



FAIR WORK  
AUSTRALIA

# Research Report 1/2010

---

## **An overview of compositional change in the Australian labour market and award reliance**

David Rozenbes, Minimum Wages and Research Branch—Fair Work Australia  
February 2010

The contents of this paper are the responsibility of the author and the research has been conducted without the involvement of members of the Minimum Wage Panel of Fair Work Australia.

ISBN 978-0-9807678-0-3

© Commonwealth of Australia 2010

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Commonwealth. Requests and inquiries concerning reproduction and rights should be addressed to the Commonwealth Copyright Administration, Attorney General's Department, Robert Garran Offices, National Circuit, Barton ACT 2600 or posted at <http://www.ag.gov.au/cca>.

All research undertaken by or commissioned by Fair Work Australia for the Annual Wage Review 2009-10 has been agreed by the Research Group. The Research Group comprises a Chair from the Minimum Wage and Research Branch of Fair Work Australia, and representatives nominated by:

- Australian Chamber of Commerce and Industry (ACCI);
- Australian Industry Group (Ai Group);
- Australian Council of Social Services (ACOSS);
- Australian Council of Trade Unions (ACTU);
- Australian Government; and
- State and Territory Governments.

This paper, “An overview of compositional change in the Australian labour market and award reliance”, is the work of David Rozenbes of the Minimum Wages and Research Branch, Fair Work Australia.

David Rozenbes is grateful for comments provided by Professor Mark Wooden, Melbourne Institute of Applied Economic and Social Research and Dr Josh Healy, National Institute of Labour Studies, Flinders University.

A draft of this paper was workshopped with the Research Group prior to finalisation. David Rozenbes would also like to thank the Research Group for its comments.

The contents of this research paper, however, remain the responsibility of the author, David Rozenbes.

## Contents

<b>List of Abbreviations .....</b>	<b>3</b>
<b>Executive Summary .....</b>	<b>4</b>
<b>1 Introduction .....</b>	<b>8</b>
<b>2 Causes of compositional change.....</b>	<b>9</b>
<b>3 Data sources and issues .....</b>	<b>12</b>
<b>4 Labour market segments .....</b>	<b>13</b>
4.1 Age .....	13
4.2 Educational attainment.....	16
4.3 Occupation.....	19
4.4 Industry .....	22
4.5 Gender .....	26
4.6 Full-time and part-time .....	34
4.7 Permanent and casual employment (employment type) .....	43
<b>5 Method of setting pay .....</b>	<b>50</b>
<b>6 The effect of compositional change in the labour market on award reliance.....</b>	<b>64</b>
<b>7 Conclusion .....</b>	<b>66</b>
<b>Bibliography .....</b>	<b>67</b>

## List of Figures

Chart 1: Proportion of employed persons by age group.....	14
Chart 2: Proportion of unemployed persons by age group.....	15
Chart 3: Participation rates by age group.....	16
Chart 4: Proportion of employed persons by educational attainment.....	18
Chart 5: Proportion of employed persons by occupation.....	20
Chart 6: Proportion of employed persons with post-school qualifications by occupation.....	21
Chart 7: Proportion of employed persons by industry.....	23
Chart 8: Proportion of employed persons by industry and non-school qualification.....	25
Chart 9: Female proportion of employed persons .....	26
Chart 10: Employment-to-population ratios and participation rates by gender.....	27

Chart 11: Female proportion of unemployed persons .....	28
Chart 12: Female proportion of employed persons within industry .....	29
Chart 13: Female proportion of employed persons within occupation.....	31
Chart 14: Female proportion of employed persons within educational attainment.....	32
Chart 15: Employed persons by gender and age .....	33
Chart 16: Part-time proportion of employed persons .....	34
Chart 17: Proportion of employed persons by full-time/part-time and gender .....	36
Chart 18: Part-time proportion of unemployed persons .....	37
Chart 19: Proportion of unemployed persons by full-time/part-time and gender .....	38
Chart 20: Part-time proportion of employed persons within industry .....	39
Chart 21: Part-time proportion of employed persons within occupation .....	40
Chart 22: Part-time proportion of employed persons within age group.....	41
Chart 23: Proportion of employed persons by full-time/part-time and age group.....	43
Chart 24: Proportion of employed persons by employment type .....	45
Chart 25: Proportion of full-time/part-time by employment type.....	47
Chart 26: Proportion of gender by employment type .....	48
Chart 27: Proportion of employment type by full-time/part-time and gender .....	49
Chart 28: Proportion of employees by method of setting pay .....	53
Chart 29: Proportion of award reliant employees within industry (selected industries), ANZSIC 1993 classification .....	54
Chart 30: Proportion of award reliant employees within industry (selected industries), ANZSIC 2006 classification .....	55
Chart 31: Proportion of award reliant employees by selected industry, ANZSIC 1993 classification .....	56
Chart 32: Proportion of award reliant employees by selected industry, ANZSIC 2006 classification .....	57
Chart 33: Proportion of award reliant employees within occupations, ASCO (second edition) classification .....	58
Chart 34: Proportion of award reliant employees within occupations, ANZSCO classification.....	59
Chart 35: Proportion of award reliant employees by occupation, ASCO (second edition) classification....	60
Chart 36: Proportion of award reliant employees by occupation, ANZSCO classification .....	61
Chart 37: Proportion of method of setting pay by gender.....	62
Chart 38: Proportion of method of setting pay by full-time/part-time .....	63
Chart 39: Proportion of method of setting pay by employment type.....	64

## List of Abbreviations

ABS	Australian Bureau of Statistics
AFPC	Australian Fair Pay Commission
AIRC	Australian Industrial Relations Commission
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ASCO	Australian Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASCO	Australian Standard Classification of Occupations
AWIRS	Australian Workplace Industrial Relations Survey
DEEWR	Department of Education, Employment and Workplace Relations
EEH	Employee Earnings and Hours
OECD	Organisation for Economic Co-operation and Development
OME	Owner managers of enterprises

## **Executive Summary**

This paper analyses types of compositional change in the Australian labour market and in industrial arrangements with a particular focus on award reliance. It analyses compositional changes to separate labour market segments followed by a description of changes to award reliance. A comparison is then made between these changes to determine whether compositional change examined in the labour market had an affect on the proportion of employees reliant on awards.

### **Data sources and issues**

All of the data used in the analysis is sourced from the Australian Bureau of Statistics (ABS) and the particular surveys were chosen for their comparability and consistency, however this was not always achievable. Limitations on data frequency effect how some of the labour market data is presented. Consistent measures of industrial arrangements only began in 2000 and this is a major limitation to this research.

### **Labour market segments**

#### **Age**

The age of the labour force has undergone significant compositional change as evidenced by a marked shift towards employment of older people. Over the period, there was an increase in the proportion of employment comprised by older age groups and a reduction in the proportion of younger age groups. Together with demographic change, the age composition of employment is also affected by the participation rates of each age group. Participation rates for the older age groups increased strongly over the period.

#### **Educational attainment**

Educational attainment is one type of variable that has been used as a proxy for skill in previous studies. Higher levels of educational attainment became more common amongst employed persons between 1993 and 2009, implying that over the period employed persons became more skilled. This was influenced by the strong increases in both the demand and supply of skilled labour as returns to education increased considerably over time period.

#### **Occupation**

Occupation groups have also been used as a measure of skill. Some evidence of the increase in demand for higher-skilled labour is shown among the occupation groups. Professionals had the highest proportion of employment between 1997 and 2009, and this proportion increased over the period. The only other occupation groups to have increased their share of employment over the period were Managers and Community and personal service workers.

#### **Industry**

Reallocation of labour across industries occurs at a higher rate than net aggregate employment growth. The most noticeable result from the proportion of employment by industry was the fall in the proportion of Manufacturing. The industries that grew the strongest over the period were Health care and social assistance, Professional, scientific and technical services and Construction.

Most industries experienced some form of change within their occupational composition from the late 1990s. The growth in Community and personal service workers was one reason for the higher share of employment for Health care and social assistance (and vice versa). Almost all industries had an increase in the proportion of employed persons with a non-school qualification. For all industries except for Accommodation and food services, the composition of employment by age moved towards an older workforce.

### **Gender**

The patterns of male and female employment growth have been very different. Increases in the female employment-to-population ratio and participation rate have increased their proportion of employment. On the other hand, the male participation rate decreased to around 2004 before increasing slightly to 2009.

Most industries had a higher proportion of male than female employment, though the number of industries was less in 2009 than it was in 1991. Health care and social assistance and Education and training had the highest share of female employment within an industry over the period. The proportion of employed females also increased within most occupations meaning that the increase in female employment was not concentrated in only a few occupations.

An increase in the proportion of employed females occurred within each of the non-school educational attainment groups. While this represented an increase in total female employment over the period, it also suggested that the females entering employment were doing so with relatively higher education levels than in the past. Looking at the trends across age groups, for both males and females there was a decrease in the proportion of employment aged under 45 between 1991 and 2009.

### **Full-time and part-time**

Overall, part-time employment increased across most labour market segments. The proportion of males employed full-time decreased considerably between 1991 and 2009. The female full-time employment share remained relatively steady over the period. Therefore, the decline in the proportion of male full-time employment appears to have been offset by increases in part-time employment for both males and females.

A greater proportion of part-time employment occurred within most industries. Relatively strong increases occurred within Accommodation and food services and Retail trade. Only Accommodation and food services was comprised of more part-time employment than full-time employment in 2009 and this proportion increased over the period.

The proportion of part-time employment also increased within most occupations and age groups. The effect of an increase in school retention rates on younger people is shown by the increase in the proportion of part-time employment within the youngest age groups. Falls in full-time employment, particularly in the prime working age groups, were offset by increases in both full-time and part-time employment for the older age groups.

### **Permanent and casual**

Measuring permanent and casual employment has largely depended on the interpretations of the Australian Bureau of Statistics (ABS). Permanent employment is the most common employment type and despite its proportion decreasing over the 1990s and early 2000s, its share increased over the four years

to 2008. The fall in the proportion of permanent employment during the 1990s was mainly offset by increases in casual employment. Around 20 per cent of all employees were casual in 2008.

While full-time employees were mainly employed on a permanent basis (over 70 per cent), the highest share of part-time employment was comprised of casual employees. Around half of all people employed part-time were employed on a casual basis over the period. The proportion of permanent employees by gender was similar for males and females, at over 60 per cent in 2008. The main difference between the genders was in the proportions of casual employment, where females were more likely than males to be in casual employment.

### **Method of setting pay**

Award reliance was higher in some labour market segments than others but continually fell across the whole labour market and across each segment.

A fall in award reliance occurred across most industries and occupations. Award reliant employees comprised the highest proportion of employees in Accommodation, cafes and restaurants, though this proportion decreased over the six years to May 2006. Retail trade and Health and community services also employed a relatively high proportion of award reliant employees compared with other industries. Lower-skilled occupations, such as Labourers and related workers and Elementary clerical, sales and services workers, had the highest proportions of employees reliant on awards. The composition of award reliance by occupation did not change significantly between 2006 and 2008.

Females are more likely to be reliant on awards than males. Industries such as Accommodation, cafes and restaurants, Health and community services and Retail trade, which have a relatively high proportion of employees reliant on awards, comprised a relatively high proportion of female employees.

Award reliance had a higher incidence among part-time than full-time employees. However, the proportion of part-time employees reliant on awards fell considerably from May 2000 to August 2008. Award reliance was the most common method of setting pay among casual employees but the least common for permanent or fixed-term employees.

### **The effect of compositional change in the labour market on award reliance**

Changes to Australia's industrial relations system are likely to have had an impact on the types of industrial instruments that set employed persons' pay, however these effects are difficult to quantify. Labour market composition can affect award reliance when the proportion of a particular group that has a relatively high (low) reliance on awards increases and consequently total award reliance increases (decreases).

Some industries with relatively high award reliance also had relatively strong increases in the proportions of employment. Changes in industry composition impact on female employment and part-time and casual employment. Part-time and casual employment had a relatively higher reliance on awards than full-time or permanent employment. This would mean that an increase in part-time or casual employment would be expected to increase award reliance. The proportion of female employment continually increased over the 1990s and 2000s which would also be expected to increase award reliance amongst employees.

Within the context of decreasing award reliance and increasing agreement making, industry, gender, part-time and casual employment indicators showed increases in labour market segments that had a relatively higher proportion of award reliant employees, in opposition to the general trend. It appears from the analysis that the demand for higher skills had a contrasting effect to the above indicators, as employed



persons who are reliant on awards are more likely to be less-skilled and have lower educational attainment levels, and therefore a decline in the proportion of employed persons without non-school qualifications, all other things being equal, is likely to contribute to a fall in award reliance.

## 1 Introduction

Noticeable change has occurred to the composition of the Australian labour market since the early 1990s. This paper analyses types of compositional change in the Australian labour market and in industrial arrangements with a particular focus on the proportion of award reliance. It analyses separately compositional changes to different labour market segments, particularly to employed persons, and changes to award reliance. A comparison is then made between these changes to determine whether compositional change in the labour market affected the proportion of employees reliant on awards.

Studies analysing the nature of compositional change in Australian have been undertaken over the last couple of decades, however there has been less research in recent years as Australia's economy continued to grow and then more recently slow. This paper provides an update using the most recent labour force data releases. Furthermore, it is able to incorporate the latest data on award reliance into its examination of industrial arrangements. An employed person who is reliant on an award has their pay set at the rate of pay specified in the award and are not paid more than that rate of pay.<sup>1</sup> The aim is to identify some important changes to the labour market that are relevant to wage-setting, including aspects that are less well-known than others. These changes affect the number and types of employees reliant on awards.

The analysis in this paper focuses on the proportion of workers within a particular labour market segment, not the growth rates or levels. It extends some of the analysis undertaken in Rozenbes and Mowbray (2009) that looked at the changing composition of industries over a one-year period. This method, though not necessarily showing which segments grew and by how much, shows how segments grew relative to others and their overall employment share within each labour market segment. It also extends the paper by analysing a greater number of labour market segments. The particular labour market segments analysed were chosen because changes to the composition of these segments were major features of compositional change in the labour market and of structural change in the economy. They also have the potential to affect the composition of award reliance more than other segments. The availability of more consistent, reliable and frequent data facilitated the analysis.

Many of the compositional changes to the different labour market segments are not limited to only one segment. Changes in one labour market segment may cause or be related to changes in one or more segments. The section analysing the labour market segments is structured to give a description of how compositional changes flow through each segment. However, because this does not always occur in one direction, there is some overlap between sections. This adds to the complexity of the labour market.

Demographic change, mainly driven by population ageing, caused significant change to the age structure of employment over the analysed period, especially in increasing the number of older to younger employed persons (Section 4.1). This was also caused by a rise in the number of younger people remaining in education to obtain higher qualifications. Returns to education increased over the period, evidenced by an increase in educational attainment levels among employed persons (Section 4.2). Educational attainment has been used in previous studies as a measure of skill and this result highlights the greater demand for higher-skilled labour. Another labour market segment used as a measure for skill is a person's occupation. Compositional change towards a higher-skilled workforce is also evident in the analysis for this labour market segment (Section 4.3).

---

<sup>1</sup> This is the definition used by the Australian Bureau of Statistics (ABS) for the Employee Earnings and Hours survey which is used in this paper to measure award reliance. However, this likely understates the true number of employees affected by wage-setting decisions as some employees are indirectly affected through flow-on effects.

Changes to the occupational structure of employment effect the industrial composition of employment (and vice versa). The analysis of industries shows significant decline in the employment share of some industries and increases in others (Section 4.4). Changes to the proportion of employment by industry have also influenced the increase in the employment of females, whose share of employment increased over the period (Section 4.5). Both female and male employment increased largely because of a rise in part-time employment (Section 4.6). Males also increased their proportion of casual employment over the period employment (Section 4.7).

There are other types of labour market segments that this paper does not analyse which are nevertheless important to understanding changes in the composition of employment and of award reliant employees. Changes to employment by region or by state can reveal how labour markets have adjusted to different economic growth rates across the country.<sup>2</sup> Employment data by business size may suggest a relationship between the size of firms and award reliance for setting rates of pay.

The analysis on method of setting pay is highlighted by a distinct fall in the proportion of employees who were reliant on awards to set their rate of pay. Falls in award reliance occurred across most industries and occupations, for both males and females, people employed on a full-time and part-time basis and for permanent and casual employment. This decline was offset by increases in both collective and individual agreements over the period.

This paper analyses different segments of the labour market and discusses how they have changed and are connected.

## 2 Causes of compositional change

Changes to the composition of various labour market segments stem from changes to the structure of the economy. Structural change adjusts the composition of an economy by reallocating resources from one activity to another. Compositional change in a labour market occurs when the shares of employment change in response to movements in the demand for and supply of labour. Changes to the composition of some labour markets have been taking place for longer than others depending on what initiated the change, such as demography change or technology.

Downes and Stoeckel (2006:1) described structural change as 'the process by which an economy is progressively transformed over time'. The authors explained that driving forces behind structural trends come from both domestic factors, such as productivity and demand, and international factors, most notably globalisation.

Structural change is a natural feature of modern advanced economies. OECD (2002:4) explained that while all OECD countries are moving towards a service-oriented economy, differences in the structure of economies remain. This can affect how structural change impacts on the economy:

The pace and direction of structural change are influenced by many factors, including changes in demand patterns, international competition, productivity and technological change. Government policies – e.g. regulatory reform and trade liberalisation – also play a role and typically aim at improving the efficiency of markets in allocating resources to economic activities.

---

<sup>2</sup> The mining boom had an impact on employment by State especially in Western Australia and Queensland but this had only a recent and small effect.

The rate of compositional change can be different over an economic cycle. Employment tends to fall at a faster rate during downturns than it increases during expansions – that is, the relationship between employment and output is asymmetric (Borland and McDonald 2001).<sup>3</sup> Borland and McDonald (2001:20) explain that:

It seems that the main potential explanations for the higher rate of displacement are either an increase in the magnitude of intra-industry workforce adjustment, or a rise in the extent to which organisations used displacement as a method for adjusting their workforces.

As noted by the Productivity Commission (1998), the variability in job turnover strongly reflects cyclical factors. According to Mitchell et al (2005), job destruction does not react to positive GDP growth in any significant way but rises sharply when GDP growth is negative. Fahrner and Heath (1992:53) argued that structural change accelerates during recessions, stating that:

In addition to being periods of temporarily slow aggregate economic activity, recessions are also periods of accelerated structural change. Viewed in this light, the slow fall in unemployment following a recession is readily explainable. While the purely cyclical increase in unemployment is eventually reversed, the recession-induced structural adjustment is not.

Some studies have tried to determine the pace of structural change in Australia. Using an index measuring the composition of industry employment, de Laine et al (1997:16) found that:

The overall rate of structural change in employment has been stable over time and did not increase substantially after the mid 1980s, when most microeconomic reform took place.

Labour markets are affected by structural change as it causes labour to be reallocated across different segments. Previous research has noted that the Australian labour market is constantly adjusting to external and internal shocks that affect how labour is allocated. Freebairn (1998:110) explained that:

Changes in aggregate demand, tastes and preferences, technology, institutions and government policies, and world trade conditions are examples of secular, cyclical and random forces for change. They induce changes in decisions of households to offer labour and acquire skills, and in decisions of firms to hire labour. Price, quantity and quality signalling mechanisms are involved in directing and co-ordinating labour market responses to the shocks.

How the labour market adjusts to changes in demand and supply is also influenced by the extent and ease of labour mobility or turnover. That is, the ability of people to move between jobs. The Productivity Commission (1998:64) described mobility as having several elements:

...it can involve a change of job between firms in the same industry, a movement between firms in different industries, or a change in occupational type. It may also involve a change in location. Where industries and/or regions are subject to general decline, the potential for interindustry and locational mobility are important for accommodating adjustment.

Freebairn (1998:128) outlined how shifts in the demand for various labour market segments could change the composition of the labour market:

---

<sup>3</sup> However, there is usually a lag between growth in GDP and employment. Freebairn (1998) explains that a lag occurs as firms need time to adjust for lower output.

Industries, occupations, skill levels, hours of work categories etc. with high and rising employment and/or with high vacancies and low unemployment draw potential employees towards them and away from labour categories with low and declining employment and/or with low vacancies and high unemployment.

OECD (2009:118) added that the process of labour mobility can be beneficial for society:

This continuous process of labour reallocation is largely driven by market forces, which create better business opportunities and destroy inefficient production activities. Indeed a growing body of evidence suggests that the firm entry and exit process, as well as the reallocation of resources from declining to expanding businesses, contributes significantly to productivity and output growth... From the perspective of workers, labour reallocation is also a process through which better job opportunities are created and seized... Continuous reallocation is therefore one of the engines of economic growth and welfare enhancement.

