.6	65.6	-31.0
60 to 64 yrs	7.1	47.7	-40.6	17.8	44.1	-26.3
Employment						
Rate (%) ^d						
45 to 54 yrs	45.3	89.2	-43.9	75.2	85.0	-9.8
55 to 59 yrs	27.0	79.4	-52.4	61.3	75.7	-14.4
60 to 64 yrs	12.5	52.4	-39.9	40.2	56.8	-16.6
Average hours						
worked per week						
45 to 54 yrs	28.9	40.1	-11.2	29.6	39.8	-10.2
55 to 59 yrs	27.9	38.1	-10.2	28.4	38.0	-9.6
60 to 64 yrs	27.9	36.8	-8.9	25.3	35.5	-10.2

^a 12 month averages for each year. ^b Number of persons employed part time as a proportion of the population. ^c Number of persons employed full time as a proportion of the population. ^d Number of persons employed as a proportion of the population.

Source: ABS (Labour Force, Australia, Cat. no. 6291.0.55.001, Data Cube LM1).

Comparisons with participation of older women in other OECD countries

Another benchmark for the possible scope to increase the labour force engagement of mature aged women is the experience of women in other countries. The last two decades have witnessed strong growth in labour force participation for older women in most developed OECD countries. Balleer et al. (2009) found that the participation rate of women aged 55 to 64 years has increased markedly in recent years across the Euro area countries. A number of factors have contributed to the increase including: robust employment and economic growth from the mid 1990s

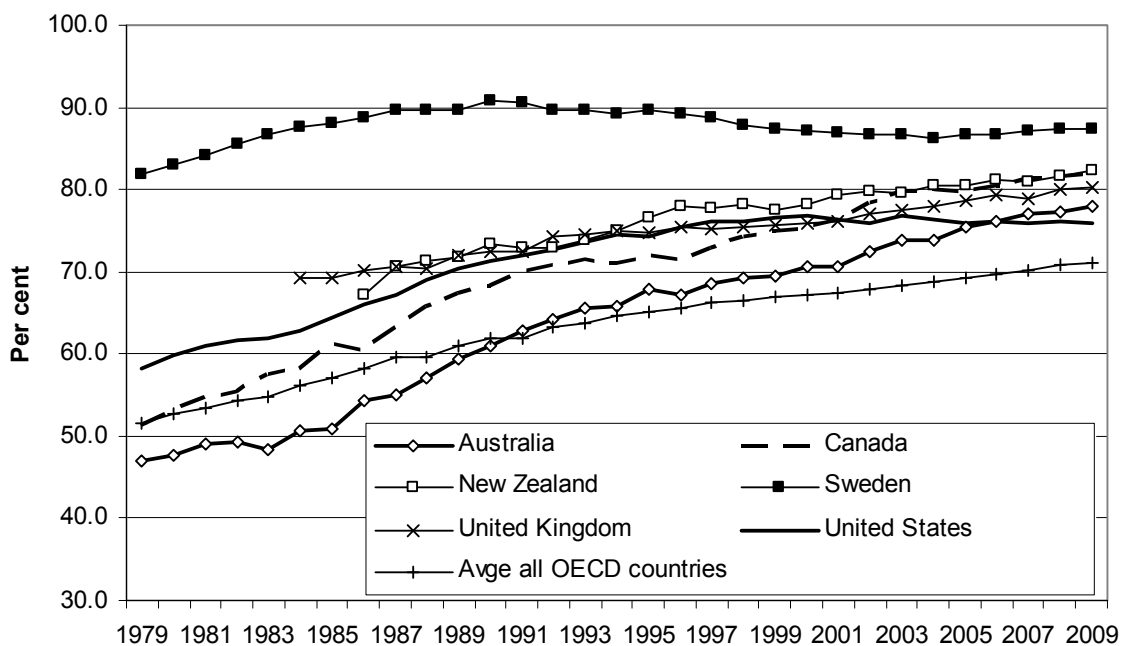
(until the Global Financial Crisis); reforms targeted at groups with lower attachment to the labour market; and changes in cultural attitudes to work (particularly for women).

The authors of the study also concluded that age and cohort effects can explain a substantial part of the increase in labour force participation in the Euro area, but not the surge since the early 2000s. Depending upon the country, the estimated cohort profiles show an increase of 10 to 30 percentage points in female participation. The cohort effects were particularly significant for women, with those born in the late 1960s and early 1970s more likely to be participating in the labour market than women born earlier. Forward projections indicate that female participation will continue to increase in the Euro area through to 2030, stabilising at around 70 per cent, while participation for men will be characterised by a declining trend to around 74 per cent (Balleer et al. 2009).

Participation rates of women 45 to 54 years — closing the gap on OECD leaders

The growth in the participation rate of women aged 45 to 54 years in Australia has been stronger than in a number of OECD countries, albeit starting from a much lower base (figure 2.15).

Figure 2.15 Labour force participation of women aged 45 to 54 years across selected OECD countries, 1979 to 2009

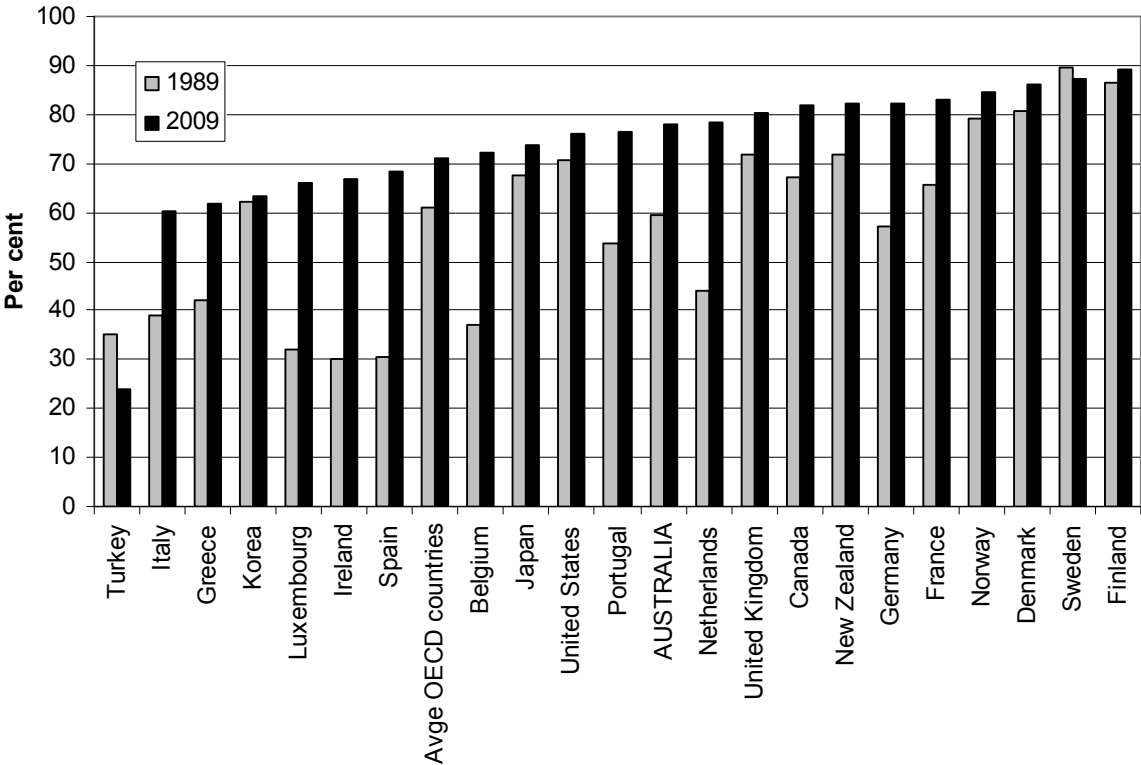


Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

The participation rate for Australian women aged 45 to 54 years was 78.0 per cent in 2009, which is well in excess of the OECD average of 71.0 per cent. The gap between the highest participation recorded by an OECD country for this age group and Australia's participation rate has narrowed from 34.8 percentage points in 1979 (when the lead country Sweden recorded a rate of 81.9 per cent and Australia recorded a rate of 47.1 per cent) to 12.2 percentage points in 2009 (when the lead country the Czech Republic participation rate was 90.2 per cent).

Despite the strong increase in labour force participation over the past three decades, Australia was ranked only 18th amongst 33 OECD countries in 2009 for participation rates for this age group of women. Australia's rate of 78.0 per cent was, for example, below that for Finland (89.1 per cent), Sweden (87.4 per cent), Norway (84.4 per cent), France (83.1 per cent), Germany (82.3 per cent), New Zealand (82.2 per cent) and the United Kingdom (80.3), but slightly above that for the United States (76.0) (figure 2.16).

Figure 2.16 Comparisons of participation rates of women aged 45 to 54 years, selected OECD countries, 1989 and 2009



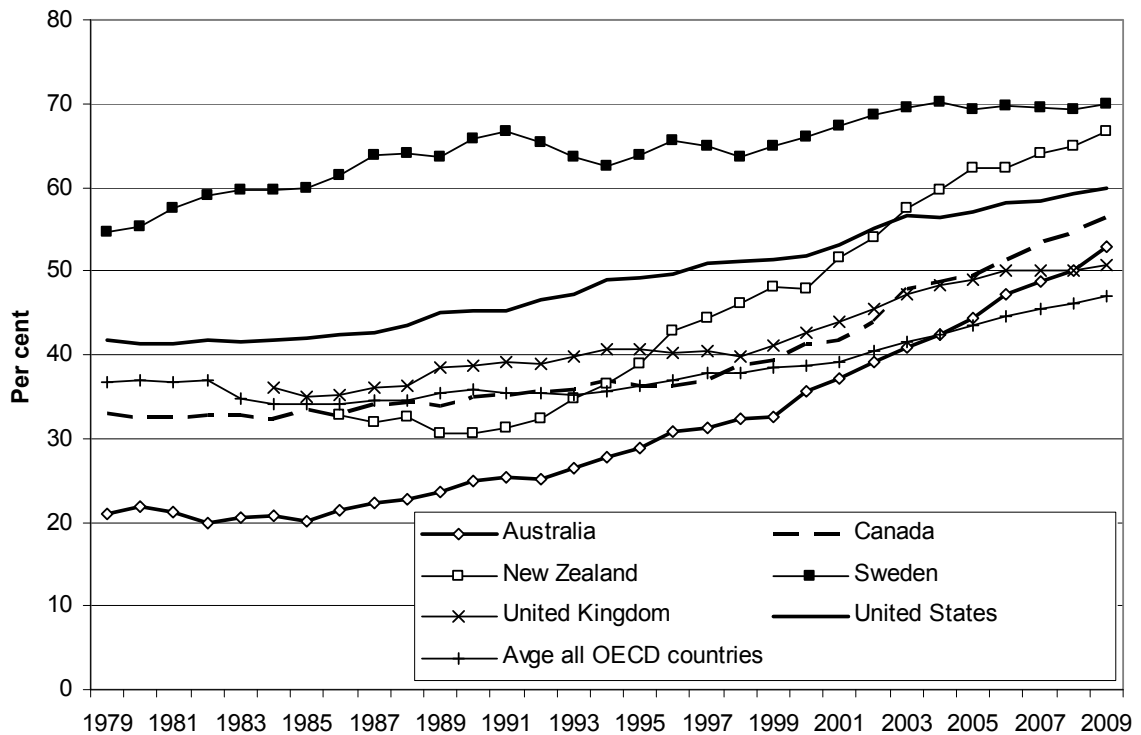
Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

Participation rates of older Australian women still lags the OECD leaders

The participation rate of women aged 55 to 64 years in Australia in 2009 was 52.9 per cent and significantly above the OECD average for this age group of 47.0 per cent. By comparison, in 1979 the rate for Australian women aged 55 to 64 (21 per cent) was well below the OECD average (37 per cent).

Participation for Australian women in this age group was fairly stable between 1979 and 1989, but has been rising steadily in the two decades since — up 29.3 percentage points (figure 2.17).

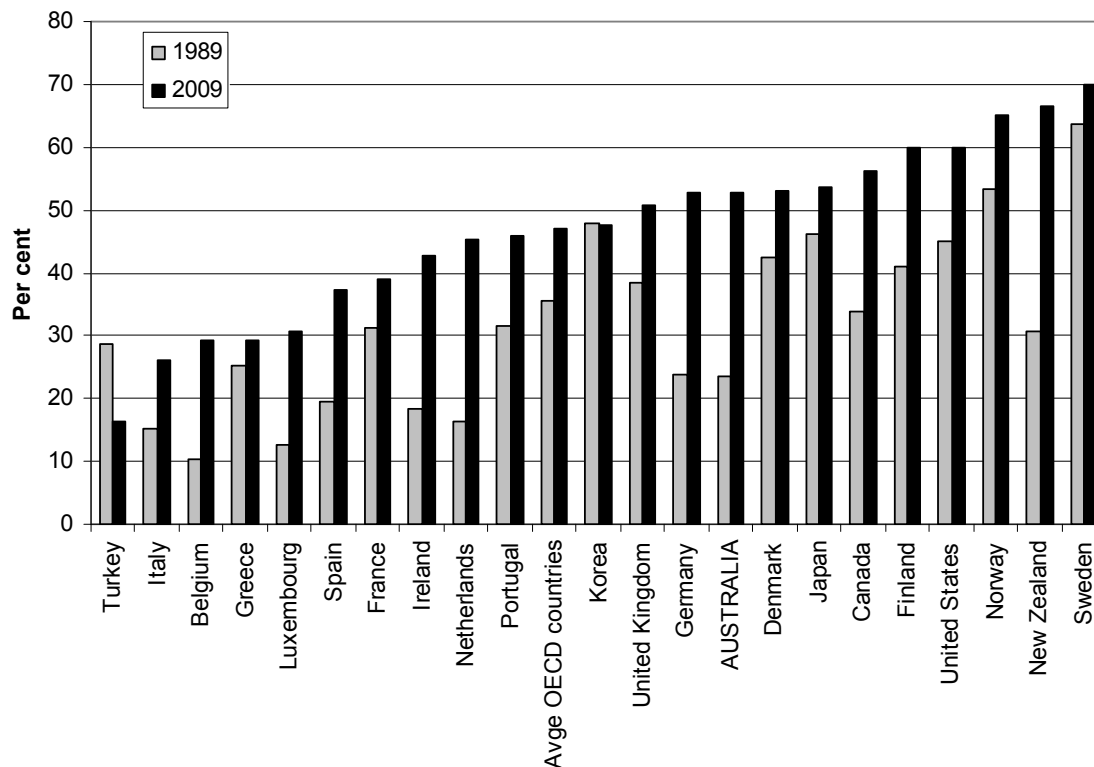
Figure 2.17 Labour force participation of women aged 55 to 64 years across the OECD, selected countries, 1979 to 2009



Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

Despite this increase, Australia was ranked equal 12th (with Germany) amongst 33 OECD countries in 2009, for participation rates for this age group of women. Australian participation rates are 13.7 percentage points below those of New Zealand and 17.1 percentage points behind the rate recorded in Sweden (figure 2.18).

Figure 2.18 Comparisons of participation rates of women aged 55 to 64 years, selected OECD countries, 1989 and 2009

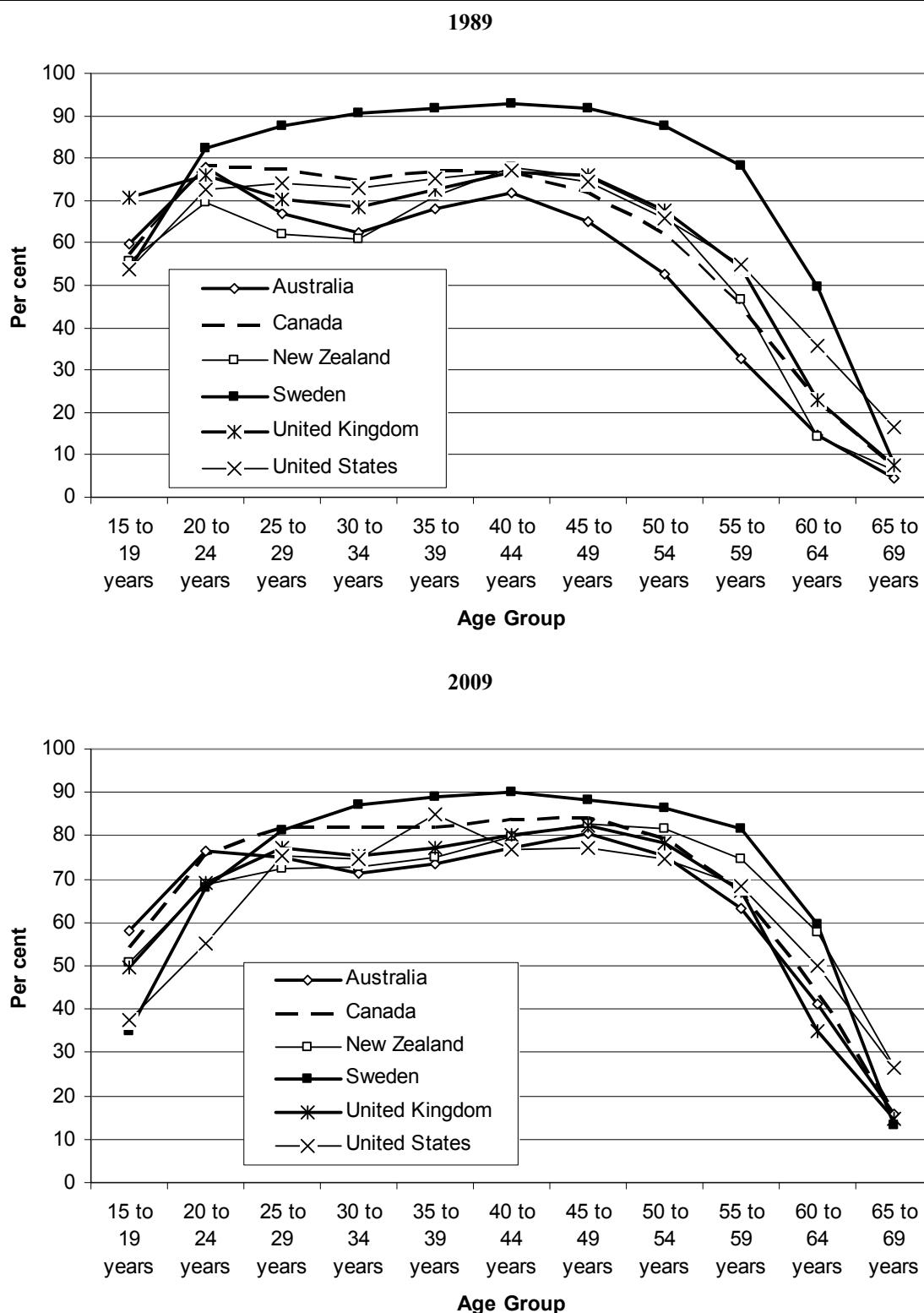


Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

Compared to other countries Australian women continue to display a strong life-cycle participation pattern

While the ‘M shaped’ curve for labour force participation has been flattening over time, it still is pronounced in countries such as Australia and New Zealand, compared to many European and North American countries (figure 2.19). For most countries, labour force participation of women peaks in the 40 to 49 age group. However, direct country comparisons mask differences in maternity leave entitlements and how such leave is treated by statistical agencies when measuring labour force statistics. The variations in the level and shape of age participation profiles between countries may also reflect cultural and institutional factors and provide only a very general guide to future levels of participation rates in Australia.

Figure 2.19 Participation rates for women by age in various OECD countries, 1989 and 2009 ^a



^a In some OECD countries women are regarded as in the labour force while on extended maternity leave.
 Source: OECD OnLine Information Service (OLIS) Statistics Portal, accessed November 2010.

Nevertheless, cross country comparisons indicate that there is still room for the labour force engagement of mature aged women in Australia to grow. However, the narrowing of the gap between Australian participation rates and those in leading OECD countries suggests that such growth is likely to be more limited than in the recent past.

3 Lifestyle choices and work preferences of mature aged women

Key points

- In making choices about engagement in paid employment mature aged women will weigh up the enjoyment of, and remuneration from, paid work against any lost government benefits or allowances and the opportunity cost in terms of time that could otherwise be spent in activities such as engagement in domestic activities, voluntary work, education, leisure and travel.
- There is a substantial group of mature aged women who have a strong attachment to home duties or other non-work activities and even relatively large changes in economic incentives are unlikely to alter their decision not to work.
 - Choice may also be constrained by obligations to care for children or a sick, disabled, or elderly partner or relative.
- Time use by women varies from that of men and across age groups. This reveals differences in preferences and constraints. Relative to men, women devote less of their time to employment, recreation and leisure activities and more of their time to domestic activities and caring roles. Mature aged women devote less time to education and child care, but more to voluntary work/care than younger women.
- The scope for accelerating the growth in participation in the labour force for mature aged women is limited. There are only around 7 per cent of mature aged women (or around 200 000) who are not in the labour force but wanted to work. More importantly, of mature aged women not in the labour force, two thirds did not want to work, while just over 11 per cent were permanently unable to work.
- There appears to be little scope to increase labour force engagement by those women already attached to the labour force by fully meeting their preferences. A substantial proportion of mature aged women working part time would like to increase their hours of work. But more than offsetting this is the significant share of mature aged women working full time who want to reduce their hours of work.
- Against the background trend of continued growth in participation, these findings suggest that the scope to accelerate growth in current mature aged women's involvement in the labour force in terms of labour force participation or in terms of hours of work may well be limited.

The previous chapter described the increase in hours worked by mature aged women, both in absolute terms and as a share of the total hours worked by all persons. Demographic changes and higher labour force participation were the main proximate drivers, with no substantive change in average hours worked. The modest rise in average hours worked by part time workers was almost fully offset by the fall in the hours of women working full time.

This chapter presents a framework for examining factors which affect the decisions made by women about engaging in paid work. An analysis of their allocation of time to various activities such as education, work, leisure, domestic activities and child care over the life cycle reveals differences in the preferences of mature aged women relative to younger women and men. The chapter also considers the constraints on mature aged women's participation and hours worked decisions, and the extent to which preferences are being matched.

3.1 A framework for considering participation decisions

The trade-off between paid work and other activities

How much paid work (referred to hereafter as 'work') to undertake is a fundamental decision facing most individuals. There are various economic and non-economic approaches that can shed light on such a decision. Economic theory emphasises the role of individual decisions in weighing up the costs and benefits of working relative to other activities. The decision on how time is allocated between competing activities requires a trade-off between the returns from work and the returns from other activities such as leisure, caring responsibilities and education. This trade-off depends on the individual's preference for work and the consumption it supports, and the level of satisfaction they receive from other activities. If the returns to work increase, say from a wage rise, generally individuals tend to sacrifice some non-work activities for more work (chapter 5). The decision can be represented in a time allocation model (box 3.1).

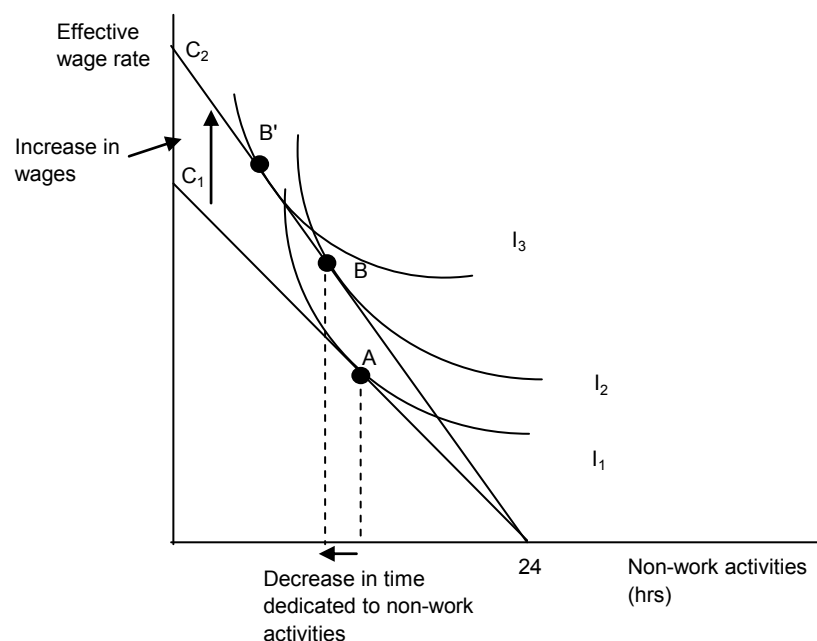
Box 3.1 Time allocation model

The trade off between the time spent on work and non-work activities is shown in the diagram below. The maximum time spent on work and non-work activities is fixed — there are only 24 hours in a day. But maximum income — when an individual allocates all their time to work — depends on the wage less related costs of working (such as travel costs and childcare costs). This effective wage rate determines the available decision set (also known as the budget constraint) which is represented by the line C_1 .

An individual's preferences between work (and the income it delivers) and non-work activities is represented by the indifference curve I_1 . This shows the combinations of work and non-work activities that give the individual the same level of satisfaction. As this curve shifts 'out' (such as from I_1 to I_2), it depicts choice sets with higher levels of satisfaction.

The individual will choose the hours of work that give them the highest possible level of satisfaction. For budget constraint C_1 and indifference curve I_1 this is at point A. A rise in the wage rate shifts the budget constraint out to C_2 and would result in the person choosing to work more, represented by the shift from point A to point B.

Changes in the shape of the indifference curve, such as moving from I_2 to I_3 , represent a shift in an individual's preferences. In this example, I_3 is a shift in preferences towards work. That is, the individual prefers to work longer hours at the same wage rate, represented by the shift from point B to point B'. This could be due to a decline in the caring needs of the family, for example, lowering the opportunity cost of working.



The model implies that in a world without constraints on choice, a person will engage in work up to the point where the benefits they derive from the income and personal fulfilment from an extra hour of work, just equals the cost to them of

losing this hour to spend on other activities, such as childcare, recreation or voluntary work. Some of these costs may be pecuniary, such as the cost of purchasing childcare, while some are intrinsic or less tangible, such as the enjoyment that would have come from the foregone recreational activity.

The preferences for work and non-work activities vary across individuals, and perhaps more so for women than men. Hakim (2006) suggests that women are heterogeneous in their work preferences and how they manage the choice between family and employment. Hakim classifies the preferences of women (and men) into three categories: home centred, work centred and adaptive (table 3.1). She argues that more women have preferences that correspond to adaptive preferences, while men tend to be more work-centred.

Hakim's framework implies that the involvement of many women in the labour force can be the result of relatively fixed preferences that can be insensitive to financial incentives such as increasing wage rates (i.e. 'home centred' and 'work centred' women). Indeed it is only the middle group (i.e. 'adaptive' group) that may change their decisions to work or not in response to changing economic conditions.

Table 3.1 Hakim's preference types

<i>Home centred</i> 10 to 30 per cent of women	<i>Adaptive</i> 40 to 80 per cent of women	<i>Work centred</i> 10 to 30 per cent of women
Family life and children are the main priorities throughout life.	This group is diverse and includes women who want to combine work and family, plus drifters and unplanned work.	Childless women are concentrated here. Main priority in life is employment or equivalent activities.
Prefer not to work.	Want to work, but not totally committed to work/career.	Committed to work or equivalent activities.
Qualifications obtained as cultural capital.	Qualifications obtained with the intention of working.	Large investment in qualifications/training for employment/other activities.
Number of children is affected by government social policy and family wealth. Not responsive to employment policy.	This group is very responsive to government social policy, employment policy, equal opportunities, economic cycle, including income tax and social welfare benefits, educational policies, school timetables, work flexibility, etc.	Responsive to economic opportunity, or opportunities with other activities. Not responsive to social/family policy.
Family values: caring, sharing, non-competitive, communal, focus on cohesion.	Compromise between two conflicting sets of values.	Marketplace values: competitive rivalry, achievement orientation, individualism, excellence.

Source: Hakim (2006).

This categorisation is useful, but it does not inform us as to what underlies the three different preference types. It also does not mean that an individual will always ascribe to a particular preference type — behaviour/choice is not immutable. There are different preferences and degrees of responsiveness at the margin, and moreover, some of the existing choices may be driven by policy settings (taxes, welfare etc).

Another approach to examining women's decisions to work involves highlighting the role of cultural, institutional or social influences on women's decisions and ability to undertake paid work. Preferences are influenced by social attitudes and values. The OECD notes:

While recognising the utility of preference theory in emphasising [that] values, attitudes and personal preferences are potentially important determinants of women's labour market behaviour, it must be noted that this behaviour is influenced by learned cultural and social values that may be thought to discriminate against women (and sometimes men) by stereotyping certain work and lifestyles as 'male' or 'female'. (OECD 2002, p. 76)

Some of these factors could also be regarded as constraints on the choices facing women. For example, it may be inappropriate in some cultures for women to take on certain kinds of work, or indeed to work outside the home. More relevant to Australia is the availability of work with the conditions, including hours and location, that allow women to achieve their work preferences. In addition, the distribution of household work and responsibility for caring for children and others can constrain the work choices of both women and men.

3.2 Time use by women and men

Any discussion of the reasons why mature aged women work or not requires an understanding of how they choose to allocate their time between work and other activities. The nature of those non-work activities provides insight into the opportunity costs of work, assisting in understanding the extent to which these costs are affected by changes in economic conditions or government policy. This section describes differences in time use by women and men and reports on changes over time in the way that older women, as a group, allocate their time between work and non-work activities.

The ABS Time Use Survey is based on the responses of 3 900 households where respondents are asked to provide details on the activities of household members over a week. Table 3.2 shows the results of the ABS Time Use Survey in 1992,

1997 and 2006. As the data are for all persons over the age of 15, the life cycle effects are masked.

The differences in the shares of time spent on work and non-work activities between women and men are stark. In 2006 (latest available data) Australian women over the age of 15 years, on average, spent 9.2 percentage points less time on employment-related activities and 2.2 percentage points less time on recreation/leisure activities than men. Conversely, women spent 5.2 percentage points more time on domestic activities, 2.6 percentage points more on childcare and 1.4 percentage points more time on purchasing goods and services.

These differences in time use between men and women show broad stability over the past two decades despite considerable social and demographic changes. That is, the share of men's and women's time devoted to employment has increased only slightly (by 0.4 of a percentage point and 1 percentage point, respectively) and therefore the time they allocate to non-employment activities has changed little — men and women in 2006 are basically making the same decisions in the way they allocate their time as they did in 1992 (table 3.2). However, these population averages mask differences in time use across age groups. In addition, as the time patterns vary with age, aggregate trends will be affected by demographic change.

Table 3.2 Time use differs amongst men and women

Average time spent by activity per day for those aged over 15

	1992		1997		2006	
	Men	Women	Men	Women	Men	Women
	%	%	%	%	%	%
Personal care ^a	42.9	43.5	45.7	46.6	45.0	46.3
Employment related	18.6	8.8	18.1	9.2	19.0	9.8
Education	2.2	1.9	1.7	1.9	2.1	2.1
Domestic activities	6.7	12.6	6.7	12.5	6.7	11.9
Childcare	1.0	3.4	1.1	3.1	1.5	4.1
Purchasing goods/services	2.4	3.8	2.4	3.8	2.6	4.0
Voluntary work/care	1.4	1.4	1.3	1.7	1.0	1.7
Social interaction ^b	7.2	8.3	2.9	3.3	2.8	3.3
Recreation/leisure	17.5	16.2	19.7	17.6	18.7	16.5
Undescribed	0.1	0.1	0.3	0.3	0.6	0.5

^a Personal care includes activities such as time spent sleeping, on personal hygiene, health care and eating and drinking.

^b Differences between 1992 and 1997 (and 2006) are due to changes in the classification of activities.

Source: ABS (*How Australians Use Their Time*, Cat. no. 4153.0, released Feb 2008).

Life cycle influences on time allocation

Table 3.3 shows differences in time use for women by age group. In 2006, women aged 45 to 54 years allocated nearly 14 per cent of their time to employment which compares with just over 8 per cent for women aged 55 to 64 years. As would be expected, time spent on child care was greatest for those aged 25 to 34 years (9.9 per cent) followed by those aged 35 to 44 years (8.7 per cent). Time allocated to child care declines markedly for women aged over 45 years to just below 2 per cent and 1 per cent, respectively, for those aged 45 to 54 years and 55 to 64 years.

Women aged 55 to 64 years are much more likely than younger women to engage in voluntary work/care and recreation/leisure. For example, women aged 55 to 64 years spent nearly 4 per cent of their time on voluntary work/care compared with around 1.5 per cent for women aged 25 to 34 years. Similarly, women aged 55 to 64 years spent 18 per cent of their time on recreation/leisure compared with around 12 per cent for women aged 35 to 44 years. It appears that the time allocated by women to child care in the 25 to 44 years age group goes largely to recreational activities (and personal care) once childcare responsibilities diminish. While the time devoted to child care fell by nearly 7 percentage points between the 35 to 44 years and 45 to 54 years age groups, the time devoted to employment rose by only one percentage point to nearly 14 per cent — indicating that employment is not a strong substitute activity for this age group.

Table 3.3 Time use by women in different age groups, 2006

Average proportion of time spent by activity per day for those aged over 15 years

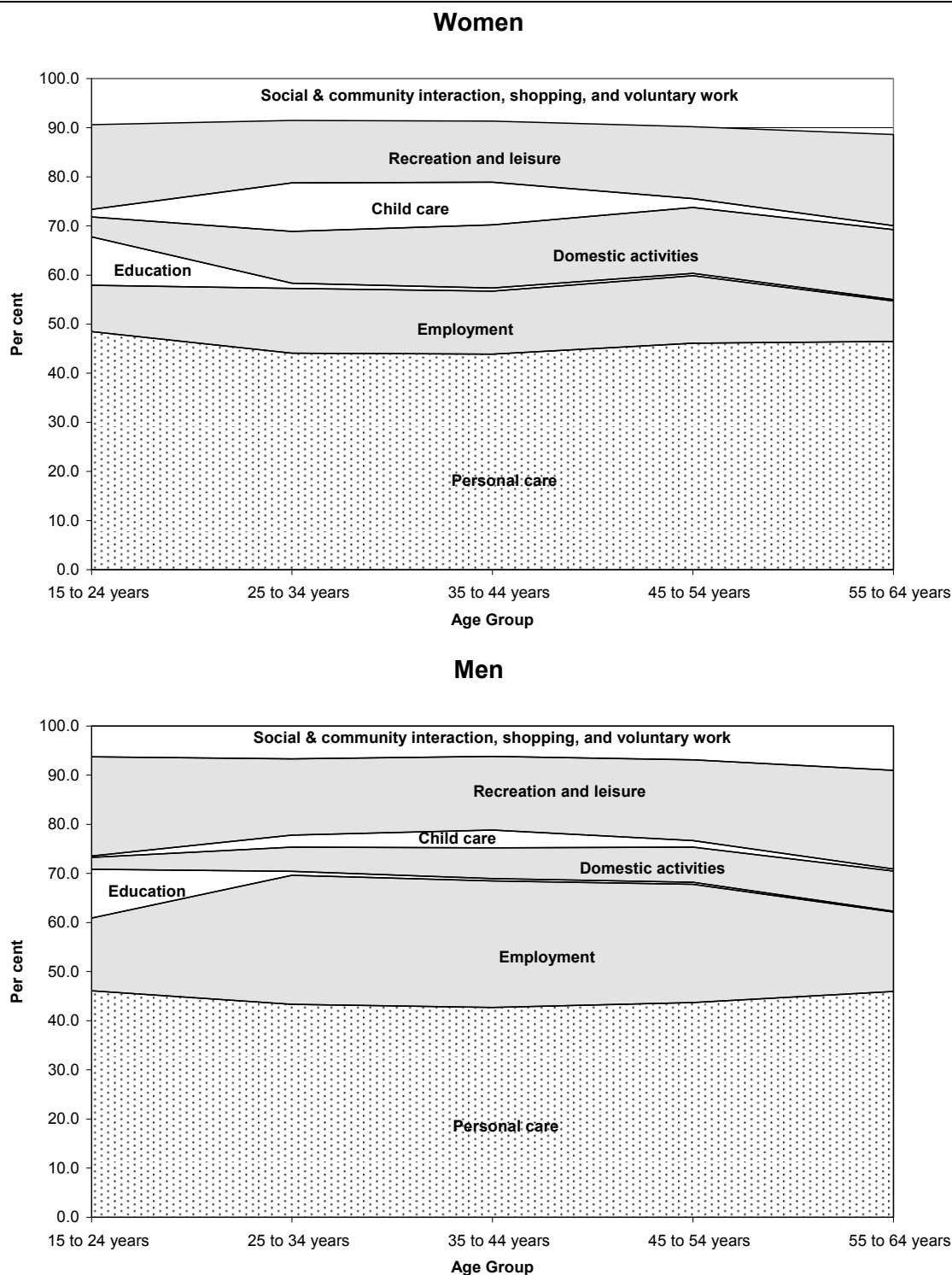
<i>Activities</i>	<i>15–24</i>	<i>25–34</i>	<i>35–44</i>	<i>45–54</i>	<i>55–64</i>	<i>All women</i>
	%	%	%	%	%	%
Personal care ^a	48.5	44.1	43.9	46.1	46.5	46.3
Employment related	9.4	13.2	12.8	13.8	8.3	9.8
Education	9.9	1.0	0.6	0.5	0.3	2.1
Domestic activities	4.0	10.6	12.8	13.4	14.2	11.9
Childcare	1.5	9.9	8.7	1.8	0.8	4.1
Purchasing goods/services	3.5	3.8	3.8	4.4	4.1	4.0
Voluntary work/care	1.5	1.4	1.5	2.2	3.7	1.7
Social interaction	3.7	2.9	2.8	3.1	3.3	3.3
Recreation/leisure	17.3	12.7	12.4	14.7	18.5	16.5
Undescribed	0.8	0.4	0.5	0.1	0.3	0.5

^a Personal care includes activities such as time spent sleeping, on personal hygiene, health care and eating and drinking.