While job flows reflect reallocation driven by labour demand, worker flows are the result of demand, supply and matching factors, which depend on both firm and worker characteristics (OECD 2009). However, OECD (2009:118) noted that while continuous reallocation drives economic growth and raises the standard of living for those who participate in the economy, it is not without costs to both firms and workers:

Opening and filling new vacancies is costly for firms. Searching for, and switching to, new jobs is also costly for workers, particularly when it was not their choice to separate from their previous job... But these costs can be counterbalanced by additional benefits. From the perspective of firms, new recruits bring new skills that enlarge the firm's knowledge base and facilitate the adoption of new technologies. Similarly, the opportunities to change employers create incentives for workers to invest in general human capital. Nevertheless, the costs and benefits of mobility are not uniformly distributed across workers and labour reallocation has important distributional consequences.

The potential downfalls from labour reallocation occur when people are unable to move between sectors of the labour market as some decline and others expand. OECD (2009:133) noted that while market forces can provide a path to better opportunities through the creation of jobs, workers forced to reallocate may be penalised:

When separations occur at the initiative of the employer, displaced workers often experience periods of joblessness as well as possible wage penalties and lower job security once they find another job.

The composition of the labour market is also affected by productivity growth through its impact on prices and incomes (Freebairn 1998). Productivity growth can lead to both increased and decreased employment, as improved productivity and consequently demand for a product can induce higher labour demand, while more efficient work practices can result in lower labour demand. Barnes et al (1999) found at the industry level that employment decreased in some industries and increased in others where productivity growth improved.

The changing nature of labour supply has been an important mechanism for the changing composition of the labour market. Population growth, as well as an increase in the share of the population seeking employment, has led to strong growth in the supply of labour (Productivity Commission 1998).

Structural change has caused significant changes to Australia's labour market including to the supply of labour. Productivity Commission (1998:xxi) summarised that it has:

...influenced the number of people making themselves available for employment and the number and types of jobs available. Job growth has not been sufficient to absorb the increase in the supply of labour, so that unemployment and underemployment have increased considerably.

However, the total effect of labour supply has more recently been matched by a changing nature of labour demand shown by the unemployment rate falling continually from 1993 to 2008 as labour demand increased.<sup>4</sup>

Considerable evidence of structural change in the Australian economy has been found in the past which has affected the supply and demand for labour, causing shifts in the composition of the labour market.

### 3 Data sources and issues

All of the data used in the analysis is sourced from the ABS and the particular surveys were chosen for their comparability and consistency, however this was not always achievable. Classifications for some of the data, such as industries and occupations, changed over the analysed period making some comparisons difficult. ABS (2008)<sup>5</sup> explained that:

The increased significance of various industry sectors to the economy, in particular the service and information technology sectors, has led to the emergence of a number of new occupations. Conversely, technological and structural changes in the Australian work force have also resulted in the decline of some occupations.

The ABS' *Labour Force Survey* and its supplementary detailed releases were used as extensively as possible as they have more frequent observations and because they are considered the official labour force statistics. Other surveys used were *Education and Work* to capture educational attainment and Australian Labour Market Statistics which captures permanent and casual employees using estimates derived from the Labour Force Survey and from the *Employee Earnings, Benefits and Trade Union Membership Survey* (Catalogue No. 6310.0).

Limitations on data frequency affect how some of the labour market data is presented in the analysis. While most data is presented as averages over the year, some data was only collected once a year. For example, detailed data is available for employment by gender and full-time/part-time employment on a monthly basis in the *Labour Force Survey*, but this was not possible for employment by permanent or casual status which is collected annually. There is data for some types of employment that is available for many decades, while other types have only been collected in recent years. On all occasions, the most recent classifications are used unless specified. Where possible, averages over the year are used to remove volatility on longer time series.

To obtain a longer time series for educational attainment data where the definitions of categories varied over the period, some assumptions were made as to which categories best resembled other categories in subsequent data releases. Some categories were combined for simplicity.

---

<sup>4</sup> Underemployment remained relatively steady over this period, varying between 6.1 per cent and 7.3 per cent.

<sup>5</sup> From the section titled 'Main differences between ANZSCO and ASCO second edition'.

Consistent measures of industrial arrangements only began in 2000 and this is an issue when determining the effects of compositional change on award reliance. The ABS has only one previous estimate of award reliance which occurred in 1990, while estimates before then were based on 'awards, determinations or collective agreements'.<sup>6</sup> While assumptions can be made on what occurred between 1990 and 2000 (award reliance fell from around 67 per cent in 1990 to 23 per cent in 2000) it is still a limitation of the research as there is no data for each of the labour market segments. Therefore, comparisons between compositional change in the labour market segments and in award reliance during the 1990s are difficult.

## 4 Labour market segments

### 4.1 Age

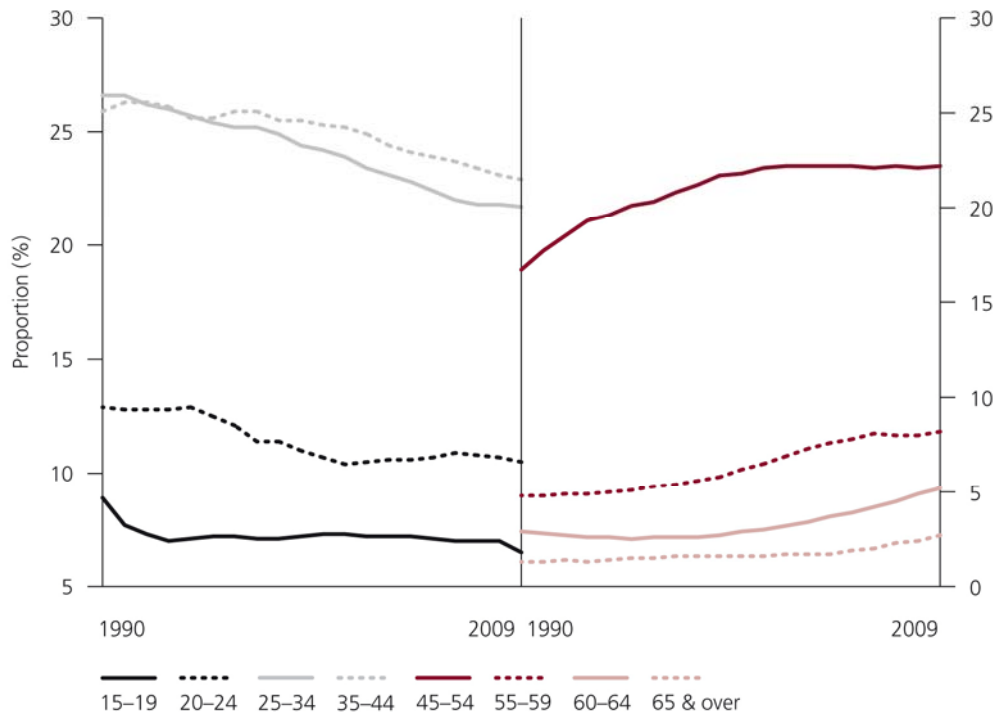
The average age of Australia's population is increasing and underlying this 'are increases in life expectancy and, to a lesser extent, reduced fertility rates' (Productivity Commission 2005:5). According to Giesecke and Meagher (2009:6) '[t]he effect of population ageing on a particular labour market is typically to slow down the increase in labour supply.' Overseas migration also plays a part, generally adding to the working age population and contributing only relatively small shares of people aged over 50 years. However, its impact on Australia's age profile has been relatively small and has not prevented population ageing (Productivity Commission 2005).

The age of the labour force has undergone significant compositional change as evidenced by a marked shift occurred towards older people. Chart 1 shows how the age composition of employment transformed between 1990 and 2009. Over the period there was an increase in the proportion of employment comprised by older age groups and a reduction in the proportion of younger age groups. Decreases in the shares of employment occurred for each of the younger age groups (left side of chart), most notably for the groups aged 25-44 years, but also for 20-24 year olds during the mid to late 1990s. This was offset by an increase in the share of employment comprised of 45-54 year olds, mainly during the 1990s, and 55-64 year olds, mainly during the 2000s. There was an increase in the proportion of the 65 years and over age group between 2005 and 2009. The progressive increases in the proportion of employment comprised by older age groups highlights the effect of the 'baby-boom' generation on the labour market. As well, older people who were employed may have remained in employment for longer due to stronger economic growth which improved their earnings potential.

---

<sup>6</sup> 'Awards, determinations and collective agreements' was the term used by the ABS in the survey. Respondents were asked whether they had coverage under an award, determination or collective agreement, which were cross-classified by other data items obtained in the survey.

**Chart 1: Proportion of employed persons by age group**



Note: Chart shows the average of the 12 months over each year.

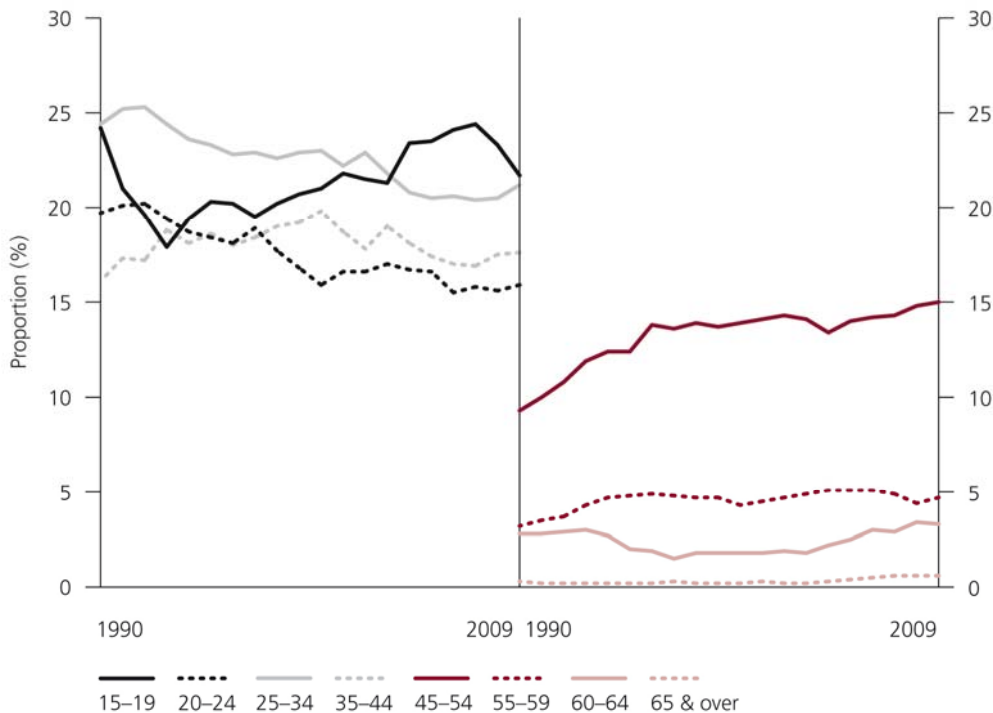
Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0; ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.001

The difficulty that the youngest age groups had in finding employment is highlighted in Chart 2. The proportion of the unemployed comprised of 15-19 year olds and 20-24 year olds is much greater than their respective shares of employment. However, few young people remain unemployed for long periods of time and a majority of those aged between 15 and 24 who are not in the labour force are attending an educational institution (Flatau et al 2007). The older age groups (35 years and above) each comprised a much smaller proportion of the unemployed than of employment. This may also be affected by the higher probability that older age groups tend to remove themselves from the labour force if they are not employed rather than look for work and remain unemployed. Older people who become unemployed eventually exit the labour force after failing to find work (Weller 2004).

Trends in the proportions of unemployed persons by age group were more volatile than for employment, especially for the younger age groups. The increase in the proportion of the unemployed comprised of 45-54 year olds was similar to what occurred to their employment share. This increase was offset by a decrease in the unemployment share for 25-34 year olds and 20-24 year olds. The changes to the proportion of unemployed persons for 15-19 year olds appear to be somewhat affected by the business cycle, as its proportion decreased strongly during both downturns (from around 24 per cent in 1990 to around 18 per cent in 1993) but increased during the growth period (to around 24 per cent by 2007).



**Chart 2: Proportion of unemployed persons by age group**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0; ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.001

Together with demographic change, the age composition of employment was also affected by the participation rates of each age group, that is, the proportion of the age group participating in the labour force by supplying themselves for work.<sup>7</sup> While slower population growth can naturally increase the average age of the workforce, as there are less young people entering the labour force, participation rates for older people have increased. Chart 3 shows that the participation rates for the older age groups increased strongly over the period, and this would have had a significant affect on the composition of employment as more older people were employed or actively looking for work.<sup>8</sup>

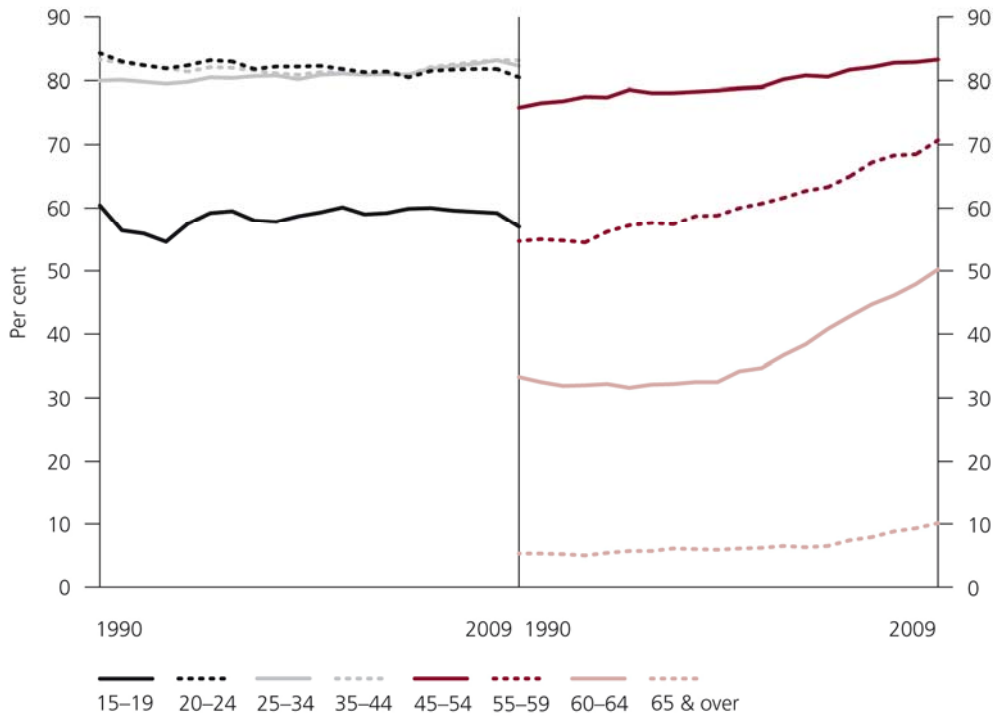
Between 1990 and 2009, participation rates for persons aged over 45 years increased, particularly the 60 to 64 year old group, which rose from around 34 per cent to around 50 per cent. This was despite participation rates for males decreasing over most of the period (see section 4.5). Therefore, much of the increase in participation rates for older people came from females. Participation rates for the younger age groups were relatively stable or declined. The trend in the 15-19 year old group again appeared to broadly

<sup>7</sup> Participation rates do not incorporate marginally attached people - those who would like to but are unable to be part of the labour force.

<sup>8</sup> Gender is also an important feature of the changes in participation rates and is discussed in section 4.5.

follow the business cycle (it fell from around 60 per cent in 1990 to 55 per cent in 1993, then increased to around 60 per cent by 2005 before falling to around 57 per cent by 2009).

**Chart 3: Participation rates by age group**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0; ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.001

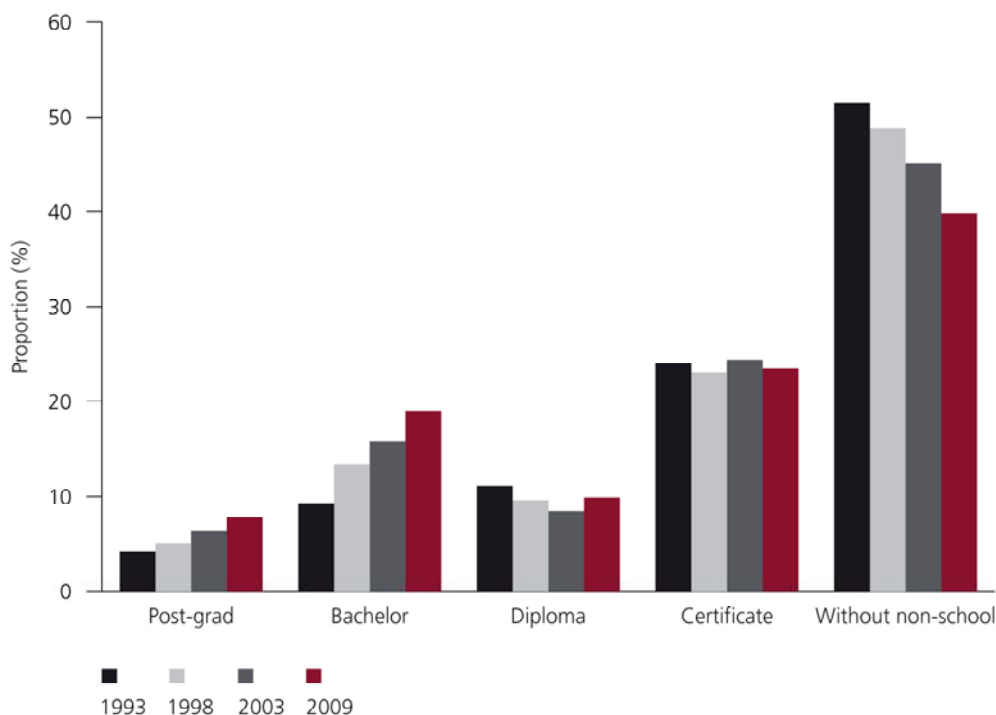
While smaller than the increases in the older age groups, the 20-24 year old group experienced a fall in their participation rate over the period. Part of the reason for the decline was an increase in the rate of participation in education for the younger age groups (Barnes et al 1999; Productivity Commission 1998). If a greater number of younger people were deferring (career) employment in order to study, then this would increase the educational attainment levels of the labour market. As well, older employed persons may have remained in employment because they were likely to be more skilled than the younger people who entered employment. The demand for people with higher skills is a feature of the next two sections.

## 4.2 Educational attainment

Educational attainment is one type of variable that has been used as a proxy for skill in previous studies. However, this is not always a reliable interpretation. Problems with using educational attainment as a measure of skill include: it does not capture the quality or number of years of schooling; the skill requirements of the job do not often correspond with the type of education undertaken; employees may

have skills in excess of those needed for the job; and on-the-job learning is not captured (Barnes et al 1999). Other studies have determined skill based on the occupations of employed persons. Occupational categories exhibit some skill-based hierarchy, however the difficulty with using this as a measure of skill is that it is possible for both skilled and unskilled workers to be allocated within a particular occupation group (Debelle and Swann 1998). While both definitions have their shortcomings, some of the previous research referred to uses these as definitions of skill which is incorporated into the discussion. However, the next two sections analyse each labour market segment separately.

Higher levels of educational attainment became more common amongst employed persons between 1993 and 2009, implying that over the period employed persons became more skilled. Chart 4 shows the proportion of the different educational qualifications of employed persons. The proportion of employed persons without non-school qualifications fell considerably over the 16 years to 2009, from being just over half of all employed persons to around 40 per cent. The proportion of employed persons with bachelor and post-graduate qualifications increased over the period, with the proportion with a bachelor degree more than doubling (from around 9 per cent in 1993 to around 19 per cent in 2009). This does not mean that those jobs previously held by workers without post-school qualifications were replaced by those with post-school qualifications, though in some instances that may have occurred.

**Chart 4: Proportion of employed persons by educational attainment**

Note: Post-grad: refers to post-graduate degree level, graduate diploma/certificate and higher degree; Bachelor: refers to bachelor degree level and degree; Diploma: refers to undergraduate diploma, associate diploma, advanced diploma/diploma; Certificate: refers to skilled and basic vocational and Certificates I-IV; Without non-school: refers to people without non-school qualifications.