Source: ABS (*How Australians Use Their Time*, Cat. no. 4153.0, released Feb 2008).

Figure 3.1 presents a graphical breakdown of time allocation over the life cycle.

Figure 3.1 Average time use across the life cycle
Average time spent per day for selected activities, 2006



Source: ABS (*How Australians Use Their Time*, Cat. no. 4153.0, released Feb 2008).

There are a number of possible explanations for the observed differences in time allocation by men and women. It has been suggested that women have a comparative advantage in home duties and childcare (Becker 1965 and Gronau 1973). More recent explanations centre around intra-household bargaining which determines the allocation of time by household members. Earnings potential is viewed as a key determinant of bargaining power in terms of paid work within the household.

It would be expected that the increasing use of household appliances such as washing machines, dishwashers and dryers would have increased the productivity of home-based activities and freed up time to be employed on other activities. Also, the increasing education levels of women, as well as changes in social attitudes towards women entering the labour force, would have increased the opportunities from paid employment. The effect of such changes on time use patterns can be explored by comparing women's time use over an extended period. This is examined in the following section.

Trends in time use by women aged 45 years or more

The time use trends of women aged 45 years or more are changing particularly in relation to time spent at work. Table 3.4 shows how patterns in time allocation have changed between 1997 and 2006 for women aged 45 to 54 and 55 to 64 years. Women in the 45 to 54 age group are spending more time working and caring for children than they were almost a decade earlier, mainly at the expense of less time allocated to domestic activities and recreation and leisure.

This pattern is repeated for women aged 55 to 64 years for employment, with the time allocated to employment almost doubling at the cost of time spent on recreation and leisure and domestic activities. Women aged 45 to 54 years allocated slightly more time to personal care in 2006, while those aged 55 to 64 years allocated slightly less than in the earlier period.

Table 3.4 Change in time use by women aged 45 to 64 years, 1997 and 2006

Average time spent per day by activity

	45–54 yrs		55–64 yrs		All women	
	1997	2006	1997	2006	1997	2006
	%	%	%	%	%	%
Personal care ^a	45.9	46.1	47.4	46.5	46.6	46.3
Employment related	12.2	13.8	4.5	8.3	9.2	9.8
Education	0.3	0.5	0.1	0.3	1.9	2.1
Domestic activities	14.4	13.4	15.7	14.2	12.5	11.9
Childcare	1.0	1.8	0.7	0.8	3.1	4.1
Purchasing goods/services	4.4	4.4	3.9	4.1	3.8	4.0
Voluntary work/care	2.2	2.2	3.1	3.7	1.7	1.7
Social interaction	3.2	3.1	3.8	3.3	3.3	3.3
Recreation/leisure	16.2	14.7	20.6	18.5	17.6	16.5
Undescribed	0.3	0.1	0.3	0.3	0.3	0.5

^a Personal care includes activities such as time spent sleeping, on personal hygiene, health care and eating and drinking.

Source: ABS (*How Australians Use Their Time*, Cat. no. 4153.0, released Feb 2008).

3.3 Broad factors influencing work preferences

The differences between the time women and men, and women of different ages allocate to work suggests that they have different preferences for work, and/or face different constraints on their choices to work. The changing share of time devoted to work implies that these preferences or constraints are changing, particularly for mature aged women (table 3.4). As discussed above, one way to think about the factors that affect work choices is the opportunity cost of work relative to the benefits from work.

The opportunity costs and benefits of work are not ‘fixed’ over the life cycle. The ‘M’ shaped participation curve for women shown in chapter 2, suggests that the opportunity cost of working for women is highest while their children are young. Although the rewards for working may also be somewhat age dependent, since they tend to increase with education and work experience, it is less likely that this would differ significantly by age any more than it does for men.

In addition to changing over a person’s life cycle, the costs and benefits are also changing over time. For example, the increase in jobs in the services sector as the

economy undergoes structural change has created greater economic opportunities for women. Women's access to and interest in education raises their potential wages and possibly the personal satisfaction from working. Demographic changes, such as having fewer children, can reduce the opportunity cost of working because there are fewer childcare activities forgone, while labour saving appliances reduce the time required for a given level of domestic services. Changing social norms, such as greater acceptance of working mothers, reduce the social penalties for making the choice to work.

More flexible recruitment and labour retention policies (such as the availability of sick leave, recreation leave and family or carers leave) — which accepts that some people may require more flexible employment conditions — lowers the opportunity cost of working as work can be fitted better around other activities, including responsibilities for children.

Public policy too can affect the opportunity costs and benefits of work. For example, better after-school and pre-school childcare services, and subsidies to assist in meeting the cost of these services, lower the opportunity cost of working for those with childcare responsibilities. Loss of family benefits associated with a woman's wage income raises her opportunity cost of working, while higher taxes on income lower the benefits of working. Even policies on transport and communication can affect the opportunity cost of working through their effect on commuting time and/or the ability to telecommute to work. That said, the main type of policies that affect the work choices of women are:

- policies on taxes and transfer payments contingent on labour force status, age, income and/or assets
- regulations governing the conduct of labour markets
- policies affecting alternatives to unpaid child care and other care responsibilities.

Figure 3.2 summarises the factors affecting work decisions. On the left side of the diagram is a box representing the opportunity cost of working. These factors mainly work through changing the supply of women's time to the labour market and include their personal preferences, family situation and their own health status as well as conditions, such as access to transport and childcare, that might constrain their choices. On the right side is a box representing the benefits of engaging in paid work. These depend on both supply side and demand side factors. On the supply side are the monetary rewards, skills development, work experience and intrinsic benefits women obtain out of engaging in paid work. On the demand side are factors that affect the demand for women as employees, such as industry restructuring and growth, relative to the skills women offer. This also includes

barriers to women's employment arising from employer attitudes and labour market rigidities.

The following chapters explore the impact of changes in these policy and broader factors on the supply of, and demand for, labour respectively and hence on participation and hours worked.

As shown in figure 3.2, most mature aged women have matched their preferences for working with their labour market outcomes. Almost 60 per cent of mature aged women have their work (or non-work) preferences met. That is they are either voluntarily outside the labour force (21.8 per cent) (ABS 2010b) or are working with their preferences for work hours met (36.5 per cent) (HILDA 2007 Release 7.0). However, the remainder do not have their preferences met. These are women who:

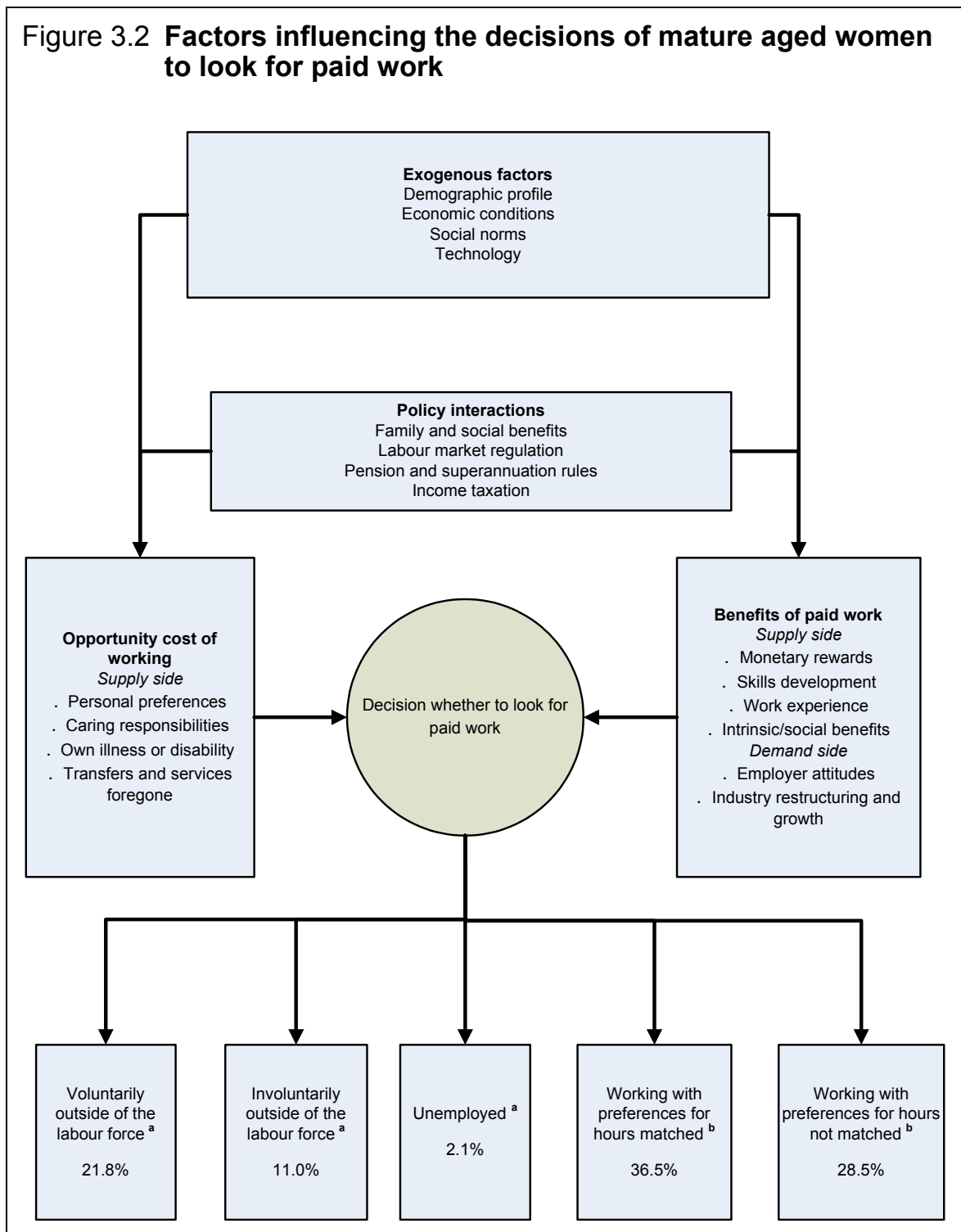
- want to work, but are not looking for work (involuntarily outside the labour force) (11 per cent)¹
- are in the labour force, but unemployed (2.1 per cent)
- are working where their preferences for hours are not matched (28.5 per cent).

The scope to increase current labour force participation depends on changing the preferences of those outside the labour force and removing any barriers to participation. To increase hours worked requires reducing unemployment, increasing the desired hours of those with matched preferences, and for those who currently want to work more hours, providing options that allow them to achieve their preferences. Since mismatched preferences could also be associated with working too many hours, the matching of preferences by itself may not necessarily increase hours worked.

In assessing the scope to increase labour force participation it is important not to view participation as an end in itself. Overall, the public policy objective should be to achieve a level of participation which delivers an improvement in community welfare having regard to individuals' preferences as well as any relevant spillover effects to society arising from individuals' participation decisions (for example, impacts on: poverty and inequality, congestion from commuting, greater social harmony, crime, and tax receipts to support government welfare, education and health services).

¹ Includes 3.7 per cent of the population of mature aged women who are permanently unable to work

Figure 3.2 Factors influencing the decisions of mature aged women to look for paid work



^a ABS, *Persons Not in the Labour Force*, (Cat. no. 6220.0) September 2009. Those involuntarily outside the labour force includes 3.7 per cent of the population who are permanently unable to work. ^b HILDA (2007) Release 7.0 estimates for proportion of employed persons with preferences for hours worked matched applied to population of women aged 45 to 64 years supplied in ABS, (*Persons Not in the Labour Force*, Cat. no. 6220.0, September 2009). Note: Percentages do not sum to 100 due to rounding.

As the Productivity Commission (2007) outlined, there are good reasons for some Australians preferring not to work, or working less hours than they potentially could, that are consistent with improving community welfare:

They include the benefits from participating in education and training; caring for children and older family members; undertaking volunteering activities; retirement; and more generally, enjoying leisure activities. Although those involved in these activities are typically recorded as ‘economically inactive’, the activities generally give rise to socially valuable outputs and contribute to the growth of the economy over the medium to longer term. (PC 2007, p. 2)

From a public policy perspective, it is important to ensure that participation decisions by individuals are not unnecessarily distorted by welfare and tax arrangements or by other rules and regulations.

The rest of this chapter looks in more detail at the question of whether women are able to achieve their preferred work outcomes in terms of their participation, hours of work and other aspects of work.

3.4 Is there scope to increase the work contribution of mature aged women?

Where women do not have complete choice over how they allocate their time, the observed allocation between work and non-work activities may not fully reflect individual preferences. Work time is often ‘lumpy’, that is, jobs may only be available on a full time basis, with fixed hours of work. Or there may be discontinuous hours of work on offer, particularly for people on contracts in higher skilled jobs, or less skilled work may only be available as casual employment with fluctuating hours. Another impediment may be the lack of alternative arrangements for family caring responsibilities which inhibits the scope for some people, often women, to engage in paid work. As mentioned earlier, family location and transport options may also limit both work opportunities and access to alternative caring arrangements.

In such situations women may be involuntarily outside the labour force or participating with a mismatch between actual working hours and employment conditions and their work preferences. This mismatch may be between the type of work they would prefer and the work that is available. Or the mismatch could be in the number of hours of work required and what is available (they may want more or less hours). Depending upon what work is available there may be restrictions or rigidity in employment conditions, such as insufficient flexibility in start and finish times, lack of access to leave entitlements, particularly to care for children, inability

to work extra hours in order to take time off, and variability in earnings from one pay period to the next.

Such constraints complicate the application of the time allocation model presented in box 3.1. However, conceptually they can be incorporated into understanding how women make their labour force participation decisions, and are important for policy makers to understand when considering reforms to improve the responsiveness of the labour market to workers' preferences.

There is a range of measures available that indicate the extent to which work preferences are satisfied. The ABS Labour Force Survey asks the reasons for not participating for those responding that they are not in the labour force. The HILDA survey includes questions on job satisfaction and preferences for hours of work of those already in work. The following sections draw on these sources to identify the extent to which mature aged women are able to work the hours they want to — that is the extent to which their work preferences are matched if they do work. In the following sections there is also discussion about women currently outside the labour force, but who express an interest in entering the labour force. Some of this group represents an immediate potential source of new entrants to the labour force if any concerns they have could be addressed.

Participation decisions

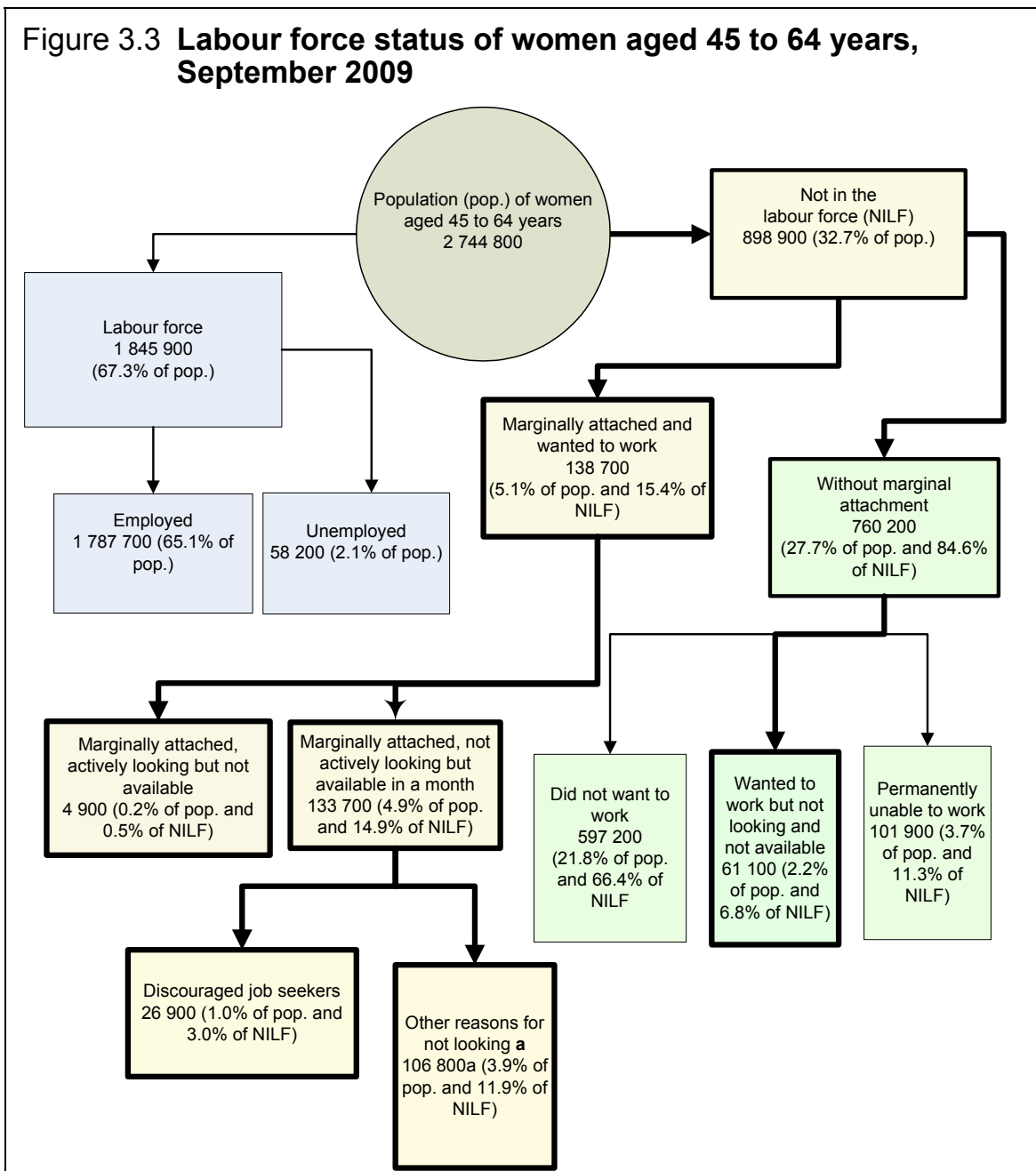
Figure 3.3 shows the distribution of the civilian population of women aged 45 to 64 years, in terms of their participation in the labour force and their status if not in the labour force as at September 2009, including whether they were marginally attached, discouraged job seekers, did not want to work, or were permanently unable to work.

The data in figure 3.3 suggest that around 7 per cent of the population of mature aged women (or 199 800) may enter the labour force if their circumstances changed. This group is made up of those:

- marginally attached (5.1 per cent or 138 700 women)
- without marginal attachment wanting to work, but not currently looking and not available for work (2.2 per cent or 61 100 women).

The ABS definitions of marginally attached people and people without marginal attachment but who still want to work are provided in box 3.2.

Figure 3.3 Labour force status of women aged 45 to 64 years, September 2009



^a Includes retired or voluntarily inactive, home duties, long-term health condition or disability and caring for ill or disabled person.

Source: Published and unpublished data from ABS (*Persons Not in the Labour Force*, September 2009, Cat. no. 6220.0).

Box 3.2 ABS measures of underutilised labour

Underemployed workers

Underemployed workers are employed people who want, and are available for, more hours of work than they currently have, including:

- people employed part time who want to work more hours and are available to start work with more hours, either in the reference week or in the four weeks subsequent to the labour market survey (part time underemployed workers)
- people employed full time who worked part time (less than 35 hours) in the reference week for economic reasons (such as, being stood down or insufficient work being available) (full time underemployed workers). It is assumed that these people wanted to work full time in the reference week and would have been available to do so.

Unemployed people

Unemployed people are defined to include people aged 15 years and over who were not employed during the reference weeks, and:

- had actively looked for work at any time in the four weeks up to the end of the reference week and were available for work in the reference week
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if a job had been available.

Marginally attached people

People not in the labour force can be divided into those who are marginally attached to the labour force, and those who are not. People who are marginally attached to the labour force may satisfy some, but not all, of the criteria required to be classified as unemployed. Those with characteristics similar to the unemployed are classified by the ABS as having a marginal attachment to the labour force. They are made up of people who were not in the labour force in the reference week, wanted to work and:

- were actively looking for work, but did not meet the availability criteria to be classified as unemployed
- were not actively looking for work, but were available to start work within four weeks.

People without marginal attachment who still want to work

This group is made up of people who were not in the labour force in the reference week, wanted to work, but were not actively looking for work and were unavailable to start work within four weeks. This could be because they are looking after a family member or children. Hence, the availability of these individuals is conditional on a change in their personal circumstances.

Source: ABS (2007a, 2010b).

Together, these two groups of mature aged women are most likely to be able to increase the participation rate in the short to medium term if economic incentives or employment opportunities improved. If all of these women's concerns could be addressed they would represent a substantial increase in the participation rate of women aged 45 to 64 years. For example, if all 199 800 women entered the labour force in 2009 the participation rate for this group would have increased from 66.7 per cent to 74.0 per cent — a rise of 7.3 percentage points.

Raising participation by this amount may prove difficult given the barriers to re-engagement in the labour force cited by some mature aged women as the main reason they are currently not in the labour force. These include lack of education and training, language difficulties, own illness or disability, perceptions that employers consider them too old, caring responsibilities and lack of jobs in their locality or line of work. Many other mature aged women are not participating in the labour force because they are either involved in home duties, retired or voluntarily inactive (ABS 2010b).

Expanding participation of mature aged women beyond the potential 7.3 percentage points would require addressing the reasons why women who are not marginally attached to the labour force do not want to work, determining why others report themselves as permanently unable to work, or would require, as Hakim's categorisation discussed above suggests, a very significant change in their preferences towards work.

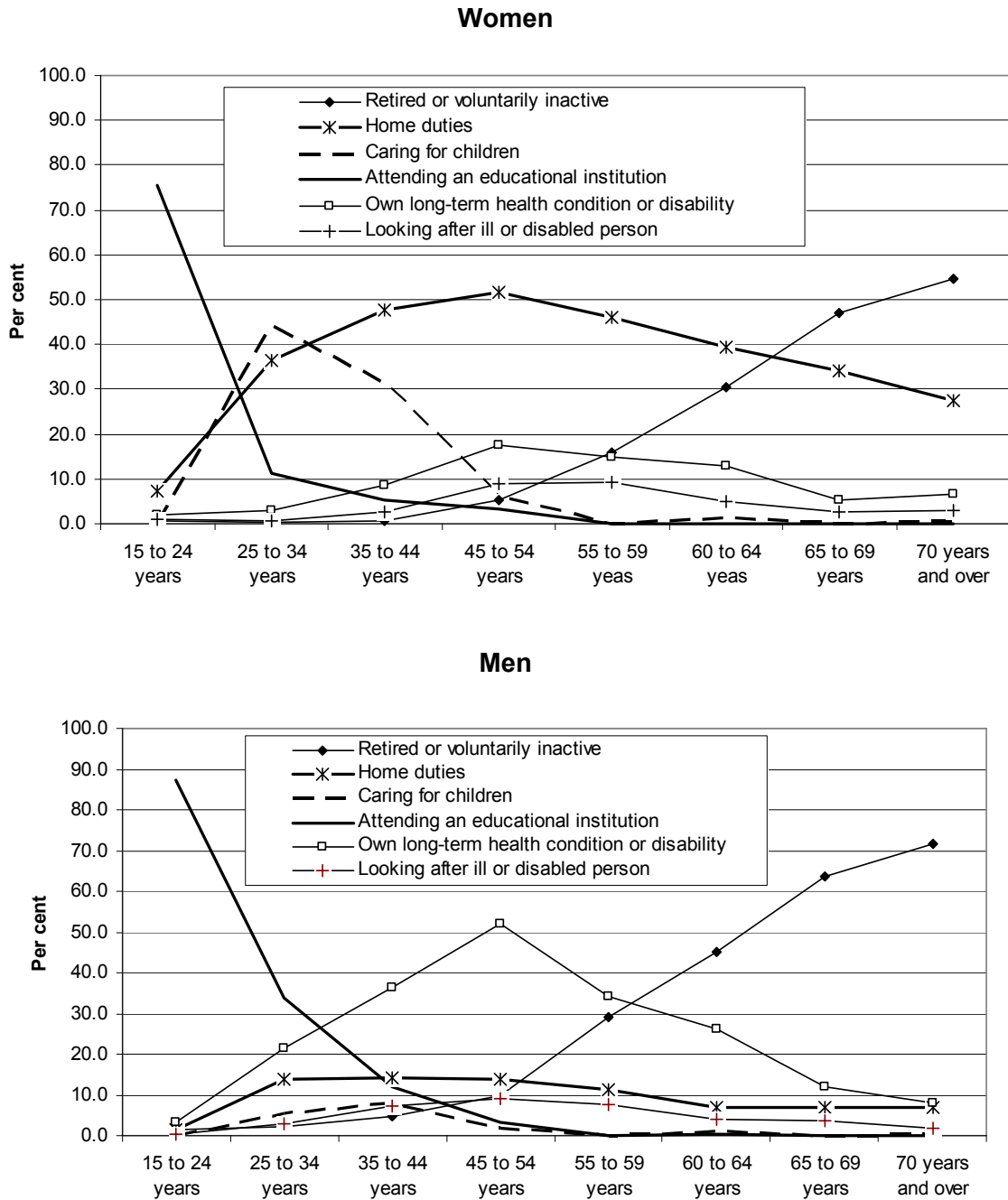
Not participating is mainly by choice, or due to ill health

In 2009, the ABS (ABS 2010b) found that just under a third (32.7 per cent) of women aged 45 to 64 years were not in the labour force, compared to around a fifth (19.9 per cent) of men in this age group. Of those mature aged women not in the labour force, two thirds reported they did not want to work and 11.3 per cent were categorised as permanently unable to work (figure 3.3). This suggests that the majority of women who are not in the labour force have made decisions not to work. That is, they accord with Hakim's category as 'home centred'. Encouraging these people to participate in the labour force would require addressing the reasons why they do not want to work or consider themselves as unable to work.

More than half (51.8 per cent) of women aged 45 to 54 years, not participating in the labour force, reported home duties as the major reason for their non-participation (figure 3.4). The share declines with age with a little under half (46 per cent) of the women aged 55 to 59 years reporting home duties, falling to 40 per cent for women aged 60 to 64 years. The declining share of women reporting home duties is more than offset by the rising share citing that they are retired or

voluntarily inactive. For the 45 to 54 years age group this was 5.4 per cent, rising to 15.9 per cent for those aged 55 to 59 years, and 30.6 per cent for women aged 60 to 64 years.

Figure 3.4 **Reasons for labour market inactivity varies over the life cycle, September 2009**



Source: ABS (2010b).

The other main reason cited for non-participation was ‘own long-term health condition or disability’ (17.5 per cent for women aged 45 to 54 years, 14.9 per cent for women aged 55 to 59, and 12.8 per cent for women aged 60 to 64). The declining share of older women (aged 55 to 64 years) reporting poor health or disability as the main reason for labour market inactivity reflects the rising proportion of women not participating in the labour force because of retirement or voluntary inactivity.

There are significant differences between men and women in terms of the reasons given for not being in the labour force, however, these differences diminish with age. Just over half (51.9 per cent) of men aged 45 to 54 years currently not participating in the labour force cited their own long-term health condition or disability as the main reason. This fell to 34.3 per cent for men aged 55 to 59 years and 26.2 per cent for men aged 60 to 64 years.

Marginal attachment

Although almost one third of mature aged women are not in the labour force, some of this group expressed varying degrees of interest in entering the labour force. Around 5.1 per cent were marginally attached to the labour force. That is, they could be considered as members of Hakim’s ‘adaptive’ category. A relatively small proportion of marginally attached mature aged women are actively looking for work (0.2 per cent of the mature aged female population), but did not satisfy the criteria of labour force activity, which would allow them to be categorised as unemployed.

Discouraged job seekers

Of the 5.1 per cent of mature aged women who were marginally attached and wanted to work just over a fifth were discouraged job seekers. This group accounted for 1.0 per cent of the population of mature aged women.

Discouraged job seekers are defined by the ABS as people who were not looking for work, but would be available to start work within four weeks and whose main reasons for not looking for work were because they believed:

- they would be considered to be too old by employers
- their ill health or disability would discourage employers
- they lacked the necessary schooling, training, skills or experience
- they would have difficulties because of language or ethnic background
- there were no jobs in their locality or line of work

-
- there were no jobs with suitable hours
 - there were no jobs at all.

The very small number of older women who were discouraged job seekers (26 900 aged 45 to 64 years) shows that reducing barriers for this specific group would only lead to a relatively small increase in labour supply.

There is another group that could be considered in the ‘adaptive group’ along with those marginally attached to the labour force — that is, those who were without marginal attachment who wanted to work, but were not looking and not available. They accounted for 2.2 per cent of the women aged 45 to 64 years. Some of this group would be likely to seek work if economic incentives or employment opportunities improved.

Overall, these two groups of women, who are currently not in the labour force, expressed some degree of interest in entering the labour force if circumstances changed in terms of the local labour market conditions, employer attitudes or their skill and language deficiencies. However, many of the perceived reasons for these groups of women not entering the labour force are difficult to address.

The other means by which women’s contribution to total hours worked can be increased is by increasing the number of hours worked by women who already are in employment. The following section takes up discussion of this issue.

Job satisfaction of employed mature aged women

Women are more likely to participate in the labour force if they feel they can get a job that suits their preferences. Decisions about participation are affected by factors such as the types of jobs that are available, the level of flexibility associated with these jobs to enable the balancing of work and non-work activities, the level of remuneration, and satisfaction with working hours. The HILDA survey provides data on many of these aspects for those who are employed (table 3.5).

The survey showed in 2007 that around 68 per cent of women aged 45 to 54 years and about 73 per cent of women aged 55 to 64 years were very satisfied with their current remuneration (i.e. they provided a rating of 7 to 10 as to their level of satisfaction). Also, about three quarters of women in these age groups were very satisfied with the level of flexibility available with their employment.

Table 3.5 Job satisfaction among employed women, 2007^a

	15 to 24 years	25 to 44 years	45 to 54 years	55 to 64 years	Total 15 to 64 years
Pay					
Not stated or don't know	0.2	0.1	0.3	0.2	0.3
0 to 3	8.9	8.1	7.9	6.4	8.0
4 to 6	27.6	23.5	23.4	20.5	24.0
7 to 10	63.2	68.3	68.4	72.8	67.6
	100.0	100.0	100.0	100.0	100.0
Flexibility to balance work and non-work commitments					
Not stated or don't know	0.1	0.1	0.0	0.2	0.1
0 to 3	5.2	5.9	6.9	7.3	6.4
4 to 6	19.5	18.1	19.3	15.5	18.3
7 to 10	75.1	75.9	73.8	76.9	75.1
	100.0	100.0	100.0	100.0	100.0
Hours worked					
Women working PT					
Not stated or don't know	0.0	0.3	0.0	0.5	0.2
0 to 3	8.3	5.2	6.7	3.7	5.8
4 to 6	24.0	18.5	27.1	11.9	18.6
7 to 10	67.6	76.1	66.1	83.9	75.5
	100.0	100.0	100.0	100.0	100.0
Women working FT					
Not stated or don't know	0.3	0.0	0.0	0.0	0.0
0 to 3	4.5	6.7	9.4	10.9	7.0
4 to 6	23.2	25.2	28.6	36.4	26.0
7 to 10	72.0	68.1	62.0	52.7	67.0
	100.0	100.0	100.0	100.0	100.0

^aData refer to employed women, which includes employees, employers, own account workers and contributing family members. A scale of 1 to 10 was used to measure levels of satisfaction with 10 being the highest level of satisfaction. Individual columns may not sum to 100 due to rounding.

Source: HILDA (2007) Release 7.0 weighted data.

Satisfaction with hours worked

In terms of working hours, mature aged women working part time were more likely to be very satisfied (66.1 per cent of women aged 45 to 54 years and 83.9 per cent of women aged 55 to 64 years), compared with mature aged women working full time (62 per cent and 52.7 per cent, respectively).

As would be expected, further analysis of the data showed the majority of mature aged women working part time who expressed moderate or low levels of satisfaction with their working hours (i.e. a rating of 0 to 6) wanted to work more hours. On the other hand, the vast majority of those mature aged women working

full time who expressed moderate or low levels of satisfaction with their current working hours wanted to work less hours.

Compared to other age groups, women aged 45 to 54 years have a higher proportion of women working part time who have moderate or low levels of satisfaction with hours worked than any other age group. The fact that around 27 per cent of women aged 45 to 54 years working part time expressed only moderate levels of satisfaction (i.e. they provided a rating of 4 to 6) and about 7 per cent expressed low levels of satisfaction (a rating of 0 to 3) may provide some scope for these women to increase their hours of work if employment opportunities improve. This issue is explored in more depth in the following section.

Preferences for hours of work of employed mature aged women

ABS information on preferences for hours of work is limited as it only examines the preferences of part time workers. In contrast, the HILDA survey provides information on preferences and usual hours worked of employees working on a part time and a full time basis. As a result it gives a fuller picture of potential supply of mature aged female workers if preferences are realised.

Table 3.6 reports on the stated preference for hours of work for women and men for different age groups. A relatively small proportion of mature aged women working full time responded that they would like more hours, but around half responded that they would like to work fewer hours. A slightly lower proportion of mature aged men working full time preferred to work less hours, while a much smaller proportion of younger people working full time wanted less hours.

Women aged 45 to 54 years and 55 to 64 years who are working full time are fairly evenly divided between those who are satisfied with their current number of hours and those who wish to reduce their hours. Men aged 55 to 64 years show similar preferences to these groups of mature aged women, but men aged 45 to 54 years have a higher proportion responding that they were satisfied with their current hours.

Mature aged women working part time tend to be more satisfied with their current working hours, although a relatively large minority would like more hours of work:

- nearly 64 per cent of women aged 45 to 54 years working part time were satisfied with their current working hours and over 28 per cent wanted more hours of work
- nearly 71 per cent of women aged 55 to 64 years working part time were satisfied with their current working hours and over 17 per cent wanted more hours of work.

Table 3.6 Preferences for hours worked per week for women and men working full time and part time, 2007^a

	<i>15 to 24 years</i>	<i>25 to 44 years</i>	<i>45 to 54 years</i>	<i>55 to 64 years</i>	<i>Total 15 to 64 years</i>
Women working FT					
Fewer hours	23.9	43.3	51.0	48.6	42.6
About the same	68.5	54.1	47.2	50.0	54.3
More hours	7.6	2.7	1.6	1.4	3.1
Don't know	0.0	0.0	0.2	0.0	0.0
	100.0	100.0	100.0	100.0	100.0
Women working PT					
Fewer hours	5.8	11.5	7.5	11.9	9.2
About the same	54.5	62.0	63.8	70.6	61.3
More hours	39.1	26.6	28.2	17.4	29.3
Don't know	0.6	0.0	0.3	0.0	0.2
Not stated	0.0	0.0	0.3	0.0	0.1
	100.0	100.0	100.0	100.0	100.0
Men working FT					
Fewer hours	14.0	33.5	39.8	45.9	33.5
About the same	70.7	59.6	55.9	51.2	59.5
More hours	15.3	6.8	4.2	2.6	7.0
Don't know	0.0	0.1	0.0	0.3	0.1
	100.0	100.0	100.0	100.0	100.0
Men working PT					
Fewer hours	3.3	5.0	6.1	7.9	4.9
About the same	53.3	45.3	61.0	72.2	55.9
More hours	43.4	47.8	32.9	19.8	38.7
Don't know	0.0	1.9	0.0	0.0	0.4
	100.0	100.0	100.0	100.0	100.0

^a Individual columns may not sum to 100 due to rounding.

Source: HILDA (2007) Release 7.0 weighted data.

Table 3.7 shows the net difference between preferred and usual hours of work for mature aged women and men as a percentage of the number of hours they are usually working. For example, for those mature aged women usually working 1 to 19 hours per week — in net aggregate terms this group would prefer to be working 35.9 per cent more hours. Mature aged men working 1 to 19 hours per week also want longer hours of work in net terms. The opposite is true for those mature aged

women working 50 to 80 hours — in net aggregate terms this group would prefer to be working 27.4 per cent less hours.

Table 3.7 also shows that mature aged women tend to be more dissatisfied working longer hours than mature aged men. Both mature aged women and men working 20 to 34 hours per week tend to be more satisfied with their current hours of work than those working shorter or longer hours.

Further analysis of the HILDA data indicates that mature aged women working part time hours (1 to 34 hours) want to increase their hours worked by 8.8 per cent while mature aged women working full time (35 to 80 hours) want to reduce their hours by 17.8 per cent. In net terms, there would be a 10.8 per cent reduction in working hours for all mature aged employed women if their preferences for hours were met. While almost 25 percent of mature aged women working part time want to increase their hours of work, this would be more than offset by the 50 per cent of mature aged women working full time who want to reduce their hours of work.²

Table 3.7 Difference between preferred and usual hours of work for mature aged women and men, 2007^a

<i>Hours worked</i>	<i>Women 45-64 years</i>	<i>Men 45-64 years</i>
	% difference between preferred and usual hours	% difference between preferred and usual hours
1 to 19 hours	35.9	41.0
20 to 34 hours	2.1	5.4
35 to 49 hours	-14.3	-7.1
50 to 80 hours	-27.4	-18.8
TOTAL	-10.8	-11.0

^a Outliers have been removed from the data i.e. those working more than 80 hours per week.

Source: HILDA (2007) Release 7.0 weighted data.

Reasons for working part time

It is useful to explore the reasons women give for choosing to work part time to gain an understanding of the extent to which there is scope to increase labour force engagement by those women already attached to the labour force. The HILDA survey asks respondents about their main reason for working part time. The results for 2007 are given in table 3.8.

² The question posed in the HILDA survey to people expressing the preferences for working less hours drew attention to the likelihood of a change in hours affecting their income — for example, a reduction in hours may reduce their income.

Table 3.8 Main reason for women working part time hours, 2007^a

	15 to 24 years	25 to 44 years	45 to 54 years	55 to 64 years	Total 15 to 64 years
Own illness or disability	1.2	2.5	5.9	8.7	3.6
Caring for children	5.4	61.0	19.9	1.4	30.4
Caring for disabled or elderly relatives (not children)	0.2	0.3	2.1	3.7	1.0
Other personal or family responsibilities	0.6	2.8	8.5	4.1	3.5
Going to school, college or university	70.3	4.8	0.8	0.0	21.4
Could not find full time work	8.9	3.6	8.8	3.7	6.1
Prefer part time work	6.0	14.7	38.5	58.3	22.3
Involved in voluntary work	0.0	0.4	0.0	0.0	0.2
Attracted to pay premium attached to part time/casual work	0.4	0.3	0.3	0.5	0.3
Welfare payments or pension may be affected by working full time	0.0	0.3	0.3	0.9	0.3
Getting business established	0.2	0.7	0.3	0.0	0.4
Prefer job and part time hours are a requirement of the job	4.1	6.1	10.9	12.4	7.2
Not stated	0.0	0.0	0.3	0.0	0.1
Other	2.7	2.8	3.6	6.4	3.4
TOTAL	100.0	100.0	100.0	100.0	100.0

^a Individual columns may not sum to 100 due to rounding.

Source: HILDA (2007) Release 7.0 weighted data and ABS, (*How Australians Use Their Time*, Cat. no. 4153.0, released Feb 2008).

The most common response for mature aged women was a preference for part time work — just over 38 per cent of women aged 45 to 54 years and around 58 per cent of women aged 55 to 64 years cited a preference for part time work. Only a small proportion reported that they were involved in part time work because they could not find a full time job — just under 9 per cent of women aged 45 to 54 years and just under 4 per cent of women aged 55 to 64 years.

Caring for children was provided as the main reason for working part time by approximately one-fifth (19.9 per cent) of women aged 45 to 54 years working part time. It was the main reason for engaging in part time employment for a large proportion of women aged 25 to 44 years (61.0 per cent) and, as expected, this tapers off sharply with age. Just over 1 per cent of women 55 to 64 years cited this as the main reason for working part time.

The scope to increase the work contribution of mature aged women

Chapter 2 documented the rapid growth in the participation of mature aged women in the labour force. This growth is likely to continue for some time as higher rates of labour force engagement of younger women tend to be maintained as a cohort ages. However, the average hours worked for mature aged women has hardly changed. While this may be as a result of changes in the demand for labour, it could also reflect the work preferences of mature aged women.

There are two broad ways of increasing women's contribution to hours worked. The first, is an increase at the 'extensive margin' of the labour force — an increase in the share of the population working (that is in terms labour force participation). The second, is an increase at the 'intensive margin' — an increase in the hours worked by women already in the labour force.

Turning to the first measure, the extensive margin, the ABS data presented in this chapter suggest that the scope for accelerating the growth in participation in the labour force for mature aged women is limited. There are only about 7.3 per cent of mature aged women, or around 200 000, not in the labour force who would work if various circumstances changed in terms of job opportunities in the local labour market, employer attitudes towards them or their own skills levels and language ability.

At the intensive margin, the HILDA survey suggests that there is some scope to increase labour force engagement by those women who work part time — as a substantial proportion of mature aged women working part time would like to increase their hours of work. However, more than offsetting this is the significant share of mature aged women working full time who want to reduce their hours of work. In net terms, there would be a 10.8 per cent reduction in working hours if mature aged working women's preferences for hours were met.

4 Demand influences on participation decisions of mature aged women

Key points

- Employed mature aged women are concentrated in a select number of:
 - industries — just under one half are employed in health care and social assistance, education and training, and retail trade
 - occupations — just under two thirds are employed as clerical and administrative workers, professionals, and community and personal service workers.
- Mature aged women accounted for one third of total employment growth in the fifteen years to November 2009. Over this period, they have benefited in particular from strong growth in employment within service industries, accounting for:
 - just over 60 per cent of growth in employment in education and training
 - around one half of employment growth in health care and social assistance
 - one third of employment growth in retail trade.
- In terms of occupations, over the thirteen years to 2009, mature aged women accounted for:
 - 80 per cent of total growth in clerical and administrative workers
 - almost 40 per cent of growth in community and personal service workers
 - over one third of growth in sales workers.
- Over the period 1985 to 2009, employment of mature aged women grew by 7 per cent per annum. Just over 4 percentage points of this growth was due to mature aged women increasing their share of employment within industries, 1 percentage point was due to the strong growth in employment in the industries mature aged women's employment is concentrated and 2 percentage points to the growth in total employment as a result of the overall expansion of the economy.
- Employment growth is expected to remain strong over the next 5 years in health and community services, education and training, and in retail trade, which bodes well for increasing labour force participation of mature aged women. The increasing levels of education of mature aged women over the next decade should assist in increasing employer demand for this demographic group.
- There is limited evidence of generalised employer discrimination against older workers. Moreover, the strong employment growth of mature aged women is not consistent with widespread or systematic discrimination.

As discussed in earlier chapters, mature aged women's labour force participation has grown strongly over the past three decades while their unemployment rates have remained low. This means that demand for mature aged women workers has also grown strongly over this period. In this chapter we examine some of the major demand factors which have driven the growth in employment of mature aged women. We also examine the extent and influence of factors that may have affected this growth, such as structural change in the economy, changes in occupational segmentation, and age discrimination by employers.

Understanding these factors helps to inform judgements about whether they are likely to persist into the future, thus facilitating (or hindering) further growth in workforce participation. More specifically, this chapter will explore the occupations and industries that have been the major sources of employment growth for mature aged women.

4.1 Where do mature aged women work?

Occupational employment patterns

The distribution of employment by occupation for women aged 45 to 64 years is broadly similar to the distribution for younger women aged 15 to 44 years, but markedly different from that for men.

Mature aged women are largely employed in two broad occupational areas — professional occupations and clerical workers (table 4.1). This is broadly similar to younger women except in two areas — a greater proportion of mature aged women tend to be employed as managers, reflecting their greater experience in the workforce, and they are also less likely to be employed as sales workers.

There are substantial differences in the occupation profile of employed mature aged women and mature aged men. Mature aged women are:

- much less likely to be employed as managers, technicians and trades workers and machinery operators
- much more likely to be employed as community and personal service workers, sales and clerical and administrative workers.

Table 4.1 Occupational composition of employment by gender and age, November 2009

Occupation	45 to 64 years		15 to 44 years	
	Women	Men	Women	Men
	%	%	%	%
Managers	12.2	21.1	9.1	12.2
Professionals	24.7	20.4	23.7	18.5
Technicians & trade workers	3.4	19.8	4.7	25.3
Community & personal service workers	13.3	4.0	15.0	6.2
Clerical & administrative workers	27.0	6.9	23.3	6.5
Sales workers	8.1	4.5	15.9	8.0
Machinery operators & drivers	1.3	12.8	1.0	9.2
Labourers	10.0	10.4	7.3	14.0
TOTAL^a	100.0	100.0	100.0	100.0

^a Individual major occupation division shares may not sum to 100 per cent due to rounding.

Source: ABS (Labour Force, Australia, Detailed, Quarterly, Cat. no. 6291.0.55.003, Data Cube E07_Aug 96).

There is greater similarity in the pattern of employment between women of all ages than between men and women of the same age. Consequently, the changes in labour demand have operated in a more similar fashion for women in general than for men and women.

Employed mature aged women made up just under 12 per cent of all workers in November 1996 but have since accounted for just over one third of total employment growth in the 13 years to November 2009 (table 4.2). This represents a major shift in demand by employers towards mature aged women workers. The shift is far greater in several industries. Mature aged women accounted for around 80 per cent of the growth in clerical and administrative workers, 38 per cent of the growth in community and personal service workers, and 37 per cent of the growth in sales workers. These results indicate a strong shift in demand for occupations where mature aged women are concentrated. Consequently, their share of total employment has increased from just under 12 per cent to just under 17 per cent.

Growth in occupational employment for mature aged women between 1996 and 2009 has been mainly concentrated in more skilled occupations. The combination of managerial and professional occupations accounted for around 44 per cent of total employment growth for such women. Clerical and administrative workers and community and personal services workers accounted for a further 40 per cent.

Table 4.2 Composition of employment growth of mature aged women by occupation and share of total employment growth by occupation,^a November 1996 to November 2009

Occupation	Share of employment of all persons aged 15 years plus	Share of employment of all persons aged 15 years plus	Composition of employment growth of mature aged women (aged 45 to 64 years)	Share of growth in employment of all persons aged 15 years plus
	November 1996	November 2009	November 1996 to November 2009	November 1996 to November 2009
	%	%	%	%
Managers	11.8	15.2	12.6	22.2
Professionals	12.6	19.2	31.1	30.7
Technicians & trade workers	3.0	3.9	2.6	9.2
Community & personal service workers	14.8	23.5	17.5	38.0
Clerical & administrative workers	21.8	30.1	22.2	80.1
Sales workers	10.0	14.3	7.3	36.5
Machinery operators & drivers	3.7	3.6	0.0	0.0
Labourers	11.9	15.6	6.6	54.5
TOTAL	11.6	16.7	100.0^b	33.8

^a Total employment growth refers to employment of persons aged 15 years and over. ^b Individual major industry division shares may not sum to 100 per cent due to rounding.

Source: ABS (Labour Force, Australia, Detailed, Quarterly, Cat. no. 6291.0.55.003, Data Cube E07_Aug 96).

Industry employment patterns

The industry composition of employment of mature aged women also more closely reflects that for younger women than that for mature aged men. The main three industries accounting for almost half of employment were health care and social assistance, education and training, and retail trade. Mature aged women are much more likely to be employed in health care and education and training than younger women who themselves are more likely to be employed in retail trade, accommodation and food services and professional, scientific and technical services (table 4.3).

Table 4.3 Industry composition of employment by gender and age, November 2009

<i>Industry</i>	<i>45 to 64 yrs</i>		<i>15 to 44 yrs</i>	
	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Agriculture, forestry & fishing	3.2	5.3	1.4	3.1
Mining	0.2	2.3	0.6	2.6
Manufacturing	5.5	13.0	5.2	11.9
Electricity, gas, water & waste services	0.6	1.9	0.5	1.5
Construction	2.5	13.4	2.5	15.6
Wholesale Trade	3.0	5.2	2.7	4.7
Retail Trade	10.6	5.9	15.6	10.7
Accommodation & food services	5.4	2.5	10.3	7.4
Transport, postal & warehousing	3.3	9.3	2.4	6.2
Information, media & telecommunications	1.4	1.6	2.2	2.4
Financial & insurance services	3.2	2.7	4.8	3.6
Rental, hiring & real estate services	1.5	1.6	2.0	1.4
Professional, scientific & technical services	5.8	8.2	8.0	7.8
Administrative & support services	3.8	3.3	3.8	3.0
Public administration & safety	6.8	7.7	6.3	4.9
Education & training	15.8	5.6	9.3	3.5
Health care & social assistance	22.9	4.8	16.1	3.9
Arts & recreation services	1.7	1.5	2.0	1.8
Other services	3.0	4.0	4.3	4.2
TOTAL^a	100.0	100.0	100.0	100.0

^a Individual industry shares may not sum to 100 per cent due to rounding.

Source: ABS (Labour Force, Australia, Detailed, Quarterly, Cat. no. 6291.0.55.003, Data Cube E05_Aug 94).

There are substantial differences between the distribution of employment of mature aged women and that of mature aged men across industries. Mature aged women are:

- far more likely than mature aged men to be employed in education and training and health care and social assistance
- far less likely to be employed in male dominated industries such as construction and manufacturing
- much more likely to be employed in retail trade.

Employment of mature aged women has benefited from the growth in employment in the industries within which they are predominantly employed (table 4.4). That is, structural change in the economy has tended to expand the employment opportunities of mature aged women.

Table 4.4 Composition of employment growth of mature aged women by industry and share of total employment growth by industry,^a November 1994 to November 2009

<i>Industry</i>	<i>Share of employment of all persons aged 15 years plus</i>	<i>Share of employment of all persons aged 15 years plus</i>	<i>Composition of employment growth of mature aged women (45 to 64 years)</i>	<i>Share of growth in total employment of all persons aged 15 yrs plus</i>
	<i>November 1994</i>	<i>November 2009</i>	<i>November 1994 to November 2009</i>	<i>November 1994 to November 2009</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Agriculture, forestry & fishing	11.2	15.8	1.3	na
Mining	2.4	2.4	0.2	2.5
Manufacturing	7.1	10.2	2.6	na
Electricity, gas, water & waste services	1.0	8.3	1.0	45.0
Construction	4.4	4.6	2.0	4.9
Wholesale Trade	7.8	12.7	2.4	85.2
Retail Trade	10.9	16.1	9.9	32.3
Accommodation & food services	11.1	13.1	4.0	18.2
Transport, postal & warehousing	5.1	10.4	4.0	24.7
Information, media & telecommunications	6.7	11.7	1.3	63.2
Financial & insurance services	8.4	14.7	3.4	38.1
Rental, hiring & real estate services	11.2	15.3	1.6	22.4
Professional, scientific & technical services	9.4	12.7	6.8	16.3
Administrative & support services	14.3	18.4	3.7	25.2
Public admin & safety	8.8	18.3	8.8	38.1
Education & training	21.4	34.1	17.3	61.5
Health care & social assistance	23.5	35.1	26.4	52.4
Arts & recreation services	10.7	15.5	1.8	23.6
Other services	10.5	12.6	1.5	29.2
TOTAL	10.8	16.7	100.0	33.3

^a Total employment growth refers to employment of persons aged 15 years and over. na: not applicable (due to employment growth in the industry being negative).

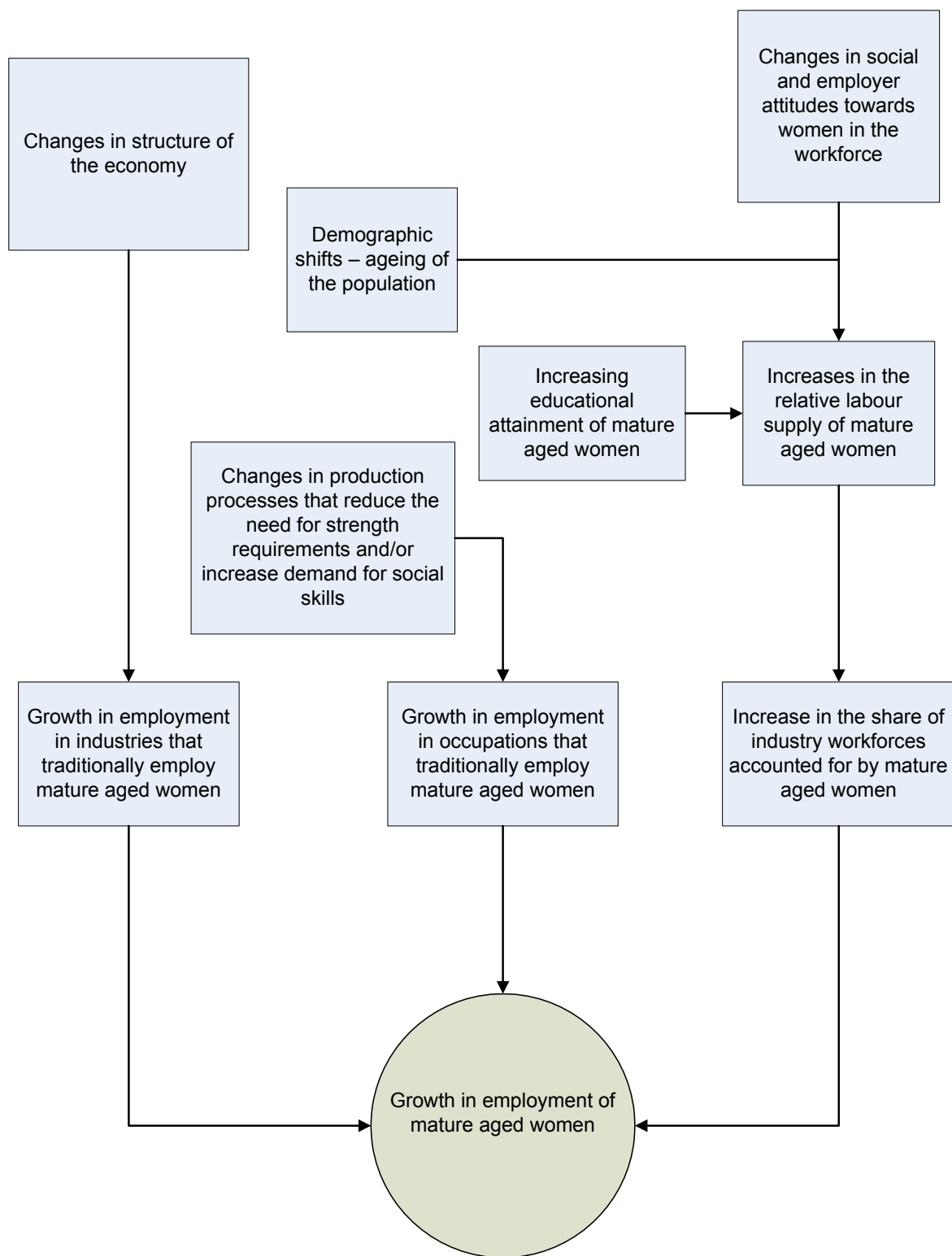
Source: ABS (Labour Force, Australia, Detailed, Quarterly, Cat. no. 6291.0.55.003, Data Cube E05_Aug 94).

For example, health care and social assistance, education and training, retail trade, and public administration and safety accounted for over half of mature aged women's employment in 1994. Employment in all of these industries except retail trade grew faster than aggregate employment.

The major factor in mature aged women's employment, however, has been their increase in employment *within* industries. This has arisen as production processes have become more automated and less reliant on physical strength, and perhaps more importantly, occupations traditionally employing women have expanded and skills such as social/customer service skills have become more valued. Mature aged women's share of employment has increased, sometimes quite markedly, within all industries, except mining, where their share of employment remained unchanged. Large increases in mature aged women's share of employment were recorded in industries where they have traditionally had low shares of employment such as electricity, gas, and water; wholesale trade; and information, media, and telecommunications.

Thus, the employment of mature aged women has benefited from both the structural shift of employment towards the industries within which they are predominantly employed as well as from strong growth of employment within those industries. The flow chart (figure 4.1) provides an illustrative account of these effects. The relative contribution of these factors are quantified in the following section.

Figure 4.1 Interaction of factors affecting employment of mature aged women



4.2 Decomposition of employment growth for mature aged women

The relative contributions of changes in industry structure and changes in within industry employment to the growth in mature aged women's employment can be isolated by decomposing this growth using a technique called shift-share analysis.

The change in mature aged women's employment can be represented as the sum of the following effects:

- the change in mature aged women's employment within industries, i.e. $(\Delta(E_{wi}/E_i) \times E_i/E)$
- the change in the distribution of employment across industries, i.e. $(E_w/E_i \times \Delta(E_i/E))$
- the change in employment due to the overall expansion in employment, i.e. $\Delta(E)$.

Thus, the aggregate change in mature aged women's employment is explained by:

$$E_w = \sum_i (E_{wi}/E_i \times E_i/E) \times E$$

$$\Delta E_w = \sum_i ((\Delta(E_{wi}/E_i) \times E_i/E) + (E_w/E_i \times \Delta(E_i/E)) + \Delta(E))^1$$

Where, E_w is the total employment of mature aged women

E_{wi} is the employment of mature aged women in industry i

E_i is total employment in industry i

\sum_i is the summation over i industries

E is aggregate employment, and

Δ denotes percentage change

The estimated effects are shown in table 4.5. Over the period 1985 to 2009 employment of mature aged women grew by 7 per cent per annum. The majority of this growth (4.2 percentage points per annum) was due to women increasing their share of employment within industries. Mature aged women were also disproportionately employed in those industries where employment grew relatively quickly, resulting in a gain in employment equivalent to 1.0 percentage point per annum. Finally, the overall change in level of aggregate employment due to the overall expansion of the economy contributed 2.4 percentage points per annum.

¹ Interaction terms between the variables are ignored as they are of minor effect.

This pattern was broadly consistent through the period with the growing share of mature aged women employed within industries being the major contributor to their strong employment growth. Other than for the period 1990 to 1994, the differential growth in employment across industries has added relatively little to the growth of mature aged women's employment.

Table 4.5 Contribution to the change in employment of mature aged women, 1985 to 2009

	<i>Within Industry Change (a)</i>	<i>Change in Industry Structure (b)</i>	<i>Change in total employment (c)</i>	<i>Change in total mature aged women's employment (d)^a</i>
	% per annum	% per annum	% per annum	% per annum
1985 to 1989	3.0	0.3	3.7	6.3
1990 to 1994	6.3	2.9	0.7	7.9
1995 to 1999	5.7	0.6	2.3	8.3
2000 to 2004	2.9	0.7	2.5	6.8
2005 to 2009	3.1	0.4	2.5	6.0
Average 1985 to 2009	4.2	1.0	2.4	7.0

^a The sum of (a), (b) and (c) does not always equate to (d) because of rounding and linearization approximations as well as the non-incorporation of interaction effects.

Source: ABS (Labour Force, Australia, Detailed, Quarterly, Cat. no. 6291.0.55.003, Data Cube E05_Aug 94 and Time Series Spreadsheet Table 06).

The strong growth in employment within industries suggests that the skills and experience of mature aged women have become more attractive to employers across a wide range of industries over the past two decades. This, together with the shift in occupational pattern of employment discussed previously, suggests that mature aged women's occupational skills are in strong demand.

While the pattern of employment growth has favoured the strong expansion of mature aged women's employment this tells us little about the nature of the jobs being created. This is taken up in the following section.

4.3 Labour market segmentation

Labour is not a homogeneous commodity — workers differ in terms of their level of human capital (education, skills and experience) and their innate work effort. As described in chapter 3, workers also differ in terms of their preferences for leisure over work and the need to balance work with caring responsibilities, which affects the number of hours they prefer to work. Thus, the labour market should be seen as

a series of related but segmented sub-markets. A summary description of labour market segmentation is outlined in box 4.1.

Box 4.1 Theories of labour market segmentation

- Labour market segmentation theory, as developed by Doeringer and Piore (1971) and Edwards, Reich and Gordon (1975), identified the presence of dual labour markets — a primary and secondary sector — which exhibit very different sets of wage and working arrangements. Increasing differentiation and specialisation leads to occupational labour markets in which workers find it difficult to move between occupations easily, given the different levels of training and experience required for specific occupations.
- Doeringer and Piore (1971) characterised jobs in the secondary sector as having low wages, few fringe benefits, poor working conditions, high labour turnover, little chance of advancement, and often arbitrary and capricious supervision. Jobs in the secondary sector are typically low skilled and workers receive relatively little training. In recent years many of these jobs have become casualised and are regarded by some commentators as less secure than those available in the primary sector. Employment in the secondary sector is characterised by concentration in small firms which are subject to intense competition and staff turnover and the threat of unemployment is higher.
- Doeringer and Piore (1971) characterised jobs in the primary sector as having high wages, good working conditions, employment stability, greater chance of advancement, along with greater equity and due process in the administration of work rules. Jobs in the primary sector require much higher levels of education and qualifications. Employees in the primary sector have greater access to training and jobs are more likely to provide access to leave entitlements and better conditions of employment.
- There is mobility between jobs in the secondary sector, where wages are much lower and employment conditions are relatively poor, there is very little movement to the primary sector due to extra human capital and skill requirements for jobs in this sector. Empirical research found that women, ethnic minorities and migrant workers tend to be concentrated in secondary labour markets (Peck 1996).
- While less evidence on segmentation has been found for Australia other research supports the contention that older workers who remain employed in secure primary sector jobs through to retirement retain their ability to command remuneration equivalent to their skills and experience as well as employment conditions. In contrast, those older workers who leave secure employment but anticipate returning to the workforce in the future, may be faced with secondary labour market conditions which contrast markedly from those they enjoyed prior to a break from the workforce (Weller 2004).

The OECD has found that distribution of employment by occupation or industry, across OECD countries, is heavily gender segmented with women over-represented in clerical occupations, sales jobs and life science, health and teaching professions, but under represented in managerial and senior administrative positions (compared with men) (OECD 2002).

The OECD also found that the majority of women and men were concentrated in a small number of industry sectors that were, respectively, heavily female or male dominated. There was evidence of less occupational segmentation among younger workers compared to older workers. This trend may help to reduce gender segmentation for the whole population over time as younger people move into older age groups. The OECD also found that workers with low levels of educational attainment and with children tended to be more occupationally segregated than more highly educated workers and workers without children.

In the OECD area, at least three quarters of the female workforce are concentrated in 19 out of 114 occupations. These 19 occupations are heavily female-dominated with women on average representing 70 per cent or more of total employment. Typical occupations undertaken by women included salespersons, domestic helpers and cleaners, secretaries, personal care and related workers and primary and secondary teachers .

However, simple counts of occupational concentration can be misleading as male occupations tend to be disaggregated to finer levels of classification than occupations for women. To overcome this the OECD adjusted their data for differences in the share of each occupation in the total workforce. Using this measure the OECD found that only in Australia, Greece, Italy, Luxembourg and Spain is women's employment more concentrated than that for men.

Factors contributing to labour market segmentation

The segmentation of mature aged women may occur for a number of reasons. These include:

- part time jobs are more likely to be feminised and not equally distributed across all occupations or industries in the economy (OECD 2002)
- women (typically mothers) tend to select flexible, less demanding part time jobs so they can balance their work life with family and child care commitments (Becker 1965)

-
- women (again typically mothers) tend to select jobs where the wage penalty due to interruptions in their market work is minimal, so that women can leave work to provide childcare (Polacheck 1981).
 - older women and mothers often face discrimination in the labour market, arising from a perception by employers that they are not as committed or as motivated as other workers (OECD 2002).

The OECD noted that the influence of these factors, particularly the need to find part time jobs with flexible employment conditions and jobs that do not incur a wage penalty as a result of career interruptions may limit the choice of jobs for some women. The OECD drew links between segmentation of women and lower pay, reduced career prospects and increased labour market rigidity.

It is interesting to note, however, that there has been strong growth in part time employment that offer more flexible employment conditions over the past fifteen years in Australia, which has provided employment opportunities for women. Mature aged women in casual jobs, which are more likely to be part time, also report similar levels of satisfaction in relation to wages and employment conditions as mature aged women with permanent employment contracts. Job satisfaction is discussed further in chapter 6.

It is also stated by the OECD that segmentation may result in the cognitive skills of women being underutilised which may translate into decreased job satisfaction. The results of surveys are not conclusive on this point. While more women than men consider that the demands imposed upon them by their jobs are too low relative to their skills, the responses to other questions on skills utilisation do not present a strong case that women feel or would like to do a more demanding job.

While the labour market in Australia demonstrates a degree of segmentation this has not prevented mature aged women from increasing their shares of employment across almost all industries. Moreover, the segmentation of mature aged women into certain industries or occupations may have had a positive effect on their employment prospects, given the change in the industrial structure over the last 30 years.

However, segmentation along occupational or industry lines can also have negative impacts on older working women. The following section investigates labour market discrimination as a reason why mature aged women may face a segmented labour market.

4.4 Age discrimination

Age discrimination or ageism, or at least the perception of such discrimination or views, can play a part in labour force participation outcomes for workers including mature aged women. Employers may be more reluctant to employ older workers or mature aged women may consider that their employment opportunities become more limited as they age. The former could impact on the strength of demand for mature aged workers while the latter contributes to a discouraged worker effect.

Age discrimination occurs when a person treats another person less favourably than he or she would treat a person of a different age. Similarly, ageism has been described as ‘a process of systematic stereotyping of, and discrimination against people’ simply because they are older (Butler and Lewis 1982). Older people are often regarded as belonging to a homogenous group because of their age which can lead to them being treated unfavourably, particularly in the workplace and the labour market. Ageism also reflects commonly held views that individuals should behave in a particular way at different stages of the life cycle, such as when to have children and when to retire. Such attitudes do not recognise the significant social changes that have occurred over the past few decades, including growth in flexible forms of employment to facilitate the balance of part time work with caring responsibilities, having children later in life, and delaying retirement age (Australian Human Rights Commission 2010).

Legislation exists to protect prospective workers from age and gender discrimination. For example, the *Age Discrimination Act 2004* (Cth) (the Act) provides workers with the avenue to complain to the Australian Human Rights Commission about unfair treatment based on age and provides mechanisms to have their complaint conciliated. These complaints could include mature age workers being denied a job because of their age, being offered lower wages and employment conditions than those to which they are entitled, or being dismissed unfairly. Of the complaints received under the Act in 2009-10 one half were related to people reporting discrimination in the workplace because they were too old (Australian Human Rights Commission 2010).

Evidence of age discrimination

The strongly growing levels of employment of mature aged women across a range of industries, when combined with low unemployment rates over the past two decades, does not support the view that there is substantial generalised age discrimination. The various studies of discrimination in Australia present an unclear and inconclusive picture about the extent of generalised discrimination. Many of

these studies are of limited usefulness for this report as they look at both men and women rather than mature aged women separately. Further details of the results of some Australian studies into age discrimination are contained in box 4.2.

The studies found that employers generally regard older workers as having a better work ethic than younger workers, appreciating their jobs more, taking fewer sick days, being more presentable and more punctual, responsible and wise than younger workers. However, these positive perceptions are countered by negative views such as older workers being less adaptable to new technology, less interested in technological change, less trainable, less ambitious, less energetic, less healthy, less creative, less mentally alert, less flexible, and not as physically strong.

Overall, while the evidence for any systemic discrimination against mature aged women is weak, discrimination may be more of an issue in specific industries or occupations. For example, the Australian Computer Society considered that age discrimination in the Information and Communications Technology (ICT) sector was so entrenched that it formed a task force to address the issue. This issue was of concern to the industry because the apparent discrimination existed at a time when skill shortages in the ICT sector were acute and persistent and mid-career and older ICT professionals were reporting increasing difficulties in finding employment.

Negative attitudes held by some employers towards older ICT workers include perceptions that they are more prone to disability, are underqualified or overqualified, have obsolete skills, are unable to learn new skills and are resistant to change. It was also reported that the perception that older workers are looking towards retirement inhibited their access to training opportunities (Australian Computer Society 2010).

Box 4.2 Australian evidence of age discrimination in the workforce

- Ranzijn (2005) found that a common perception of the competencies of older workers is that they are less productive than younger workers, inflexible, more resistant to change and less suited to the modern working environment, but this is compensated somewhat by the perception that they are more reliable, punctual, loyal, dedicated to their tasks and offer a wealth of work experience and wisdom.
- Bishop (2003) concluded that older workers are perceived by employers as having firmly entrenched bad habits and less adapted or motivated to use new workplace practices and technologies.
- A report commissioned by the Victorian, South Australian and Western Australian Equal Opportunity Commissions and the Australian Employers Convention found that some mature aged workers face discrimination in the workplace such as being screened out early from recruitment processes for reasons such as being 'overqualified'.
- The Social Policy Research Centre (SPRC) of the University of New South Wales conducted a survey on recruitment practices and attitudes towards older job seekers and workers. The survey, of just over 1 000 employers in the business services industry in 2000, showed a relatively low recruitment rate of older workers. Over half of the respondents considered that employees make their best contribution to the business between the ages of 30 and 44 years. Around 15 per cent considered that employees made their best contribution before the age of 30 years, while a similar proportion considered their productivity was highest after the age of 45 years. A fifth did not consider that age played an important part in work performance. The SPRC study found that while employers often prefer qualities associated with older workers such as reliability and experience, and valued a diverse workforce, in terms of age, this did not translate into high recruitment rates for older workers (Bittmann, Flick and Rice (2001)).
- Other studies have found the presence of both gender and age discrimination. For example, Gringart and Helmes (2001) found that older female job seekers were being discriminated against to a greater degree than older male job seekers during the recruitment process.
- A study conducted by Gringart et al. (2005) of 128 medium sized firms (10 to 50 employees) in Australia found that employers took age into consideration when hiring and, on average, were less likely to recruit older workers aged 55 to 70 years than workers aged 25 to 40 years or below. The study, however, found no evidence of older female workers being regarded more negatively than older male workers by employers when recruiting.