Source: ABS, *Education and Work, Australia, various*, Catalogue No. 6227.0

There was a general trend towards higher levels of educational attainment among employed persons which was influenced by the strong increases in both the demand and supply of skilled labour (Debelle and Swann 1998). This is because the returns to education have increased considerably over time. The increase in the educational attainment levels of employed persons shows that people have reacted to the increase in demand for higher-skilled employment by obtaining higher qualifications in expectation of receiving higher income.

Further education has a positive impact on the likelihood of employment and workforce participation (Salma et al 2008). There is also a perception that improved qualifications lead to better job opportunities (Barnes et al 1999). Downes and Stoeckel (2006) stated that structural change leads to a higher-skilled, more productive and better-paid workforce. However, structural changes in the demand for skills have led to fewer labour market opportunities for lower-educated people (OECD 2009; Productivity Commission 1998). As the demand for less-educated employment falls, their labour market prospects become relatively weaker than for people with higher educational attainment levels.

Another explanation for the increase in the educational attainment of employed persons is skill-biased technological change. Vickery (1999:8) explained that 'technological progress has increased the productivity of skilled workers relative to unskilled workers.' Dawkins (2000:338) added that:

...technological change (e.g. computerisation and digitisation) has tended to be complementary to high-skilled labour but a substitute for low-skilled labour, thus leading to growth in demand for high-skilled labour and a decline in demand for low-skilled labour.

Educational attainment can also influence labour force participation through peoples' ability to respond to job loss. Higher-skilled people who lose their job may be less likely to experience longer periods of unemployment as they are better able to adapt to a changing labour market. Kennedy et al (2009:21) explained that higher-skilled people:

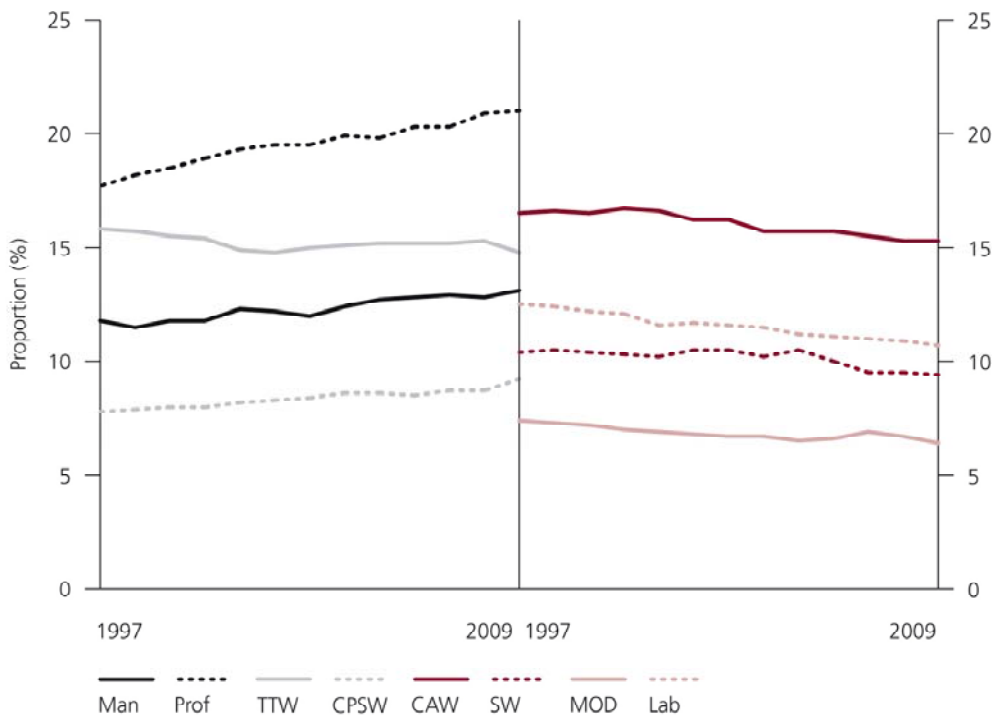
...may be more able to adapt to new employment opportunities, reskill and upskill, to adapt to a changing labour market. They may also be more geographically mobile and more able to respond to regional shifts in labour demand. It is also likely that more skilled people are able to shift into less skilled employment for short periods following job loss, opportunities that are then not available to the less skilled.

Studies on labour mobility found that people with no post-school qualifications had lower job mobility (Murtough & Waite 2000) and that people with higher skill levels were more likely to shift from retrenchment to an equivalent job (Weller & Webber 2006).

### **4.3 Occupation**

Some evidence of the increase in demand for higher-skilled labour is shown in Chart 5. Professionals had the highest proportion of employment between 1997 and 2009 which also increased over the period. The only other occupation groups to have increased their share of employment over the period were Managers and Community and personal service workers. Lower-skilled occupations such as Labourers, Machinery operators and drivers and Sales workers comprised a smaller share of employment in 2009 than they did in 1997.

**Chart 5: Proportion of employed persons by occupation**



Note: Chart shows the average of the 12 months over each year.

Man: Managers; Prof: Professionals; TTW: Technicians and trade workers; CPSW: Community and personal services workers; CAW: Clerical and administrative workers; SW: Sales workers; MOD: Machinery operators and drivers; Lab: Labourers.

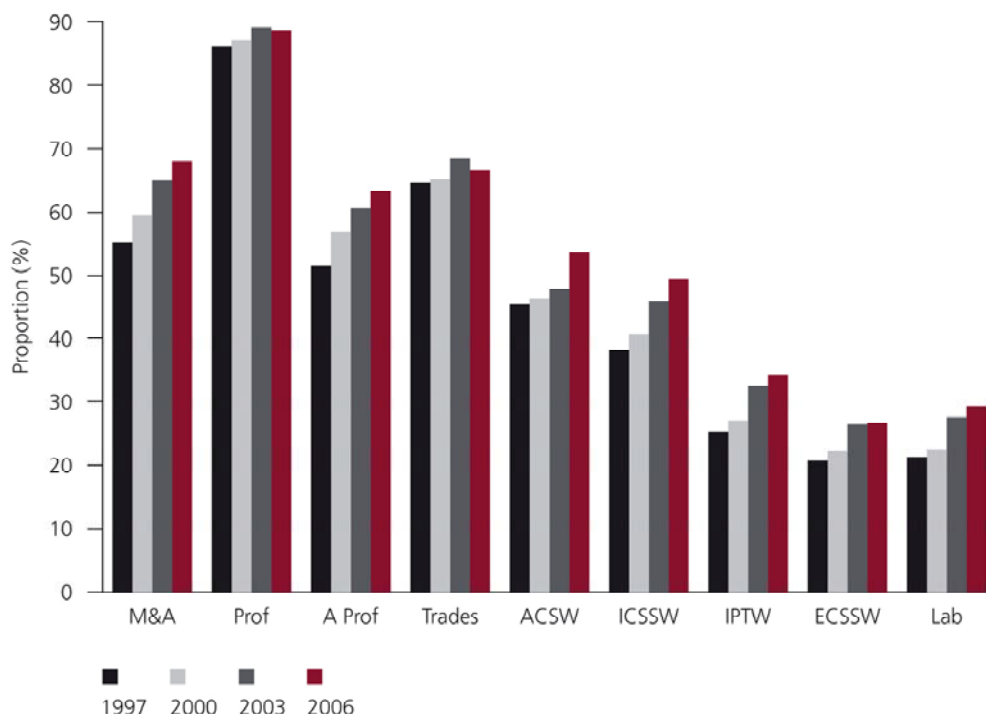
Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

Using occupations as a measure of skill, Murtough and Waite (2000) found that the probability of being re-employed was higher for those whose last job involved working in a higher-skilled occupation. Higher-skilled occupations include Managers and Professionals, while lower-skilled occupations include Labourers and Sales workers. The authors also found that some workers were less likely to change occupations once retrenched. This could have been due to supply factors, such as higher earnings for some occupations which could be linked to occupation-specific training. These workers may have less of an incentive to change occupation than other retrenched workers because of greater proportionate losses in earnings.

Combining educational attainment and occupation data shows which occupation groups have a higher proportion of employed persons with non-school qualifications. As well, some educational qualifications can be pathways to particular occupations. For example, completing a trade certificate can lead to employment that would be classified under the Tradespersons occupational category. However, a longer time series is possible only by using the former ASCO (second edition) classifications. While some occupations are very similar between the two classifications, others are very different and make comparisons difficult with the more recent ANZSCO classifications.

Some form of hierarchy based on educational attainment levels is visible in Chart 6, with Labourers and Elementary clerical, service and sales workers comprising a lower proportion of employed persons with non-school qualifications than Professionals and Tradespersons. The proportion of employed persons with non-school qualifications across each occupation group increased over the period 1997 to 2006. Increases are less obvious for Professionals and Tradespersons than for most other occupations, however these occupations had the highest proportions of workers with non-school qualifications.

**Chart 6: Proportion of employed persons with post-school qualifications by occupation**



Note: Chart shows the average of the 12 months over each year.

M&A: Managers and administrators; Prof: Professionals; A Prof: Associate Professionals; Trades: Tradespersons; ACSW: Advanced clerical and service workers; ICSSW: Intermediate clerical, sales and service workers; IPTW: Intermediate production and transport workers; ECSSW: Elementary clerical, sales and service workers; Lab: Labourers.

Source: ABS, *Education and Work, Australia, various*, Catalogue No. 6227.0

Increases in the age composition of employment were also evident across most occupations between 1997 and 2009. For most occupation groups, the proportion of workers aged 25-34 years decreased and the proportion of those aged 45 years and above increased. Some exceptions were Managers, where the proportion of 35-54 year olds decreased but increased for 55 years and above, and Professionals, where the proportion of employment decreased for 35-44 year olds and increased for those above 55 years. For Technicians and trade workers, there was a relatively large fall in the proportion of 25-44 year olds and an increase for those aged 55 years and above.

The occupational structure of employment is more likely to be related to the requirements of specific industries (Barnes et al 1999). The next section analyses employment by industry.

## 4.4 Industry

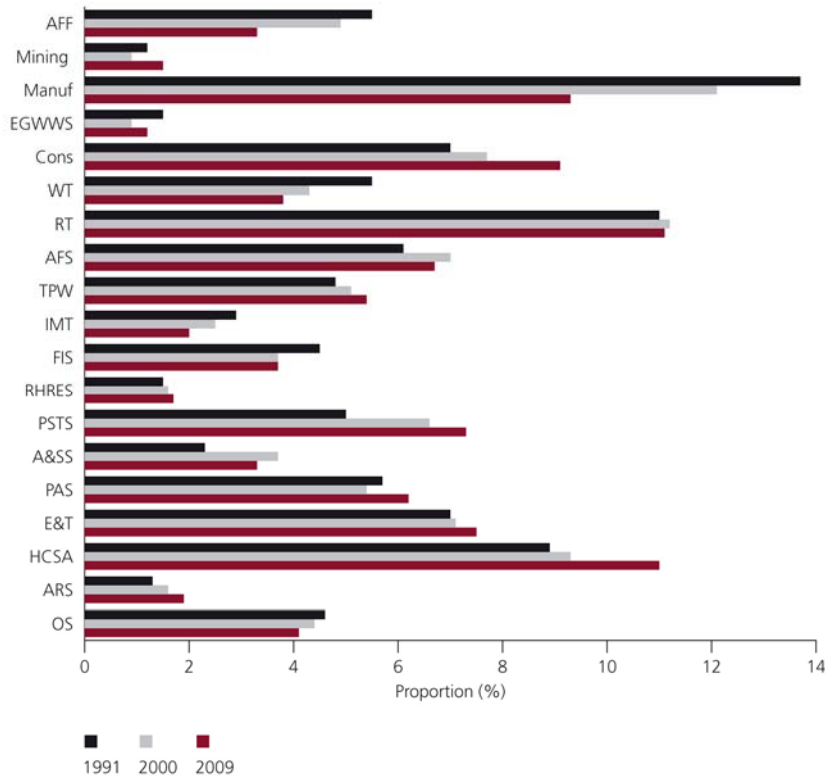
Although most labour reallocation occurs within industries, reallocation of labour across industries is three times as large as net aggregate employment growth (OECD 2009). Economic shocks often induce structural change and force inefficient firms or industries to adjust or exit the market resulting in changes to industry employment. However, some industries, such as Construction, are more influenced by economic cycles and can experience skill shortages or oversupply as the economy fluctuates (BITRE 2009).

The fall in the proportion of workers employed in Manufacturing is the most noticeable result in Chart 7. In 1991, Manufacturing had by far the largest proportion of employment at around 14 per cent. However, its share dropped to around 9 per cent in 2009 where it comprised the third highest share of employment. Another industry that had a relatively large fall in its employment share was Agriculture, forestry and fishing, which comprised almost 6 per cent of employment in 1991 and fell to around 3 per cent in 2009.

Debelle and Swann (1998) found that the industries that experienced relatively slower employment growth were those with a higher proportion of male full-time employment, such as Manufacturing and industries in the service sector that had a greater proportion of females and part-time employment experienced relatively stronger employment growth. However, Chart 7 shows that the industries that grew the strongest over the period 1991 to 2009 were Health care and social assistance, Professional, scientific and technical services and Construction. Only Health care and social assistance can claim to have a relatively high proportion of females and part-time employment (see Chart 12 and Chart 20). In 2009, Health care and social assistance was almost level with Retail trade in comprising the highest employment share of all industries, both at around 11 per cent.



**Chart 7: Proportion of employed persons by industry**



Note: Chart shows the average of the 12 months over each year.

OS: Other services; ARS: Arts and recreation services; HCSA: Health care and social assistance; E&T: Education and training; PAS: Public administration and safety; A&SS: Administrative and support services; PSTS: Professional, scientific and technological services; RHRES: Rental, hiring and real estate services; FIS: Financial and insurance services; IMT: Information media and technology; TPW: Transport and postal workers; AFS: Accommodation and food services; RT: Retail trade; WT: Wholesale trade; Cons: Construction; EGWWS: Electricity, gas, water and waster services; Manuf: Manufacturing; AFF: Agriculture, forestry and fishing.

Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

Growth in some industries can affect others through flow on effects, where employment growth in one industry can also promote employment growth in other upstream supplying industries (Productivity Commission 1998). Employment changes in some industries may indicate increasing specialisation (De Laine et al 1997) or the use of outsourcing across industry boundaries (Downes & Stoeckel 2006). For example, employment in Manufacturing has declined partly due to the contracting out of services that were previously performed in-house, such as cleaning and maintenance, that are now classified as service-sector employment (Barnes et al 1999).

A key feature of an advanced or developed economy is a high share of the workforce employed in the service industries (BITRE 2009). However, these industries tend to have larger job and worker flows (OECD 2009). A fall in employment in a particular sector should not lead to growing unemployment provided that workers who are displaced find employment in other industries. This requires other sectors to expand at the same time and for no skills mismatch to occur. However, the jobs created in the industries that

have expanded, mainly service industries, have not had the characteristics suited to workers who have lost jobs in other industries, such as Manufacturing. They have mainly been filled by new entrants to the labour force rather than by previously employed persons who lost their jobs (Fahrer & Heath 1998). Murtough and Waite (2000) found that while most people who change jobs remain in the same industry, where a change of industry does occur, it tends to be between similar industries.

A way of measuring structural change in an economy is to analyse the changing industry shares. According to Downes and Stoeckel (2006), within industries there is much occupational change occurring and that the main benefits occur within industries. They found lower amounts of inter-industry adjustment, with the possibility of an increase in intra-industry adjustment. De Laine et al (2000) found that an increase in skill occurred across all industries (and genders). That is, the growth of skilled workers occurred within industries rather than between industries. The authors argued that this has predominantly been due to technological change rather than trade patterns, as new technologies are biased towards higher-skilled workers.

An analysis of occupational change within industries was undertaken. Most industries experienced some form of change within their occupational composition from the late 1990s (ABS 2009e).<sup>9</sup> As shown in section 4.3, the highest increases in the proportion of employment by occupation were for Managers and Professionals, which are considered to be higher-skilled occupations. Increases in the proportions of these occupations were not concentrated and occurred across many industries of various types, whose employment shares both grew and declined over the period. That is, all industries have experienced an increase in skill as measured by occupations. For the occupation groups that had a reduction in their proportion of total employment, such as Labourers, Machinery operators and drivers and Clerical and administrative workers, falls also occurred across a variety of industries whose proportion of total employment both grew and declined.

Increases in the proportion of some higher-skilled occupations came at the expense of lower-skilled occupations in some industries. One industry was Manufacturing, where there was a fall in the proportion of Labourers and Machinery operators and drivers and an increase in the proportion of Managers and Professionals. This could have been the result of industry-specific factors, such as offshoring, however it is unlikely this was the case for other industries. Downes and Stoeckel (2006) explained that despite improvements in productivity, Manufacturing's proportion of employment declined. This was because the industry restructured towards advanced manufacturing and knowledge intensive activities, which mean that the falls in the proportion of employment are likely to have come from lower-skilled areas of the industry.

The growth in Community and personal service workers was one reason for the higher share of employment for Health care and social assistance (and vice versa). Between 2003 and 2009, around 30 per cent of the industry was comprised of Community and personal services workers. Similarly, growth in Professional, scientific and technical services workers was likely due to an increase in the proportion of Professionals. In 1997 around 46 per cent of the industry was defined as Professionals and this increased to around 55 per cent in 2009.

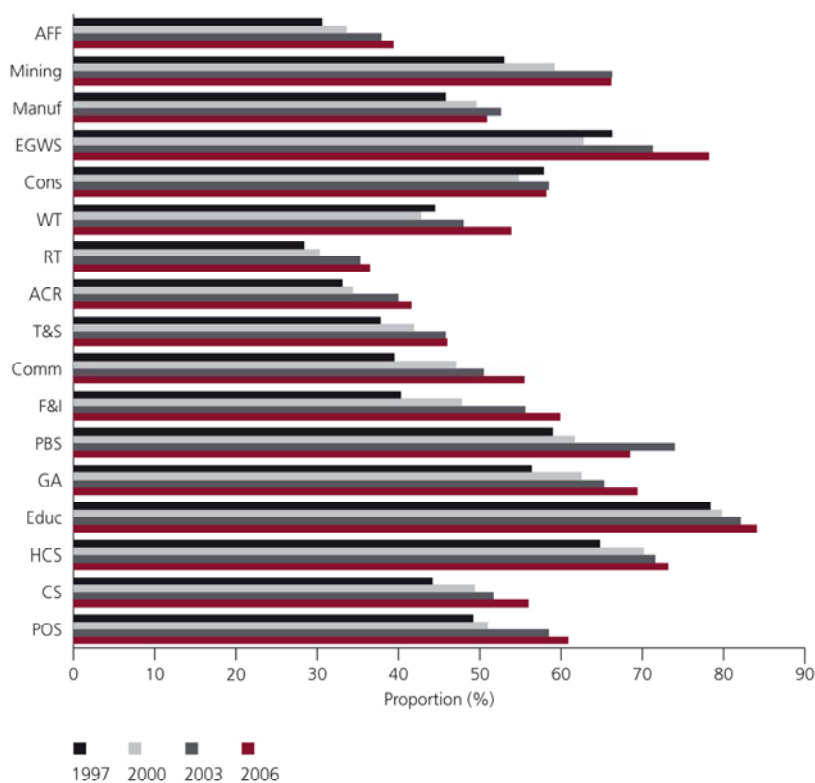
Using educational attainment as a proxy for skill also shows that skill levels within industries increased. Chart 8 shows that almost all industries had an increase in the proportion of employed persons with a

---

<sup>9</sup> For consistency, only the ANZSCO data on occupations from 1997 to 2009 was used.

non-school qualification. Opportunities for entering or moving between jobs and industries have been affected by the changing demand for skills (Productivity Commission 1998).

**Chart 8: Proportion of employed persons by industry and non-school qualification**



Note: Chart shows the average of the 12 months over each year. ANZSIC (1993) classifications are used for educational attainment analysis.

AFF: Agriculture, forestry and fishing; Manuf: Manufacturing; EGWS: Electricity, gas and water services; Cons: Construction; WT: Wholesale trade; RT: Retail trade; ACR: Accommodation, cafes and restaurants; T&S: Transport and storage; Comm: Communication services; F&I: Finance and insurance; PBS: Property and business services; GA: Government administration; Educ: Education; HCS: Health and community services; CS: Cultural services; POS: Personal and other services

Source: ABS, *Education and Work, Australia, various*, Catalogue No. 6227.0

Demographic change has been identified as a key factor affecting the participation and structure of the labour force in most industries (Salma et al 2008). For all industries except for Accommodation and food services, the composition of employment by age moved towards an older workforce (ABS 2010). Across most industries the shares of employment aged under 45, and especially under 35, decreased while the shares of those aged over 45, and especially over 55, increased. In Accommodation and food services, the share of employment held by 15-24 year olds and those over 60 years increased, mainly at the expense of 25-54 year olds.

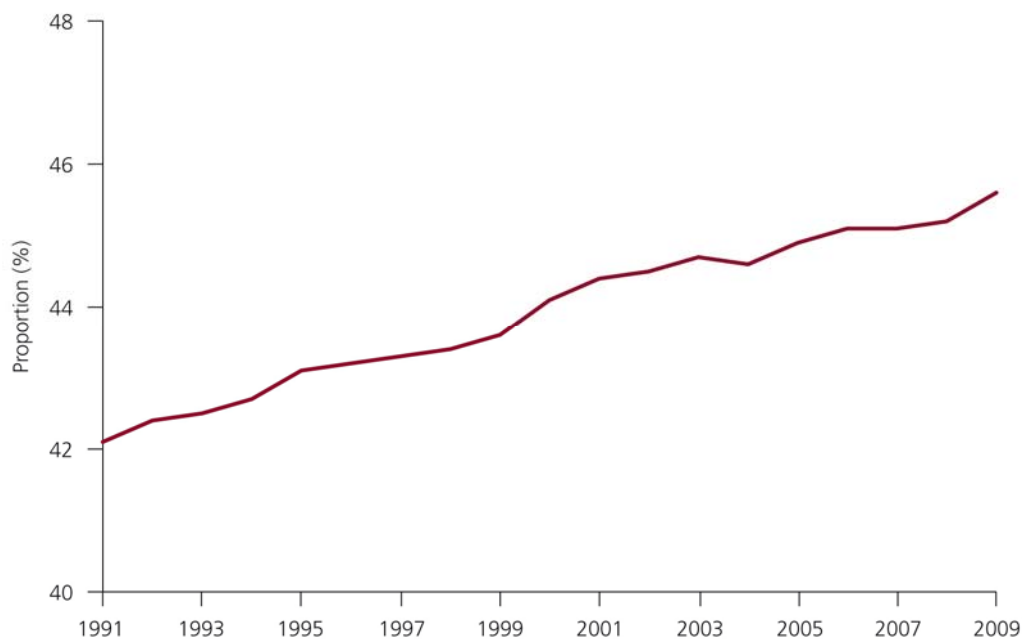
The changes to the composition of employment by industry have affected the composition of employment by gender. Industries where employment decreased have generally employed a higher proportion of males, while the industries that experienced relatively strong employment growth were

those that employ a higher proportion of females. The next section discusses the composition of employment by gender.

## 4.5 Gender

The patterns of male and female employment growth have been very different for some time. Chart 9 shows how the share of female employment increased from 1991 to 2009. Only in 2004 did the trend reverse and the share of female employment decrease.

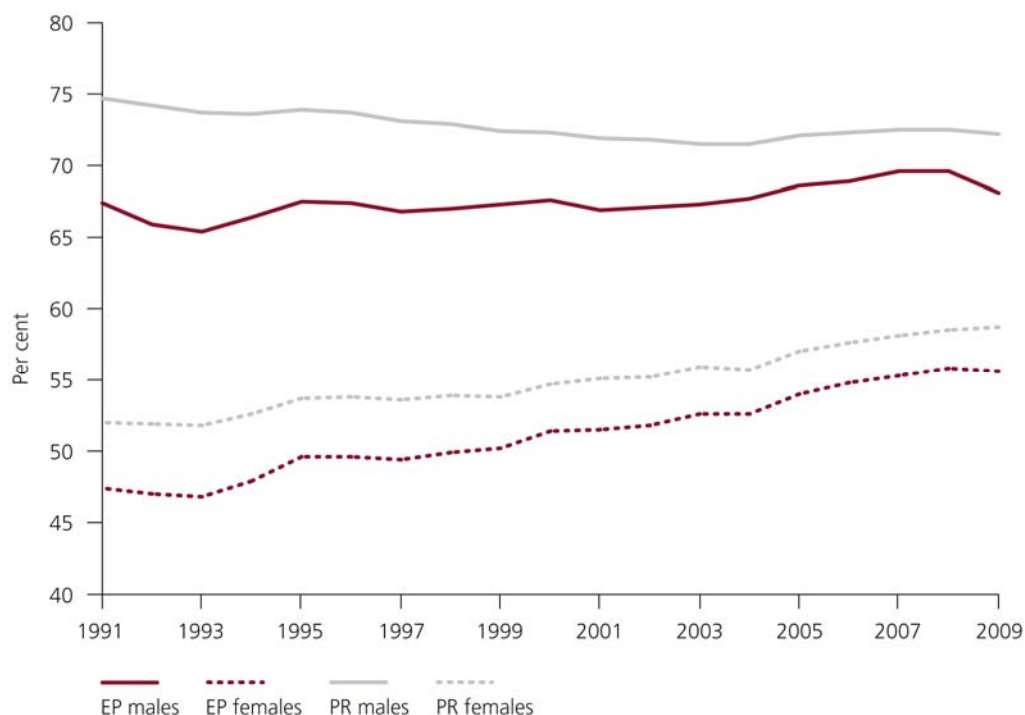
**Chart 9: Female proportion of employed persons**



Note: Chart shows the average of the 12 months over the year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

Increases in the female proportion of employment are also evident in the trends of employment-to-population ratios and participation rates (Chart 10). The increase in the female participation rate between 1991 and 2009 was closely followed by increases to the employment-to-population ratio. On the other hand, the male participation rate decreased to around 2004 before increasing slightly to 2009, however its trend was not closely followed by the male employment-to-population ratio. Higher employment-to-population ratios, and therefore participation rates, imply a higher probability of obtaining (or needing) a job (Freebairn 1998).

**Chart 10: Employment-to-population ratios and participation rates by gender**

Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

These trends show that the supply of female employment has increased and mostly been met by the demand. However, this has not been the case for male employment, as employment has mainly grown in parts of the labour market that employ a higher proportion of females (Fahrer and Heath 1992). The decline in the male participation rate is also partly due to males leaving the labour force (Kennedy and Hedley 2003).

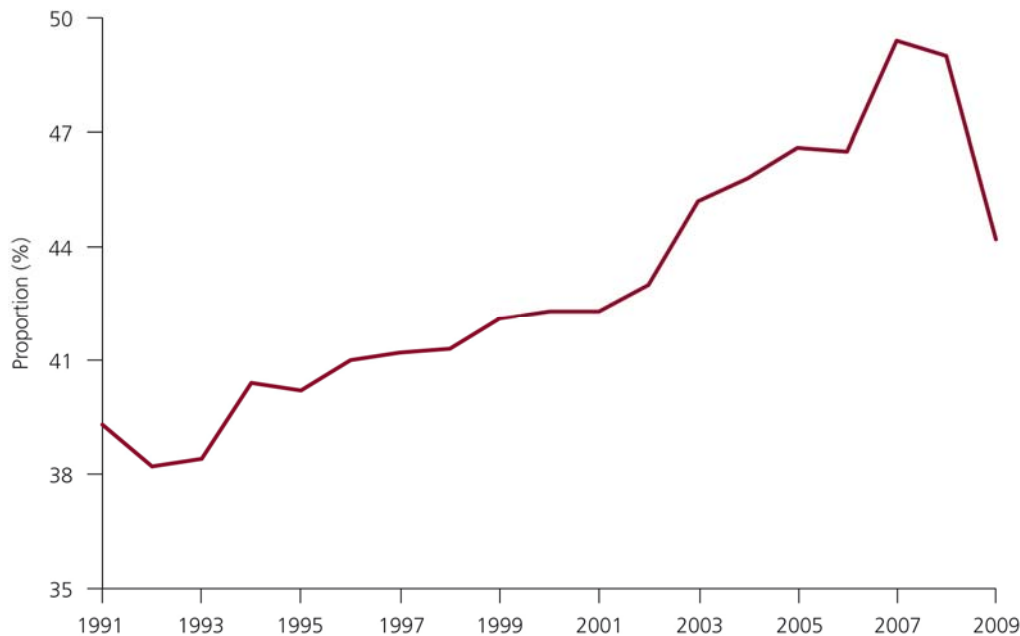
Some of the reasons put forward for the increased labour force participation of females include more comparable wages levels between males and females, declining family sizes, increased education among women, better access to child care services, more flexible working arrangements and greater acceptance of women in the workforce (Productivity Commission 1998).

The increased availability of part-time and casual employment has also been put forward as facilitating the rise in labour force participation of females (see sections 4.6 and 4.7). The participation of females in the labour force is also strongly influenced by having children. Salma et al (2008) found that the probability of participating in the labour force almost halves as a result of caring for pre-school aged children. While the fertility rate has increased in recent years, it fell continually from the 1970s (ABS 2009a).

The increase in female participation is also evident in the female share of unemployed persons (Chart 11). The shares of unemployment show some evidence of a pattern over the business cycle between 1991 and 2009. During the downturn of the early 1990s, the female share of unemployment decreased, however, over the subsequent recovery and during the expansion the female share of unemployment increased steadily and reached over half the number of unemployed persons for some months in 2007 and 2008.

However, as occurred in the previous recession, the proportion of the unemployed who are female decreased after the most recent downturn began in late 2008 (from around 51 per cent in 2008 to around 56 per cent in 2009).

**Chart 11: Female proportion of unemployed persons**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

While the rise in unemployment in Australia during the 1990s was partly attributed to an increase in the male unemployment rate, reflecting slower employment growth in traditionally male-dominated industries, a fall in the male participation rate lessened the rise in the unemployment rate (Debelle & Swann 1998). According to Black et al (2008) the decline in the participation rate is the most important component of the decline in male employment, accounting for more than half of its decline. Factors that contributed to its decline include growth in education enrolment and attainment, growth in income taxes and welfare replacement rates and growth in labour productivity (Black et al 2008).

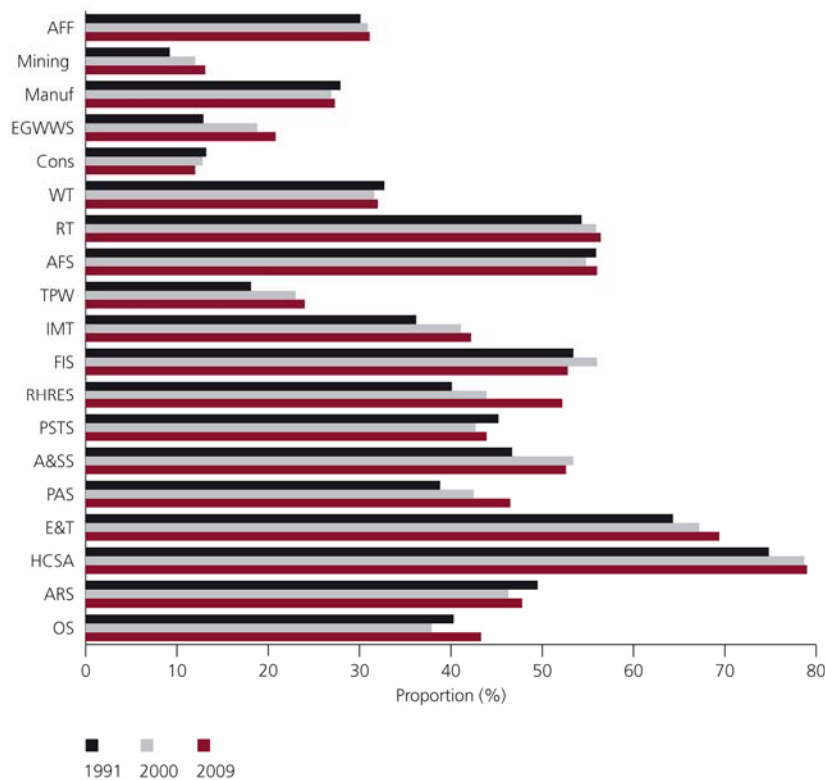
Previous research that has compared labour force outcomes of males and females found that the incidence of displacement for females was weaker than males (Borland and McDonald 2001; Murtough and Waite 2000). Male retrenchments were found to be more sensitive to the business cycle (possibly due to characteristics such as industry, occupation, age and level of education). Females were more likely than males to be employed in part-time employment which shows a consistent upward trend (see Chart 17), and males were more likely to continue searching for a job after becoming retrenched.

Chart 12 shows the changing composition of female employment within each industry. Most industries still have a higher proportion of male employment than female employment, though the number of

industries was less in 2009 than it was in 1991. Health care and social assistance and Education and training had the highest share of female employment within an industry over the period.

Over the period 1991 to 2009, the proportion of employed females increased. This meant that the jobs females entered into were not concentrated in only a few industries. This would be expected given the strong increase in the proportion of females within total employment. Industries where the proportion of females increased relatively highly were Health care and social assistance and Education and training, which were the industries with the highest proportion of females within an industry, and Rental, hiring and real estate services. The proportion of female employment decreased or remained relatively stable within Construction, Accommodation and food services and Professional, scientific and technical services.

**Chart 12: Female proportion of employed persons within industry**



Note: Chart shows the average of the 12 months over each year.

AFF: Agriculture, forestry and fishing; Manuf: Manufacturing; EGWWS: Electricity, gas, water and waste services; Cons: Construction; WT: Wholesale trade; RT: Retail trade; AFS: Accommodation and food services; TPW: Transport and postal workers; IMT: Information media and technology; FIS: Financial and insurance services; RHRES: Rental, hiring and real estate services; PSTS: Professional, scientific and technological services; A&SS: Administrative and support services; PAS: Public administration and safety; E&T: Education and training; HCSA: Health care and social assistance; ARS: Arts and recreation services; OS: Other services.

Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

Most industries where the proportion of female employment increased also experienced an increase in their proportion of total employment. However, for industries where the proportion of female

employment was relatively stable over the period, some experienced falls in their proportion of total employment, while others had relatively strong growth.

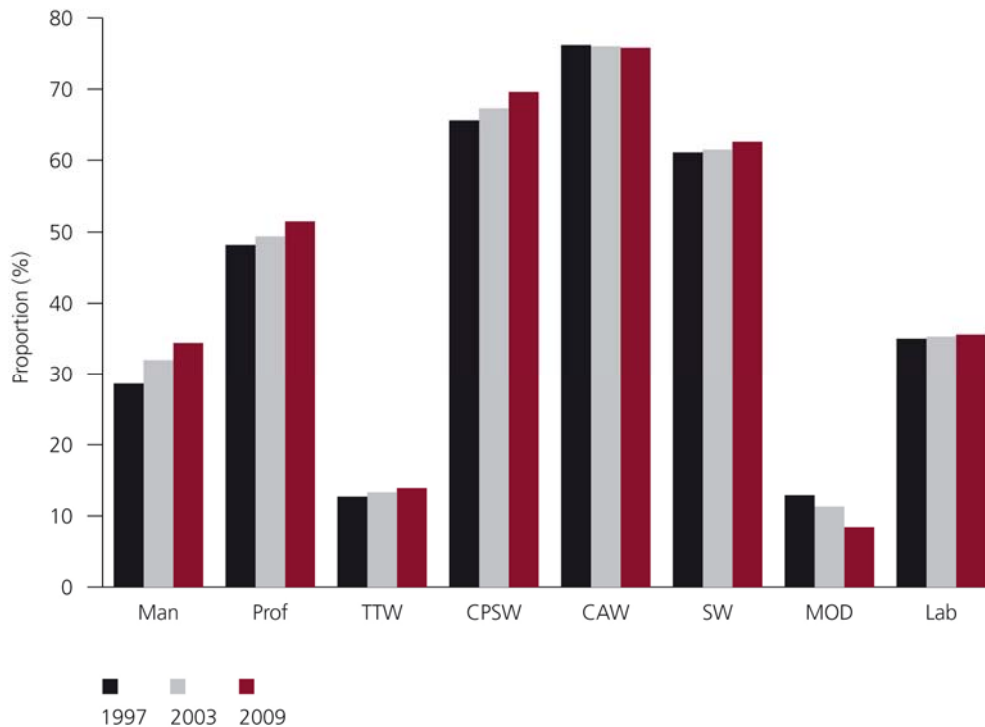
Health care and social assistance employed the highest proportion of females in 2009 at around 19 per cent of female employment and its proportion increased steadily from 1991. Retail trade, Education and training and Accommodation and food services also comprised a relatively high proportion of female employment in 2009. Industries whose proportions of total female employment increased between 1991 and 2009 included Professional, scientific and technical services, Administrative and support services and Public administration and safety. Manufacturing, Wholesale trade, Financial and insurance services and Agriculture, forestry and fishing comprised a smaller proportion of female employment in 2009 than in 1991.

While Construction comprised the highest proportion of male employment within an industry, it also comprised the highest number of employed males of all industries in 2009. It employed around 15 per cent of all employed males in 2009 and this proportion is higher than in 1997. The only other industry to have had a significant increase in its proportion of male employment over this time was Professional, scientific and technical services. Manufacturing employed the second highest proportion of males, though this proportion fell considerably from around 18 per cent in 1990 to around 13 per cent in 2009. Other industries that had a significant reduction in their proportion of employed males were Wholesale trade and Agriculture, forestry and fishing, two industries whose proportion of total employment also fell over the period.

The proportion of employed females also increased within most occupations (Chart 13), meaning that the increase in female employment was not concentrated in only a few occupations. However, the greatest increases in the proportion of female employment occurred in the occupations that also had the highest increase in the proportion of employment (Managers, Professionals and Community and personal services workers). The only occupation group that decreased its proportion of employed females over the period was Machinery operators and drivers.



**Chart 13: Female proportion of employed persons within occupation**



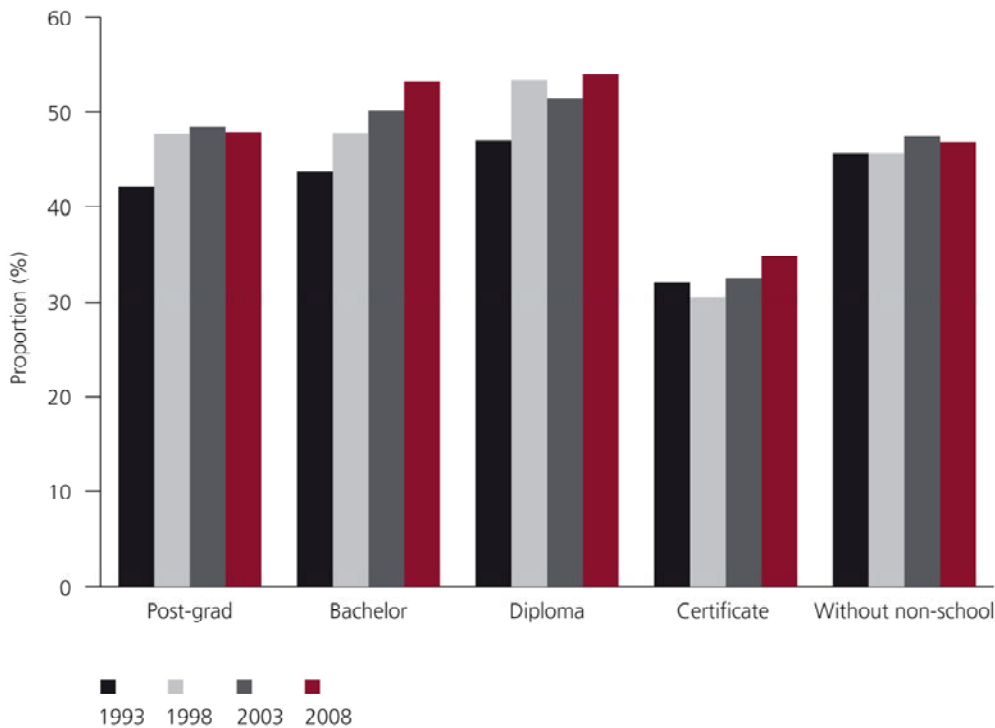
Note: Chart shows the average of the 12 months over each year.

Man: Managers; Prof: Professionals; TTW: Technicians and trade workers; CPSW: Community and personal services workers; CAW: Clerical and administrative workers; SW: Sales workers; MOD: Machinery operators and drivers; Lab: Labourers

Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

Chart 14 shows an increase in the proportion of employed females within each of the non-school educational attainment groups. Again, this represents an increase in total female employment over the period. The proportion of employed people who had a post-graduate degree, bachelor degree or a diploma increased, and within those groups the proportion of these people who were female increased. While in 1993 the majority of employed persons obtaining these qualifications were male, this changed over the next 15 years. In contrast, the proportion without non-school qualifications by gender remained relatively stable over the same period. This suggests that the females entering employment are doing so with relatively higher education levels than in the past. This increase in education attainment has been faster than the growth in educational attainment levels of males. In 2009 there were more employed females with a bachelor's degree or a diploma than employed males.