Table 4.6 Main reasons why women aged 45 years or older who wanted more hours of work or a paid job did not look for work, 2006-07^a

<i>Reason</i>	<i>'000</i>	<i>% of total</i>
Lacks necessary training/qualifications/experience	8.5	3.6
Considered too old by employers	39.9	16.9
Unable to work because of disability	31.9	13.5
No jobs with suitable conditions or arrangements	6.3	2.7
Short term sickness or injury	19.8	8.4
No jobs or vacancies in locality or line of work	8.3	3.5
Studying or returning to studies	3.6 ^b	1.5
Taking holidays	3.7 ^b	1.6
Caring for children	21.8	9.2
Caring for ill, disabled or elderly person	25.4	10.8
Home duties	16.5	7.0
No need/ satisfied with current arrangements/retired from FT work	21.6	9.2
Other ^c	26.1	11.1
Not applicable	2.4 ^b	1.0
Total	235.7	100.0

^a Only one major reason was selected rather than multiple responses. ^b Estimates have standard errors of 50 per cent or more and are considered by the ABS as too unreliable for general use. ^c Other includes difficulties with language or ethnic background, believes own disability discourages employers, problems with access to transport, moving house, pregnancy and permanently unable to work.

Source: ABS (*Barriers and Incentives to Labour Force Participation*, Cat. no. 6239.0, unpublished data).

Perceptions of discrimination can, however, matter as much as actual discrimination in affecting labour force outcomes of potential workers. ABS data show that one of the major reasons for not looking for work for women aged 45 years or older in 2006-07 who wanted more hours of work or a paid job was that 'employers considered them too old' (just under 17 per cent of respondents) (table 4.6). While a significant barrier to the individuals involved, this response applied to only around one per cent of the population of mature aged women.

An ABS survey of job search experience found similar results for *all* unemployed persons aged 45 years and older in 2009 — with around one fifth reporting that the main difficulty they encountered in finding work was the perception that they were considered too old by employers (ABS 2009c).

A report commissioned by the Victorian, South Australian and Western Australian Equal Opportunity Commissions and the Australian Employers Convention found that older workers get less access to training opportunities compared to younger workers. The report was also concluded that older workers were more likely to be targeted during rationalising or restructuring of an organisation's workforce during

an economic downturn or contraction in business activity through the offering of incentives for early retirement such as voluntary redundancies (Victorian Equal Opportunity Commission et al. 2001). It is also claimed that training opportunities are being denied to older workers due to the perception that they only have a short period of time before retirement and that instead it may be preferable to offer training opportunities to younger workers where returns to investment are more likely to be realised (Drabsch 2004).

Lack of access to training opportunities is discussed further in chapter 6. For example, while HILDA data shows that mature aged women working part time were less likely to have access to training than those working full time there was no evidence that mature aged women had less access to training than younger women. In fact women aged 45 to 54 years had greater access to training than women and men in all other age groups, while those women aged 55 to 64 years had similar rates of training as women aged 25 to 44 years and higher rates of training than women aged 15 to 24 years (table 6.3).

4.5 Employment growth projections for the future

The strong growth in employment of mature aged women over the past two decades points to strong growth in employer demand for such workers. A key question is whether such demand (and employment) is likely to continue to grow at similar rates in the future. A number of organisations provide employment projections, including job prospects for older persons and persons with particular occupational skills. This will help inform whether the strong employment opportunities provided to mature aged women in particular industries and occupations over the past two decades is likely to continue in the future.

Box 4.3 Results of employment projections by industry and occupation

- In October 2008 Mercer commissioned Econtech to provide projections of the composition of the workforce in Australia in 2012-13. In the report it was projected that the number of employed women aged 45 to 54 years would increase by 11 per cent in the five years to 2012-13, the number of employed women aged 55 to 59 years would increase by 17 per cent and the number of employed women aged 60 to 64 years would increase by 20 per cent. The employment growth rates for men aged 45 to 54 years were much lower (at 3 per cent) and slightly lower for those aged 55 to 59 years and 60 to 64 years (14 per cent and 16 per cent respectively) (Mercer 2008).
- The Department of Education, Employment and Workplace Relations (DEEWR) prepares annual industry and occupation employment projections² for all persons.
 - Industry employment growth in the five years to 2015 is expected to be strongest in health care and social assistance (up 211 500), construction (up 120 800), education and training (119 000), professional, scientific and technical services (111 200) and retail trade (up 106 600).
 - The three occupational groups with the strongest employment growth prospects for the five years to 2015 were professionals (up 320 800), community and personal service workers (up 168 400) and managers (up 151 700) (DEEWR 2010).

The information shown in box 4.3 indicates that employment growth is expected to be strong in industries such as health care and social assistance, education and training and retail trade over the next five years. As indicated earlier in the chapter, these industries have traditionally been the major employment destinations of mature aged women. Those occupations where substantial shares of mature age women are employed are also those that are forecast to grow strongly.

More significantly, the increasing education levels of mature aged women identified in chapter 2 are likely to underpin growing employer demand for them and lead to a continued shift in employment within industries towards mature aged women.

² These projections are based in part on economic models developed by Access Economics and the Monash model developed by the Centre of Policy Studies at Monash University, but also take into account recent employment trends and prospective industry developments. It should be noted that a degree of uncertainty is attached to these employment projections. Accordingly they should be used with some caution.

5 Supply influences on participation decisions of mature aged women

Key points

- Decisions about whether to participate in the labour force reflect mature aged women's varied household circumstances:
 - the impact of having children on labour force participation is more muted for mature aged women than prime aged women due to the lower likelihood of the presence of younger children
 - there is little difference in participation rates of women aged 45 to 54 years by marital status, but among women aged 55 to 64 years, those who are separated, divorced or single have higher participation rates than married or widowed women
 - mature aged women who need to care for their partners or other dependent household members have lower participation rates
 - mature aged women in couple households tend to replicate the labour force status of their partner.
- Decisions to participate in the labour force appear to be taken earlier in life. The longer a woman has participated in the labour force the more likely she will be in the labour force when she reaches mature age. In contrast, if women have a short or an intermittent work history they are less likely to participate later in life.
- An increase in educational attainment has a positive and significant impact on labour force participation and this impact is stronger for women than men. This is likely to be a source of continued growth in labour force participation of mature aged women in the future as younger women currently have much higher levels of educational attainment than mature aged women of today.
- Own health status is also strongly correlated with workforce participation — less healthy mature aged women are less likely to participate.

In previous chapters it was noted that economic studies of labour force participation assume that an individual has a choice as to whether to enter the labour force and will respond to the perceived costs and benefits from being in paid employment. However, the decision to enter the labour force is also affected by employment opportunities and the desire and capacity to respond to those opportunities. In this

chapter, the desire and capacity of mature aged women to respond to these opportunities is examined by looking at the major supply factors which have underpinned the growth in employment of mature aged women in the past two decades.

There is an extensive literature regarding the determinants of labour force participation for women in general. Most studies undertake multivariate analysis in an attempt to disentangle and quantify the separate influences of these factors, about which there is general consensus. But few studies have specifically looked at the supply influences on participation of mature aged women. Apart from reporting the findings of these studies, this chapter provides a descriptive analysis of the factors affecting the participation decisions of mature aged women. Understanding these supply factors and how they may be changing helps to identify how the participation of mature aged women in the labour force may change in future years.

The supply factors that have been identified as helping to explain mature aged women's participation in terms of either expanding the employment opportunities available to them or constraining their ability to take up opportunities, include:

- household characteristics — family characteristics, marital status and the presence of children
- educational attainment
- own health status
- caring responsibilities — the need to care for an elderly, sick or disabled person who is a partner or spouse or household member
- wages
- labour market experience — length of workforce participation
- ethnicity — proficiency in speaking English
- strength of labour market conditions — which can impact as an encouraged and/or discouraged worker effect
- partner's wages and their labour force status.

The relationship between these factors and participation decisions of mature aged women are explained in the following sections, along with results of studies and data which inform the strength of these relationships. Another major factor explaining women's participation is age, however, this factor is not addressed here in isolation as it was covered in earlier chapters. Instead age is covered in conjunction with other factors such as education and caring activities.

5.1 Household characteristics — family characteristics, marital status and the presence of children

Patterns in household formation

Most models of labour force behaviour seek to explain participation in terms of individual decision making. This approach, as explained in chapter 3, does not fully reflect the complexity of women's interaction with the labour market and their household characteristics. It is useful to consider the household structure in which women live and investigate whether this is associated with significant differences in participation.

Over the past four decades, mature aged women have experienced substantial social change including higher rates of divorce and separation, fewer children than women in earlier generations, relatively high rates of single household units and changing social attitudes towards participation in work. Forty years ago the typical household headed by mature aged people consisted of the male partner as the major breadwinner who worked on a permanent full time basis, with the likelihood of the partnered female working much less than is the case today. For example, it was not until 1966 that the ban on married women as permanent employees in the federal public service was lifted. Mature aged women today have far more diverse household arrangements which may affect their decision to enter the labour market.

Just over two thirds of mature aged women are living in couple households (with or without children) (table 5.1). A small proportion of women aged between 45 and 54 live in lone person households (13.3 per cent) or lone parent households (17.1 per cent). These shares change substantially for older mature aged women (aged 55 to 64 years) where the share of lone person households rise substantially (22.6 per cent).

Somewhat surprisingly, the data show no consistent relationship between household type and labour force participation. For example, the presence of children in the household does not consistently affect the pattern of participation. However, the age of children has an impact on the participation of mature aged female parents.

For example, women aged 45 to 54 years in a couple relationship without children in the household¹ have a slightly lower participation rate (76.4 per cent) than women in the same age group in a couple household with children less than 15 years (81.1 per cent), a much lower rate than women in the same age group in a

¹ This can include mature aged women who have never had children and mature aged women whose children are no longer living in the household.

couple household with dependent students aged 15 years and over (89.2 per cent), but a higher rate than women in this age group in a couple household with non-dependent children (66.7 per cent) (table 5.1).

Underlying patterns may be masked by the use of 10 year age brackets in this analysis. For example, the impact of dependent children on younger women within the 45 to 54 years age group is likely to be different from the impact on older women within this age group. Children of the younger women are likely to be relatively younger themselves with different caring requirements to children in households of older women within this age group.

Table 5.1 Labour force participation of mature aged women and men by household type, 2007

	<i>Participation rate of women aged 45 to 54 years</i>	<i>Proportion of total pop of women aged 45 to 54 years</i>	<i>Participation rate of women aged 55 to 64 years</i>	<i>Proportion of total pop of women aged 55 to 64 years</i>
	%	%	%	%
Couple family without children ^a	76.4	26.0	47.3	56.0
Couple family with children < 15 yrs	81.1	23.2	na ^b	0.8
Couple family with dependent student (≥ 15 yrs)	89.2	14.5	na ^b	3.5
Couple family with non-dependent children	66.7	5.8	47.5	7.4
Lone parent with children < 15 yrs	71.1	8.0	na ^b	1.7
Lone parent with dependent students (≥15 yrs)	84.4	3.9	na ^b	1.5
Lone parent with non dependent children	83.1	5.2	55.6	6.5
Lone person	78.3	13.3	56.1	22.6
Total	79.3	100.0	51.0	100.0

^a Refers to households where couples have never had children and those where children are no longer residing in the household. ^b na indicates that there were too few observations for the results to be reliable.

Source: HILDA (2007) Release 7.0 weighted data.

Whether or not mature aged women are in a couple or lone household also does not consistently affect participation rates. Women aged 45 to 54 years in a lone parent household with children aged less than 15 years have a lower participation rate (71.1 per cent) than otherwise similar women in a couple household (81.1 percent) but women in a lone parent household with non-dependent children have a far higher participation rate (83.1 per cent) than otherwise similar women in a couple household (66.7 per cent).

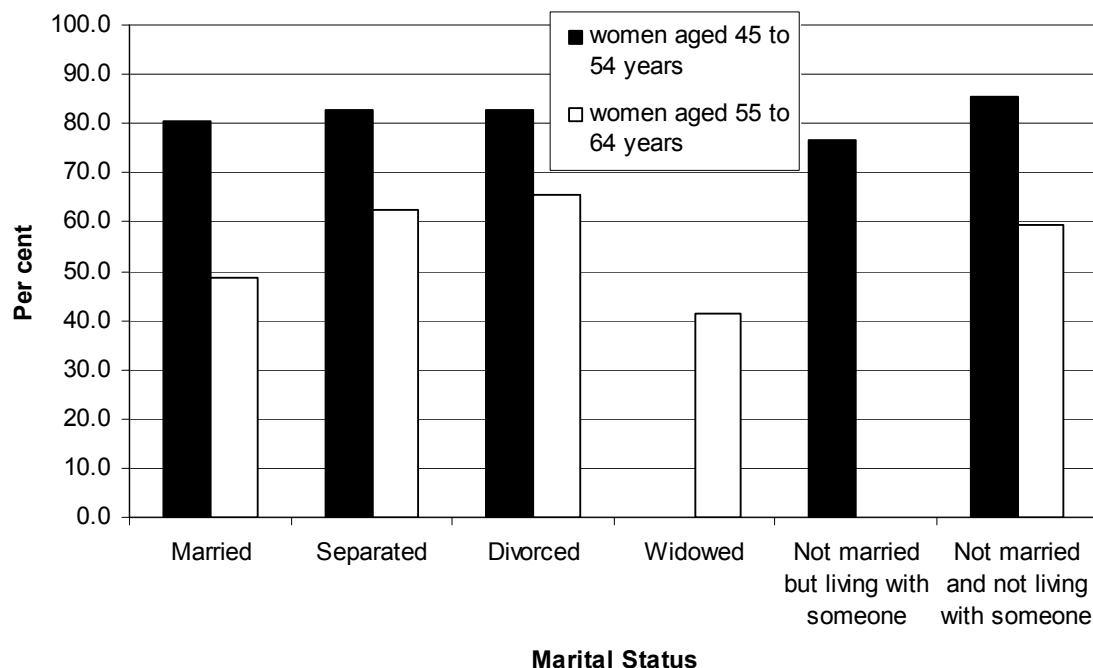
Impact of marital status

Generally, the economic analysis of time allocation focuses on the effects of the wage of the individual making the decision to enter the labour force. However, this ignores the situation where the decision to participate is a joint decision of women with their partners. The decision whether to participate in the labour force, in such cases, can be seen as one of maximising the welfare of the household rather than the individual.

HILDA data show that for women aged 45 to 54 years there is little difference in participation rates according to marital status. Among women aged 55 to 64 years, those separated, divorced or single have higher participation rates than married or widowed women (figure 5.1).

It is possible to examine in more detail some of the aspects of household formation that may underpin these differences. One way in which marital status can affect the labour force participation of women is through the influence of the labour force status of their partner. If men and women have selected partners who are similar to themselves in terms of education levels, social outlook and values, through a process known as ‘assortative mating or pairing’, then the more career oriented an individual’s partner, the more likely that the individual will also be participating in the workforce. There is also evidence of women and men in partnered relationships coordinating their retirement plans which contributes to a positive relationship between a husband’s income and the labour force participation behaviour of his wife.

Figure 5.1 Participation rates of mature aged women by marital status,^a 2007



^a The number of responses for widowed women aged 45 to 54 years and women aged 55 to 64 years who were not married but living with someone were too small for the data to be deemed reliable.

Source: HILDA (2007) Release 7.0 weighted data.

HILDA data confirm that the labour force status of married mature aged women often reflects that of her partner. For example, if their husband was not employed there is a strong likelihood that the women was also not employed. Just over 60 per cent of married women aged 45 to 54 years, whose married partner was not in the labour force, were also not in the labour force. The association is even more pronounced for women aged 55 to 64 years where just under 80 per cent of married women whose partner was not in the labour force were also not in the labour force. This reflects the increased likelihood of both partners being retired and not in the labour force in the older age group (table 5.2).

Further, if the male partner is employed full time, there is a strong likelihood that his female partner will be employed in either a full time or part time capacity, particularly in the younger age group. Only 18 per cent of married women aged 45 to 54 years, whose partner worked full time, were not employed. A much higher proportion (36 per cent), of married women aged 55 to 64 years were not employed if their partner was working full time.

Table 5.2 Labour force status of married mature aged women by labour force status of male partner, 2001 to 2006^a

<i>Married women aged 45 to 54 years</i>				
<i>Labour force status of married male partner</i>	<i>Labour force status of married female partner</i>			<i>Total</i>
	<i>Not employed</i>	<i>Employed part time</i>	<i>Employed full time</i>	
Not employed	61.3	17.8	20.9	100.0
Employed part time	23.1	35.8	41.1	100.0
Employed full time	18.1	40.1	41.8	100.0
<i>Married women aged 55 to 64 years</i>				
<i>Labour force status of married male partner</i>	<i>Labour force status of married female partner</i>			<i>Total</i>
	<i>Not employed</i>	<i>Employed part time</i>	<i>Employed full time</i>	
Not employed	79.0	11.5	9.5	100.0
Employed part time	53.9	30.2	15.9	100.0
Employed full time	36.3	34.7	29.0	100.0

^a Average of HILDA Waves 1-6.

Source: HILDA (2006) Release 6.0 weighted data.

Impact of partner's wages

The labour force participation of mature aged women can also be affected by the income generated by their partner. It is difficult, *a priori*, to determine the nature of the relationship. On one hand, the higher the partner's wage the less the need for mature aged women to enter the workforce and earn income. But alternatively, through the same 'assortative mating or pairing process' described above, career oriented mature aged women are more likely to be in a household with career oriented high earning partners.

Australian studies which have looked at this issue have found an inconsistent relationship between income generated by a spouse and the participation behaviour of their female partner (box 5.1).

Box 5.1 Australian studies on the impact of spouse's income on labour force participation of women

- Miller and Volker (1983), using ABS Census data, found that income of a married partner did not influence the participation behaviour of women aged 45 to 54 years, but had a positive effect on participation of women aged 55 to 64 years.
- Birch (2005) found that women who receive \$40 a week in income from investments or more than \$125 per week in income from other sources had probabilities of labour force participation that were 13.5 and 32.5 percentage points lower, respectively, than women who did not have access to these forms of income. But Birch also found that a husband's earnings had a positive effect on the likelihood of labour force participation of older women.
- Birch and Miller (2005) found evidence of 'assortative mating'. This often leads to career oriented women partnering with men who have high involvement in paid work. These factors often combine to produce a positive relationship between income generated by a husband and the labour force participation behaviour of their wives.
- Cai (2010) found that a married woman's labour supply is negatively related to her partner's wage.
 - for example, a \$10 increase in a partner's wage reduces the probability of a woman being employed by 3 percentage points
 - for those married women whose partner's wage was in the bottom quartile, 23 per cent were not employed, which compares with 33 per cent of women whose partner's wage was in the top quartile
 - the likelihood of married women working full time decreases in response to their partner's wage — 36 per cent of married women whose partner's wage was in the bottom quartile were working full time compared with 29 per cent of women whose partner's wage was in the top quartile.

Possible reasons for the inconsistencies in the results of these studies include difficulties encountered in estimating the degree of access of women to partner's income and measuring the various sources of non-labour income that may be available (Victorian Government 2005).

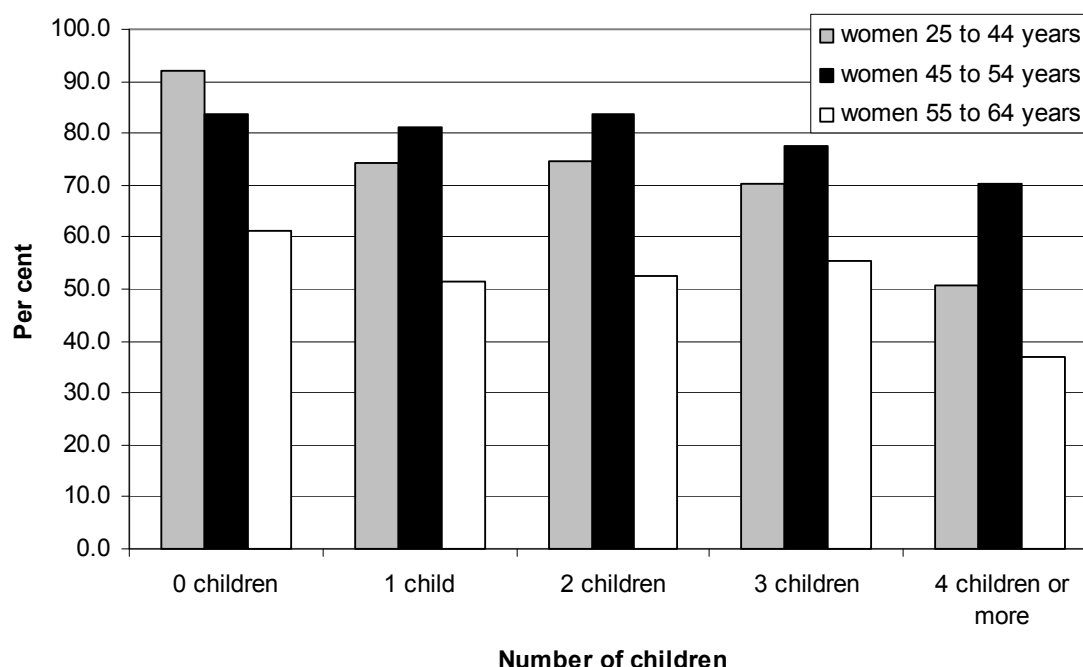
Impact of the number of children on workforce participation

Most studies of the labour force participation of women analyse the impact of caring for children. However, as was identified in chapter 3, mature aged women devote very little of their time to the care of children. Accordingly, the impact on labour force participation is likely to be limited.

HILDA data reveal the extent of labour force participation of mature aged women with and without children (figure 5.2). For example, there is little difference in the participation rates of women aged 45 to 54 years with no children or one, two or three children. But the rate declines for those women with four or more children. The participation rate of women aged 45 to 54 years who have not had children was 83.8 per cent while the rate for women in the same age group who have had four children or more was 70.3 per cent. For women aged 55 to 64 years the participation rate for those without children was 61.1 per cent while the rate for those with 4 children or more was 37.1 per cent.

Not surprisingly, the impact of having children on labour force participation is more muted for mature aged women than prime aged women (25 to 44 years). Mature aged women are more likely to have children of school age or older which provides them with greater opportunity to look for work and expand the number of hours they work. In fact, as noted in chapter 2, women aged 45 to 54 years have the highest full time employment rate and have the highest average hours worked per week of all age groups of women.

Figure 5.2 Participation rates of prime aged and mature aged women, by number of children, 2007



Source: HILDA (2007) Release 7.0 weighted data.

5.2 Impact of education on labour force status

A number of studies highlight the positive impact of increased educational attainment on labour force participation. The results of these studies are shown in box 5.2. Most studies look at the impact of education on participation by all women but some do focus on mature aged women.

Box 5.2 Australian studies on the impact of education on labour force participation of mature aged women

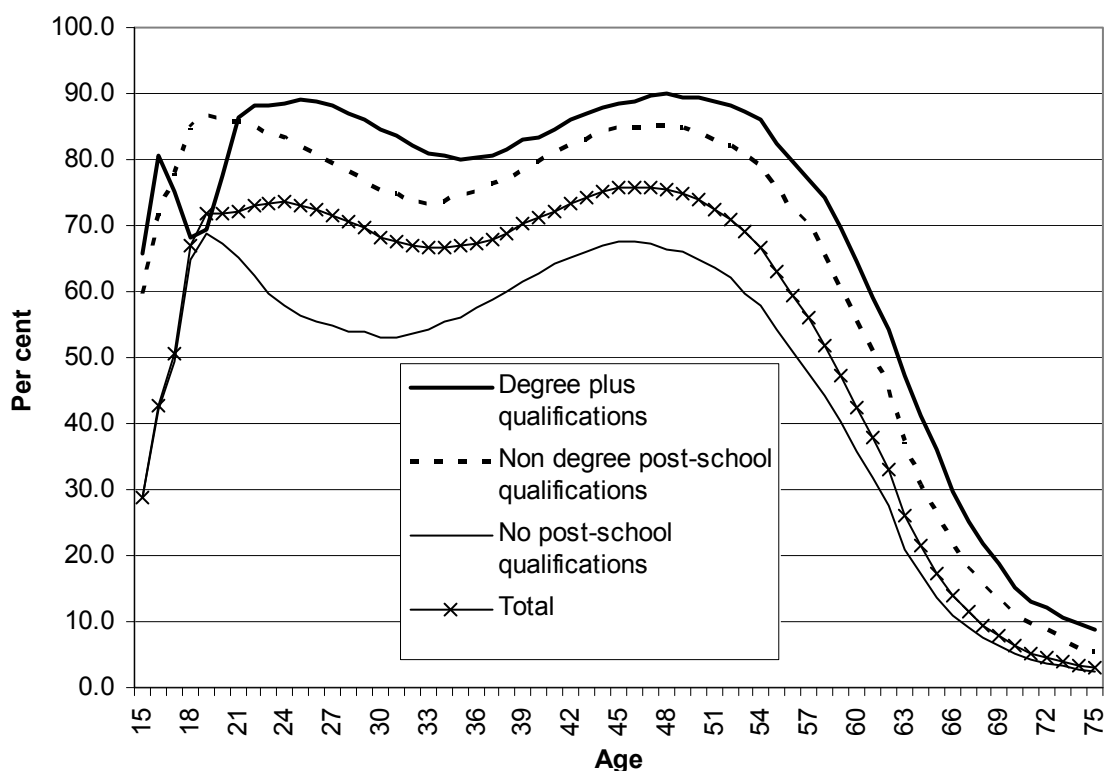
- All Australian studies found a positive relationship between the labour supply of women and their educational attainment. Birch (2005), for example, found that the likelihood of labour force participation for women aged 50 to 59 years, who left school after the age of 15 years, was 9 percentage points higher than for those women who left school earlier. The probabilities of labour force participation of women aged 50 to 59 years with a degree or diploma were 22.9 percentage points and 24.2 percentage points higher, respectively, than women of the same age with no post school qualifications.
- A number of Australian studies also confirm the large and significant impact of having a degree or higher qualification on participation, including Wilkins (2004); Dawkins et al. (2004) and Cai (2007). All these studies found that the impact of education on female participation was larger than for men. There is also evidence to suggest that more educated Australian women work more hours than those with less education (Eyland et al. 1982) and (Knudsen and Peters 1994).
- Treasury used ABS Census data and found that participation rates for women in all education attainment levels and in all age groups increased between 1981 and 2001 (i.e. those with a university degree or higher, post school qualifications and without post-school qualifications). The increase in participation of women aged 55 years and over with non-degree post school qualifications was 7.4 percentage points and women in this age group with a degree or above experienced an increase of 4.9 percentage points. In contrast women aged 55 years and over with no post-school qualifications experienced an increase in participation of 2.1 percentage points (Kennedy and Hedley 2003).
- More recent Treasury analysis shows significant increases in participation for women aged 55 to 64 years in the period between 2001 and 2006. In what may seem to be contradictory to other findings, the largest increases were recorded by those with no post-school qualifications (Kennedy et al. 2009).
- Evans and Kelley (2004) found that education motivates women to look for work due to the attraction of higher wages and by encouraging more career focused attitudes. The authors found that education has a substantial impact on both labour force participation and hours worked by women.

Education levels, by affecting the returns from work and preferences for work, have an important influence on the trade-off between paid work and other activities. The OECD, for example, states that:

Higher education is likely to give women access to more interesting and well-paid occupations, making paid employment more attractive and formal child-care arrangements more affordable. (OECD 2002, p. 71)

ABS Population Census data highlight the differences in labour force participation of women by age and highest level of educational attainment (figure 5.3). The chart shows that women with higher educational attainment have consistently higher rates of participation than women with no post school qualifications. The chart also shows the ‘M shaped’ labour force participation curve for women over the lifecycle, highlighted earlier in the report, is far more muted for more educated women. The dip in labour force participation is later and shallower for women with post school qualifications. Participation rates for women with no post school qualifications begin to fall from their mid 40s, whereas this trend is observed for women with a degree or above only from their early 50s.

Figure 5.3 Labour force participation of women, by educational attainment and age, 2006



Source: ABS (Population Census 2006, Customised Data Report).

Other ABS data highlight that women with higher educational attainment not only have higher participation rates than those with lower educational attainment, but if they participate in the labour market, they are less likely to be unemployed and, if

employed, more likely to be working full time. Women without non-school qualifications account for two thirds of those aged 45 to 54 years who are not in the labour force, but only 46 per cent of those employed. Women without non-school qualifications accounted for three quarters of those aged 55 to 64 years who are not in the labour force and only half of those employed (table 5.3).

Table 5.3 Labour force status of women aged 45 to 64 years, by level of highest non-school qualification, May 2009

	<i>Total Emp '000</i>	<i>% Emp full time</i>	<i>Not in lab force '000</i>	<i>% of NILF</i>	<i>% of pop</i>	<i>Participation rate %</i>	<i>Unemp rate %</i>
Women aged 45 to 54 yrs							
Bachelor degree	210.6	65.0	24.0	8.6	16.3	90.0	2.4
Advanced diploma or diploma	141.1	63.5	17.5	6.3	11.1	89.3	3.3
Certificate III/IV	139.5	57.1	25.7	9.2	11.7	85.0	4.1
<i>Total with a non-school qualification^a</i>	<i>611.3</i>	<i>64.3</i>	<i>89.2</i>	<i>32.1</i>	<i>49.0</i>	<i>87.6</i>	<i>2.9</i>
Year 12	169.1	58.5	50.6	18.2	15.4	77.6	3.5
Year 11 or below	366.2	48.7	138.4	49.8	35.7	73.6	4.9
<i>Total without a non-school qualification</i>	<i>535.3</i>	<i>54.1</i>	<i>189.0</i>	<i>67.9</i>	<i>51.0</i>	<i>74.8</i>	<i>4.5</i>
TOTAL	1146.7	59.5	278.1	100.0	100.0	81.1	3.6
Women aged 55 to 64 yrs							
Bachelor degree	98.5	59.5	35.1	7.0	11.7	74.3	2.8
Advanced diploma or diploma	76.6	58.7	35.4	7.1	9.8	68.8	2.2
Certificate III/IV	65.0	52.1	29.6	5.9	8.4	69.8	4.9
<i>Total with a non-school qualification^a</i>	<i>317.3</i>	<i>58.0</i>	<i>127.4</i>	<i>25.5</i>	<i>39.0</i>	<i>71.9</i>	<i>2.7</i>
Year 12	81.4	58.2	67.3	13.5	13.0	55.3	2.1
Year 11 or below	245.7	45.2	304.5	61.0	48.0	45.4	na
<i>Total without a non-school qualification</i>	<i>327.1</i>	<i>48.4</i>	<i>371.8</i>	<i>74.5</i>	<i>61.0</i>	<i>47.5</i>	<i>2.7</i>
TOTAL	644.4	53.1	499.2	100.0	100.0	57.0	2.7

^a Includes women completing a Graduate diploma or Graduate certificate or above, Certificate I/II and Certificate n.f.d. (not further defined). Other abbreviations — Emp is employed; NILF is not in labour force; Unemp rate is unemployment rate; and n.a. not available for publication due to suppression of cells.

Source: ABS (Survey of Education and Work, Cat. no. 6227.0, May 2009, unpublished data).

The labour force participation of mature aged women is likely to continue to grow as younger more educated women move into older age groups. Indeed higher levels of educational attainment are likely to be one of the major factors driving the cohort effects identified in chapter 2. ABS data show the growing proportion of mature aged women who have gained higher levels of educational attainment over the last two decades (table 5.4).

Table 5.4 Proportion of population of women and men by education level by age, 1991 and 2009

	Women			Men		
	25-44 yrs	45-54 yrs	55-64 yrs	25-44 yrs	45-54 yrs	55-64 yrs
1991						
Bachelor degree or above	10.9	5.6	2.7	14.8	11.7	7.6
Advanced diploma or below	33.7	28.7	20.7	41.9	41.6	36.5
<i>Total with non-school qualifications</i>	<i>44.6</i>	<i>34.4</i>	<i>23.4</i>	<i>56.7</i>	<i>53.3</i>	<i>44.1</i>
Attended highest level of schooling ^a	15.1	14.9	16.1	13.6	11.0	11.7
Did not attend highest level of schooling	39.9	50.3	59.8	29.1	34.9	43.5
Other qualification	0.4	*0.4	*0.3	0.6	n.p.	0.5
Never attended school	0.0	*0.1	*0.3	0.0	n.p.	*0.1
<i>Total without a non-school qualification</i>	<i>55.4</i>	<i>65.6</i>	<i>76.6</i>	<i>43.3</i>	<i>46.7</i>	<i>55.9</i>
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
2009						
Bachelor degree or above	34.0	24.4	19.2	27.6	23.2	20.9
Advanced diploma or below	31.8	33.6	27.3	39.4	41.2	40.8
<i>Total with non-school qualifications</i>	<i>65.8</i>	<i>58.0</i>	<i>46.5</i>	<i>67.0</i>	<i>64.3</i>	<i>61.6</i>
Year 12	15.9	11.9	10.3	14.6	10.8	9.2
Year 11	4.8	6.4	5.6	4.3	4.6	4.3
Year 10 and Year 9	12.0	20.8	29.2	12.3	17.6	17.9
Year 8 or below	1.4	n.p.	7.8	1.6	2.6	6.7
Did not go to school	*0.1	n.p.	*0.6	**0.1	**0.1	*0.3
<i>Total without a non-school qualification</i>	<i>34.2</i>	<i>42.0</i>	<i>53.5</i>	<i>33.0</i>	<i>35.7</i>	<i>38.4</i>
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

^a Not possible to determine the highest level of schooling completed in 1991 — only attendance.

* estimate has a relative standard error of 25 to 50 per cent and should be used with caution. ** estimate has a relative standard error >50 per cent and is considered too unreliable to use.

n.p. not available for publication, but included in totals where applicable. Rounding was used to determine some sub-categories.

Source: ABS (*Survey of Transition from Education to Work*, 1991) and ABS (*Survey of Education and Work Cat. no. 6227.0*, May 2009, unpublished data).

For example, almost one quarter of women aged 45 to 54 years had a Bachelor degree in 2009, compared with only 6 per cent in 1991. Similarly just under one fifth of women aged 55 to 64 years had a Bachelor degree in 2009 compared with only 3 per cent in 1991. The potential for more highly educated women moving into older age groups in the future is supported by the knowledge that just over one third of women aged 25 to 44 years had a Bachelor degree or above, which compares with 28 per cent of men of the same age.

5.3 Impact of own health on labour force participation

Health status can have a significant impact on labour force participation of mature aged women. Poor health can be seen as constraining the choice of those women who would have otherwise chosen to work. People with poor health may not be able to work as effectively or productively as those with better health and may find it more difficult to find suitable work. Those with poor health are also more likely to have lower productivity and have to accept lower paid work which may affect their participation decisions. Poor health has a significant impact on participation decisions of mature aged and older people and is cited by many as the major reason for leaving the workforce and early retirement. This issue is taken up further in chapter 7.

The relationship between health and work can also work in the opposite direction whereby participation in work can impact on health outcomes — particularly in working environments that are stressful in a physical or mental sense, where jobs are less secure and where there is an expectation of long working hours. Alternatively, participation in the workforce can have psychological benefits in terms of improving self worth and confidence through social interaction and achieving greater material self sufficiency.