**Chart 14: Female proportion of employed persons within educational attainment**



Note: Chart shows the average of the 12 months over each year.

Post-grad: refers to post-graduate degree level, graduate diploma/certificate and higher degree; Bachelor: refers to bachelor degree level and degree; Diploma: refers to undergraduate diploma, associate diploma, advanced diploma/diploma; Certificate: refers to skilled and basic vocational and Certificates I-IV; Without non-school: refers to people without non-school qualifications.

Source: ABS, *Education and Work, Australia, various*, Catalogue No. 6227.0

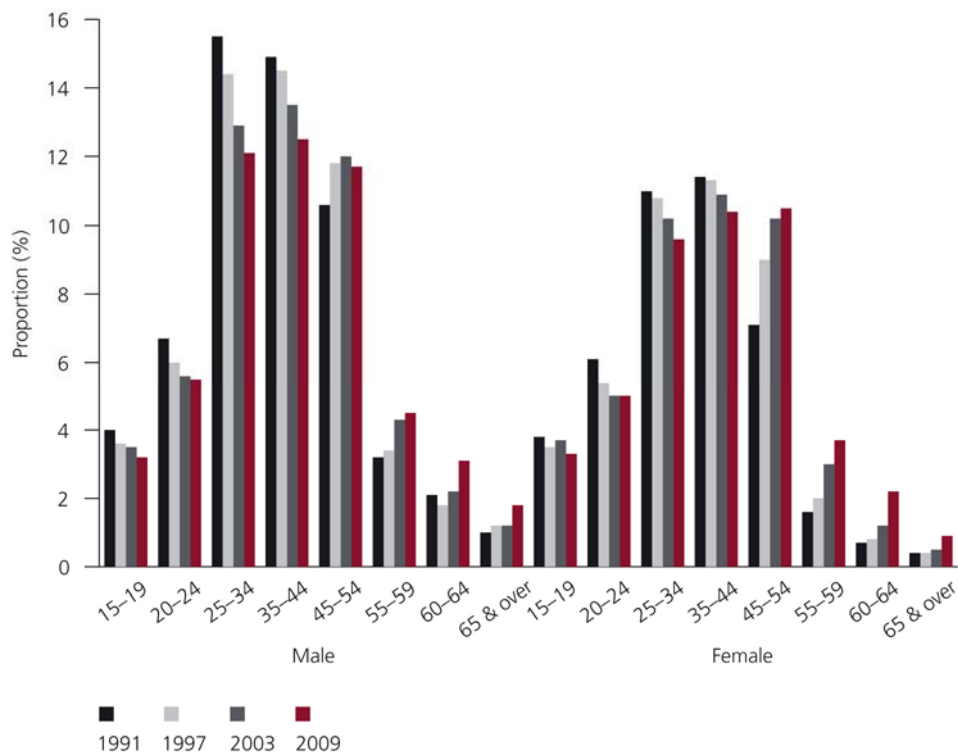
Kennedy et al (2009) found that the declining participation rates for prime working age males between 1981 and 2001 were mainly driven by falls for males without post-school qualifications. However, they found that the most recent reversal in male participation has been for men with no post-school qualifications. Females with no post-school qualifications also experienced a strong rise in participation. These increases may partly reflect strong economic conditions, although structural factors may also have had an influence. Based on evidence that low levels of participation by unskilled males in the late 1990s was a form of hidden unemployment,<sup>10</sup> Kennedy et al (2009) explained that the above-trend growth in participation they found for low-skilled males between 2001 and 2006 may have resulted in an ‘encouraged worker’ effect, where low-skilled people are drawn into the labour force by strong wages growth and the higher number of job vacancies. They concluded that there is a stronger correlation between educational attainment and participation rates for females than for males.

<sup>10</sup> Hidden unemployment is when people are not considered as participating in the labour force because they had stopped looking for work but would prefer to be working. They were not actively looking for work due to finding it too hard, or they were considered underemployed. These people are not considered in the official unemployment statistics.

Chart 15 shows the share of total employment by age and gender. This chart allows a comparison to be made between age groups within a gender, and the same age group between genders. It shows that the changes in the age composition of employment occurred for both males and females over the period. However, while the shares of employment for the two youngest age groups were fairly similar between males and females, differences were evident for the older age groups, particularly the prime working age categories (25-54 year olds).

Looking at the trends across age groups, for both males and females there was a decrease in the proportion of employment aged under 45 between 1991 and 2009. The falls were relatively higher for males aged 25-34 and 35-44 years than for females in the same age group. For the increases in the age groups 45 years and above, the largest percentage increase was for 60-64 year olds. Females aged 45-54 years comprised the largest share of all employed females in 2009, while for males it was the 35-44 year old age group.

**Chart 15: Employed persons by gender and age**



Note: Chart shows the average of the 12 months over each year.

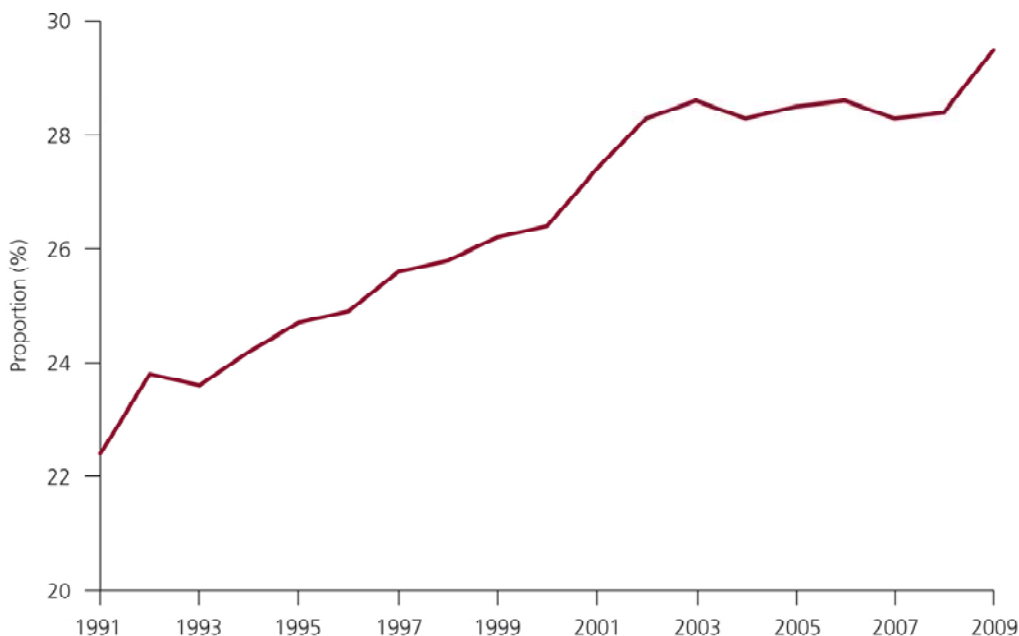
Source: ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.001

Kennedy et al (2009) found a faster increase in participation rates of older males increased than for prime working age males between 2001 and 2006 which according to the authors may reflect improvements in health or be a temporary outcome due to strong economic conditions. Another reason is that these workers may be taking a more flexible approach to retirement by transitioning through part-time employment.

## 4.6 Full-time and part-time

This section incorporates both permanent and casual employment in its discussion on full-time and part-time employment. Section 4.7 discusses the composition of permanent and casual employment in more detail. The changing composition of the Australian labour market is no more evident than in the changing proportions of full-time and part-time employment.<sup>11</sup> Overall, part-time employment increased across most segments of the Australian labour market. Chart 16 shows how part-time employment as a proportion of total employment increased between 1991 and 2009. The upward trend in part-time employment increased fastest during the downturn periods of the early 1990s and in 2009, as well as a slow growth period in 2001, while the proportion of part-time employment flattened out during the 2000s, a boom period in Australia, but increased again between 2008 and 2009.

**Chart 16: Part-time proportion of employed persons**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

Australia has a high proportion of part-time employment compared with other OECD countries. As other countries do not use very different production technologies, this cannot be an explanation for its higher incidence (Richardson and Law 2009).

The increase in the proportion of part-time employment was supported by changing labour supply patterns such as rising participation of females (Freebairn 1998) and school retention rates (Barnes et al 1999). The appeal of part-time employment is that it enables people to combine work and other activities,

<sup>11</sup> Part-time workers are those employed who work less than 35 hours a week in all their jobs combined.

such as education or family commitments. This is particularly important for young people who are studying and women who continue to have greater responsibility in raising children. Smith and Ewer (1999) note that satisfaction with non full time employment for women 'derives from the regularity of their employment and the consistency of the work they received'.

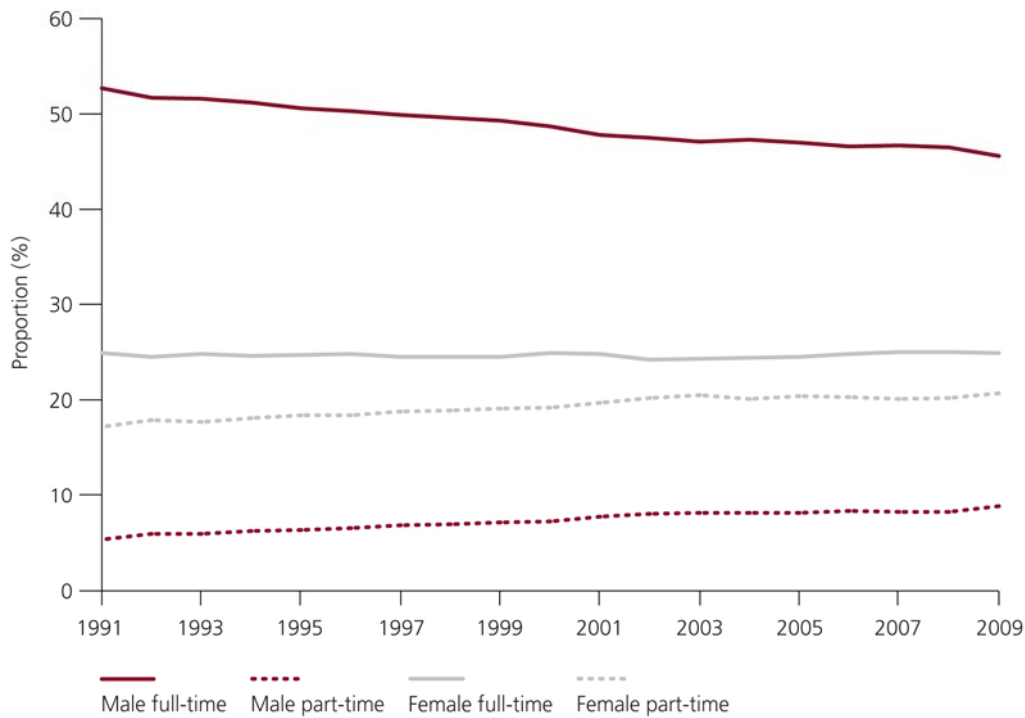
Another potential supply side factor is the greater number of older people who may prefer part-time employment, enabling them to transition to retirement more slowly (Abhayaratna et al 2008). This led Abhayaratna et al to suggest that people employed in part-time jobs are not a static group as there is movement both in and out of this group as people move through their working life cycle and as their work/life priorities change. Furthermore, there is a considerable flow of workers between part-time and full-time employment over time, which undermines the notion of segmented labour markets.

Part-time employment has been preferred by employers as a response to changes in labour demand. Employers have used it to better match their labour needs within periods of high demand where they can employ extra staff for short periods. However, the use of part-time employment is most evident during economic downturns, where it has continued to rise as the labour market adjusts to slower economic growth by reducing both employment and hours worked. Abhayaratna et al, argue that this is not consistent with part-time employment bearing a disproportionate share of the response to falls in labour demand such as during recessions.

Technological change has also made part-time employment more attractive to employers (Dawkins 2000) as they are better able to monitor sales and stock levels to more accurately determine their peak periods (Abhayaratna et al 2008). The deregulation of business hours and extended shopping hours has also increased demand for part-time employment (Barnes et al 1999). Preston (2001) explained that labour market deregulation and the demand for flexible forms of employment were important in the shift towards part-time employment.

Disaggregating the data into its male and female components, Chart 17 shows that the proportion of males employed full-time decreased considerably between 1991 and 2009. Their proportion comprised around 46 per cent of total employment in 2009, down from around 53 per cent in 1991. The female full-time employment share remained relatively steady over the period, at around 25 per cent. Therefore, the decline in the proportion of male full-time employment appears to have been offset by increases in part-time employment for both males and females, as both increased by around 3 percentage points over the period.

**Chart 17: Proportion of employed persons by full-time/part-time and gender**

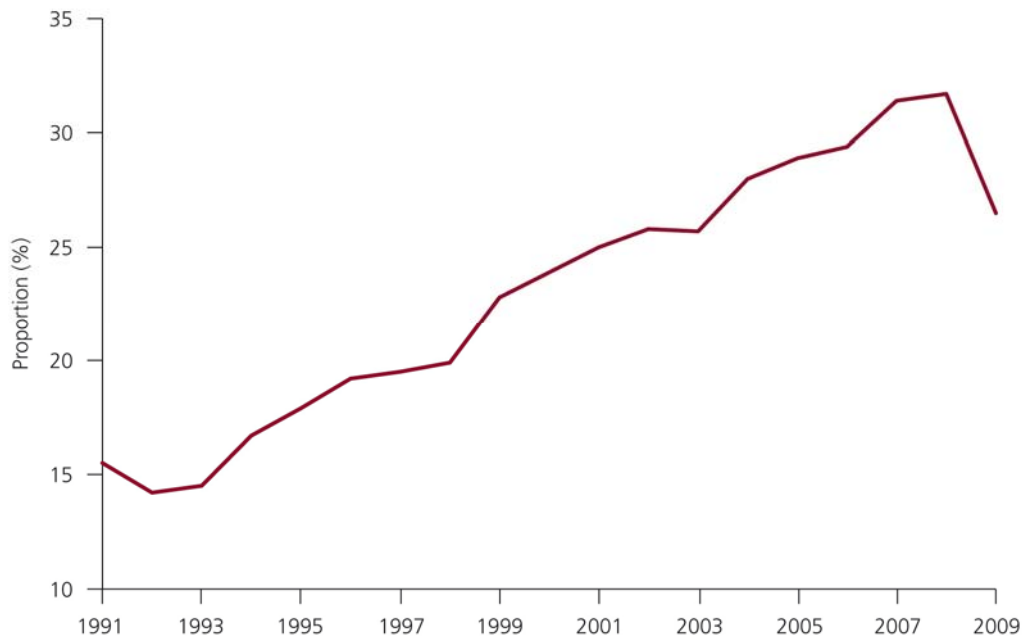


Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

Trends in the share of unemployment by gender have broadly followed the business cycle (Chart 18). During the recession of the early 1990s, the share of unemployed persons looking for part-time employment decreased relatively strongly, most likely as people employed full-time lost their jobs or preferences shifted towards full-time employment. On the other hand, between 1992 and 2008 the proportion of the unemployed looking for part-time employment increased quite strongly, from around 14 per cent of unemployment to around 32 per cent. In 2009, the proportion of unemployed persons looking for full-time employment increased as the economy slowed.

**Chart 18: Part-time proportion of unemployed persons**

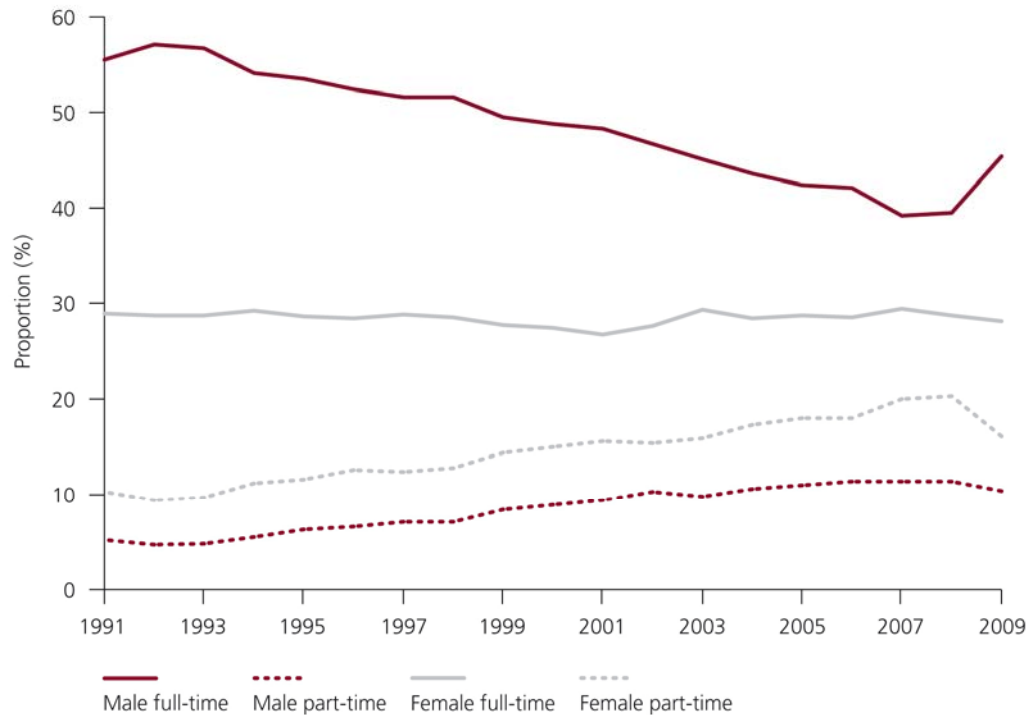


Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

Disaggregating the full-time and part-time unemployment composition into its male and female components shows similar proportions and trends to that of employment (Chart 19). The proportion of unemployed males looking for full-time employment decreased over most of the period, except during the downturn periods, most likely as jobs were lost, or as people shifted their preferences to full-time employment. The changes in unemployed males looking for full-time employment were offset mainly by increases in both males and females looking for part-time employment. The proportion of unemployed persons looking for part-time employment, particularly females, decreased during the downturn periods. The share of unemployed females looking for full-time employment remained relatively steady over the period at just below 30 per cent of all unemployed persons.

**Chart 19: Proportion of unemployed persons by full-time/part-time and gender**



Note: Chart shows the average of the 12 months over each year.

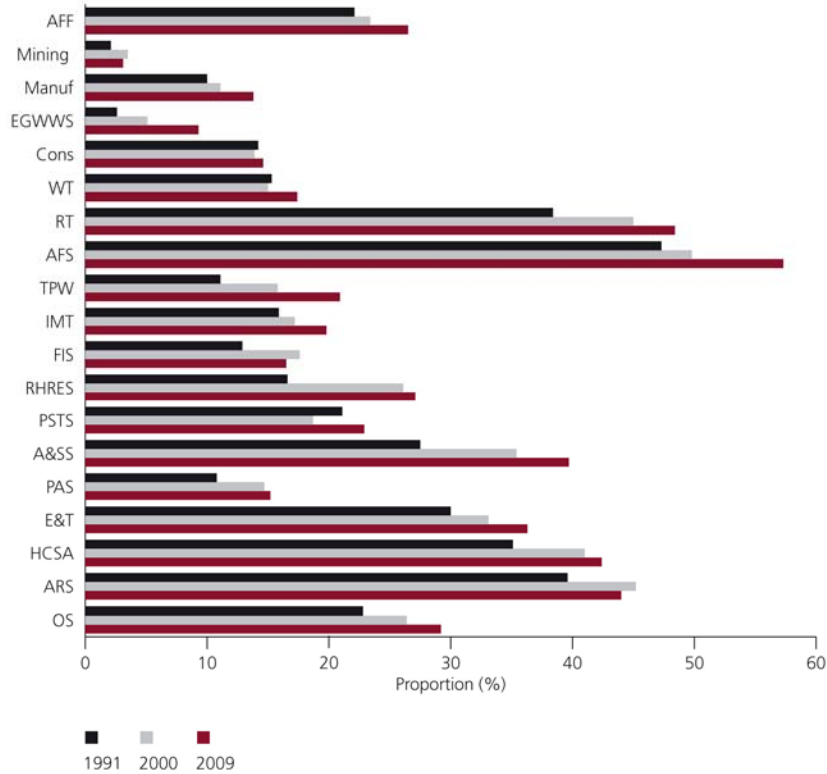
Source: ABS, *Labour Force, Australia, December 2009*, Catalogue No. 6202.0

Charts 20 shows increases in the proportion of part-time employment were not concentrated in particular industries between 1991 and 2009, as a greater share of part-time employment occurred within most industries. Relatively strong increases occurred within Accommodation and food services, Retail trade, Transport and postal workers, Administrative and support services and Rental, hiring and real estate services.