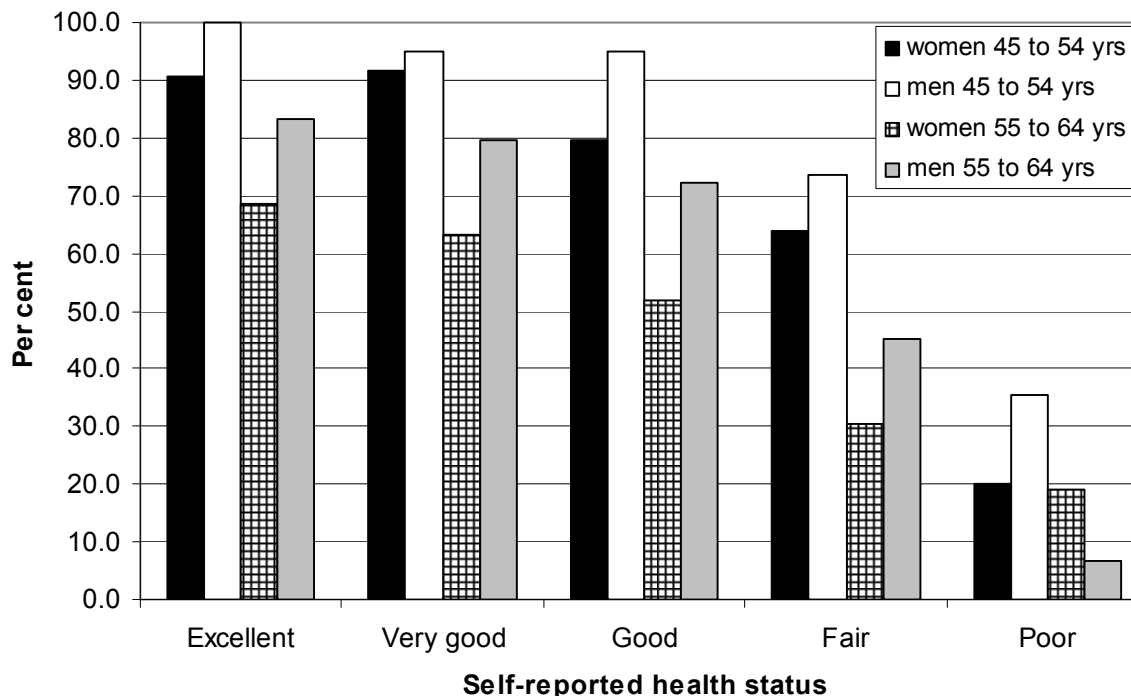
In summary, the interaction between health and labour force engagement can work in different directions — poor health can prevent engagement while the nature of work performed can either contribute to psychological and physical benefits or deterioration. Results of Australian studies into the impact of health on labour force participation are shown in box 5.3.

Box 5.3 Australian studies on the impact of health status on participation

- Health status influences a person's decision to participate through its effect on wages, preferences and expected life horizon (Suhrcke et al. 2005).
- Chronic diseases have been found to have a negative effect on labour force participation (Jose et al. (2004)); Au et al. (2005)). A woman with arthritis, for example, was found to be 25 per cent more likely to be outside the labour force than a woman without this disease. Both Australian and international evidence has shown that poor health and disability adversely affects participation (PC 2006).
- Working may contribute to an increase in a person's general activity level, thus improving overall physical health. Conversely, the type of work people are engaged in may lead to a deterioration in health, either because of the physical and psychological effects of working long hours or, at the opposite extreme, because too few or irregular hours of work may be associated with job insecurity (Dockery 2006; Adam and Flatau 2005).
- Waghorn and Chant (2005) cite studies showing that positive and meaningful employment experiences may lead to improved self-esteem.
- Mental health problems might also arise from not having enough work, or becoming unemployed. Adverse health consequences are more likely to arise, the more satisfied people were in the job they lost (Dockery 2006). Adam and Flatau (2005) found that job uncertainty contributed to poorer mental health.
- Austen (2005) found that the estimated probability of a healthy woman in her late 40s being a labour force participant was just over 81 per cent — but this fell to around 64 per cent if their health rating changed to fair or poor.
- Cai and Kalb (2004) estimated that the effect of labour force participation on health was positive and significant for older women aged 50 to 60 years and younger men. However, for younger females and older males, the impact of labour force participation on health is not significant.
- LaJeunesse (2010) concluded that older women working in situations which were relatively free of workplace stress, job insecurity and long work hours were less likely to experience a decline in health than women of similar age who were marginally attached to the workforce.

Poor health is cited by 23 per cent of women aged 50 to 69 years who have retired, as the major reason prompting their retirement (HILDA 2007). Further analysis of HILDA data found that health mattered more at older ages. The participation rates of women and men aged 55 to 64 years with poor or fair health are much lower than those aged 45 to 54 years with the same health rating (figure 5.4). Mature aged men have higher participation rates than mature aged women for all health ratings.

Figure 5.4 Labour force status by self-reported health status of mature aged Australian women and men, 2007



Source: HILDA (2007) Release 7.0 weighted data.

5.4 Caring responsibilities

Caring responsibilities can act as a significant barrier to labour force participation for some mature aged women. ABS data show that just over 10 per cent of mature aged women in September 2009 who were not in the labour force and were not looking for work cited caring for ill, disabled or elderly people as the main barrier to employment. This employment obstacle confronted around 25 000 mature aged women at this time (ABS 2009).

Informal carers are classified by ABS data as ‘economically inactive’ as they are not in the labour force and not remunerated for their services. However, the caring services they provide give rise to socially valuable outputs. If all informal carers were to move into the labour force then much of their caring role would need to be taken up by paid carers. Some of this increase in participation would only represent the movement of previously undertaken non-market caring activity into the monetised sector with little impact in overall community welfare.

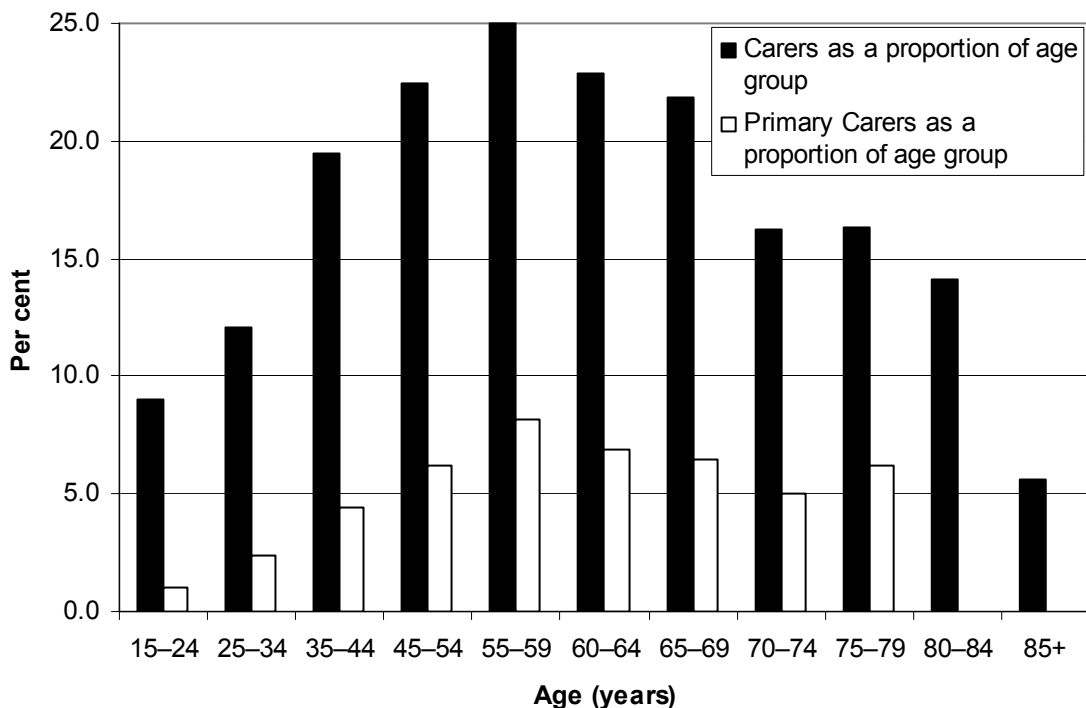
The cost of replacing informal care by paid carers presents a dilemma to policy makers. The choice may be between trying to contain the costs of aged and

community care in which informal carers play a significant role, and trying to achieve other objectives through policies which are designed to encourage mature aged people (some of whom are unpaid carers) to enter or stay in the labour force longer in order to boost aggregate participation, bolster retirement savings and alleviate skill shortages ((Page et al. 2009).

ABS data reveal that women are more likely than men to undertake caring roles — particularly primary care. For example, women accounted for 71 per cent of primary carers and 54 per cent of all carers in 2003 (latest available data). Mature aged women aged 45 to 64 years accounted for a third of all primary carers and 22 per cent of all carers (ABS 2003).

A primary carer is a person who provides the most informal assistance, in terms of help or supervision, to a person with a disability. The same ABS data source shows that in 2003 almost a quarter of women aged 55 to 59 years were caring for people with a disability and/or older people (those aged 60 years and over) (figure 5.5). The chart shows that caring responsibilities peak at the 55 to 59 years age group.

Figure 5.5 The proportion of women in each age group who are carers,^a 2003



^a Primary carers are those who provided the most informal assistance to a person with a disability.

Source: ABS (*Survey of Disability, Ageing and Carers*, Cat. no. 4430.0, 2003).

Women with caring responsibilities are less likely to be employed and, if working, are more likely to be employed part time. One half of all primary carers are in the labour force, rising to just over 70 per cent for non-primary carers (table 5.5). By comparison around 78 per cent of non carers were in the labour force.

Table 5.5 Labour force status of carers and non carers,^a 2003

	<i>Sex of carer</i>		<i>Type of carer</i>		<i>Non carers</i>	<i>Female carers – 35 to 64 years</i>	
	<i>Male</i>	<i>Female</i>	<i>Primary</i>	<i>Non-primary</i>			<i>All carers</i>
	%	%	%	%	%	%	
Employed full time	59.3	24.1	22.1	43.3	39.5	52.2	23.9
Employed part time	15.1	30.2	26.3	23.0	23.6	21.2	30.8
Employed total	74.5	54.3	48.4	66.3	63.1	73.4	54.7
Unemployed	4.2	3.8	1.6	4.5	3.9	4.2	1.8
Total in the labour force	78.6	58.1	50.0	70.8	67.0	77.6	56.4
Total not in the labour force	21.4	41.9	50.0	29.2	33.0	22.4	43.6
Total 15 to 64 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a Aged 15 to 64 years unless otherwise stated.

Source: ABS (*A Profile of Carers in Australia*, Cat. no. 4448.0, Table 5.1 p 56, from *Survey of Disability, Ageing and Carers*, 2003).

Women who are carers are less likely to be in the labour force than men who are carers (58 per cent compared to 79 per cent). One reason for this is that women are more likely to be primary carers — primary carers make up 29 per cent of all female carers aged 45 to 64 years compared to 14 per cent of all male carers of the same age group. Primary carers are more likely to want flexible part time employment with fewer hours, or no work, depending upon the severity of the disability or poor health suffered by the person they are looking after (box 5.4).

Some carers may have different skill and demographic characteristics than non carers which may explain at least part of the differences in employment rates. People who have less likelihood of finding work and the lowest earning potential may choose caring roles (or be selected by family members for such roles). These people may be more likely to be women.

Also, potential carers who have better prospects of finding work and better earning potential may decide to participate in the workforce and purchase caring services if their earnings exceed the cost of care.

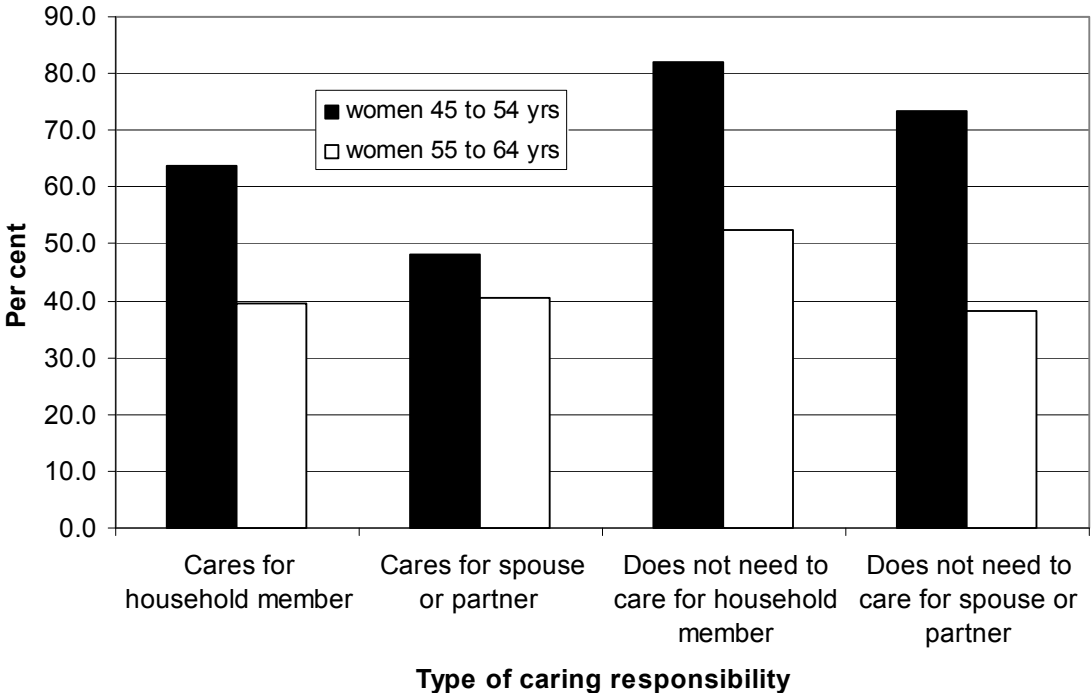
Box 5.4 Australian studies on the impact of caring responsibilities on participation

- Gray et al. (2008) found that:
 - the most commonly reported barrier to participation of persons with caring responsibilities was the difficulty in finding jobs which provide flexible conditions of employment such as suitable working hours
 - another major barrier is the lack of alternative disability caring arrangements
 - just over two thirds of those in receipt of Carer Allowance who were not employed wanted to work, along with one half of those who were unemployed in receipt of Carer Payment. The desire to work was lower for those aged 51 to 65 years than those in younger age groups
 - about three quarters of employed female carers had to change jobs or working arrangements in order to care for persons with disabilities while a substantial number had to give up work at some time in order to provide care.
- As part of the Taskforce on Care Cost undertaken in Australia in 2007, a survey was conducted of 2 284 Australian workers. Of the respondents, 383 (or 16.8 per cent) self-identified as providing care for an aged or disabled person:
 - 14 per cent of respondents considered leaving the workforce due to the cost of care
 - 24 per cent had reduced their working hours due to the cost of care
 - just over one third considered their careers had suffered due to the competing demands of caring and working
 - two thirds would refuse a job or promotion if it prevented them from undertaking their caring responsibilities
 - just over one half of employed carers working part time would increase their hours if care was more affordable (Taskforce on Care Costs (2007)).
- Lee and Garmotnev (2007) report that women in poor health tend to be selected into caring roles as they are already disengaged from the labour force due to a health condition. The study found that middle aged women are more likely to experience poorer physical and emotional health as a result of caring than women in other age groups. Hence the effects of caring for these women can exacerbate a health condition which may already exist.
- Bittman et al. (2007) found that informal carers faced significant adverse financial effects compared to non-carers due to foregone earnings as a result of having to leave the workforce or needing to reduce their working hours.
- Gray and Edwards (2009) concluded that the main factors associated with lower rates of employment for female carers were their own relatively low levels of educational attainment and/or poor health, having to provide full time care, needing to care for a child with a disability and lack of access to respite care.

A number of studies have been undertaken into the impact of caring responsibilities on labour force participation some of which are shown in box 5.4. These studies confirm a negative relationship between caring responsibilities and labour force participation (or the intensity of that participation), but do not necessarily focus on the impact on mature aged women.

HILDA data also show the impact of caring responsibilities on labour force participation of mature aged women. Women aged 45 to 54 years who care for a spouse or partner or household member who has a long term health condition or who are elderly or have a disability, have much lower participation rates than women who do not have this responsibility (figure 5.6). The participation rates of women aged 55 to 64 years who have similar caring responsibilities are also affected, but not as much as women in the younger age group.

Figure 5.6 Participation rates of mature aged women, by caring responsibility, 2007^a



^a Caring responsibility relates to the care of persons who have a long term health condition or who are elderly or have a disability. Household members can include spouse or partner, parent, parent-in-law, older child (15 years plus), young child, other relative or other unrelated person.

Source: HILDA (2007) Release 7.0 weighted data.

5.5 Responsiveness of women's labour force participation to changes in wages

A key factor motivating individuals to enter the labour force is to gain income (chapter 3). Potential wages are a crucial determinant of whether or not an individual enters the labour market and the level of intensity that an individual chooses to allocate to work activities as measured by hours worked. An increase in the wage can lead to an increase in participation behaviour of those not currently in work. A wage increase may also lead to a change in labour supply for those already in work, as measured by either an increase or decrease in hours worked, depending upon the relative strengths of the income and substitution effects. Substitution effects are the response to a wage increase where work becomes more attractive to an individual compared to leisure. Income effects are the responses to wage increases that lead to individuals being able to afford to work less due to increased income. Australian studies have generally found that participation decisions by women are positively associated with wages (box 5.5).

The results of these studies indicate that older women exhibit relatively inelastic labour supply with respect to wages. In other words, an increase in wages is not as likely to produce a large change in participation, or hours of work, for older women, as their younger counterparts. Many mature aged women appear to have made a lifestyle choice regarding whether to work or not and are, therefore, not very responsive to the financial incentives offered by higher wages.

5.6 Impact of previous labour force experience

An important feature of labour market behaviour is the extent of 'inter-temporal persistence' or persistence of labour force status over time (Heckman and Willis 1977). Several Australian studies have shown a positive relationship between mature aged women's labour force participation and their prior labour force experience (box 5.6). In particular, women with greater labour market experience are more likely to increase their chances of being employed in later life.

Box 5.5 Australian studies on the impact of wages on labour force participation of mature aged women

- Miller and Volker (1983) found that a 10 per cent increase in the potential market wages of women aged 45 to 54 years increased their likelihood of labour force participation by 8.7 per cent, but an increase in market wages did not significantly affect the labour force participation behaviour of women aged 55 to 64 years.
- Norris (1996) reported the wage elasticity for women in Australia ranged between 0.40 and 0.50.
- Shamsuddin (1998) concluded that the wage effect on labour supply in terms of hours worked was positive and statistically significant for native born women and those born in other English speaking countries, but insignificant for those from non-English speaking backgrounds.
- Kalb (2000) found that married women in families with partners on low wages have higher labour supply elasticities than those with partners on higher wages.
- Scutella (2001) found that the more children that married women had the less responsive was their labour participation to a change in wages. The study also concluded that the labour supply response was more elastic for married women with older children than for those with children of pre-school age.
- Evans and Kelley (2004) concluded that the labour force participation behaviour of Australian women aged 50 and older was not influenced by higher potential earnings.
- Austen and Birch (2005) also found that increased wages had a larger impact on mature aged women under 50 years of age — a 10 per cent increase in market wage opportunities increased the probability of labour force participation for women aged 40 to 49 years in Australia by 12.2 per cent, whereas the effect for women aged between 50 to 59 years was slightly lower at 9.6 per cent.
- Breunig et al. (2005) concluded that women with lower educational attainment had a higher elasticity of supply with respect to wages.
- Birch (2005) examined a number of Australian studies which found that the elasticity of labour force participation of Australian women varied considerably depending upon the estimation procedure used. The estimates ranged from -0.19 to 1.30 while the mean elasticity was 0.75 for Australian women of all ages. In other words, an increase in a woman's potential market wage by 10 per cent would increase the likelihood that she will participate in the labour market by around 7.5 per cent. Birch concluded that wages play a greater role in decisions by women to enter the labour market rather than their decisions to alter hours worked.

Box 5.6 Australian studies on the impact of labour market experience on labour force participation of mature aged women

- Cai and Kalb (2004) measured the amount of time women spent in paid work after they left school and concluded that labour market experience has a positive impact on labour force participation of women aged 50 to 60 years.
- Austen (2005) used data from the Negotiating the Life Course Survey in Australia and found that, for women aged 46 to 50 years, previous labour market experience had a strong impact on current labour force participation. For example, if a woman without tertiary qualifications was a labour force participant in her early 40s she had a just over 92 per cent chance of participating in her late 40s. However, those women who had not participated in their early 40s had only around a 9 per cent chance of participating in their late 40s. If a woman with tertiary qualifications participated in the labour market in her early 40s then she had almost a 92 per cent probability of participating in her late 40s. Those tertiary qualified women who did not participate in their early 40s only had a 14.6 per cent probability of participating in their late 40s.

Figure 5.7 shows participation rates for mature aged women based on the number of years they have spent in paid work. The number of years in paid work reported by respondents may not necessarily be continuous and could have been at any time over the previous 30 to 40 years. The data provide an indication of the impact of length of past work experience on current participation rates.

The data show that the greater the number of years in paid work the higher is the participation rate for mature aged women aged 45 to 54 years. Women that have more than 20 years experience have participation rates between two and three times higher than women with less than ten years experience. For mature aged women aged 55 to 64 years the difference is even greater.

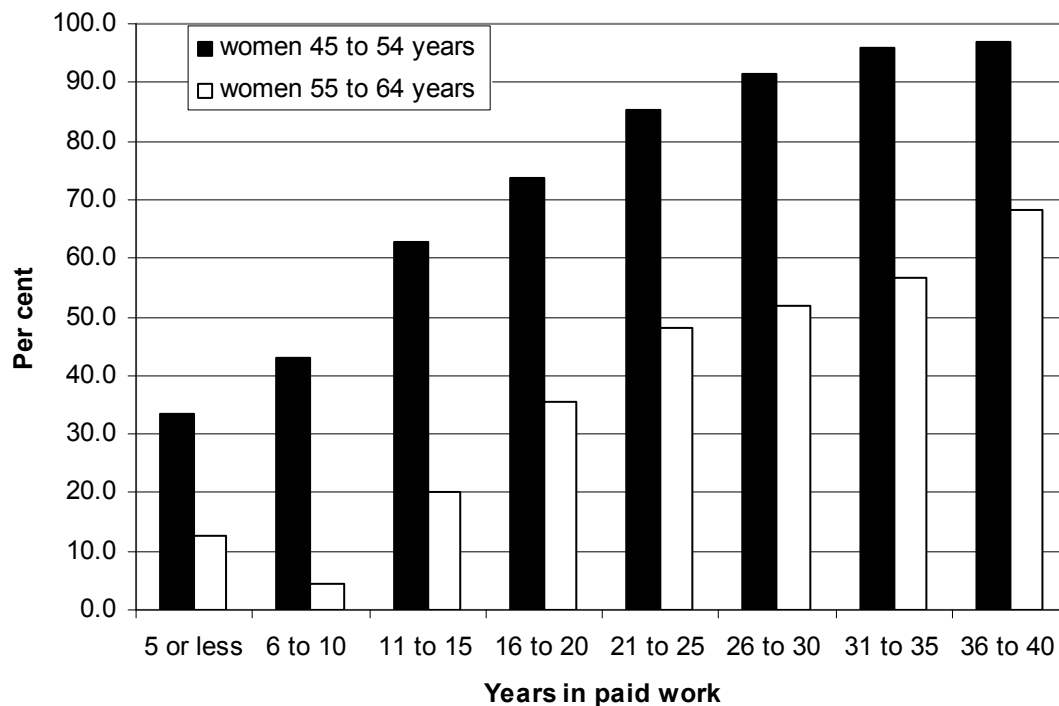
It is also important to understand the reasons underlying this labour force persistence. It could be due to the nature of previous labour force experience itself or the individual characteristics of the women concerned or other factors. Cai (2010) has examined the sources of labour force persistence for married women:

- ‘state dependence’ or previous labour force history, which refers to the situation where an individual’s current labour force status is contingent or dependent upon their previous labour force experiences or ‘labour force state’. In other words, being in a job in the past improves the chances of being in the labour force and in work in the present. A history of employment experience builds human capital and is of current value to employers as one measure of a person’s employability. The reverse is also true — a history of long periods of labour market inactivity

or unemployment in the past increases the likelihood of currently not being in the labour force

- ‘individual characteristics or heterogeneity’ which refers to measurable factors associated with an individual’s characteristics such as level of educational attainment, abilities and intelligence, preferences for work and leisure and motivation. Variation in such characteristics helps explain why some individuals might remain in the labour market while others have more spasmodic attachment. Women with a preference for work over leisure who are highly motivated and who are highly capable may be more likely to exhibit high labour force persistence
- ‘transitory shocks that are serially correlated’ may affect labour force participation. For example, an individual may have experienced a temporary period of ill health which undermined their past labour market participation and consequently affected their current participation status and may possibly affect their participation in the future.

Figure 5.7 Participation rates of mature aged women by years in paid work, 2007



Source: HILDA (2007) Release 7.0 weighted data.

The source of labour force persistence can have policy relevance for understanding the nature of barriers that mature aged women currently outside the labour force are likely to face when seeking to enter the labour force. This has particular relevance for women who are marginally attached to the labour force. State dependence implies that policy makers may need to act quickly to provide employment opportunities to unemployed people to avert the risk of state dependence or they may need to target deficiencies in individual characteristics (such as lack of sufficient education and training) to increase their chances of finding work.

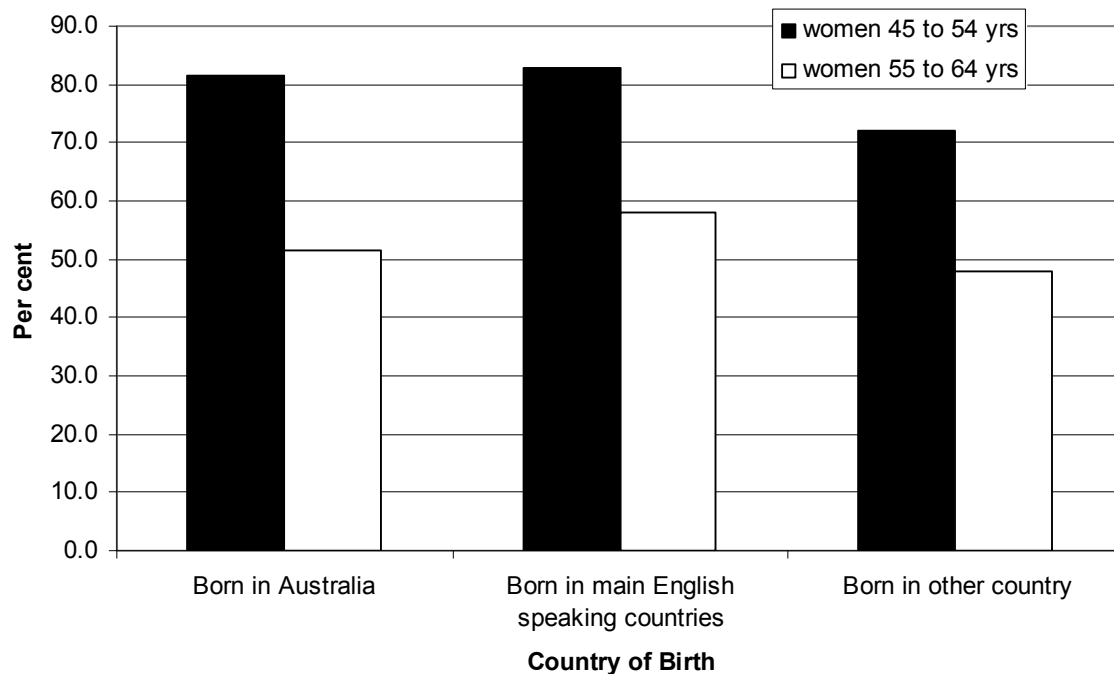
Cai (2010) found that the labour supply of married women is not affected by their past labour supply (that is, there is no state dependence), but individual heterogeneity and serial correlation of transitory shocks play important roles in inter-temporal persistence of labour supply status of married women in Australia. Cai (2010) concluded that non-labour income, education, health and the number and age of children have strong impacts on labour supply of married women.

5.7 Impact of ethnicity on participation

Ethnicity can have an impact on labour force participation as proficiency with the English language affects the capacity to communicate effectively in a work environment. There can also be differences in cultural attitudes towards women working outside the home. HILDA data show that just under three quarters of mature aged women in Australia in 2007 were Australian born, 12.6 per cent were born in the main English speaking countries which includes the United Kingdom, New Zealand, Canada, USA, Ireland and South Africa. The remaining 13.7 per cent were born in other, largely non-English speaking countries.

HILDA data provide information on the participation rates of mature aged women by their country of birth and proficiency with the English language. The data show that, for both mature age groups, women born in other countries (largely non-English speaking) have lower participation rates than those born in Australia and those born in main English speaking countries. Interestingly, participation rates of mature aged women born in main English speaking countries are slightly higher than those for mature aged women born in Australia (figure 5.8).

Figure 5.8 Participation rates of mature aged women by country of birth, 2007^a



^a Main English speaking countries include United Kingdom, New Zealand, Canada, USA, Ireland and South Africa.

Source: HILDA (2007) Release 7.0 weighted data.

A number of studies have been undertaken which examine the relationship between ethnicity, in terms of country of birth and proficiency with the English language, and labour force participation of women. There is some variation in the findings as to the relationship between country of birth and labour force participation. The results of these studies are shown in box 5.7.

Data from HILDA provide some self assessment data on reading and mathematical skills which can be cross tabulated with country of birth and labour force status to construct participation rates (table 5.6). Poorer reading and mathematical skills are associated with lower labour force participation regardless of whether the mature aged women were born in an English speaking country or not. The impact is much greater if born in a non-English speaking country and the impact of poorer English speaking skills has a greater impact than that of poorer mathematical skills.

Box 5.7 Australian studies on the impact of ethnicity on labour force participation of women

- A number of Australian studies have found that women born overseas have lower participation rates than women born in Australia — Wooden (1990); Foster and Baker 1996; and Cai and Kalb (2004).
- Shamsuddin (1998) found that the employment rate of women born in non-English speaking countries in 1990 was 42 per cent, which compared with 53 per cent for those born in Australia and other English speaking countries. Women from non-English speaking backgrounds worked slightly more hours and earned lower wages than those from other birthplaces.
- Cobb-Clark and Chapman (1999) and Gray and Hunter (1999) found that proficiency with the English language had a marked effect on participation rates.
- Wooden and VandenHeuvel (1997) found that differences in participation between women born in non-English speaking countries and those born in Australia or English speaking countries could not be explained by proficiency in English.
- Miller and Volker (1983) concluded that women born overseas had higher participation rates than women born in Australia across all age groups.
- Inglis and Stromback (1986) found that the probability of immigrants being unemployed was directly correlated with the period of residency in Australia. It was also found that while English proficiency had a large impact in determining male employment it had less impact on female immigrants as they tended to occupy less skilled jobs which did not require high levels of English proficiency.
- Brooks and Volker (1985) found that women born overseas were more likely to work than those born in Australia, but there was only a weak association between country of birth and hours worked. In contrast, Miller (1985) found that women born overseas tend to work longer hours than women born in Australia.
- More recent studies by Kidd and Ferko (2001) and Scutella (2001) concluded that women born in Australia were much more likely to participate in the labour market than women born overseas. Scutella examined the participation behaviour of women who were born in Europe, the Middle East and Asia.
- Cai (2010) found that the labour force participation of overseas born married women is lower than those married women born in Australia, but only the estimate for immigrants from non-English speaking countries was significantly lower. While these differences may be due to differences in cultural preferences, it was suggested that language difficulties could be another possible explanation.

Not surprisingly, a much higher proportion of mature aged women born in non-English speaking countries professed moderate or poor language skills (24 per cent) than those born in Australia or main English speaking countries (5.8 per cent) (table 5.6).

Table 5.6 Participation rates of mature aged women, by self assessed reading and mathematical skills and country of birth, 2007

Category	<i>Australia or main English speaking^a</i>	<i>Other</i>
	%	%
Participation rates by reading skill level		
Good or excellent	71.0	68.8
Moderate or poor	49.9	39.7
Participation rates by mathematical skill level		
Good or excellent	74.0	66.8
Moderate or poor	59.7	45.5
Reading skills of mature aged women		
Good or excellent	94.2	76.0
Moderate or poor	5.8	24.0
Total	100.0	100.0
Mathematical skills of mature aged women		
Good or excellent	70.0	76.7
Moderate or poor	30.0	23.3
Total	100.0	100.0

^a Main English speaking countries include United Kingdom, New Zealand, Canada, USA, Ireland and South Africa.

Source: HILDA (2007) Release 7.0 weighted data.

A smaller proportion of women from non-English speaking countries (23.3 per cent) professed only moderate or poor mathematical skills compared to women born in Australia or other English speaking countries (30 per cent) .

5.8 Impact of current economic conditions on labour force participation

A number of studies have been conducted into the impact of current economic conditions on labour force participation of women, and in some cases mature aged women in particular. The purpose of many of these studies was to establish whether the strength of the economy contributed to an ‘encouraged worker effect’ or ‘discouraged worker effect’ for women. For example, contraction in the demand for labour during an economic downturn may discourage women from looking for work. Alternatively, if their male partner loses their job during a downturn women may feel compelled to look for work or increase their working hours to compensate for loss of family income.

The results of studies are not always directly comparable. Some measure the labour participation response of women to an increase in the unemployment rate of men which is used as a measure of general labour market conditions. Others measured the effect on labour force participation of married women associated with the job loss of their partner.

These studies produced differing findings — some finding a discouraged worker effect, others an added worker effect. The encouraged worker effect relates to responses of married women to income loss following their partner’s job loss. This response came from women already in work through increased supply of hours rather than increased participation of women not in the labour force. The results of these studies are shown in box 5.8.

Box 5.8 Australian studies on the impact of current economic conditions on labour force participation of women

- Miller and Volker (1983), using ABS Census data from 1976, found that participation rates of women aged 55 to 64 years responded positively to an increase in the unemployment rate of men aged 35 to 54 years and found little evidence of a significant discouraged worker effect across all age groups.
- In contrast, Stricker and Sheehan (1981) attributed most of the reduction in participation of married women in the late 1970s to a discouraged worker effect.
- More recently Xiaodong Gong (2010) looked at the impact on labour force participation of married women in Australia to the negative income shock following the job loss of their partner. Longitudinal HILDA data showed a significant added worker effect in terms of increased full time employment and hours worked rather than increased participation.
 - Women with partners who experienced recent job loss were 2.8 percentage points more likely to be working full time and 4.3 percentage points more likely to be working longer hours than their female counterparts who had not experienced the recent job loss of their partner.

The study also found evidence of a discouraged worker effect for married women in response to an economic downturn.

- For every one percentage point increase in the national unemployment rate, the likelihood of married women participating in the labour force decreased by 1.2 percentage points.

6 The returns from employment

Key points

- Greater attachment to the workforce and rising educational attainment of mature aged women over the past two decades has boosted their earning potential.
- Many mature aged women have a strong preference for part time hours and more flexible working arrangements. Some mature aged women may be prepared to trade-off potentially higher wages for flexibility of hours and conditions of employment including the number of hours they work and start and finish times.
- The availability of more flexible working arrangements is likely to have contributed to mature aged women staying in the workforce longer as well attracting women back into the workforce after child caring responsibilities decline.
- Mature aged women working in casual jobs are the most likely to be very satisfied with the level of flexibility of their job and the hours they work and mature aged women in permanent jobs report greater job security. Mature aged women on fixed-term contracts are the least satisfied in terms of the hours they work.
- Mature aged women are more likely to have participated in training than men of the same age and mature aged women working full time are more likely to be promoted than their male counterparts.
- Women's and men's wages initially increase at a similar rate as they age, but a gender wage gap begins to develop after 30 years of age.
- The size of the gender wage gap is influenced by factors such as differences in levels of educational attainment and the length and continuity of employment experience. The breaks in women's employment to raise and care for children have an adverse impact on work experience, promotional opportunities and subsequent earnings capacity. Conversely, the wage profile of women without children more closely resembles that for men.
- The existence of a gender wage gap does not appear to have acted as a significant disincentive to the workforce participation of mature aged women. The participation rate for mature aged women has grown strongly over the past three decades despite the persistence of the wage gap.