Only Accommodation and food services comprised more part-time employment than full-time employment in 2009 and this proportion increased over the period. The industry employs a relatively high proportion of Community and personal service workers and Labourer. The high proportion of Sales workers and Community and personal services workers who were employed part-time explains the high proportion of part-time employment within Retail trade and Health care and social assistance, as these occupations make up a significant proportion of these industries. Construction and Mining experienced little change in their proportions of part-time employment over the period.



**Chart 20: Part-time proportion of employed persons within industry**



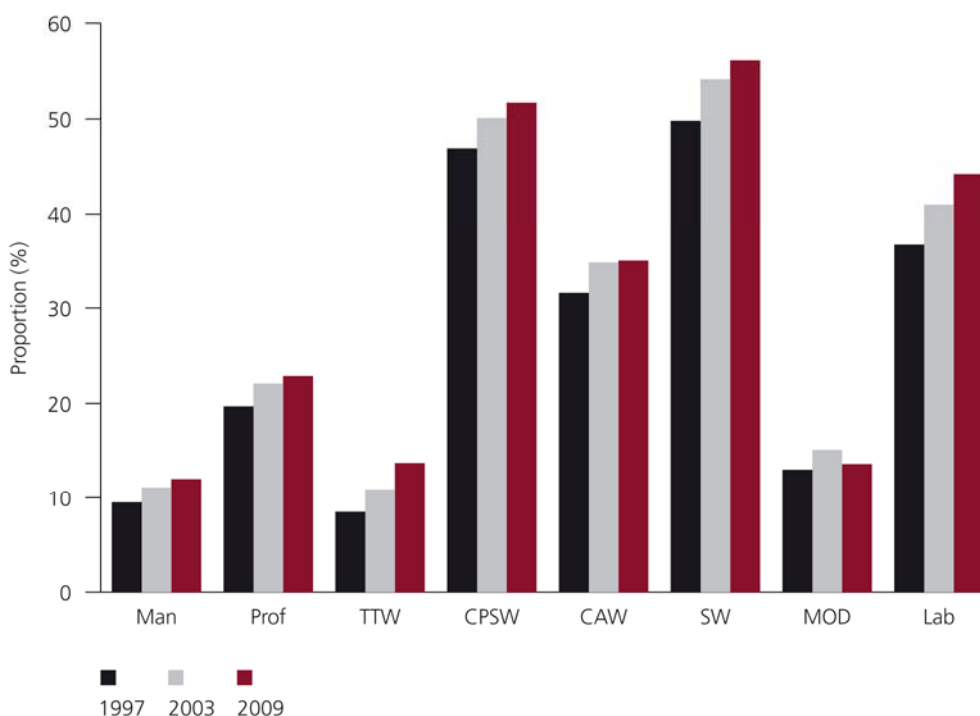
Note: Chart shows the average of the 12 months over each year.

AFF: Agriculture, forestry and fishing; Manuf: Manufacturing; EGWWS: Electricity, gas, water and waster services; Cons: Construction; WT: Wholesale trade; RT: Retail trade; AFS: Accommodation and food services; TPW: Transport and postal workers; IMT: Information media and technology; FIS: Financial and insurance services; RHRES: Rental, hiring and real estate services; PSTS: Professional, scientific and technological services; A&SS: Administrative and support services; PAS: Public administration and safety; E&T: Education and training; HCSA: Health care and social assistance; ARS: Arts and recreation services; OS: Other services.

Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

According to Hall et al (2000), structural changes to the industrial composition of the workforce are the foremost demand factor that has caused the rise of part-time (and casual) employment. These changes include a declining primary and secondary industry employment and rising services industry employment, as well as the shifting of manufacturing to lesser developed countries. Barnes et al (1999) explained that growth in service industry employment increased the incidence of part-time employment because part-time employment is more likely to be found in these industries due to the demand for such employment arrangements.

The proportion of part-time employment also increased within most occupation groups (Chart 21). The only occupation group where this trend was not clearly evident was Machinery operators and drivers, where the proportion varied over the period. Therefore, the increase in part-time employment cannot be attributed to an increase in the demand or supply within only a few occupation groups. Occupations that have relatively high proportions of part-time employment include Sales workers, Community and personal service workers and Labourers.

**Chart 21: Part-time proportion of employed persons within occupation**

Note: Chart shows the average of the 12 months over each year.

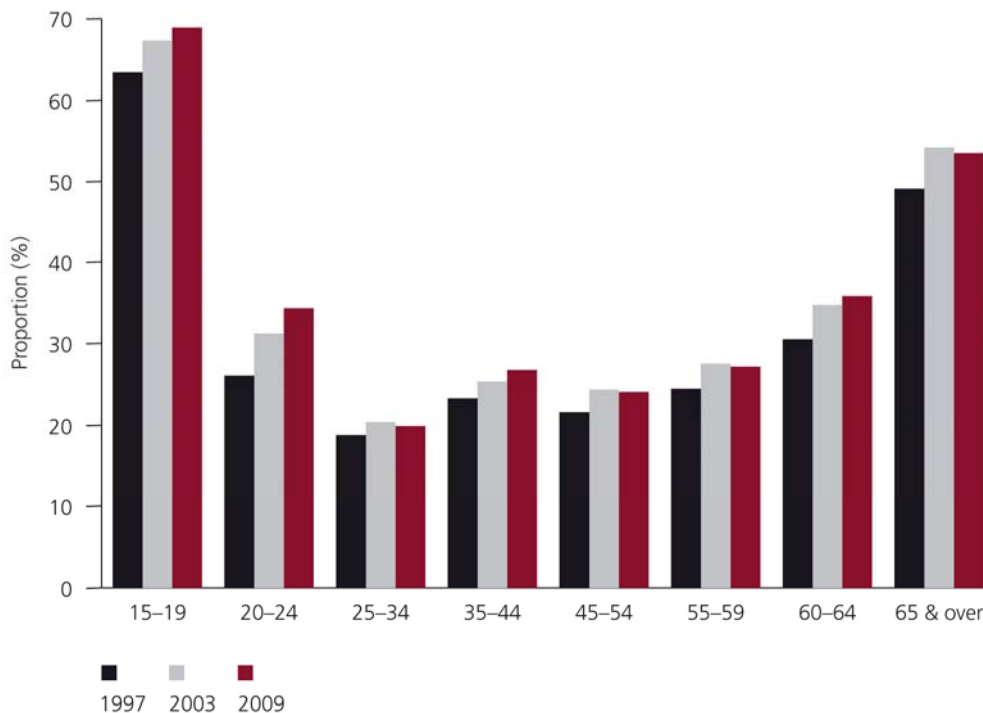
Man: Managers; Prof: Professionals; TTW: Technicians and trade workers; CPSW: Community and personal services workers; CAW: Clerical and administrative workers; SW: Sales workers; MOD: Machinery operators and drivers; Lab: Labourers.

Source: ABS, *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003

The proportion of part-time employment also increased within most age groups and was not concentrated in either the older or younger age groups (Chart 22). Increases in the proportion of part-time employment were relatively high for both 15-19 and 20-24 year olds, 35-44 year olds and 60-64 year olds. Between 2003 and 2009, part-time employment increased within only these age groups. Relatively smaller increases occurred within other age groups over the period, however their proportion of part-time employment fell between 2003 and 2009.

The effect of an increase in school retention rates on younger people is shown by the increase in the proportion of part-time employment within the youngest age groups. More parents preferring shorter hours while caring for children rather than not participating in the labour force may have had an effect on the increase in the proportion of part-time employment for 35-44 year olds (Productivity Commission 2006). The increase in the proportion of part-time employment for 60-64 year olds and (and a smaller rise for 65 years and over) is most likely due to more employed persons in these age groups remaining employed than in the past, but on a part-time rather than full-time basis.

**Chart 22: Part-time proportion of employed persons within age group**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.003

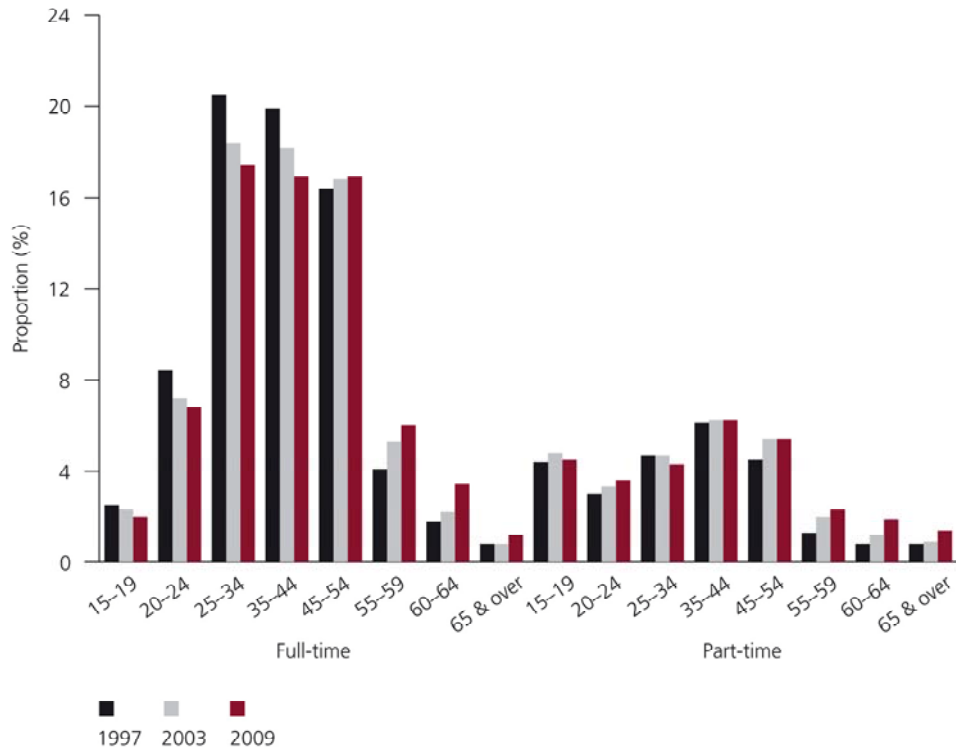
The increase in the proportion of part-time employment for both 15-19 and 20-24 year olds was possibly due to the greater participation in education as well as a lack of opportunity in finding full-time employment (Productivity Commission 1998). Flatau et al (2008) noted the shift towards part-time employment among teenagers as arising from increases in non-compulsory schooling.

Chart 23 shows the proportion of total employment by age group and whether employed on a full-time or part-time basis. It is able to show which age groups have a higher proportion of full-time and part-time employment and how this relates to total employment. It shows that falls in full-time employment, particularly in the prime working age groups, were offset by increases in both full-time and part-time employment for the older age groups.

Full-time employment in the prime working age groups clearly had the highest shares of full-time and total employment. However, the differences between the three groups diminished over the period as the proportion of 25-44 year olds employed full-time declined. The proportion of full-time employment aged below 45 years decreased, while the proportion for each of the age groups 45 years and over increased. The age group with the highest proportion of part-time employment over the period was 35-44 years. As with full-time employment, the proportion of people employed part-time in the older age groups increased, and also for 20-24 year olds.

The increase in the proportion of part-time employment within the youngest age groups and for 35-44 year olds was less evident in this chart. Part-time employment shows an increase only for 20-24 year olds, with remaining increases occurring in the oldest age groups.

**Chart 23: Proportion of employed persons by full-time/part-time and age group**



Note: Chart shows the average of the 12 months over each year.

Source: ABS, *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.003

#### 4.7 Permanent and casual employment (employment type)

Measuring permanent and casual employment has largely depended on the interpretations of the ABS. In this analysis the most recent definition of permanent employees is used, which incorporates employees who were entitled to either paid holiday leave or paid sick leave (or both) in their main job. Casual employment is therefore employees not entitled to paid leave entitlements and usually receive a higher rate of pay as compensation.<sup>12</sup>

This definition of casual employment includes people whose mode of employment was not genuinely accepted as casual in the sense of being sporadic or intermittent employment. In Australia, many people are employed as casual employees in mostly, but not always, part-time jobs. Some employees on a casual contract can resemble ongoing employees where they have continuous and stable employment with the

<sup>12</sup> The other types of worker in this analysis are owner-managers of incorporated or unincorporated enterprises. Owner managers of incorporated enterprises are defined by the ABS as persons who work in their own incorporated enterprise, that is, a business entity which is registered as a separate legal entity to its members or owners. Owner managers of unincorporated enterprises are defined as persons who operate their own unincorporated economic enterprise or engage independently in a profession or trade. Both these groups were combined to form 'owner managers of enterprises'.

The analysis does not include data on contributing family workers, who are people that work without pay in an economic enterprise operated by a relative.

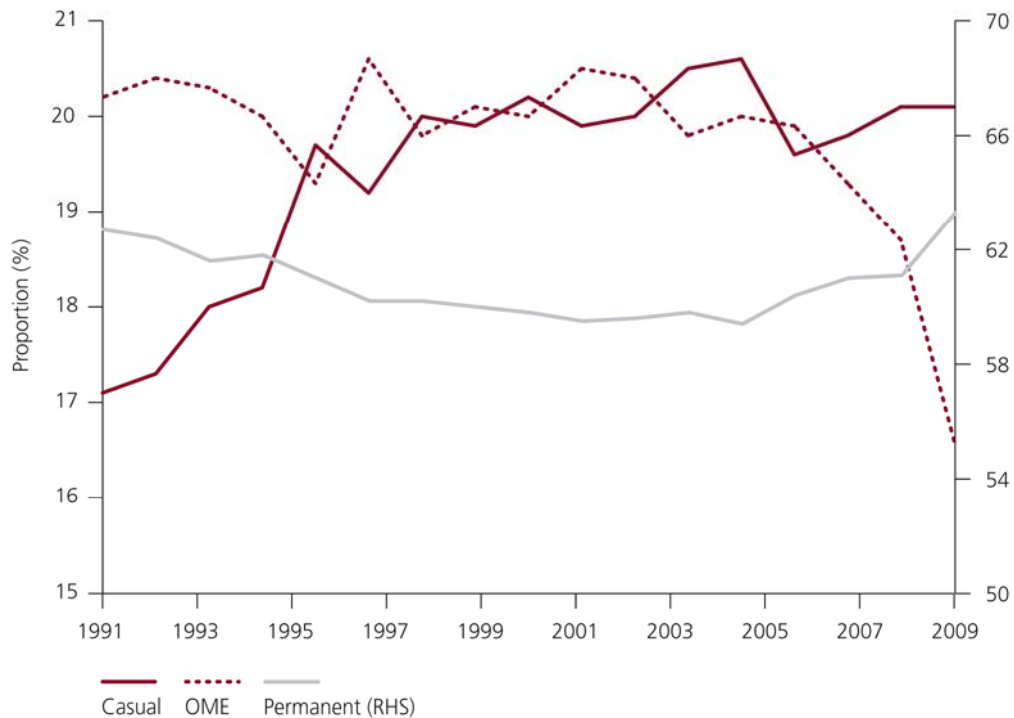
same employer (Productivity Commission 2006).<sup>13</sup> The data on permanent and casual employment is also limited as it is less frequent than other forms of employment.

Permanent employment is the most common employment type (Chart 24) and despite its proportion decreasing over the 1990s and early 2000s, its share increased over the four years to 2008. Around 63 per cent of employed persons were considered permanent employees in 2008. The fall in the proportion of permanent employment during the 1990s was mainly offset by increases in casual employment. Around 20 per cent of all employees were casual in 2008, which is higher than in the early 1990s (around 17 per cent in 1992). While much literature describes the increase in casual employment, Chart 24 shows that the proportion of all employees has been relatively stable between 1998 and 2008. The remaining proportion of employment was made up of owner managers of enterprises (OME) whose proportion was relatively stable until 2005 when it fell dramatically.

---

<sup>13</sup> Productivity Commission (2006) explains that the term 'casual' can be confusing and summarises two types of casual workers according to various Australian courts and tribunals. 'True' casuals have their work arrangements characterised by informality, uncertainty and irregularity and are not protected by legislation against unfair dismissal. 'Permanent' casuals enjoy stable and regular employment and after twelve months are entitled to the protection of unfair dismissal legislation and other provisions.

**Chart 24: Proportion of employed persons by employment type**



Note: OME: Owner-managers enterprises.

Source: ABS, *Australian Labour Market Statistics, October 2009*, Catalogue No. 6105.0

The Productivity Commission (2006) found that people may prefer casual employment because it allows a better work-life balance, greater autonomy and flexibility to choose how much and the type of work done, and financial benefits due to the loading. The Productivity Commission (2006) also argued that work experience and on-the-job training in casual employment may provide a stepping stone to permanent employment, but concluded that it is not always the case and there is a possibility that people may end up cycling between casual jobs without an opportunity to progress.

Casual employment is not always an employee’s choice. Smith and Ewer (1999) challenge the notion that casual work is generally a matter of individual choice. They argue that:

... where workers express a degree of satisfaction with their casual work, this satisfaction derives from the regularity of their employment and the consistency of the work they received ... The absence of employment options, and the gendered division of domestic labour also influenced a ‘preference’ for casual work. Casual work may be preferred by women workers because of the perceived flexibility it provided in combining work and family responsibilities. Yet women’s experience of casual work also suggests that a refusal of an offer of casual employment for family oriented reasons would jeopardise future employment prospects.

Though a greater proportion of younger people are employed in part-time or casual employment, this may be because they have found difficulty in obtaining full-time employment. Low-training casual jobs

can be troubling for young people who are not studying and cannot find jobs where they can develop their skills (Richardson and Law 2009). Higher-skilled employees who are less concerned about job security or unemployment may be employed in casual jobs (Hall 2000).

Dawkins (2000) explained that the reason why casual employment has been so successful is the flexibility it affords employers. While casual employees can provide cost benefits to employers because they do not receive some entitlements that come with permanent employment, this can be offset by additional hiring and training costs if turnover is high (Barnes et al 1999). Another cost-saving reason for hiring casual employees is if the firm expects them to be employed for a short period, an employer does not have to invest in skills or training (Richardson and Law 2009). This may be important for employers in highly competitive environments (Hall et al 2000). Increased operating hours of service industries have also increased the demand for casual employment (Productivity Commission 2006).

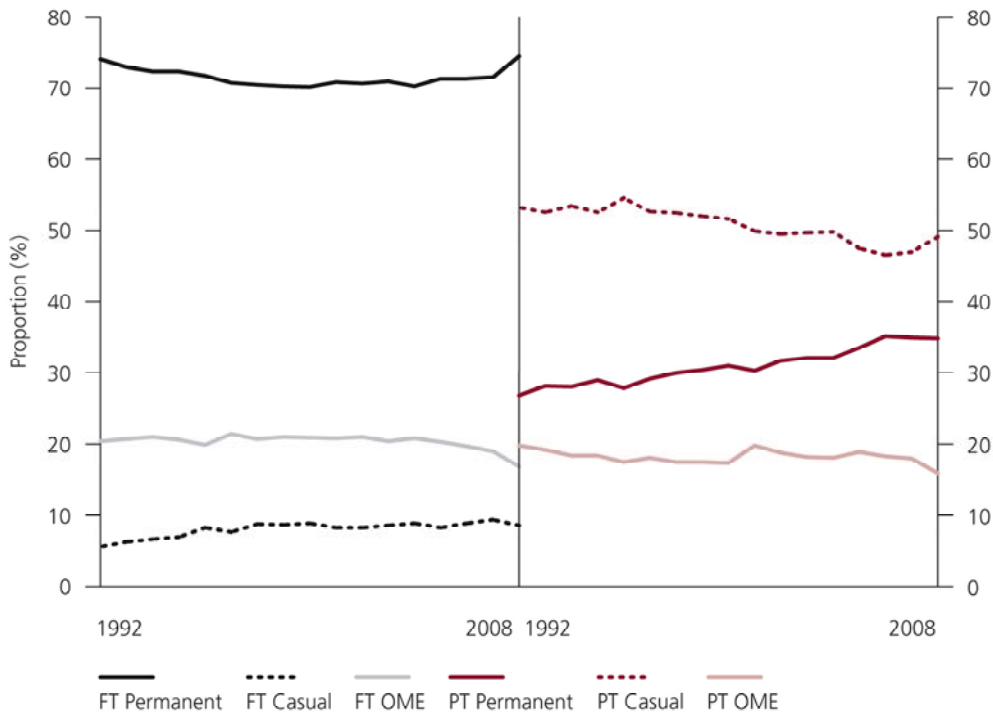
Casual employees provide flexibility for firms to meet peak demands and allow labour productivity to be higher (Productivity Commission 2006). Another reason for the appeal of casual employment for employers is that when market conditions are volatile, casual employees can be more productive than permanent full-time or part-time employees. If a firm employed sufficient permanent full-time employees to meet peak demand periods then during downturns there would be time when part of that workforce would not be needed.

The flexibility of casual employment is also an important demand factor especially in some industries such as Retail trade. Drawing on a case study conducted by Deery and Mahony (1994), Richardson and Law (1999) noted that casual employment in the retail sector is used to adapt to changes in the market during periods of fluctuating demand. The authors concluded that demand side factors were the more powerful force for casual employment.

While full-time employees were mainly employed on a permanent basis (over 70 per cent), the highest share of part-time employment was comprised of casual employees (Chart 25). Around half of all people employed part-time were employed on a casual basis over the period, however this proportion decreased from the mid 1990s and was offset by an increase in the share of part-time employees employed on a permanent basis. The proportion of full-time casual employees increased from 1992 to around 2004 and remained at just under 10 per cent of full-time employment to 2008.



**Chart 25: Proportion of full-time/part-time by employment type**

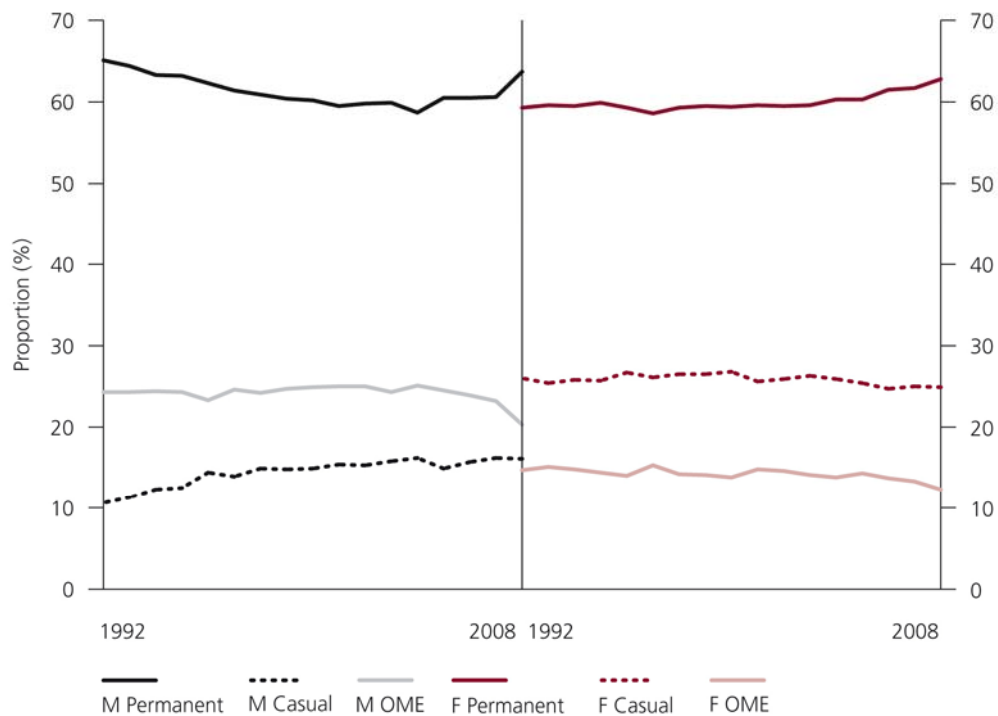


Note: FT: Full-time; PT: Part-time.

Source: ABS, *Australian Labour Market Statistics, October 2009*, Catalogue No. 6105.0

The proportion of permanent employees by gender was similar for males and females, at over 60 per cent in 2008 (Chart 26). The main difference between the genders was in the proportions of casual employment, which comprised around 25 per cent of female employees in 2008, but only around 16 per cent of male employees. The proportions of each employment type within female employment remained relatively stable over the period, while for males a reduction in the proportion of permanent employment was offset by an increase in casual employment, mainly during the 1990s. The proportion of permanent employees increased between 2004 and 2008 mainly at the expense of owner managers of enterprises.

**Chart 26: Proportion of gender by employment type**

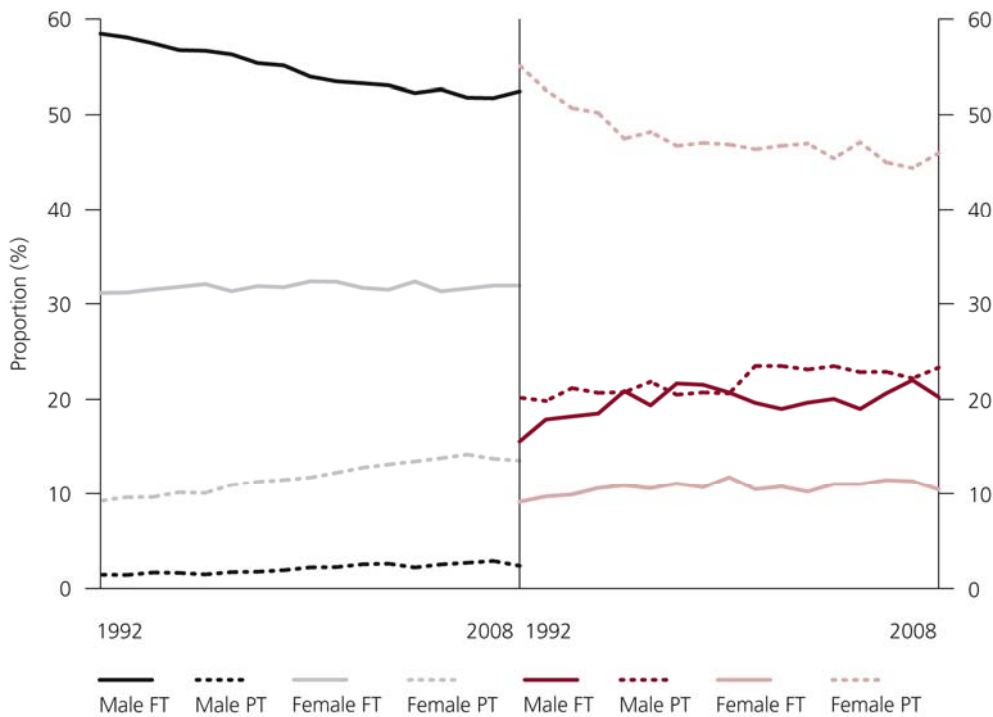


Note: M: Males; F: Females; OME; Owner managers of enterprises.

Source: ABS, *Australian Labour Market Statistics, October 2009*, Catalogue No. 6105.0

Chart 27 shows the proportion of employees within each employment type disaggregated by both gender and full-time or part-time status. The majority of permanent employees were males who were employed on a full-time basis, though this proportion decreased between 1992 and 2008. A rise in the proportion of both male and female part-time employees offset this fall. The highest proportion of casual employees comprised of females employed on a part-time basis. This proportion fell considerably during the 1990s, while the share of males employed both full-time and part-time increased over the same period. The proportion of females employed on a full-time basis remained relatively steady for both employment types over the period.

**Chart 27: Proportion of employment type by full-time/part-time and gender**



Note: FT: Full-time; PT: Part-time.

Source: ABS, *Australian Labour Market Statistics, October 2009*, Catalogue No. 6105.0

Similar proportions as for all employees were reflected across the industries, where the proportion of permanent employees was the highest within most industries.<sup>14</sup> Only Accommodation, cafes and restaurants (casuals) and Agriculture, forestry and fishing (OME) had other types of employment that comprised the largest proportion within that industry. Permanent employees as a proportion of an industry increased between 1992 and 2008 in Construction, Retail trade, Property and business services, Cultural and recreational services and Personal and other services. The proportion of permanent employees fell in Accommodation, cafes and restaurants, Communication services and Finance and insurance. Industries where the proportion of casual employees increased to 2008 included Mining, Retail trade, Accommodation, cafes and restaurants and Transport and storage.

Analysis from the Productivity Commission (2006) found a strong relationship between the skill level of occupations and employment type. They found that the proportion of casual employees decreased as the skill level of an occupation increased, while the proportion of permanent employees increased in line with the skill level of an occupation.

For most occupations, the proportion of permanent employees comprised the largest share of employment (ABS 2009a). The only exception was Elementary, clerical, sales and service workers, where

<sup>14</sup> ANZSIC (1993) industry classifications.

casual employees were the most common. This occupation group also comprised a relatively high proportion of employment within Retail trade.

While there was no clear trend for employment type by industry over the period, there were some patterns when disaggregating the data into occupations (ABS 2009a). The proportion of casual employees increased in relatively low-skilled occupations but remained relatively steady in higher-skilled occupations. Increases in the proportion of casual employees were most evident in Intermediate production and transport workers and Elementary clerical, sales and services workers over the period. A fall in the proportion of permanent employees to 2008 occurred in Intermediate production and transport workers, Elementary, clerical and sales workers and Labourers, which are relatively low-skilled occupations (these occupations comprise a relatively high proportion of employment in Retail trade and Accommodation, cafes and restaurants). Managers and administrators experienced a relatively large increase in permanent employees at the expense of OME over the period, while the proportion of permanent employees was relatively steady for Professionals and Associate Professionals until a significant increase in 2008.

Permanent employees comprised the highest proportion of employment across most age groups (ABS 2009a). The only exceptions were 15-19 year olds, where casual employment was the most common, and for 65 years and over where OME was the most common. Most age groups experienced an increase in their share of casual employees between 1992 and 2008. The largest changes within age groups were in the two youngest groups, where the increase in the proportion of casual employees offset a similar fall in permanent employees. For most other age groups, the proportion of permanent employees remained relatively steady until an increase over the few years to 2008 and a decrease in the proportion of OME. This was more evident in the older age groups.

## 5 Method of setting pay

This section analyses the composition of the different pay-setting methods – awards, collective agreements and individual agreements – that set an employee's rate of pay. It shows that award reliance was higher in some labour market segments than others but continually fell across the whole labour market and across each segment.

Australia's industrial relations system has transformed significantly since the early 1990s. Beginning with the *Industrial Relations Reform Act 1993*, which introduced the concept of federal enterprise bargaining, it was followed by the *Workplace Relations Act 1996* (WR Act) which introduced further changes 'to the legislative framework of formalised agreement making in the federal jurisdiction, including scope for making individual agreements' (DEWR 2007:1). The Acts had an affect on how employees' pay was set and especially on the incidence of award reliance. According to van Wanrooy et al (2009), the WR Act undermined collective bargaining and the award system, diminished the role of trade unions as well as the power of the Australian Industrial Relations Commission (AIRC). Further changes to Australia's industrial relations system followed the *Workplace Relations Amendment (Work Choices) Act 2005*. Minimum wages were removed from awards and specified as Pay Scales. The *Fair Work Act 2009* reversed the strong emphasis on individual bargaining and turned the focus toward collective bargaining at the enterprise level (van Wanrooy et al 2009). It is assumed that these changes would have impacted on the proportion of employees reliant on awards.

The source of the data for analysing changes in methods of setting pay is the *Employee Earnings and Hours (EEH) Survey* (ABS 2009c), which is the best estimator of employees' method of setting pay.<sup>15</sup> The survey contains the most comprehensive and consistent information for determining award coverage; however, it includes only non-farm, non-managerial employees. That is, it does not include Agricultural employees or owner managers of unincorporated enterprises.

A labour market segment is 'reliant' on awards when a relatively higher proportion of employed persons within that labour market segment have their pay set by an award compared with other labour market segments.

An award is a legally enforceable determination made by federal or state industrial tribunals that sets the terms of employment (pay and/or conditions). From March 2006, pay rates for employees in the federal jurisdiction who were previously paid by an award were contained within the Australian Pay and Classification Scales (Pay Scales). The 2006 and 2008 EEH surveys therefore referred to these employees as award or Pay Scale reliant. For simplicity, this report refers to these employees as 'award reliant'. Employees were classified in the award category if they were paid at the rate of pay specified in the award and were not paid more than that rate of pay. However, there may have been employees that received a flow-on from award adjustments through enterprise bargaining.<sup>16</sup> This may have understated the number of employees who were affected by wage-setting decisions.

The EEH does not distinguish between federal and state awards. Prior to the introduction of the *Workplace Relations Amendment (Work Choices) Act 2005* there was greater discretion about whether firms were covered by a state or federal industrial instrument, in some cases called 'jurisdiction shopping'. Since then the increased reliance of the legislation on the corporations power, and most recently the referral of state powers, employers and employees within scope of the federal legislation are covered by the federal jurisdiction. Only federal award wages are varied by the Minimum Wage Panel. To give an indication of how federal and state award coverage has changed, in May 1990 around 32 per cent of employees were covered by a federal award, determination or collective agreement and thus in the federal jurisdiction. In August 2008, around 74 per cent of employees were covered by a federal award, agreement or unregistered arrangement.<sup>17</sup>

One limitation of using the EEH survey is that consistent data are only available from 2000. Since commencement of this survey data has been collected biannually. Prior to this, surveys were conducted in April 1954, May 1963, May 1968, May 1974, May 1983, May 1985 and May 1990. However, those surveys gave details of the incidence of industrial awards, determinations and collective agreements and not of award reliant employees paid at the award rate. Awards were once the most common method for setting employees' pay. In 1990, around 80 per cent of all employees and 86 per cent of non-managerial employees were covered by an award. Using unpublished ABS data, Buchanan and Considine (2008) found that over-award payments covered 13.4 per cent of employees in 1990, which left around 67 per cent of employees who had their pay set by an award.

---

<sup>15</sup> The definitions used by the ABS are incorporated in this paper.

<sup>16</sup> For a discussion on award coverage beyond those workers who are directly reliant see Buchanan, J and Considine, G, 2008, "The significance of minimum wages for the broader wage-setting environment: understanding the role and reach of Australian awards", in AFPC, 2008 Minimum Wage Research Forum Proceeding, Volume 1, October.

<sup>17</sup> This figure excludes working proprietors of incorporated businesses who comprised 5 per cent of employees in August 2008.

To give some indication as to how award reliance evolved during the 1990s and following the introduction of enterprise bargaining, another estimate of award coverage, based on the 1995 Australian Workplace Industrial Relations Survey, found that 33 per cent of employees were paid the award rate (Morehead et al 1997).<sup>18</sup> According to the EEH surveys, the proportion of award reliant employees was around 23 per cent in May 2000 and subsequently decreased across each survey. Around 17 per cent of employees were reliant on an award or Pay Scale in August 2008.

The EEH survey shows the changes in the proportion of each of the pay-setting methods.<sup>19</sup> The survey is normally conducted in May but in 2008 it was delayed until August. Industry classifications were revised for the 2008 survey and make comparisons difficult in the analysis by industry. This also occurred for occupations, where changes occurred in the 2006 survey.

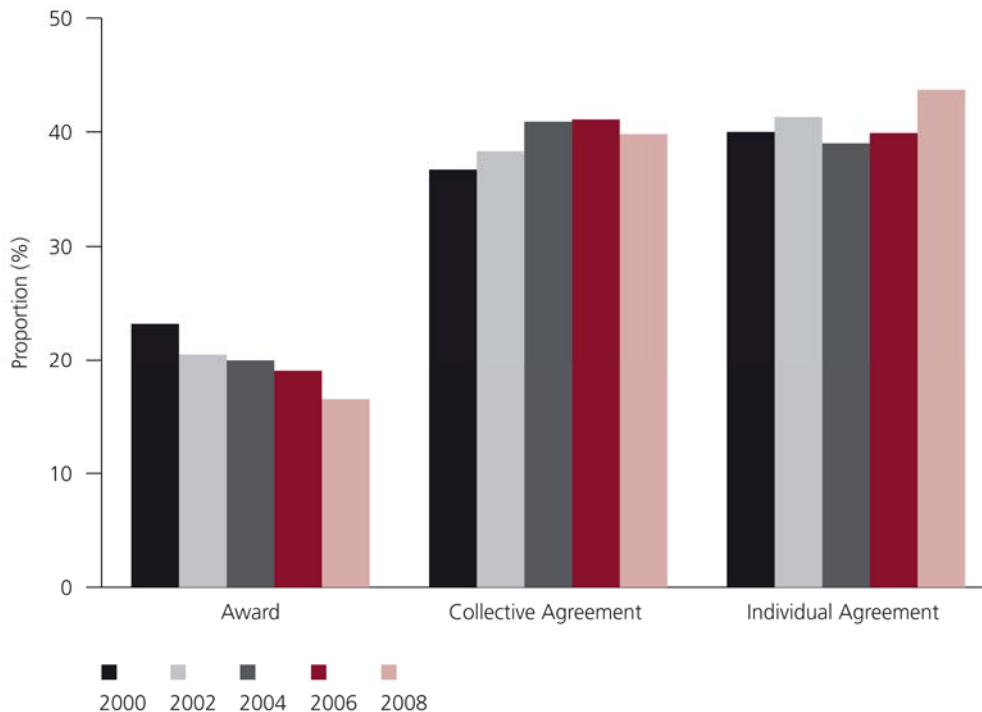
The following charts show that award reliance fell across all the labour market segments analysed between 2000 and 2008. Chart 28 shows that up to 2006, much of the fall in the proportion of award reliant employees was offset by an increase in the proportion of employees whose pay was set by collective agreements. The proportion of these employees increased across each survey to 2006 while the proportion on individual agreements was relatively stable. However, between 2006 and 2008 there was an increase in the proportion of employees on individual agreements, accompanied by a modest decline in the proportion of employees covered by collective agreements. This was the largest increase in employees reliant on individual agreements across the surveys, and also occurred during the period immediately following the introduction of the Work Choices legislation.

---

18 This is a percentage of employees who were employed at workplaces with at least 20 employees.

19 The EEH survey also collects information on earnings. Award reliant workers have consistently had the lowest earnings among the industrial arrangements.

**Chart 28: Proportion of employees by method of setting pay**



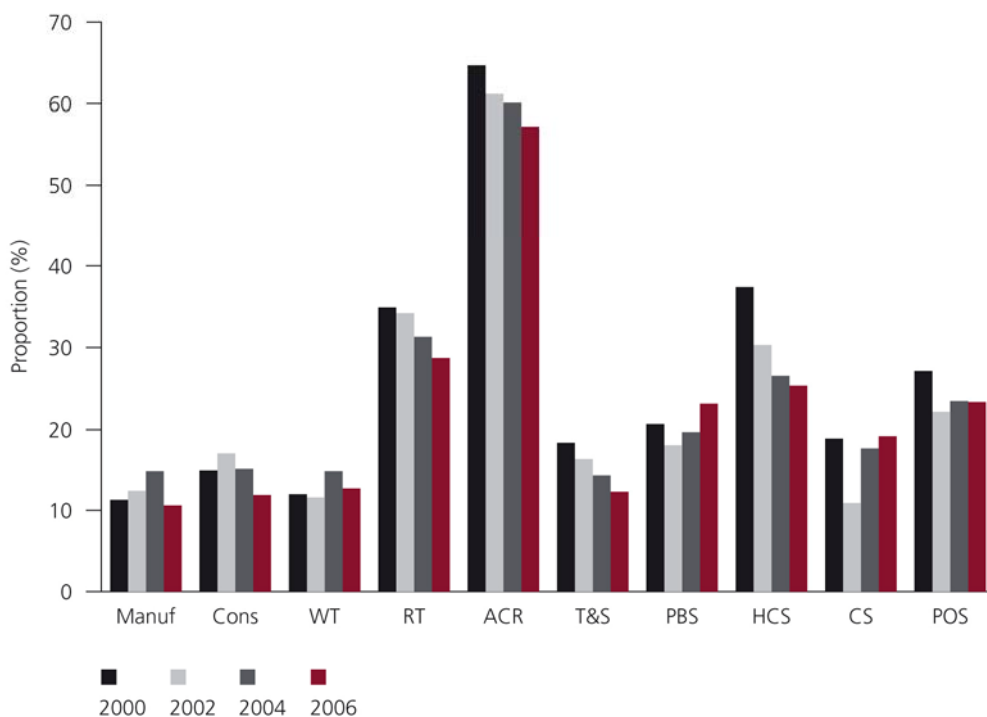
Note: Both the collective and individual agreements include registered and unregistered agreements.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

The proportion of non-farm, non-managerial employees reliant on an award within selected industries between 2000 and 2006 is shown in Chart 29. Award reliant employees comprised the highest proportion of employees in Accommodation, cafes and restaurants, though this proportion decreased over the six years to 2006. Retail trade and Health and community services also employed a relatively high proportion of award reliant employees compared with other industries, and again this proportion decreased over the analysed period. As shown earlier, these two industries comprised the highest proportions of employees across all industries in 2008. The only industry where award reliance increased significantly over the period was Property and business services.<sup>20</sup> The 1995 AWIRS survey found that at least 50 per cent of employees in Retail trade, Accommodation, cafes and restaurants and Health and community services were reliant on an award.