Decisions to work or not are dependent upon individual and household assessments about the financial and other benefits arising from this activity. This chapter examines the relationship between wages and conditions of employment and mature

aged women's satisfaction with work. It also discusses the importance of wage and salary income in attracting entrants to the labour market and retaining workers in employment. As part of this analysis, the existence of the gender wage gap is examined and whether it has an impact on the labour force participation of mature aged women.

6.1 Basis of employment

People can be employed on a permanent, casual, temporary or contract basis. Employment conditions can also vary by the number of hours worked (full time or part time), by the need to work certain shifts at particular times, by access to flexible arrangements such as negotiable start and finish times and the degree of access to various leave arrangements such as recreation and personal leave.

While legislation sets out the fundamental rights of workers, awards and collective agreements often prescribe the conditions of and returns to employment. This includes arrangements such as the size of the loading available to casual workers to compensate for their lack of access to leave entitlements.

If mature aged women are employed on a substantially different basis to other workers this may materially affect both their working conditions and wage levels. It then also raises the issue of whether the differing arrangements under which mature aged women are employed affects their satisfaction from work.

Job satisfaction of mature aged women by nature of employment contract

The basis for employment of mature aged women is not markedly different from women in other age groups, apart from women aged 15 to 24 years who have much higher part time and casual shares of total employment. Mature aged women are far more likely than mature aged men to work part time (43 per cent versus 12 per cent) and are slightly more likely to work as casuals (19 per cent versus 12 per cent) (table 6.1).

Table 6.1 Employment contract status of selected employees, 2007

	Women	Women	Women	Women	Women	Men
	15 to 24 yrs (% of total)	25 to 44 yrs (% of total)	45 to 54 yrs (% of total)	55 to 64 yrs (% of total)	45 to 64 yrs (% of total)	45 to 64 yrs (% of total)
Full time						
Fixed-term contract	7.0	6.5	7.3	5.6	6.8	7.8
Casual	4.7	3.0	3.8	3.4	3.6	5.6
Permanent	28.9	47.6	48.0	42.5	46.3	74.4
Other	0.1	0.1	0.1	0.3	0.2	0.1
Total full time	40.7	57.2	59.2	51.7	56.9	87.9
Part time						
Fixed-term contract	1.8	2.9	3.2	4.2	3.5	0.8
Casual	47.1	17.2	14.8	16.8	15.4	6.6
Permanent	10.5	22.2	22.7	27.4	24.1	4.6
Other	0.0	0.4	0.1	0.0	0.1	0.2
Total part time	59.3	42.8	40.8	48.3	43.1	12.1
Total employment						
Fixed-term contract	8.8	9.4	10.4	9.8	10.2	8.6
Casual	51.8	20.2	18.6	20.1	19.1	12.1
Permanent	39.4	69.9	70.7	69.8	70.4	79.0
Other	0.1	0.5	0.2	0.3	0.3	0.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: HILDA (2007 Release 7.0).

Satisfaction with pay and conditions of employment by contract type can provide an indication of the value that mature aged women attach to their current employment and the aspects of employment that are important to them. On the other hand, lack of satisfaction with aspects of work may also provide an indication of what may be deterring other mature aged women from entering the workforce. The following section provides analysis of several indicators of job satisfaction which provide insights into the extent to which worker's needs and wants are fulfilled by their existing employment conditions.

Job flexibility

Mature aged women employed on fixed-term contracts were the least satisfied with the flexibility of their employment arrangements (51.2 per cent rated their

satisfaction between 7 and 10) while casual employees were the most satisfied (73.8 per cent reported a satisfaction rating of between 7 and 10) (table 6.2).

The availability of flexible working conditions, such as being able to negotiate start and finish times of work, is likely to have contributed to mature aged women staying in the workforce. It is also likely to have attracted some women back into the workforce after child caring responsibilities decline.

Table 6.2 Job satisfaction among mature aged women aged 45 to 64 years by contract type, 2007^a

	<i>Fixed-term contract</i>	<i>Casual</i>	<i>Permanent</i>	<i>All</i>
Pay				
0 to 3	10.7	9.3	11.5	11.0
4 to 6	37.2	35.6	36.3	36.2
7 to 10	52.1	55.1	52.2	52.7
	100.0	100.0	100.0	100.0
Flexibility to balance work and non-work commitments				
0 to 3	14.0	4.9	12.9	11.5
4 to 6	34.7	21.3	27.9	27.3
7 to 10	51.2	73.8	59.3	61.2
	100.0	100.0	100.0	100.0
Job security				
Not stated or don't know	0.0	0.4	0.1	0.2
0 to 3	14.9	16.4	3.1	6.9
4 to 6	30.6	24.4	13.9	17.7
7 to 10	54.5	58.7	82.8	75.3
	100.0	100.0	100.0	100.0
Hours of work				
0 to 3	22.3	10.7	9.4	9.8
4 to 6	42.1	26.7	34.4	32.6
7 to 10	35.5	62.7	56.3	57.6
	100.0	100.0	100.0	100.0
Overall satisfaction				
0 to 3	12.4	7.6	3.0	4.1
4 to 6	47.1	28.9	27.8	28.4
7 to 10	40.5	63.6	69.2	67.5
	100.0	100.0	100.0	100.0

^a Individual categories may not sum to 100 due to rounding.

A scale of 1 to 10 was used to measure levels of satisfaction with 10 being the highest level of satisfaction.

Source: HILDA (2007 Release 7.0).

Hours of work

Mature age women employed on a casual basis were more likely to indicate a high satisfaction rating for the hours that they currently worked (62.7 per cent reported a satisfaction rating of between 7 and 10) than women on other types of employment arrangements (table 6.2). This is probably due to the majority of casual employees being employed on a part time basis. As discussed in chapter 3, mature aged women who are part time employees are more likely to be satisfied with their working hours than those working full time.

Mature aged women on fixed-term contracts were far less satisfied with their current working hours — with 64.4 per cent reporting a satisfaction rating of 6 or below. Mature aged women employed on fixed-term contracts were fairly evenly split between full time and part time hours so the dissatisfaction may be more to do with lack of flexibility with hours of work rather than the number of hours worked.

Pay

Satisfaction with pay was fairly uniform for mature aged women on different employment arrangements with the highest rate of satisfaction reported among casuals — possibly due to the presence of a loading. Casual employees, unlike permanent employees, do not have an on-going contract with employers and do not have access to some leave entitlements. However, they receive a wage premium or loading on their hourly wage rate, usually between 15 to 25 per cent of wages in lieu of annual leave and sick leave.

This suggests that casual workers do not have to incur a pay penalty in the short-term in return for access to more flexible conditions of employment. However, as discussed later in the chapter, their longer term prospects for growth in earnings may be affected by prolonged periods of part time employment compared with those working full time.

Job security

Satisfaction with job security was highest for permanent employees with much lower satisfaction ratings recorded by mature aged women on fixed-term and casual employment contracts (table 6.2).

In terms of overall job satisfaction, mature aged women employed on a permanent basis were the most satisfied, with those on fixed-term contracts the least satisfied.

Access to training for mature aged women

Access to training and learning opportunities at work can also impact on worker retention and attraction and plays an important role in the development of human capital. Providing access to training gives an indication of the level of investment employers are willing to make in their employees in order to reap longer term dividends in the form of more highly productive workers. From an employee perspective, the greater the access to training, the greater is the likelihood of their having skills that are current and in demand.

Data from the HILDA survey shows that women aged 45 to 54 years are slightly more likely to have participated in some form of training in the workplace in the previous 12 months than men of the same age — 38.3 per cent versus 32.3 per cent. The same is true for women aged 55 to 64 years — 30.8 per cent versus 26.1 per cent (table 6.3).

Training in the workplace is also more prevalent among workers employed full time. Nearly 43 per cent of women aged 45 to 64 years working full time hours were involved in work-related training in the previous 12 months compared with just over 30 per cent of women of the same age who worked part time (table 6.3).

Table 6.3 Involvement in work related training in the previous 12 months, 2007

	15 to 24 yrs (% of total)	25 to 44 yrs (% of total)	45 to 54 yrs (% of total)	55 to 64 yrs (% of total)	45 to 64 yrs (% of total)	15 to 64 yrs (% of total)
Women	25.7	33.5	38.3	30.8	35.8	32.5
Men	29.6	32.2	32.3	26.1	30.1	30.9
Women working PT	22.1	25.2	33.3	24.8	30.2	26.0
Women working FT	35.2	41.8	44.4	39.1	42.9	41.1

Source: HILDA (2007 Release 7.0).

Research by Cully et al. (2000) found that the likelihood of receiving formal job-related training, provided either internally or externally, was much lower for older workers than younger workers. However, it was only those in the oldest cohort, those aged 55 to 64 years, who were at a sizeable disadvantage relative to younger workers. The participation in training among 45 to 54 year olds was not substantially different from the participation of younger cohorts. This is discussed further in chapter 4 in regard to employer discrimination against older workers.

Career prospects and promotional opportunities

Promotional opportunities are also a factor in attracting and retaining mature aged women in the labour force. The HILDA data indicate two key patterns which are particularly relevant to mature aged women:

- the probability of being promoted is much lower for older workers
- the rate of promotion for part time workers is much lower than that for full time workers.

For example, in 2005, 23 per cent of full time female employees aged 15 to 24 years and 12 per cent of full time female employees aged 25 to 54 years were promoted in the previous 12 months. However, only 7 per cent of full time female employees aged over 55 years were promoted in the same period. This is not unexpected as more mature aged workers with many years of experience are likely to be approaching the top of their work classifications than younger workers with minimal years of work experience. Other explanations may also include different employer attitudes towards workers of different age and is discussed in chapter 4.

The difference in rates of promotion between full time female employees aged over 55 years (7 per cent) and male employees in the same age group (2.2 per cent) suggests that female re-entry into the labour force at a later age could entail greater promotional opportunities for mature aged women relative to mature aged men.

There is also a marked difference in the rate of promotion for part time workers relative to full time workers in all age groups. For women aged over 55 years, less than 1 per cent of part time female employees were promoted in this period compared to 7 per cent of part time female employees aged 15 to 24 years and nearly 3 per cent of part time female employees aged 25-54 years (table 6.4).

Table 6.4 Promotions among full time and part time workers, 2005^a

	<i>Status</i>	<i>15 to 24 years</i>	<i>25 to 54 years</i>	<i>55 years +</i>
		(%)	(%)	(%)
Men	Part time	8.5	4.6	1.4
	Full time	23.0	12.0	2.2
Women	Part time	7.0	2.7	0.3
	Full time	23.0	12.0	7.0

^a Per cent of workers in age, gender and work type group promoted in the previous 12 months.

Source: Abhayaratna et al. (2008).

There are a number of explanations for these differences. One is that people without a career focus are both more likely to work part time and choose employment with limited promotional opportunities and career prospects. In addition, it might be expected that long term part time workers would have slower career progression as result of fewer hours in employment (Abhayaratna et al. 2008).

6.2 Wages

Individuals make decisions about how they allocate their time by comparing the financial benefits from paid work with the benefits from engagement in non-work activities such as leisure, education, caring and home duties (chapter 3). Examining the levels and movements of wages over time provides an indication of how the incentives to enter and remain in the workforce have changed.

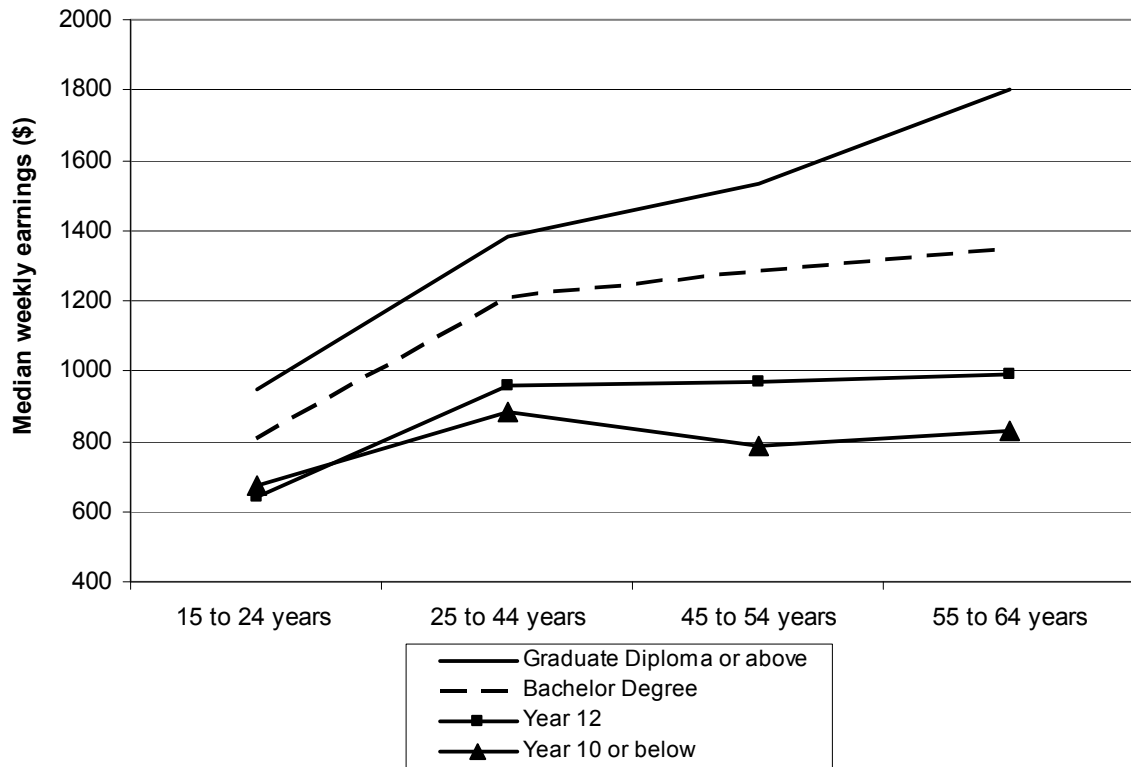
Do higher education levels translate into higher wages for mature aged women?

In Australia, higher levels of education generally translate into higher wages. This relationship holds for mature aged women. Indeed the premium attached to education increases for older age groups. That is, higher levels of education attainment present women with career pathways which open up greater opportunities for earnings to grow as work experience accumulates.

For example, ABS data show that women aged 45 to 54 years working full time with a graduate diploma, graduate certificate or above had median weekly earnings of \$1534 in 2009 compared with \$789 for women in the same age group working full time with year 10 qualifications or below (figure 6.1).

Similarly, for women aged 55 to 64 years those working full time with a graduate diploma or above had median weekly earnings of around \$1800 in 2009 which compared with \$828 for employed women of the same age group with year 10 education or below.

Figure 6.1 **Median weekly earnings for women by level of education and age, 2009**



Source: ABS (*Education and Training Experience 2009*, Cat. no. 6278.0, released March 2010).

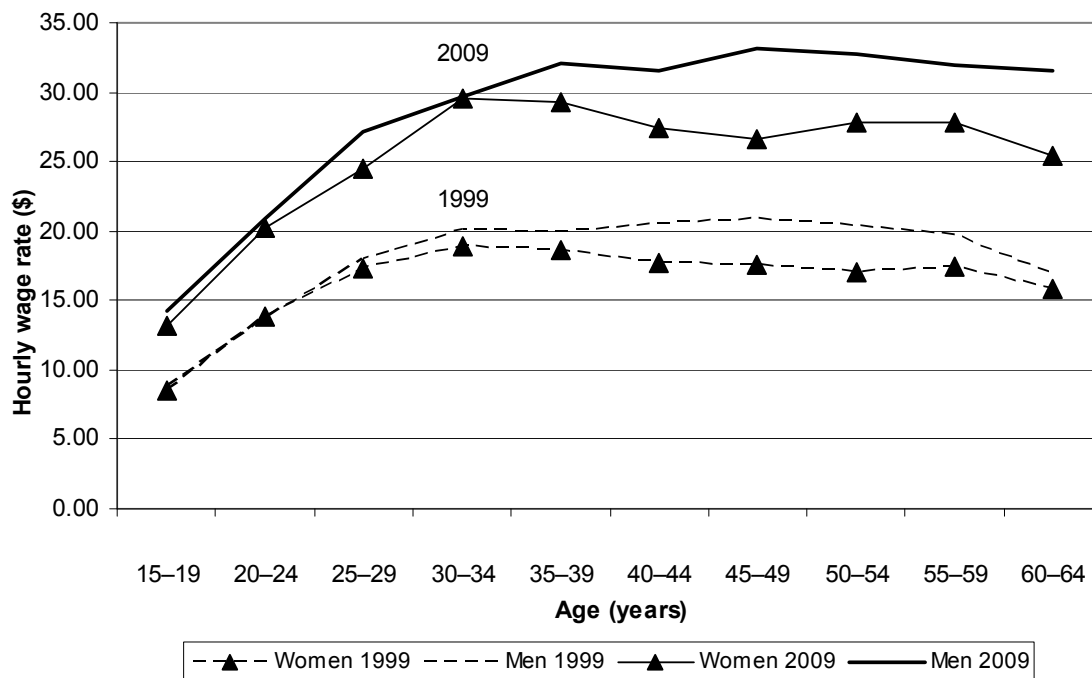
Age and women's wages

Women's wages, as measured by the hourly wage rate, increase as they age. This is associated with the greater work experience of women as they grow older which in turn increases their productivity, allows them to seek promotions and be accordingly rewarded.

Figure 6.2 also indicates that the level and movement of wages for women broadly follows that experienced by men until 30 to 34 years. But the wages of women begin to decline over the ensuing two decades while men's wage rates continue to rise generally until 35 to 39 year age group and then plateau before declining — remaining at a higher level than the wage rates for women of the same age.

In 2009, there was a wider gap between men's and women's wages than in the previous decade. This was due to the continued increase in men's wages through to 45 years of age before levelling off and the sharper decline in women's wages between the ages of 35 and 45 years (figure 6.2).

Figure 6.2 Average hourly wage rates for women and men by age, 1999 and 2009^a

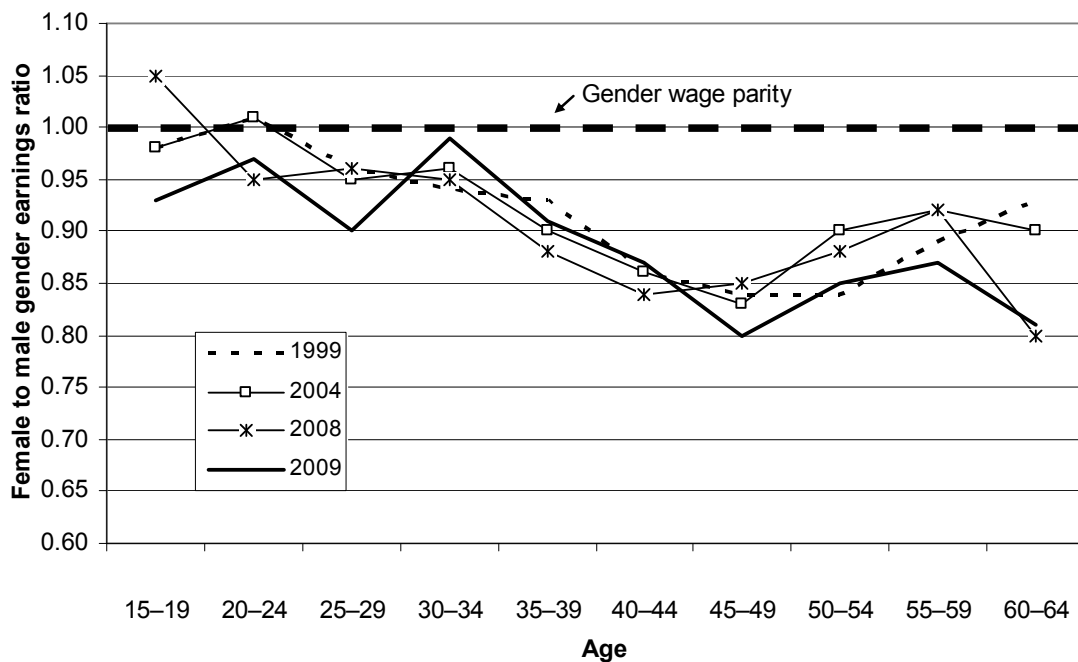


^a For full time non-managerial employees in main job. Average hourly wage rates are calculated as total weekly earnings divided by total hours worked.

Source: ABS (*Employee Earnings Benefits and Trade Union Membership*, Cat. no. 6310.0, unpublished data).

The lack of growth in women’s wages after 30 to 34 years compared to men gives rise to an earnings gap of around 20 percentage points in the mature age groups (figure 6.3). There appears to be no systematic change in the pattern over the last ten years. There is a relatively small gender wage gap until around the age of 30 after which it grows to around 20 per cent by the mid to late 40s.

Figure 6.3 Female to male average hourly earnings ratio by age ^a



^a For full time non-managerial employees in main job. Average hourly wage rates are calculated as total weekly earnings divided by total hours worked.

Source: ABS (*Employee Earnings Benefits and Trade Union Membership*, Cat. no. 6310.0, various years).

6.3 Why is there a gender wage gap and is it narrowing?

The pay relativities between men and women in Australia have been the subject of ongoing debate and research. This is not surprising given that a gender wage gap was institutionalised for most of last century through the conciliation and arbitration process, which set the female award wage as a percentage of the male award wage. It was not until the equal pay case in the Australian Conciliation and Arbitration Commission in 1972 that the principle of equal pay for work of equal value was established. That is, women on federal awards received 100 per cent of the male wage. Subsequently, state awards were also varied in this manner.

Evidence of the gender wage gap

There are two major measures of the gender wage gap — average weekly earnings and hourly wage rates.

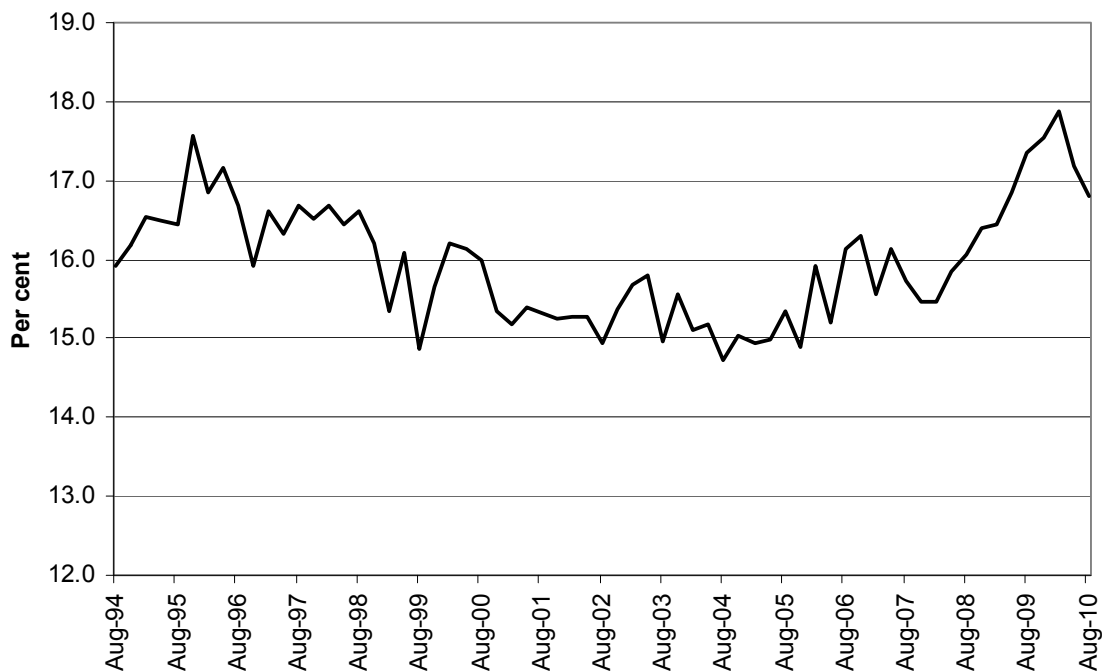
Weekly earnings

There is a large discrepancy in total average weekly earnings received by women and men. This is in part due to longer average hours worked by men and the greater likelihood of men engaging in paid overtime. To make a valid comparison the wages of men and women must be compared on a like basis.

Weekly adult full time ordinary time earnings (working at least 35 hours per week) eliminates the impact of overtime earnings (which usually attracts a higher hourly wage rate) and the earnings of workers aged under 21 who are paid below the full adult rate.

Based on adult ordinary full time earnings, the gap was 16.8 percentage points in August 2010, that is female average full time ordinary time earnings were 83.2 per cent of male average full time ordinary time earnings. This gap fell steadily from 17.6 per cent in November 1995 to 14.7 per cent in August 2004, before widening over the past five years rising to 17.9 per cent in February 2010 before declining slightly to 16.8 per cent in August 2010 (figure 6.4).

Figure 6.4 Gender wage gap, August 1994 to August 2010^a



^a Refers to the gap between average weekly ordinary time earnings for male and female adult employees working full time in seasonally adjusted terms.

Source: ABS (*Average Weekly Earnings*, Cat. no. 6302.0, various years).

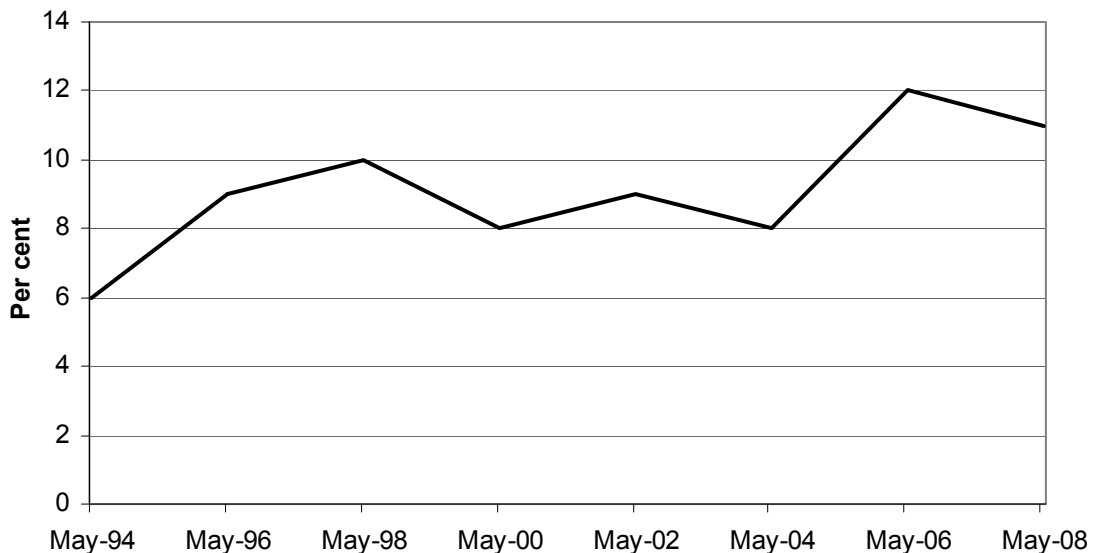
The gap per hour worked may be overstated as men tend to work slightly longer full time hours than women. For example in November 2009, men working full time worked an average of 41.9 hours per week, while women working full time worked an average of 37.8 hours per week (ABS 2010c).

Such a measure of the gender wage gap also does not take into account the differences in the industrial and occupational pattern of women's and men's employment. The widening of the gender earnings gap in recent years has been due in part to stronger growth in average full time weekly earnings in industries such as mining and construction which are dominated by men.

Hourly rate earnings

Using an hourly earnings measure removes differences in the number of hours worked between adult women and men working full time. The ratio of female to male hourly cash earnings (ordinary time earnings of adult non-managerial employees working full time) to male hourly cash earnings indicates a smaller gender wage gap. Using this measure, the gap was around 6 per cent in 1994 and gradually increased to 12 per cent in 2006, before declining slightly to 11 per cent in 2008 (figure 6.5).

Figure 6.5 Gender wage gap, May 1994 to May 2008, hourly earnings^a



^a Average weekly hourly earnings for full time adult non-managerial employees.

Source: ABS (*Employee Earnings and Hours*, Cat. no. 6306.0, various years).

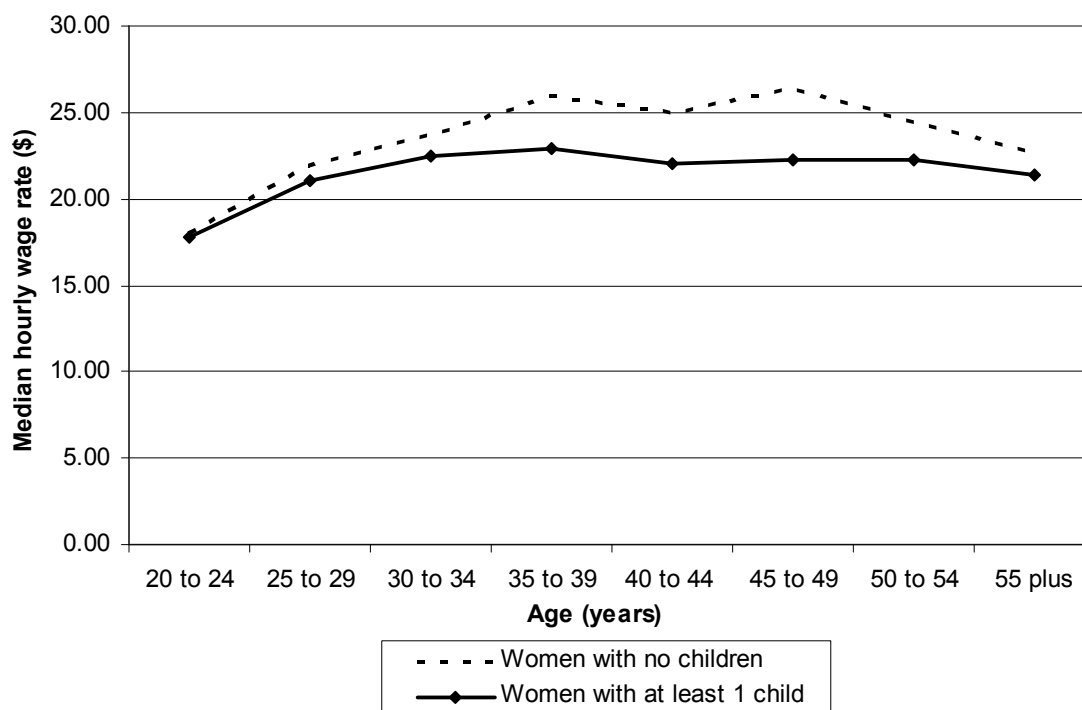
Reasons for the gender wage gap

There has been extensive research on the gender wage gap in Australia using various methodologies and survey samples which has produced a range of findings. Much of the variation in the findings of these studies surrounds the part of the wage gap that cannot be accounted for by variables such as education, experience, occupation and industry differences. Some studies attribute the residual to discrimination against female workers (box 6.1).

Work experience and the gender wage gap

Employment experience plays a large part in explaining gender wage differences. Women tend to have more career interruptions, particularly when they have children and take leave (either paid or unpaid or a combination of both) to care for young children before resuming employment. This has an adverse impact on work experience and subsequent earnings capacity and is highlighted by the difference in earnings between females with children and those without children (figure 6.6).

Figure 6.6 Women's earnings by age and children, 2007^a



^a Hourly wage rates were calculated by examining combined hours usually worked per week in all jobs by employees and imputed current weekly gross wages and salary in all jobs. Median hourly wage rates were used rather than average hourly wage rates as they are not subject to the distorting influence of those on very high wage rates in the sample.

Source: HILDA (2007 Release 7.0).

Box 6.1 Some Australian studies on the gender wage gap

- Langford (1995) found that in Australia in the 1990s between 40 and 50 per cent of the gender wage gap could be explained by human capital, personal and demographic factors while the remainder was due to employer discrimination. Miller (1994) found that hourly earnings were sensitive to the 'maleness' or 'femaleness' of an occupation. Using cross sectional 1989 data he found a gender gap of 6 per cent which was the result of unequal remuneration of otherwise comparable male and female jobs.
- Wooden (1999) conducted research into relative wages of women and men in the late 1990s which found that, for young people under the age of 30 years where employment histories of men and women are much more closely aligned, there was little indication of a gender wage gap. The gender wage gap was very small — at 1.1 per cent — and was actually in favour of women. The gap became much higher for older women. For example, women aged 30 to 44 years faced a wage gap of 13.4 per cent in favour of men, while for women aged 45 years the wage gap was 13.9 per cent.
- Baron and Cobb-Clark (2008), in analysing the gender wage gap in private and public sector employment, found that the gap among low paid workers could be explained by gender differences in productivity-related characteristics. However, for higher paid workers the largely unexplained wage gap in the private sector and completely unexplained wage gap in the public sector suggested the presence of glass ceilings. In addition, differences in educational qualifications and demographic characteristics were generally unimportant in explaining the gender wage gap, while differences in labour market experience played an important role in explaining gender wage differences in the private sector, particularly for workers in the bottom half of the wage distribution.
- Kee (2005) found that, after controlling for demographic, educational, locational, employment, occupational and industry factors, the gender wage gap became larger at the upper end of the wage distribution suggesting a glass ceiling for women in the private sector. In contrast, in the public sector the gender wage gap is distributed more evenly across all wage percentiles.
- NATSEM, using a simulation methodology, examined the determinants of the gender wage gap and concluded that 60 per cent of the gap was accounted for by simply being a woman (including personal attributes such as motivation and drive and direct discrimination towards women), 25 per cent was due to industry segmentation (with women being more likely to be working in industries that are dominated by women), 7 per cent was due to labour force history, 5 per cent by vocational qualifications and 3 per cent by firm size (employed women were more highly concentrated in smaller firms than men) (NATSEM 2009).

Many other women remain in employment, but reduce the hours per week they work. Working part time may inhibit the accumulation of skills and the ability to take on managerial roles. However, while engaging in part time work does not

necessarily mean lower pay on an hourly basis (box 6.2), it does substantially lower promotion rates (table 6.4).

The OECD notes that the job-related skills of women are often adversely affected by breaks in careers related to family responsibilities, and this may strongly affect the earnings capacity of even relatively educated mothers (OECD Economic Outlook 1999).

Box 6.2 Is there a pay penalty or premium associated with part time work?

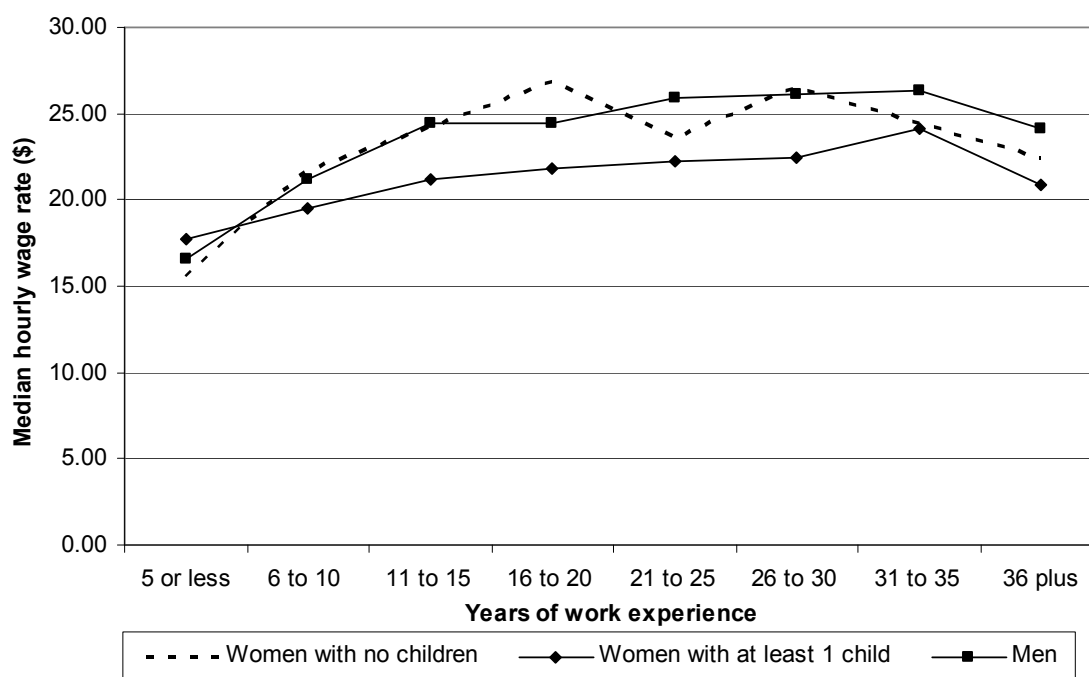
In Australia, there appears to be a pay premium attached to part time work rather than a pay penalty. This is unusual as in most OECD countries part time work attracts a pay penalty compared to full time work (Abhayaratna et al. 2008).

Studies undertaken to estimate the pay differential between full time and part time work in Australia, after controlling for workers and job characteristics, found that there was a pay premium for both men and women working part time in comparison to full time work (Abhayaratna et al. 2008). For example, Miller and Mulvey (1994) estimated that part time employees earned a pay premium of 15 per cent over full time employees. For women working part time, Rodgers (2004) estimated the pay premium to be 9 percent and Booth and Wood (2006) estimated it to be 10 percent.

For those women employed on a casual part time basis — receiving a wage premium or loading to compensate for the absence of sick leave and annual leave — the research indicates they are paid less than permanent part time female workers, but more than females working on a full time permanent basis. For example, Watson (2005) found that casual part time female workers were paid around 10 per cent less than permanent part time female workers. Booth and Wood (2006) found that for women employed on a casual part time basis, there was a pay premium (including casual loading) of around 14 to 15 per cent above those women employed on a full time permanent basis.

The lower earnings of women with children may also in part be explained by lifestyle choices. Where women with children decide to step back from higher paying employment opportunities and career progression to focus on family responsibilities, the effect of employment experience on female earnings is likely to be lessened. For example, it appears that women with children earn slightly less than women without children even when they have similar levels of employment experience. Indeed, the wage profile of women without children more closely resembles that for men with such women earning up to \$4 to 5 per hour (or 20 to 25 per cent) more than women with children after 6 to 10 years of work experience (figure 6.7).

Figure 6.7 Earnings by years of work experience and children, 2007^a



^a Hourly wage rates were calculated by examining combined hours usually worked per week in all jobs by employees and imputed current weekly gross wages and salary in all jobs. Median hourly wage rates were used rather than average hourly wage rates as they are not subject to the distorting influence of those on very high wage rates in the sample.

Source: HILDA (2007 Release 7.0).

Personal choices by women as to work/family life balance may explain some of the difference between earnings of women with children and those without children with similar years of work experience.

Female dominated occupations and industries and the gender wage gap

There is no clear relationship between the proportion of female employees in an occupation or industry and the size of the gender wage gap. For example, gender wage gaps are high in community and personal services occupations where women account for nearly 70 per cent of employment and in technician and trades occupations where women only account for around 13 per cent of employment (see appendix B, table B.1).

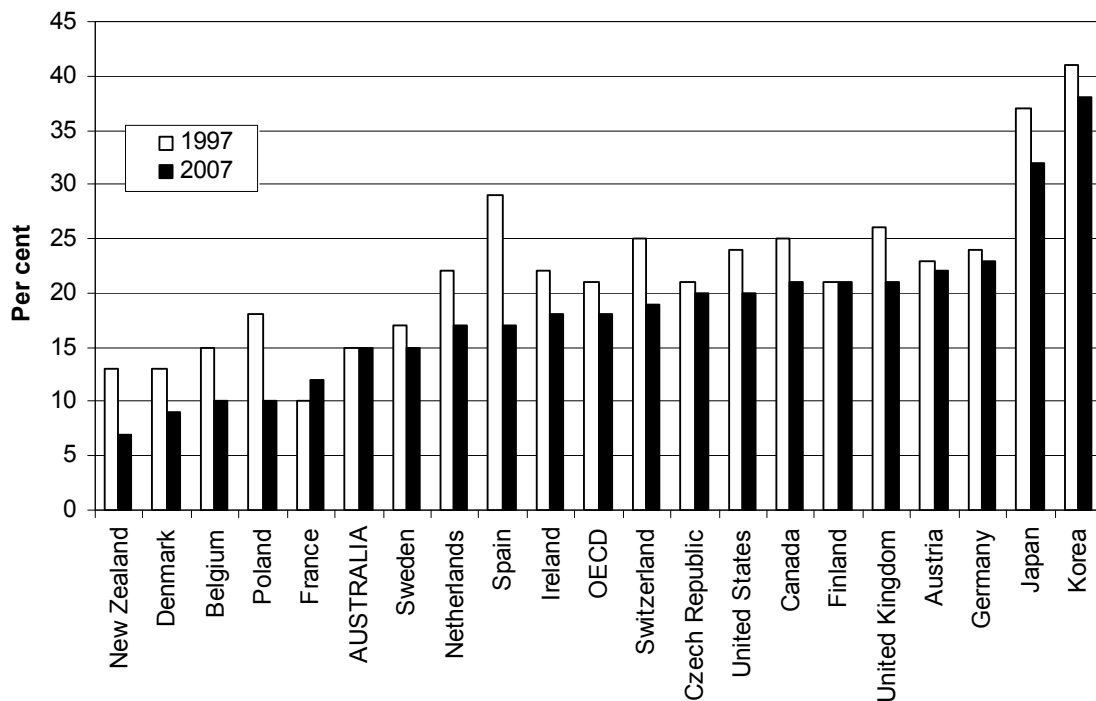
Similarly, gender wage gaps are high in female dominated industries such as health care and social assistance, where women account for nearly 80 per cent of employment, and in male dominated industries such as mining, where women only account for around 13 per cent of employment. In contrast, the gender wage gap is

small in the education and training sector where women account for nearly 70 per cent of employment (see appendix B, table B.2).

How does Australia's gender wage gap rank internationally?

Australia had the sixth narrowest gender wage gap among 20 OECD countries in 2007¹. The gender wage gap narrowed considerably over the decade to 2007 in nearly all OECD countries, while in Australia, according to OECD data, the gap remained unchanged (figure 6.8). However, ABS data (figure 6.5) indicate that the gender wage gap in Australia initially decreased before increasing later in this period leaving the gap unchanged in the two years reported by the OECD.

Figure 6.8 Gender wage gap in 20 OECD countries — full time earnings, 1997 and 2007



Source: OECD (2009).

¹ The gender wage gap as calculated by the OECD is unadjusted and refers to the difference between median earnings of men and women relative to the median earnings of men.

Analysis conducted by the OECD in 2002 found that in countries where a higher proportion of low-educated women are employed, the gender wage gap will be wider, all other things being equal, due to the depressing effect this has on average weekly earnings of women. These results emphasise that compositional effects play an important part in explaining differences in the gender wage gap.

In the case of mature aged women, the existence of a gender wage gap does not seem to have acted as a substantial disincentive to their workforce participation given the increase in participation rates over the past three decades as shown in chapter 2. Indeed a number of Australian studies, discussed in chapter 5, suggest that while labour supply generally expands with increases in the wage level, for older women aged 55 to 64 years the response is muted or even non-existent that is, the wage elasticity of supply is inelastic.

7 Exiting the labour force

Key Points

- Women retire earlier than men, but the gap in retirement ages appears to be narrowing, and the retirement ages for both men and women have risen over the past decade.
- Mature aged women are likely to be working part time when they retire. Part time, casual and contract work often play a role in a planned transition from full time work to retirement.
- The main factors influencing the decision to retire are personal health/physical ability and financial security. Social factors such as the desire for a different lifestyle, the retirement of a partner, spending more time with family, and caring for family are important, but less significant. The availability of work may also be a factor influencing the retirement decisions of women.
- More flexible workplace arrangements are expected to encourage mature aged women to remain in the labour force for longer.
- Raising the Age Pension eligibility age may have an impact on participation rates, but the impact is not expected to be large.
- Reducing the implicit taxes on retirement incomes is also likely to increase participation rates, but again the impact is unlikely to be large.
- The gap between the ages at which superannuation and age pensions can be accessed is likely to have an increasing impact on the participation rate of mature aged women as women's superannuation balances rise.
- Welfare payments, such as the Disability Support Pension (DSP), may provide an alternative route for a transition to retirement and impact on the participation in the workforce of mature aged women. Recent changes to restrict the eligibility criteria for the DSP appear to have reduced this avenue to retirement.

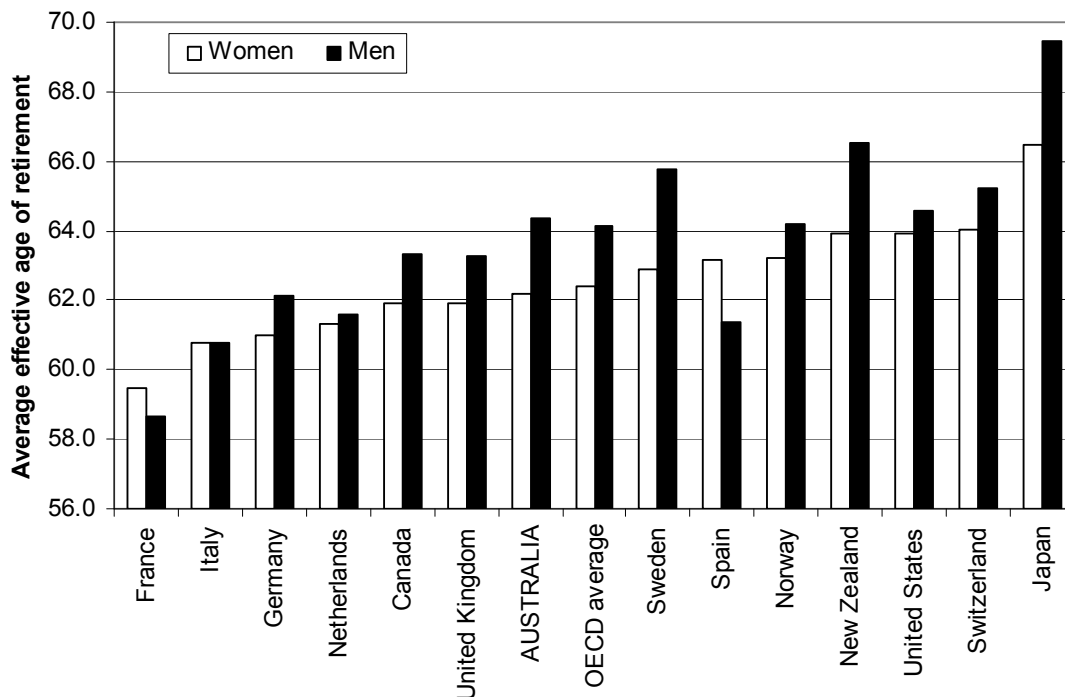
A key factor affecting the workforce participation of mature aged women is the age at which they choose to leave the workforce permanently through retirement. This chapter examines when and why women retire, and the workforce choices they make on the path to retirement. It also outlines recent changes to retirement policies and pensions, and their possible impact on decisions to retire and hence on future participation rates.

7.1 Retirement age

Retirement ages in OECD countries

Women retire earlier than men in most OECD countries with Australian women and men retiring at ages very close to the OECD average. But the average age of retirement for women is still significantly below some comparable countries such as New Zealand or the United States (figure 7.1).

Figure 7.1 Age of retirement in selected OECD countries^a



^a The preferred OECD measure of retirement age is the average age of withdrawal from the labour force. The average effective age of retirement is derived from the average rate of exit from the labour force between 2002 and 2007. This measure may report a different average retirement age than ABS figures.

Source: OECD (2010c).

Retirement age for women

Historically, the process of retirement has been different for women and men. In general, women tend to retire earlier and are slightly less likely to be in some form of work past retirement age than men. This pattern was reflected in the ages at which women and men could receive the age pension which, up until 1995, was 60 years for women and 65 years for men.

The pattern of earlier retirement among women is borne out by the results of the HILDA survey which shed light on the retirement status of women and men as they move closer to retirement age. For example, just under 60 per cent of women aged 55 to 59 years in 2007 were not retired compared with just over 70 per cent of men in the same age group (table 7.1). For those aged 60 to 64 years, 32 per cent of women were not retired compared with some 42 per cent of men. In the 65 to 69 years age group most people are retired, although around 15 per cent of women and just over one quarter of men were either only partly retired or still working.

Table 7.1 Retirement status by age, 2007^a

	50 to 54 yrs	55 to 59 yrs	60 to 64 yrs	65 to 69 yrs
	%	%	%	%
Women				
Completely retired	13.5	28.9	56.1	84.6
Partly retired	6.5	12.0	11.9	7.1
Not retired	80.0	59.1	32.0	8.4
TOTAL	100.0	100.0	100.0	100.0
Men				
Completely retired	7.6	18.8	41.0	74.6
Partly retired	2.3	9.7	17.1	13.4
Not retired	90.0	71.5	41.9	12.0
TOTAL	100.0	100.0	100.0	100.0

^a Persons who had been in paid work at some stage during their life.

Source: HILDA (2007) Release 7.0 weighted data.

Retirement ages for women appear to be slowly rising. In 2009, the ABS found that among those women who had retired in the previous 20 years, the average age at retirement was 56.2 years while the average age at retirement for those women who retired in the last five years was higher at 59.2 years (ABS 2009d).

Also the gap between the retirement ages of men and women is narrowing. In 2005, the gap in the average age at retirement for women and men who had retired in the last five years was 3.2 years (ABS 2006). By 2009, the gap between the retirement ages of men and women had shrunk to 1.9 years (ABS 2009d).

Part time work close to retirement age

Another difference between mature aged women and men is that among those who are working, a much larger proportion of women are in part time employment. In the 45 to 54 year age group, 42 per cent of employed women are working part time compared to under 10 per cent of men. The proportion of both working men and women in part time work rises in older age groups, but among those workers aged 65 years and older there remains a significant difference, with 70 per cent of employed women working part time compared with just over 46 per cent of men (table 7.2).

Table 7.2 Employed women and men in part time employment, July 2010

	<i>Women</i>	<i>Men</i>
	%	%
45 to 54 Years	42.0	9.2
55 to 59 Years	45.5	13.3
60 to 64 Years	55.5	24.3
65 years and over	70.0	46.4

Source: ABS (2010a).

The same pattern is reflected in the proportion of women who move into retirement from part time work. Reflecting the high overall level of part time work for women, the HILDA data show that a much larger proportion of employed women are working part time at retirement than men. Just over a half of employed women aged 60 to 64 years were working part time at retirement compared with just under 12 per cent of men in the same age group (table 7.3).

The possible reasons for the high incidence of part time employment for mature aged women are explored earlier in this report and in the Commission's report on part time work (Abhayaratna et al. 2008). One factor is that some women choose to use part time work as a pathway to retirement. This is discussed more fully in the following section.

7.2 Retirement plans

Both men and women retire earlier than they anticipate

Currently, the average intended age of retirement from the labour force of people over 45 is 62.5 years for women and 64.2 years for men (ABS 2009d). In both cases the intended retirement age is more than three years older than the average age of retirement of recent retirees. The differences between retirement ages of those who have already retired, and the planned age of retirement for those who are still in the labour force, may have several causes. Intended retirement ages may not take account of unexpected shocks such as poor health, retrenchment, or redundancy that can disrupt retirement plans. The gap may also point towards longer labour force attachment by younger cohorts of working women who have not yet reached their planned retirement age.

Table 7.3 Employment status at the time of retirement, 2007^a

	50 to 54 yrs	55 to 59 yrs	60 to 64 yrs	65 to 69 yrs
	%	%	%	%
Women				
Working full time	42.7	57.1	44.9	55.4
Working part time	51.8	37.5	50.2	41.1
Looking for work	2.7	1.1	1.1	0.4
Not working because of illness or disability	2.7	2.2	1.9	0.7
Not working because of some other reason	0.0	2.2	1.9	2.5
TOTAL	100.0	100.0	100.0	100.0
Men				
Working full time	72.3	79.2	83.3	82.1
Working part time	8.5	12.5	11.8	15.6
Looking for work	6.4	2.5	1.5	0.4
Not working because of illness or disability	8.5	5.0	2.5	1.5
Not working because of some other reason	4.3	0.8	1.0	0.4
TOTAL	100.0	100.0	100.0	100.0

^a For those who are completely or partly retired.

Source: HILDA (2007) Release 7.0 weighted data.

Factors influencing women's retirement plans

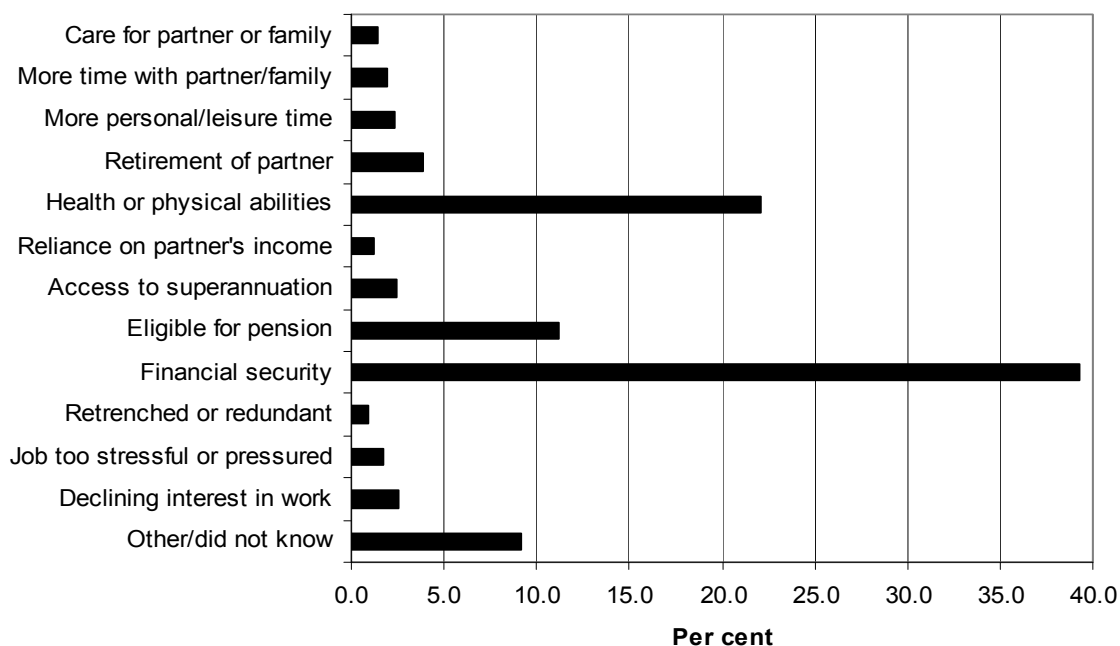
A number of factors influencing the retirement plans of mature aged women are examined in this section. However, the data from different sources does not always paint a clear and consistent picture of the relative importance of these factors.

A substantial proportion of women (37 per cent) aged 55 to 64 who have *already* retired cite eligibility for a pension/superannuation as the most important reason for ceasing their last job (ABS 2009d). This differs from the expectations of the current generation of mature aged women in the labour force.

Women currently participating in the labour force *expect* that financial security or personal health/physical abilities will be the main factor influencing their retirement decision (figure 7.2). A much smaller proportion of women cite reaching the pension age, declining interest in work, or the retirement of their partner, as the main factor which will influence their retirement decision.

While women retire for a number of reasons, financial security, provided through a variety of sources, is cited as the main factor by most women planning their retirement. The future growth in superannuation entitlements among women may provide a source of financial security for a growing number of women and may, therefore, have an impact on women's retirement decisions in the future.

Figure 7.2 Main factor influencing the decision by women aged 45 years and over about when to retire^a



^a Women in the labour force aged 45 years and over who intend to retire.

Source: ABS (2009d).

The level of income at retirement (as opposed to having a minimum secure income) was also a factor in a woman's decision about when to retire. But there does not appear to be substantial empirical evidence which clearly identifies how important a role the level of retirement income plays in the decision to retire.

The HILDA survey provides further information on the main reasons for retirement. The results are similar to those provided in the ABS survey in terms of the importance of personal health in making retirement decisions. However, financial considerations do not appear to have the same prominence.

According to data from the HILDA survey the main factors driving retirement of women aged 50 to 69 years in 2007 were (table 7.4):

- own ill health (22.8 per cent of responses)
- financial reasons (11.6 per cent)¹
- seeking to escape the stress and demands of working (10.3 per cent)
- to spend more time with family members (9.5 per cent)
- and have more personal or leisure time (7.7 per cent).

The main reason for retiring also changes with age. A much higher percentage cited ill health as the main reason for retirement for those women aged 50 to 59 years than for older age groups. Factors such as financial considerations and desire to spend more time with family members or be involved in recreational pursuits assumed more prominence later in life.

HILDA data show similar results for men aged 50 to 69 years, but with a higher percentage recorded for ill health (almost 40 per cent) and financial reasons (almost 30 per cent) as the major motivating factor. The proportion reporting increased leisure as the main motivating force for retirement was very similar for women and men (8 per cent for women versus 9 per cent for men), while men were much less likely to report spending time with other family members (almost one per cent for men compared to just under 10 per cent for women) (HILDA 2007).

¹ Includes offered reasonable financial terms to retire early, superannuation rules made it financially advantageous, had sufficient income and could afford to, and spouse's income made retirement possible.

Table 7.4 Main reason for retirement of women aged 50 to 69 years, 2007^a

	50 to 54 yrs	55 to 59 yrs	60 to 64 yrs	65 to 69 yrs	50 to 69 yrs
	%	%	%	%	%
Financial reasons ^b	6.4	13.7	10.6	13.4	11.6
Became eligible for age pension			0.8	4.9	1.9
Made redundant or dismissed	3.6	6.5	6.8	6.7	6.3
Reached compulsory retirement age				0.4	0.1
Could not find another job	0.9	1.1	2.7	1.8	1.8
Fed up with stresses and demands of work	7.3	9.8	11.8	10.5	10.3
Pressure from employers or others at work		1.1	1.9	1.8	1.4
Own ill health	39.1	25.0	19.4	18.2	22.8
Ill health of spouse/partner or other family member	9.1	10.3	10.2	7.4	9.1
Partner had just retired or wanted to retire	2.7	4.3	2.7	4.9	3.8
Spouse/partner wanted me to retire	0.9	2.2	2.7	3.2	2.5
Spend more time with spouse/partner	0.9	2.2	3.0	2.5	2.4
Spend more time with other family members	15.5	8.2	8.7	8.8	9.5
Have more personal/leisure time	5.5	7.6	8.4	8.1	7.7
Have children or care for children	3.6	4.3	3.0	3.2	3.4
Could not classify	1.8	0.5	2.7	1.4	1.7
Other	2.7	3.3	4.6	3.2	3.6
TOTAL	100.0	100.0	100.0	100.0	100.0

^a For those who are completely or partly retired. ^b Includes offered reasonable financial terms to retire early, superannuation rules made it financially advantageous, had sufficient income and could afford to, and spouse's income made retirement possible.

Source: HILDA (2007) Release 7.0 weighted data.

The data above only show the main reason for retirement of mature aged women. However, there are usually multiple reasons driving retirement decisions. A broader perspective of the factors influencing retirement decisions may be achieved by examining the relative importance of the various factors. When the importance of various factors influencing retirement are rated, health and financial security stand out as the two factors most often considered to be important or very important. HILDA (2007) data showed that over 90 per cent of women aged 50 to 64 years regarded their own personal health and physical abilities as important or very important in making the decision to completely retire from the workforce.

Financial security was regarded by over 87 per cent of women in this age group as important or very important, along with the ability to access superannuation funds (over 72 per cent) and the desire for a different lifestyle (almost 70 per cent). Of less importance in making final retirement decisions was the timing of retirement of their partner (around 42 per cent considered this reason as important or very important), reaching the eligibility age for an old age or service pension (38 per cent), and ability to access other government pensions (almost 38 per cent). Around 63 per cent of women aged 50 to 64 years had thought about how much money they needed in retirement compared to around 68 per cent of men of the same age.

Transitioning to retirement

A transition to retirement strategy appears to be important in retirement planning for a large number of workers. While many workers will move directly from full time work to retirement, others transition to retirement by first reducing their workload before retiring permanently. Around 37 per cent of women and a third of men aged 45 years and over who were working full time intended to continue working full time before retiring. But around 38 per cent of women and men in the same age group working full time intended to pursue a strategy of working part time before retiring² (ABS 2009d).

The HILDA survey also provides information on the extent to which mature aged women would be prepared to change the nature of their current working arrangements in order to make the transition to retirement. HILDA survey data revealed that the proportion of employed women engaged in transition jobs increases with age from just under one quarter of those aged 50 to 59 years to over one third of employed women aged 60 to 64 years. For example, just under 80 per cent of employed mature aged women aged 50 to 64 years reported they would move from full time to part time work as part of a transition strategy and around 37 per cent would be prepared to move from a permanent to a casual or contract position as part of the employment conditions of a transition job. Just over a third of this group would look to change to a less demanding job as part of a transition, while a smaller proportion (under one fifth) would accept completely changing their current occupation as part of that transition (HILDA 2007).

Mature aged women may have had to accept financial sacrifices in order to make the transition to retirement. For example, just under three quarters of mature aged employed women who accepted a transition job reported that this involved taking a pay cut. The availability of transition jobs has contributed to greater attachment to the workforce with just over a quarter of employed mature aged women reporting

² 28 per cent of men and a quarter of women working full-time in this age group did not know if they would work part-time before they retired

they would not be in work if transition jobs were not available (i.e. they would have left the workforce). However, just under a half reported that they had to change employers in order to commence a transition job (HILDA 2007).

Warren (2008a) found that 11 per cent of employed 'baby boomer' men and 17 per cent of women were in a transition job as a pathway to retirement in 2003. For 'baby boomers' who were not yet retired or in a transition job, 60 per cent indicated that they expected to withdraw from the labour force gradually. A high proportion of this group indicated they would make the transition by moving from full time to either part time, casual or contract work.

While ABS data indicate that a large proportion of mature aged men and women intend to make the transition to part time work prior to retirement this does not always translate into reality. HILDA data provide evidence of differences in decision making among mature aged workers about how they make the transition to retirement with no single preferred method.

HILDA data were used to track the labour force status of women aged 55 to 64 years in 2007 compared with their labour force status in 2001. Over half (54.3 per cent) of women who were employed full time in 2001 were still employed in full time work in 2007, 22.6 per cent had moved to a part time job and 21.3 per cent had left the labour force (table 7.5).

The data also showed that just over half of women aged 55 to 64 years who were working part time initially were still in part time jobs in 2007, 16.0 per cent had moved to a full time job and 31.1 per cent had left the labour force. The higher proportion of women working part time who left the labour force, compared to women working full time, reflects the processes of transitioning to retirement through part time work or, possibly, a weaker attachment to the labour force by part time workers.

Interestingly, the data reveal that a proportion of women in this age group increased their work load prior to retirement by moving from part time work to full time work. The reasons for this are not clear but it is possible that some women have retired, or begun the transition to retirement, but changed their plans following a reassessment of their lifestyle. They may have found that their superannuation, savings, and other investments have been insufficient to sustain them in retirement. As a result they may have needed to move from part time to full time work to boost their income or retirement savings.

Table 7.5 Labour force transitions between 2001 and 2007 for women aged 55 to 64 in 2007

<i>Labour force status in 2001</i>	<i>Labour force status in 2007</i>					<i>Total</i>
	<i>Employed</i>		<i>Unemployed</i>		<i>Not in labour force</i>	
	<i>full time</i>	<i>part time</i>	<i>looking for FT work</i>	<i>looking for PT work</i>		
Employed full time	54.3	22.6	0.4	1.4	21.3	100
Employed part time	16.0	51.9	0.3	0.7	31.1	100
Unemployed looking for full time work	16.7	17.2	16.6	0.0	49.5	100
Unemployed looking for part time work	8.1	43.7	0.0	0.0	48.3	100
Not in labour force – marginally attached	1.6	8.4	0.0	0.0	90.0	100
Not in labour force – not marginally attached	3.0	6.8	0.4	0.0	89.9	100
Composition of population in 2007 (%)	25.4	25.1	0.7	0.7	48.2	100

Source: HILDA (2007) Release 7.0 weighted data.

A transition to retirement strategy depends on the availability of suitable work. The availability of part time employment may encourage mature aged workers to delay full retirement. A Commission staff working paper on part time work observed that the availability of part time employment has played a role in maintaining participation in the labour market (Abhayaratna et al. 2008).

More flexible work arrangements and mobility for mature aged workers will also impact on labour force participation. However, Abhayratna et al. (2008) found that while the aggregate labour market was flexible in this regard, in many instances workers had to change employers to achieve their desired working hours, that is individual workplaces did not display sufficient flexibility.

Flexible workplaces encourage continued attachment

Improvements in workplace flexibility allow greater choice for women to reduce their labour force commitment. Extending working lives through increased flexibility could act as a complement to pension and superannuation schemes to increase incomes in retirement. Improving flexibility may be of considerable benefit to firms as well as workers, but not all businesses will be able to provide the level of flexibility sought by workers. Government programs may be able to assist in developing more flexible approaches to employment (box 7.1).

Box 7.1 Initiatives to improve workplace flexibility and attachment

The 'Employer Demand and Workplace Flexibility Strategy' (DEWR 2005)

- \$50 million strategy aimed towards improving employer awareness of the potential benefits of employing those with a disability, parents, mature age job seekers and the long term unemployed.
- training measures for target groups to enable them to join the workforce.

The 'Fresh Ideas for Work and Family Program' (DEEWR 2009)

- \$12 million program to encourage small businesses to implement practices that help employees balance their work and family obligations as well as improve employee retention and productivity.

The "Productive Ageing Package" (DEEWR 2010b). A \$43.3 million package including:

- providing support for mature aged Australians who want to stay in the workforce through retraining as supervisors, trainers or workplace assessors
- face-to-face job support and training for mature aged workers with a health condition or injury which impacts on their ability to do their job
- support of Job Services Australia for mature aged workers in physically demanding roles and for recently retrenched job seekers
- free, professional career advice to help job seekers and workers aged 45 years and over to plan for successful career transitions.

The OECD has commented that reforms to pension and early retirement systems alone will be insufficient to encourage increased participation by individuals in older age groups. Other measures, such as those directed at tackling age discrimination and negative attitudes towards older workers and job seekers, improving working conditions and flexibility, and improving the skills of mature aged workers have been suggested as complements to reforms to pension and early retirement systems (OECD 2005).

7.3 Financial influences on retirement decisions

One of the most important factors influencing decisions to retire is financial security. The evidence discussed in the previous section suggests that the availability of a secure income in retirement has a significant influence on the retirement decisions of women.

Main sources of income in retirement

By far the most significant sources of income for women in retirement are government pension/allowances. Around two thirds of retired women cite 'government pension/ allowance' as their current main source of income (table 7.6).

The next most important source of income is superannuation. Just over 10 per cent of women retirees report superannuation or annuity as their current main source of income, compared to over 20 per cent of retired men. There is also a significant difference in the proportion of women and men who report having no personal income, but who rely on savings, assets or their partner's income to support them in their retirement. Over three times as many women (8.4 per cent) as men (2.6 per cent) report relying on these financial sources in retirement.

A similar survey conducted in 1997 identified a lower proportion of women (7.4 per cent) giving superannuation/annuities as their major source of income. The same survey found that 9.2 per cent of women cited 'Other person's income' as their main source of income (ABS 1998).

Table 7.6 Main source of current income for retirees, 2009

	<i>Women</i>	<i>Men</i>
	%	%
Government pension/allowance ^a	66.5	62.9
Superannuation/annuity/allocated pension	10.7	20.9
Dividends or interest	8.8	7.3
No personal income ^b	8.4	2.6
Rental property income	2.7	2.6
Other ^c	2.9	3.7
Total	100.0	100.0

^a Government pension/allowance includes income support under programs for the aged, disabled, unemployed, sick, families and children, veterans and students. ^b No personal income category includes living off savings, assets, partner's income etc. ^c Other includes: unincorporated business income, wages and salaries, workers' compensation, child support or maintenance, other, did not know, refusal to answer.

Source: ABS (2009d).

Importance of the Age Pension

Women accounted for a higher proportion of people on the Age Pension in June 2009 (57.2 per cent of the total) due to a combination of their higher life expectancy and lower qualifying age. The Age Pension remains the most important source of income for retirees. In 2009-10, just over two third (69 per cent) of the pension age population were recipients of either the part or full rate Age Pension (FaHCSIA

2010a). The dependence on a full pension is slightly higher for women with 65 per cent paid at the full rate compared to 62 per cent of men (FaHCSIA 2009). Changes in the age at which women become eligible for the Age Pension are expected to have some impact on their participation in the labour force, but how large this will be is difficult to assess.

For many years the eligibility age for the Age Pension for women was 60 years and 65 years for men. However the qualification age for women has been gradually increased since 1995 so that it will be equal to that for men by 2013. In the 2009 Federal Budget the Australian Government announced an increase in the qualifying age for the Age Pension. From 1 July 2017 the eligibility ages for both women and men will begin increasing until they reach 67 years on 1 July 2023.

As discussed in earlier chapters, participation rates of mature aged women have been increasing for a number of years. Part of this change is likely to have been attributable to the change in the pension eligibility age. However, the evidence on the possible size of the impact of changes in pension eligibility age in Australia on the participation rate of mature aged female workers is unclear.

The majority of women retirees (67 per cent) cite Government pension/allowance as their main source of income (table 7.6) and, as discussed earlier, a substantial proportion of women report eligibility for a pension/superannuation as the most important reason for ceasing their last job. But only a small proportion of women cite eligibility for the Age Pension as the main reason for retirement (under five per cent) (table 7.4) or as the main factor influencing their intentions about retirement (11.1 per cent) (figure 7.2). In both of those cases many of the women who report ‘financial security’ as a key factor may have the Age Pension in mind as a key component of that financial security. It is also possible that while retirement decisions are primarily driven by other factors, Age Pension eligibility is important in allowing mature aged women to act on their wish to retire. These broad findings are supported by a recent study by Warren and Oguzoglu (2010) who found that financial incentives did not play a significant role regarding retirement decisions of women before reaching the eligibility age of the pension. However, they did provide a weak incentive to retire after age pension eligibility was reached.

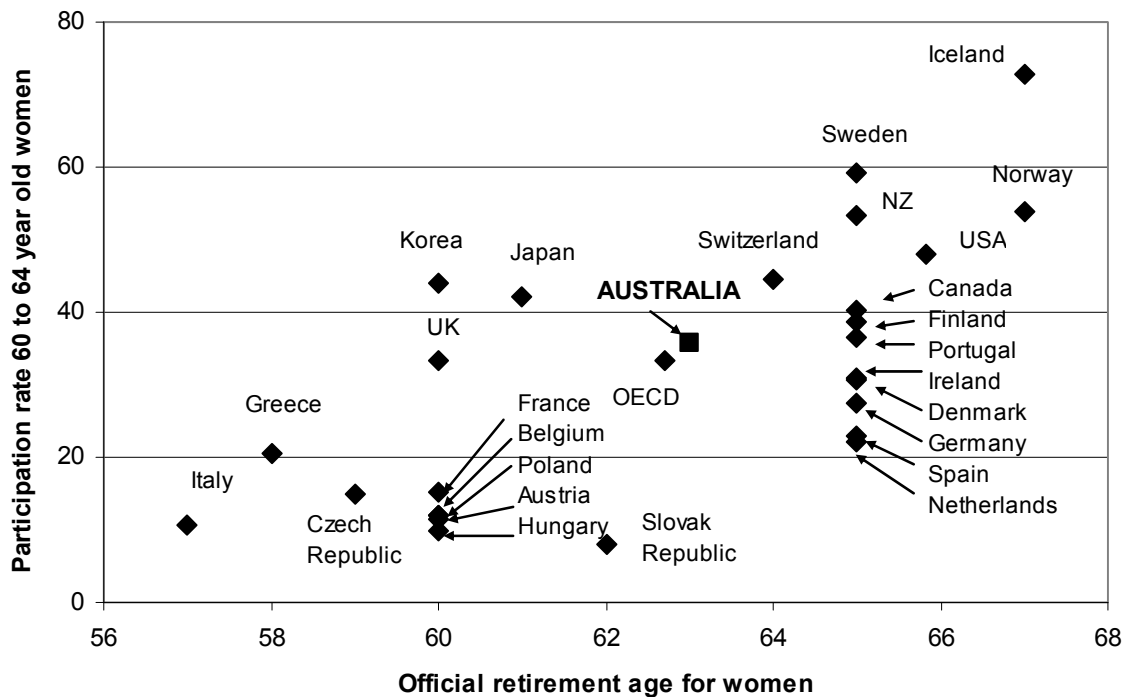
Access to Age Pensions – OECD Comparisons

Across OECD countries there is a range of ages (57 to 67 years of age) at which women can access public age pensions (figure 7.3). Comparing participation rates for women aged 60 to 64 in these countries suggests a correlation between higher participation rates and higher eligibility ages for age pensions. Having said that, there is considerable variation around this broad trend and the extent to which

changing the eligibility age for the age pension will, by itself, lead to a change in participation rates is not clear.

Nor do changes in official retirement ages and effective retirement ages suggest that there is a strong or consistent relationship between the two variables across OECD countries (figure 7.4). Most of the countries (including Australia) which have increased the official age of retirement have also experienced an increase in the effective age of retirement. But the size of the change in effective retirement ages does not seem to be significantly different to that in countries which have not made a change in the official retirement age. This suggests that broader cultural and institutional differences are operating between countries leading to increases in retirement ages. This finding is also consistent with a recent study that found that policy changes aimed at prolonging people's working lives are generally not reflected in attitudinal changes towards paid work (Hult and Stattin 2010).

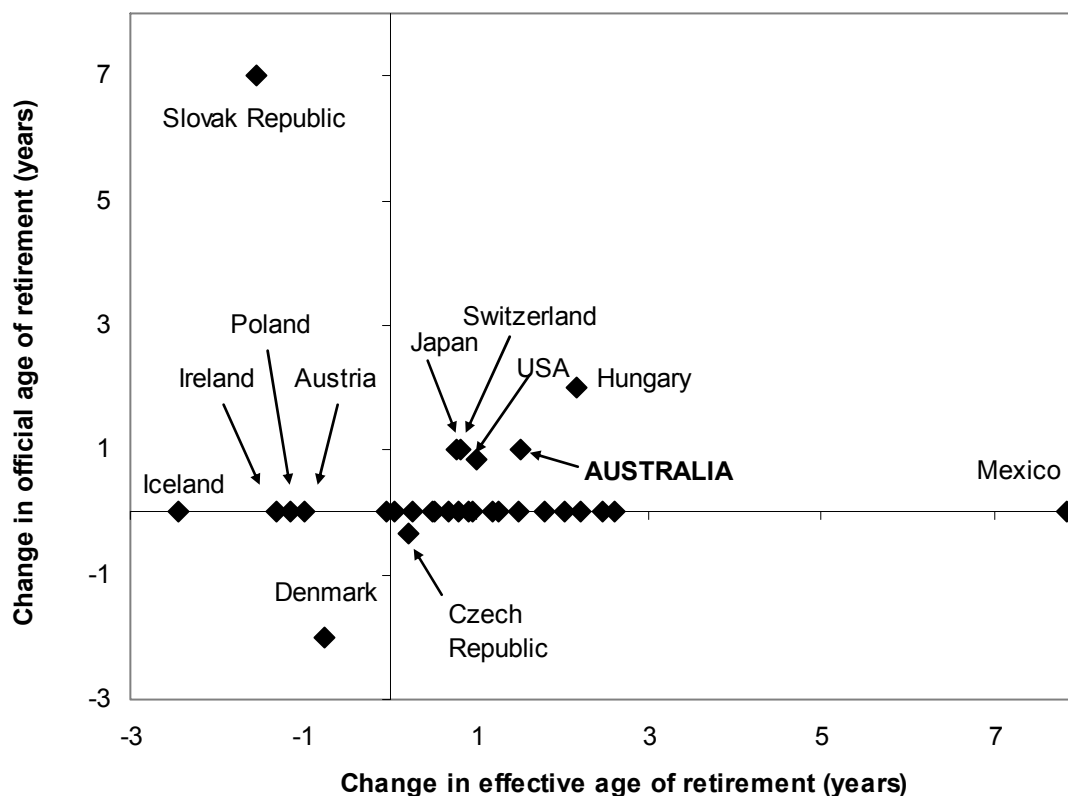
Figure 7.3 **Women's pension eligibility ages and participation rates^a**



^a For OECD countries in 2005.

Source: OECD (2010b).

Figure 7.4 **Changes in effective and official retirement ages of women, 2002–2007^a**



^a For OECD countries. Some data points represent more than one country. Countries which are not named and have not changed the official age of retirement (the figure in brackets is the change in effective retirement age) are: Greece (0.0); France (0.1); Italy (0.3); Canada (0.5); Luxembourg (0.5); United Kingdom (0.7); Germany (0.8); Sweden (0.9); Norway (1.0); Korea (1.2); Finland (1.3); Belgium (1.5); Spain (1.8); Portugal (2.0); Netherlands (2.2); Turkey (2.5); New Zealand (2.6).

Source: OECD (2010c).

The impact of implicit taxes and benefits on retirement decisions

While financial security in retirement is largely determined by the accessibility of income from pensions and superannuation, the level of income is affected by both implicit taxes and the value of other benefits available to pensioners.

Pensioners are subject to implicit taxes on their pensions in the form of income and assets tests which can reduce their pension entitlement. A single pensioner (both age pensioner and disability support pensioner) will receive a full pension if their income is less than \$146 a fortnight. As their income increases the value of the pension falls until their income reaches \$1548.20 per fortnight, at which point they are no longer eligible for any payment. For a couple, the income test is higher and is

based on their combined income (Centrelink 2010a). This income test applies to all sources of income although, under the Work Bonus Scheme, half of the first \$500 of fortnightly employment income will be disregarded from the income test for age pensioners.

The age and disability pensions are also progressively reduced if the pensioner's assets, excluding the family home, exceed a minimum threshold (table 7.7). For example, a single homeowner's pension will be reduced if they have over \$181 750 in assets other than the family home. They will receive a part pension if their assets (excluding the family home) are below \$649 250.

Table 7.7 Assets test for pensions^a

<i>Family situation</i>	<i>For full pension/allowance assets of up to:</i>	<i>For part pension assets of less than:</i>
Single home owner	\$181 750	\$649 250
Couple home owner (combined)	\$258 000	\$963 000
Single non-homeowner	\$313 250	\$780 750
Couple non-homeowner (combined)	\$389 500	\$1 094 500

^a As at September 2010. Other limits apply in some circumstances. The value of the family home, and some other assets, are exempt from the assets test.

Source: Centrelink (2010c).

In addition to the pension payment pensioners are also eligible for other benefits. The most commonly available of these other benefits are access to the Pensioner Concession Card, and the Health Care Card or the Commonwealth Seniors Health Card. The Pensioner Concession Card gives pensioners access to a wide range of concessions from Australian and state and territory governments including bulk billing for doctor's appointments and additional refunds for medical expenses, assistance with hearing services, a telephone allowance, fare reductions on public transport and free rail journeys, and reductions on property rates, water rates, energy bills and motor vehicle registration (Centrelink 2010b).

Some private businesses also offer discounts to people who have a Pension Concession Card. These benefits can be significant and their availability is generally restricted to persons who are eligible to receive a pension or part pension.

Implicit tax rates and labour force participation – OECD comparisons

The OECD has prepared data on the implicit tax rates in OECD countries. The implicit tax rate measures the change in net (expected) pension wealth due to

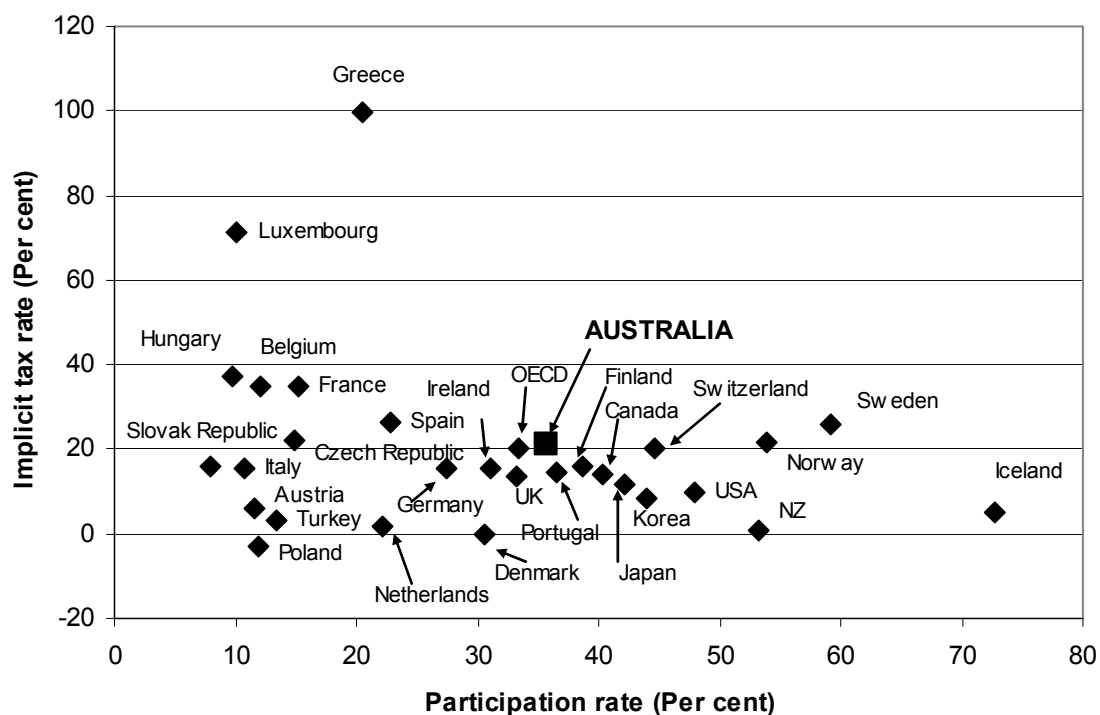
continuing to work past the retirement age. Pension wealth is defined as the present value of the future stream of pension payments to which a person is entitled over his or her life in retirement. If the cost of forgone pensions, and contributions paid, is not exactly offset by an increase in future pension benefits, the pension system is said to be “actuarially non-neutral” and carries an implicit tax on continued work. Changes in pension wealth from continuing working can be regarded as an implicit marginal tax or subsidy on continued work.

When benefits are not income tested and no contributions to the pension system have to be paid, the implicit tax is simply zero because the present value of the stream of future payments is the same whether individuals keep working or not. In New Zealand, for example, the implicit tax on continued work is almost zero for this reason.

In Australia, the implicit tax rate on workers at age 60 years, at close to 21 per cent, is only slightly above the OECD (2010b) average. The implicit tax rates are lower in comparable OECD countries such as New Zealand, the United States and Canada. The incentive effects of implicit taxes on workforce participation after the retirement age can be ambiguous (Mitchell and Fields 1984). Generally, implicit taxes reduce both the return from work and the opportunity cost of retirement (through lower foregone income). On the other hand, it is possible that an implicit tax can increase the opportunity cost of not working as an individual now needs to work longer (or more) in order to attain a desired income level for retirement. However, it is more likely that an implicit tax will discourage work past retirement age by lowering the ‘true wage’ from remaining at work. International evidence from observed participation rates suggests that there are disincentive effects related to high implicit tax rates (Duval 2004).

Figure 7.5 shows that countries with lower implicit tax rates generally had higher participation rates in older age groups. Countries with the highest implicit taxes on continued work, such as Luxembourg and Greece, experienced relatively low participation rates for women aged 60 to 64 years. However, there are wide variations in participation rates between countries with the same implicit tax rate. Iceland and Austria, for example, have approximately the same implicit tax rate but the participation rates for women aged 60 to 64 years vary from just over 10 per cent to over 70 per cent (OECD 2010). This suggests that the level of implicit tax rates is not a major factor in explaining international variations in the level of labour force participation for mature age workers.

Figure 7.5 **Implicit tax rates and workforce participation for women aged 60 to 64, 2007^a**



^a Implicit tax on continued work in regular old-age pension systems, for 60-year-olds. The average implicit tax rate is based on an individual who continues to work for five more years (at the age considered). It incorporates both payments embedded in old-age pension and superannuation systems.

Source: OECD (2010b). Data derived from Duval, R. (2004), 'The Retirement Effects of Old-Age Pension and Early Retirement Schemes in OECD Countries', OECD Economics Department Working Papers, No. 370 and OECD calculations.

In Australia, the key drivers of the implicit tax rate are likely to relate to the income taper rates associated with the Age Pension. Whilst implicit taxes might affect the retirement decisions of women who would be eligible to receive the Age Pension, about a third of retirees do not receive an Age Pension and their decisions are unlikely to be influenced by implicit taxes. Similarly, women who have retired for health reasons, family reasons or are coordinating their retirement with their partner are unlikely to be strongly influenced by changes in implicit tax rates.

The Australian Government has introduced a range of policies aimed at mitigating the impact of these implicit taxes. As outlined above, it has introduced the Work Bonus Scheme and changes to superannuation regulations to encourage workers to remain in the workforce after becoming eligible to access superannuation and age pensions. In 2004 the Government introduced the Mature Age Workers Tax Offset as a measure aimed at encouraging individuals over 55 years to continue working. It provides an annual \$500 tax rebate with the full offset available when earned income reaches \$10 000 and phases out at 5 per cent for every dollar earned above

\$53 000. As expected, the offset has greatest effects on those with the lowest eligible incomes. For those who earn \$10 000 per year, the average tax rate is reduced by 83 per cent, while for those earning \$53 000, the average tax rate is reduced by 4 per cent.

The impact of these measures will reduce financial disincentives from continuing to work, but as noted above, the impact on participation rates is difficult to quantify and may not be large.

The role of NewStart Allowance and the Disability Support Pension

For some mature aged women, unemployment and disability benefits may be seen as alternative pathways to ‘retirement’ or exiting the workforce. The impact of any changes to the age of eligibility to the age pension and superannuation balances on participation rates may be undermined by these alternative pathways to ‘retirement’.

But unemployment benefits do not appear to be a significant source of income for Australian women over the age of 50 years. While the participation rate of mature aged women falls significantly through the older age groups, the proportion of mature aged women in the labour force who are unemployed is low and falls with age (table 7.8). Moreover, in September 2010, around 21 500 women aged 50 years and over were in receipt of Newstart Allowance who accounted for 1.1 per cent of the population of women aged 50 to 64 years and 1.7 per cent of women of this age who were in the labour force. This information suggests that this form of income support does not provide a significant pathway to early exit from the labour force (ABS 2010a, DEEWR 2010a).

However, the Disability Support Pension (DSP) is paid to a larger proportion of women aged over 50 years than Newstart Allowance. The DSP is available to persons with a disability who are below the Age Pension age. It is paid at the same basic rate as the Age Pension. As at June 2008 the DSP was paid to 9 per cent of the female population aged between 50 and 64 years. Of those women aged 50 and over receiving the DSP, just over half had been receiving the DSP for 10 years or longer. By comparison, in 2007-08 just over half of new female entrants to the DSP were aged 50 years and over (FaHCSIA 2010b, ABS 2009f).

Table 7.8 Unemployment and participation rates for women approaching retirement, September 2010

<i>Age group</i>	<i>Unemployment rate</i>	<i>Participation rate</i>
	%	%
45 to 54	3.7	79.8
55 to 59	3.0	65.2
60 to 64	2.7	44.7

Source: ABS (2010b).

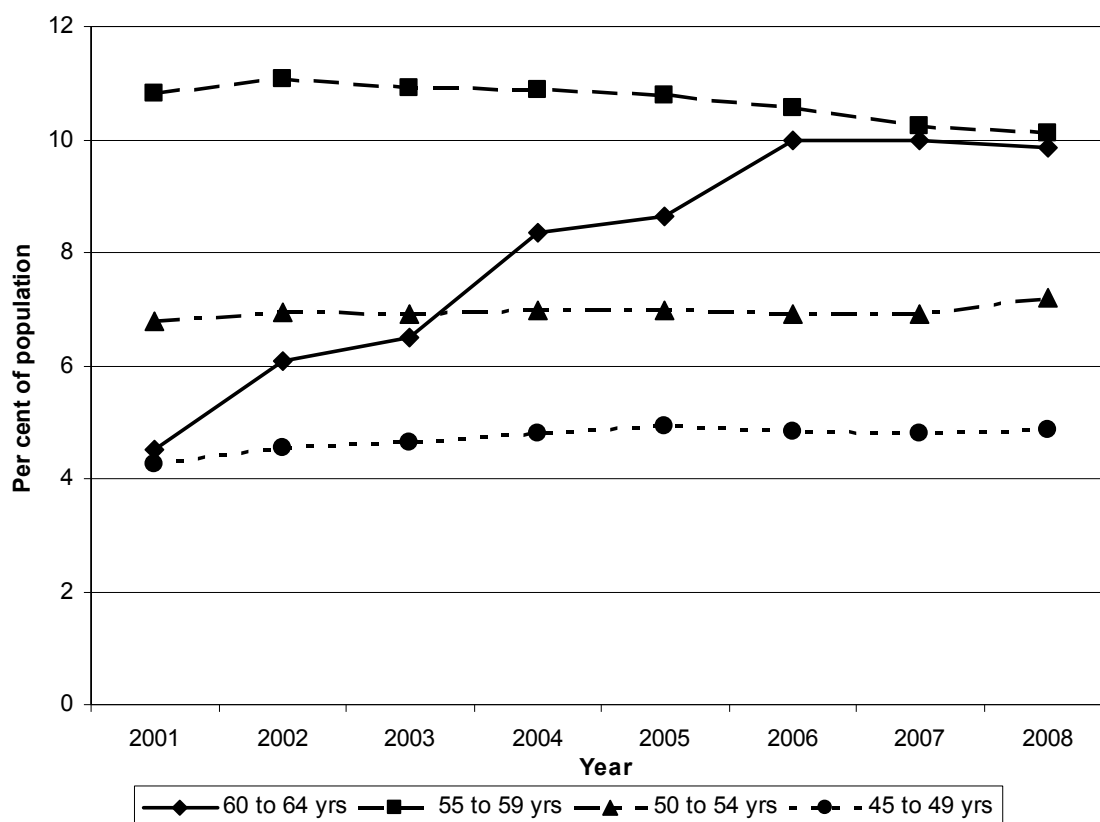
The proportion of the female population aged 60 to 64 years receiving the DSP more than doubled in the period 2001-2008 while that for younger age groups remained largely unchanged (figure 7.6). In the 60 to 64 years age group this is associated with a rise in the eligibility age for the Age Pension. As discussed above, commencing on 1 July 1995, the eligibility age for women to receive the Age Pension has been progressively increased from 60 years so that by 1 July 2013 the eligibility age will equal that for men at 65 years. Prior to this change women over 60 years would not have been eligible for the DSP because they would already be eligible for the Age Pension.

Nevertheless, the increase in the numbers of mature aged women on DSP is also consistent with some mature age women viewing the DSP as part of a transition to retirement on the Age Pension. Just under half of all women who exit the DSP transfer to the Age Pension (46 per cent) or other payments (3.9 per cent) while only a small number returned to work (9.6 per cent) (Cai et al 2006). It would be expected that among women approaching retirement age the proportion exiting the DSP and transferring to the Age Pension would be even greater.

Significant changes to the DSP were introduced as part of the ‘Welfare to Work’ reforms in the 2005-06 Federal Budget³, with the objective of tightening eligibility requirements for new applicants for the DSP. These changes did not affect those who were already in receipt of the DSP on 10 May 2005 and would therefore not affect the stock of those already in receipt of the DSP (Centrelink 2010e). However, the changes may impact on the inflow of new entrants due to the new assessment criteria. Data show that the rate of DSP recipients in the 60 to 64 years age group has remained unchanged in recent years even though the effects of the rise in the Age Pension eligibility age continue to operate. Restricting the accessibility of DSP may have reduced the flow towards the DSP as a means of transitioning to retirement.

³ Prior to 2006, applicants were eligible to receive the DSP if they were unable to work 30 hours per week. Since July 2006 only applicants who have been assessed as unable to work 15 hours per week are eligible to receive the DSP. Those assessed as being able to work 15-29 hours per week have had an obligation to seek part time work and receive an enhanced Newstart Allowance. (Centrelink 2010d, 2010f)

Figure 7.6 Trends in Disability Support Pension receipt for women^a



^a For 2001 to 2008, as a percentage of the population.

Source: FaHCSIA (2010), ABS (2009f).

Superannuation

As noted above, around 11 per cent of women reported superannuation as their major source of income in retirement in 2009. This is a much lower proportion than for men and reflects the lower average balances that women have in their superannuation accounts. There are several possible reasons for this. Women are more likely to experience discontinuous workforce participation, have a higher prevalence of part time work, and work in lower paid occupations. It has been argued that, as a result of lower contributions over time, women have missed out on the benefits of Australia's superannuation system. This difference has been labelled the 'other' gender wage gap by Jefferson and Preston (2005).

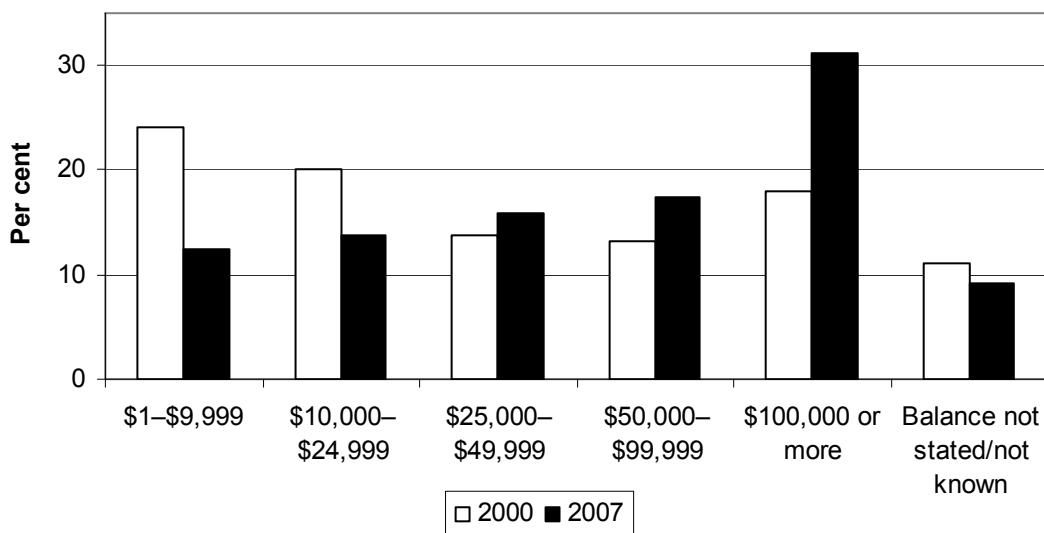
While superannuation balances for women are lower than those for men they have been increasing for mature aged women. Figure 7.7 shows that in the period 2000-2007 the proportion of women with superannuation balances below \$25 000 has fallen, while the proportion of women with superannuation balances above this

amount has risen. While the proportion of women with a superannuation balance over \$100 000 has been increasing strongly (from 17.9 per cent of women aged 55 to 64 years in 2000 to 31.2 per cent in 2007) it is still below that of men (43 per cent in 2007). This trend of increasing superannuation balances for women is expected to continue. It is estimated that by 2040 average superannuation balances for women aged 55 to 64 years will be \$200 000, although significant growth in the average balances for both women and men implies that women's balances are projected to rise from 50 per cent to 60 per cent of balances for men at the same age (AMP NATSEM 2009).

During the period 2004-05 to 2006-07 the proportion of women who retired at age 55 to 59 years who had contributed to superannuation for longer than 15 years increased from 36 to 43 per cent. Not surprisingly, the length of time women contributed to a superannuation scheme increases with retirement age. In 2007 only 27 per cent of women who had retired aged 45 to 54 years had contributed to superannuation for 15 years or more compared to 46 per cent of women who retired aged 60 to 64 years (ABS 2009e).

The expectation of women who are still working is that superannuation will play a significant role in their retirement income. Among women in the workforce aged 45 years and over, 47 per cent expect their main source of income at retirement to be from superannuation or an annuity (ABS 2009d).

Figure 7.7 Superannuation balances for women aged 55 to 64^a



^a Refers to the average balance for women with superannuation between 2000–2007 in 2007 dollars.

Source: ABS (2009b).

At present women and men can access their superannuation from the age of 55 years (the ‘preservation age’). In 1997 the Government announced that from 1 July 1999 all future superannuation contributions would be preserved until the preservation age which will be progressively increased to 60 years between 2015 and 2025 (Warren 2008b).

The gap between the age at which the Age Pension can be accessed (67 years at the end of the transition period in 2023) and the lower age at which superannuation benefits can be accessed (60 years at the end of the transition period in 2025) may have an impact on the participation of mature aged women in the workforce. The steady rise in superannuation balances, and proposed increases in compulsory contributions, will enable a larger number of mature age women to rely on superannuation as their primary source of income, at least in the early years of retirement. Those women who have accumulated sufficient superannuation entitlements will be able to take advantage of the younger age at which superannuation can be accessed to retire up to seven years earlier than the minimum age for accessing the Age Pension. This can be expected to have an impact on the rate of participation in the workforce of women in the 60 to 67 year age bracket.

In July 2005, the Government allowed people in employment who had reached their preservation age to access their superannuation as a non-commutable income stream, thereby enabling mature aged workers to supplement reduced earnings with superannuation entitlements. This was intended to remove a disincentive to work for those preferring a phased reduction in their workforce commitments. From July 2007, superannuation benefits taken as a pension after the age of 60 years have been either tax free or subject to a reduced rate of tax (Australian Government 2006). The removal of taxes placed on superannuation withdrawals after the preservation age will decrease the implicit taxes imposed on those who continue to work.

The survey evidence of mature aged women’s reasons for retiring and the international evidence suggest that changing age pension eligibility requirements and implicit tax rates will be factors for consideration by some mature aged women when deciding to retire or not. But the extent to which such changes will increase the overall participation rate of mature aged women is uncertain. Many other factors also affect the decision of mature aged women to retire such as sufficient workplace flexibility to allow working hours to be tailored to individual preferences, whether their partner is working, whether they have caring responsibilities and their own health status.

APPENDICES

A Model specification

The econometric model used to describe the roles played by the year, age and cohort effects on women's labour force participation rates is based upon a technique developed by Beaudry and Lemieux (1999) in their work using Canadian labour market data. This approach was also employed in Abhayaratna et al (2008) when examining part time employment in Australia.

The decision by a woman to engage in the labour market is binary in nature (that is, a woman decides to participate in the labour market or not). For women as a group the proportion who participate in the labour market will lie between 0 and 1. This is the equivalent to modelling the odds of a woman participating in the labour market. Accordingly, the values of the dependent variable, the participation rate (PR) can be similarly constrained by the following logistic transformation:

$$\text{Ln}PR = \text{Ln}\left(\frac{PR}{(1-PR)}\right)$$

The dependent variable, the participation rate, is for cohort j at time t expressed in the form:

$$\text{Ln}\left(\frac{PR_{jt}}{(1-PR_{jt})}\right)$$

As noted in chapter 2, the year effect captures the effects of short term events that occur contemporaneously with changes in participation. In this study, in common with other approaches, only one macroeconomic variable is used — the unemployment rate among men 25 to 44 years. This variable changes in the short term in response to labour market conditions because the prime age male labour force participation rate has remained relatively stable in the longer run. That is, this variable captures, as far as possible, the short term fluctuations in the labour market as affected by changes in labour demand relatively unaffected by changes in labour supply.¹

¹ A common issue with cohort analysis surrounds the problem of collinearity between the year, age and cohort effects, the identification problem. The age of the cohort j in time t , $A_{jt} = t-j$. That is, the age is a simple combination of the year and birth year. This introduces the problem

A simple model would treat each of the cohort and age variables independently. That is, the cohort effect would have the same effect on every age group and result in an equal upward displacement of the participation lifecycle curves. However, from inspection of figure 2.5 it appears that the shapes of the lifecycle curves have changed as well as being upwardly displaced, that is the typical ‘M shaped’ curve has become less pronounced. This implies that the cohort effects have operated differently across the age groups. Accordingly, it is appropriate that age — cohort interaction terms be employed to allow the age effect to differ from one cohort to another.

The following specification of the model includes this interaction:

$$\text{Ln}\left(\frac{PR_{jt}}{(1-PR_{jt})}\right) = \alpha + \lambda UR_t + \beta_1 A_{jt} + \beta_2 A_{jt}^2 + \beta_3 A_{jt}^3 + \gamma_1 C_j + \sigma_1 A_{jt} C_j$$

Where PR_{jt} is the participation rate for cohort j in time t , UR_t is the unemployment rate for men 25 to 44 years in time t , A_{jt} is the set of age variables for cohort j at time t , which captures the lifecycle changes in participation and with A_{jt}^2 and A_{jt}^3 is expressed as a polynomial which describes the non-linear association between participation and age. C_j is the set of variables for cohort j which captures the social phenomenon that women in a birth group share which sets them apart from other birth groups. $A_{jt}C_j$ represents the age and cohort interaction allowing for the possibility of different cohort effects across the age groups.

The data for this analysis are taken from the ABS Labour Force Survey, which provides data on the age and employment status of the population for the period since 1966. The data are collected for twelve 5 year age groups from 15 to 19 year to 70+ years.

The oldest cohort included in the analysis are those women born in the late 19th century, with the youngest cohort’s members born late in the last decade of the 20th century. There are eighteen 5 year cohorts ranging from those born between 1901 and 1906 and those born between 1987 and 1991. The older and younger cohorts have fewer observations than other cohorts, but no cohort can be tracked throughout its working life — the length of a 40 year data base is clearly too short to capture any cohort’s entire working life.

of perfect collinearity among the explanatory variables. This study assumes that the year effect is represented by the macroeconomic variable, UR_t , which varies over time according to economic conditions. It is therefore not a simple combination of age and cohort, and overcomes the identification problem.

Table A.1 provides the results of various model specifications for women's participation rates. The short term fluctuations of the labour market as represented by the variable UNEMPLOYMENT were not found to have had a significant impact on women's participation rates (Model 1). All models describe a close fit between actual and estimated participation rates for women. The estimated cohort effects describe a process of upward shifts in the lifecycle participation curve with stronger cohort effects for older age groups. Model 2 is the preferred model which captures these age and cohort effects with parsimony.

Table A.1 Estimated models of Ln (PR/(1-PR))

	Model 1	Model 2	Model 3	Model 4
CONSTANT	-0.76	-0.79	-1.65	1.06
(t-statistic)	(-0.99)	(-1.04)	(-2.90)***	(2.22)**
UNEMPLOYMENT	-0.01	--	--	--
(unemployment rate for men 25-44 years)	(-0.44)			
AGE	-0.94	-0.94	-0.64	-1.46
(lower age of age group/10)	(-2.17)**	(-2.18)**	(-1.61)	(-3.53)***
AGE^2	0.49	0.49	0.46	0.53
	(4.85)***	(4.87)***	(4.62)***	(5.06)***
AGE^3	-0.06	-0.06	-0.06	-0.06
	(-8.15)***	(-8.20)***	(-8.05)***	(-7.90)***
COHORT	0.21	0.21	0.31	--
(birth year-1900)/10	(3.02)***	(3.02)***	(8.57)***	
AGE*COHORT	0.02	0.02	--	0.06
	(1.66)*	(1.67)*		(7.89)***
DATA ¹	0.32	0.35	0.37	0.20
	(2.32)*	(2.95)**	(3.07)***	(1.76)*
Diagnostic tests				
Adjusted R2	0.97	0.97	0.97	0.97
Schwarz criterion	0.50	0.45	0.43	0.51
Akaike info criterion	0.27	0.25	0.26	0.34
F-statistic	405.21	477.71	559.76	517.47
*** 1% significance	* 10% significance			N = 84
** 5% significance				

Note: (1) The data used was yearly averages of monthly labour force data 1981, 1986, 1991, 1996, 2001 and 2006 and August labour force data for 1966, 1971, 1976. A dummy variable, called DATA, was used to account for changes arising from the different basis of the earlier data.

Data Source: ABS (6291.0.55.001, LM8 Data Cubes and 6204055001 ITS0002 Table 4, Labour Force Historical Time Series, Australia).

B Gender pay gap by occupation and industry

Table B.1 **Gender pay gap by occupation, August 2008^a**

	<i>Female Hourly rate</i>	<i>Male Hourly rate</i>	<i>Ratio of female to male earnings</i>	<i>Gender pay gap</i>	<i>Female share of total employment^b</i>
	(\$)	(\$)	(%)	(%)	(%)
Professionals	35.00	42.60	82.2	17.8	51.2
Technicians and trades workers	23.20	28.80	80.6	19.4	13.3
Community and personal services workers	23.50	29.10	80.8	19.2	69.2
Clerical and administrative workers	24.80	28.60	86.7	13.3	75.6
Sales workers	21.70	26.60	81.6	18.4	61.8
Machinery operators and drivers	24.90	26.80	92.9	7.1	8.2
Labourers	19.70	22.70	86.8	13.2	35.6
TOTAL	27.60	31.00	89.0	11.0	45.7

^a Relates to average weekly cash earnings and hours paid for adult full-time non-managerial employees. ^b As at November quarter 2009.

Source: ABS (Employee Earnings and Hours, Cat. no. 6306.0) and ABS (STEO5_Aug94, 2009).

Table B.2 Gender pay gap by industry, August 2008^a

	<i>Male Hourly rate</i>	<i>Female Hourly rate</i>	<i>Ratio of female to male ordinary time hourly cash earnings</i>	<i>Gender pay gap</i>	<i>Female share of total employment^b</i>
	(\$)	(\$)	(%)	(%)	(%)
Mining	46.60	36.10	77.5	22.5	12.7
Manufacturing	27.40	24.70	90.1	9.9	27.1
Electricity, gas and water	33.10	30.40	91.8	8.2	22.3
Construction	30.70	26.40	86.0	14.0	12.4
Wholesale trade	27.80	24.80	89.2	10.8	32.2
Retail trade	23.00	21.70	94.3	5.7	56.4
Accommodation and food services	21.70	21.20	97.7	2.3	56.3
Transport, postal and warehousing	27.70	27.30	98.6	1.4	23.6
Information media and telecommunications	36.40	30.40	83.5	16.5	43.2
Financial and insurance services	41.70	30.40	72.9	27.1	51.9
Rental, hiring and real estate services	29.00	24.30	83.8	16.2	50.8
Professional, scientific and technical services	40.30	28.90	71.7	28.3	42.9
Administrative and support services	27.90	25.40	91.0	9.0	49.9
Public administration and safety	33.40	30.80	92.2	7.8	48.2
Education and training	34.60	33.10	95.7	4.3	69.3
Health care and social assistance	36.60	28.00	76.5	23.5	78.8
Arts and recreation services	29.00	24.10	83.1	16.9	48.2
Other services	24.00	22.30	92.9	7.1	43.4
TOTAL	31.00	27.60	89.0	11.0	45.7

^a Relates to average weekly cash earnings and hours paid for adult full-time non-managerial employees. Does not include wage data for employees in Agriculture, forestry and fishing. ^b As at November quarter 2009.

Source: ABS (Employee Earnings and Hours, Cat. no. 6306.0) and ABS (STEO5_Aug94, 2009).

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