<sup>20</sup> The industries with the lowest average weekly total cash earnings for non-managerial full-time adults were Retail trade and Accommodation, cafes and restaurants.

**Chart 29: Proportion of award reliant employees within industry (selected industries), ANZSIC 1993 classification**



Note: Manuf: Manufacturing; Cons: Construction; WT: Wholesale trade; RT: Retail trade; ACR: Accommodation, cafes and restaurants; T&S: Transport and storage; PBS: Property and business services; HCS: Health and community services; CS: Cultural services; POS: Personal and other services.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

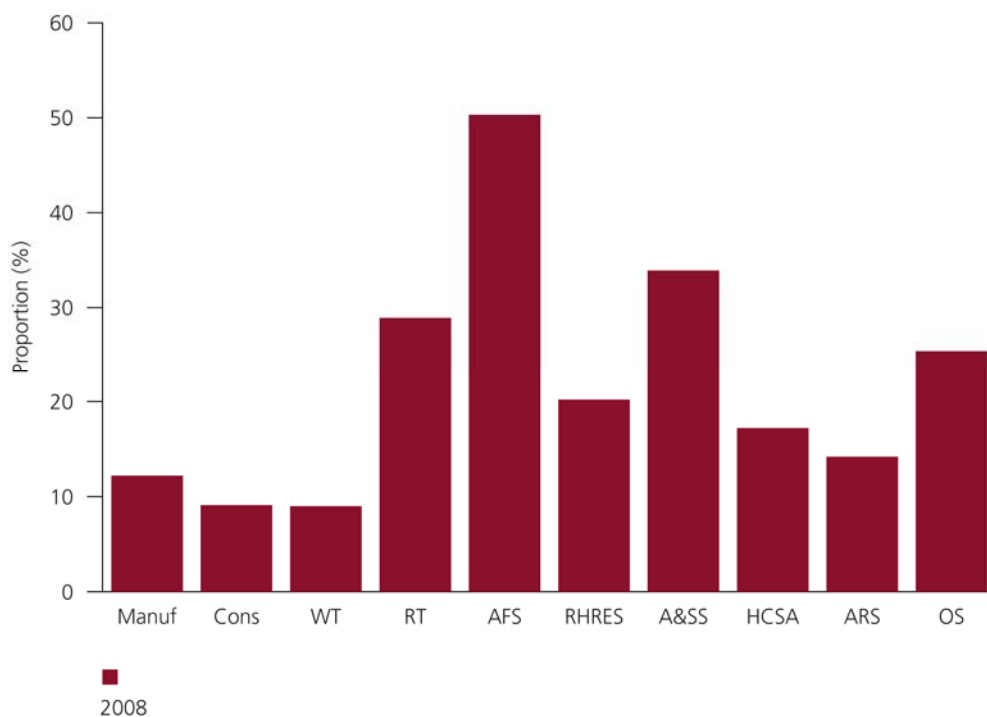
As the industrial classifications were changed for the August 2008 survey, the following chart shows the highest proportions of award reliant employees with the ANZSIC (2006) industry classifications. A significant change in the industry classification was the dissolving of Property and business services into three industries, of which Administrative and support services and Rental, hiring and real estate services are included in the chart.<sup>21</sup> Under the new classification, the industries with the highest proportion of award reliant employees in August 2008 were Accommodation and food services, Administrative and support services, Retail trade and Other services.<sup>22</sup>

21 The other industry is Professional, scientific and technical services.

22 The industries with the lowest average weekly total cash earnings for non-managerial full-time adults were Accommodation and food services, Retail trade and other services.



**Chart 30: Proportion of award reliant employees within industry (selected industries), ANZSIC 2006 classification**



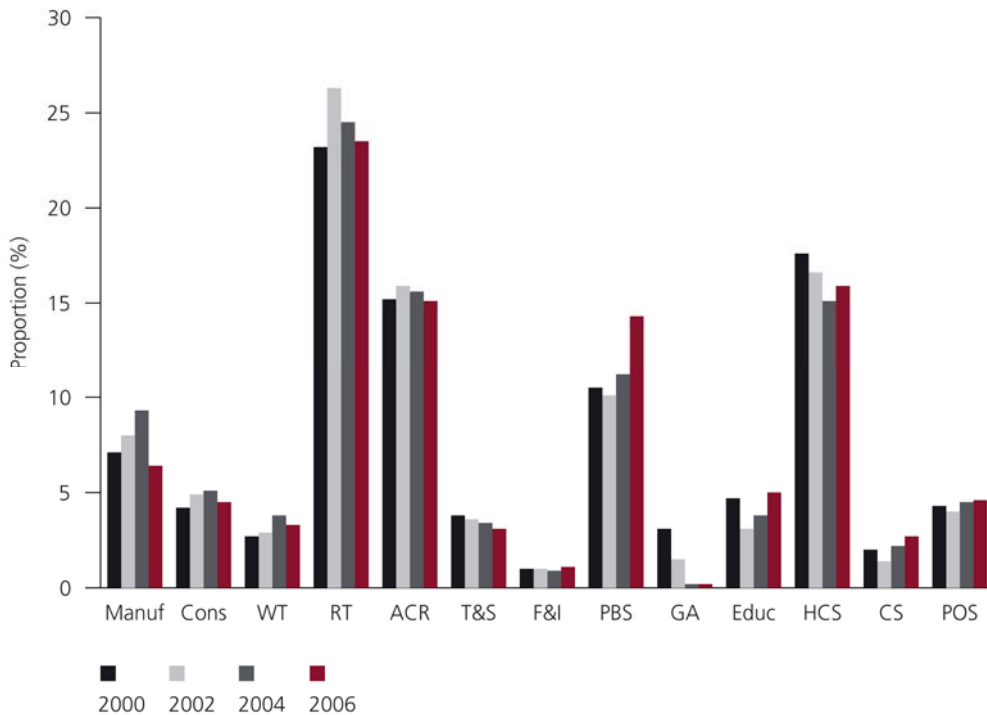
Note: Manuf: Manufacturing; Cons: Construction; WT: Wholesale trade; RT: Retail trade; AFS: Accommodation and food services; RHRES: Rental, hiring and real estate services; A&SS: Administrative and support services; HCSA: Health care and social assistance; ARS: Arts and recreation services; OS: Other services.

Source: ABS, *Employee Earnings and Hours, Australia, August 2008*, Catalogue No. 6306.0

The three industries with the highest proportion of award reliance – Accommodation, cafes and restaurants, Retail trade and Health and community services – comprise a relatively high proportion of females and part-time employment. Again, the industries with a relatively high proportion of award reliance have a relatively high proportion of part-time employment within the industry (Chart 20).

Changes to the industrial composition of award reliant employees are shown in Chart 31. This is highly affected by the size of industries within the economy. The four industries that comprised the highest share of award reliant employees in May 2006 are clearly visible, with Retail trade comprising the highest proportion of employees across each survey. The proportion of award reliant employees that these industries comprised across each survey was around two-thirds of all award reliant employees. Property and business services had a large increase in the proportion of award reliant employees between May 2004 and May 2006, while the proportion comprised of Retail trade employees peaked in 2002 but fell in the following two surveys.

**Chart 31: Proportion of award reliant employees by selected industry, ANZSIC 1993 classification**



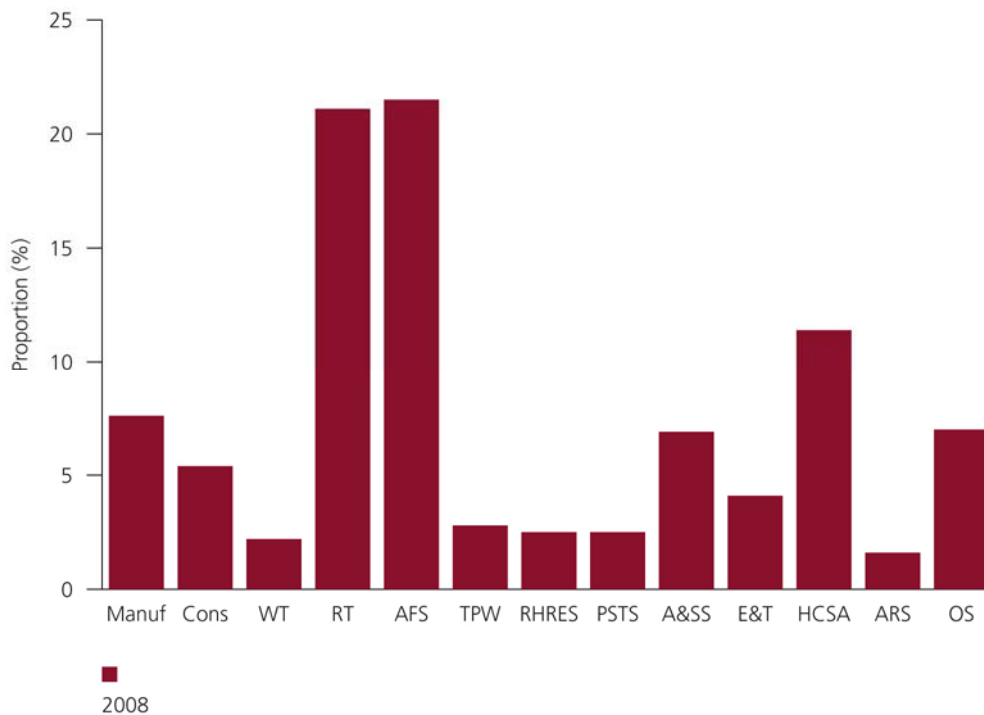
Note: Manuf: Manufacturing; Cons: Construction; WT: Wholesale trade; RT: Retail trade; ACR: Accommodation, cafes and restaurants; T&S: Transport and storage; F&I: Finance and insurance; PBS: Property and business services; GA: Government administration; Educ: Education; HCS: Health and community services; CS: Cultural services; POS: Personal and other services.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

Industries with the highest proportions of part-time and casual employees also employed a relatively high proportion of award reliant employees. This is also linked to these industries having a relatively higher proportion of lower-skilled occupations. The higher incidence of part-time and casual employment in the lower-skilled occupations may be explained by the lower training requirements for these jobs (Barnes et al 1999). As these occupations require relatively fewer skills, they tend to be lower paid occupations.

Under the ANZSIC 2006 classifications, over half of all award reliant employees were employed in Accommodation and food services, Retail trade or Health care and social assistance in August 2008 (Chart 32). Other industries with a relatively high number of employees reliant on awards were Manufacturing, Administrative and support services and Other services.

**Chart 32: Proportion of award reliant employees by selected industry, ANZSIC 2006 classification**

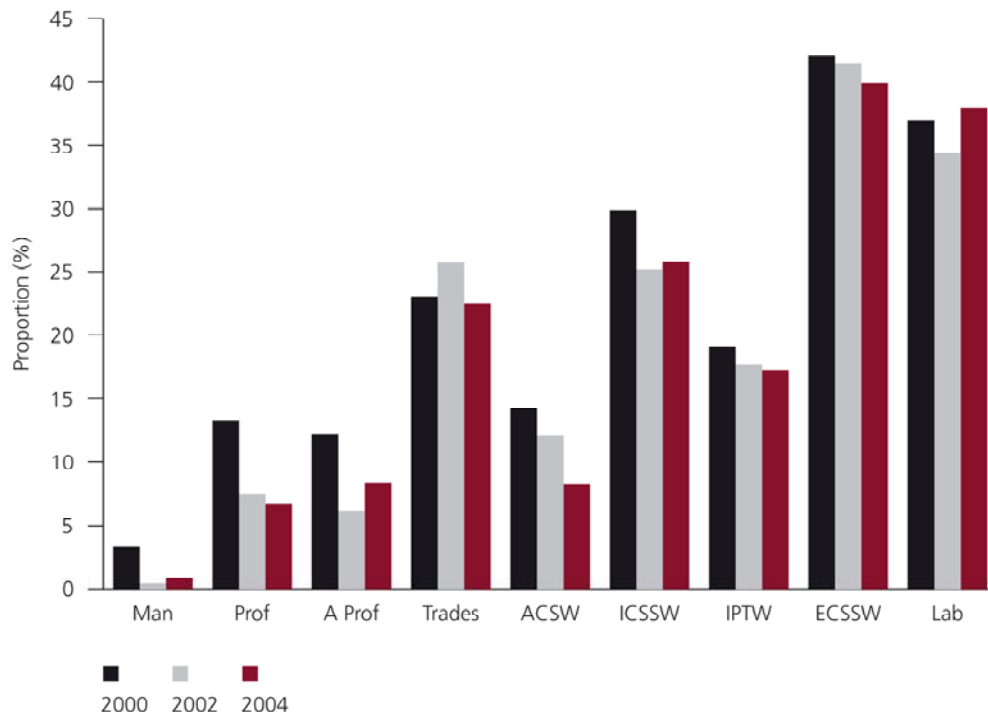


Note: Manuf: Manufacturing; Cons: Construction; WT: Wholesale trade; RT: Retail trade; AFS: Accommodation and food services; TPW: Transport and postal workers; RHRES: Rental, hiring and real estate services; PSTS: Professional, scientific and technical services; A&SS: Administrative and support services; E&T: Education and training; HCSA: Health care and social assistance; ARS: Arts and recreation services; OS: Other services

Source: ABS, *Employee Earnings and Hours, Australia, August 2008*, Catalogue No. 6306.0

DEEWR (2007) found that award reliance tends to fall as the occupations become more skilled. This is broadly evident in Chart 33, which shows that lower-skilled occupations, such as Labourers and related workers and Elementary clerical, sales and services workers, had the highest proportions of employees reliant on awards, while Managers had the lowest proportion. The pattern across most occupations is one of a decreased reliance on awards as only Labourers and related workers increased their proportion of award reliance within the occupation over the period.

**Chart 33: Proportion of award reliant employees within occupations, ASCO (second edition) classification<sup>23</sup>**



Note: Man: Managers and administrators; Prof: Professionals; A Prof: Associate Professionals; Trades: Tradespersons; ACSW: Advanced clerical and service workers; ICSSW: Intermediate clerical, sales and service workers; IPTW: Intermediate production and transport workers; ECSSW: Elementary clerical, sales and service workers; Lab: Labourers.

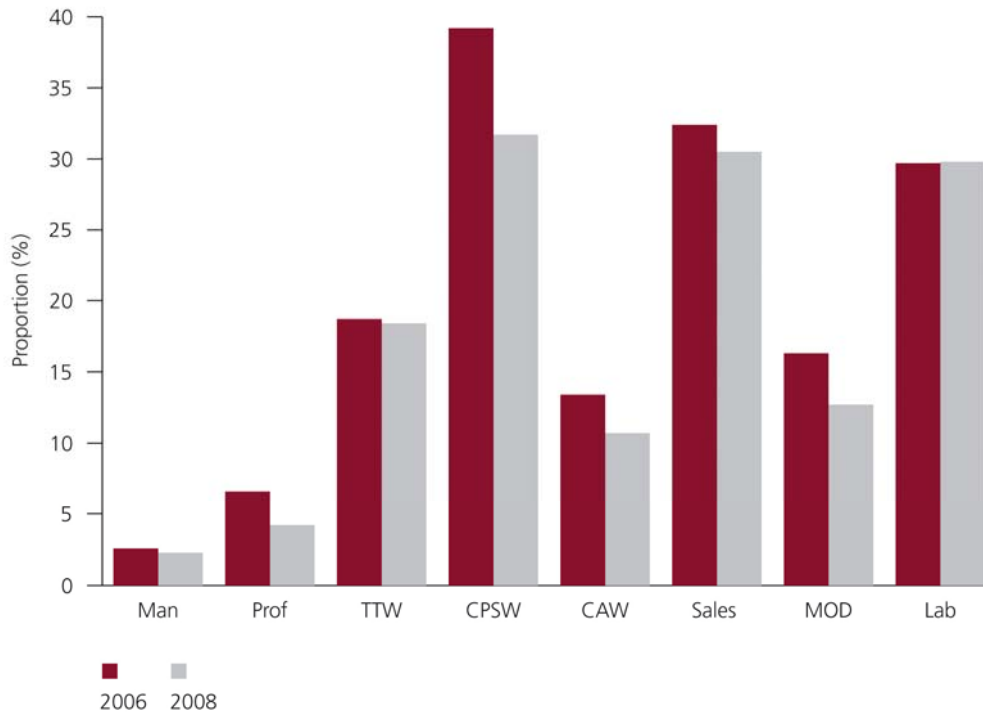
Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

Using the ANZSCO 2006 occupation classifications, award reliance based on skill is less evident (Chart 34). In August 2008 around 30 per cent of three occupations, Community and personal service workers, Sales workers and Labourers, are reliant on awards for their pay setting. Again, the proportion of award reliant employees fell within each occupation. Between the two surveys the reliance on awards or Pay Scales fell within all the occupations except for Labourers.

Comparing these with the new ANZSCO occupational classifications, around 69 per cent of Community and personal service workers was comprised of Intermediate clerical, sales and service workers (ABS 2008).

<sup>23</sup> In the 2004 survey the occupations with the lowest average weekly total cash earnings for non-managerial full-time adults were Elementary clerical, service and sales workers, Intermediate clerical, service and sales workers and Labourers and related workers.

**Chart 34: Proportion of award reliant employees within occupations, ANZSCO classification<sup>24</sup>**



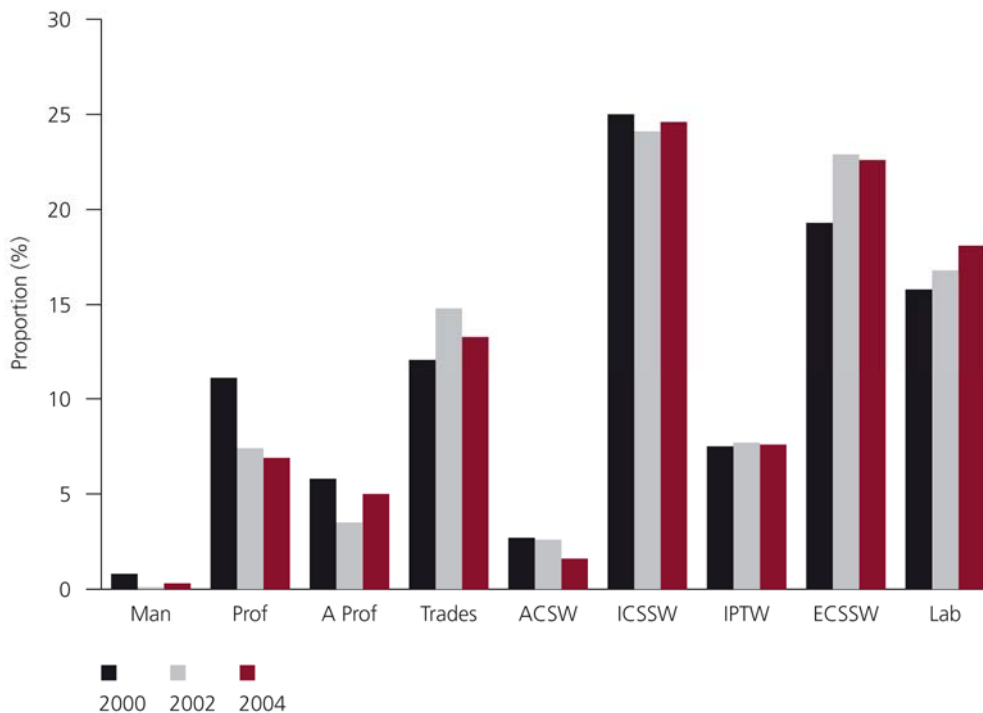
Note: Man: Managers; Prof: Professionals; TTW: Technicians and trade workers; CPSW: Community and personal services workers; CAW: Clerical and administrative workers; SW: Sales workers; MOD: Machinery operators and drivers; Lab: Labourers

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

The proportion of all award reliant employees by occupation is shown in Chart 35. Three occupations comprised over half of all award reliant employees across each survey and this proportion increased mainly because of increases in the shares of award reliant employees held by Elementary clerical, service and sales workers and Labourers and related workers. A large fall occurred in the proportion of Professionals reliant on awards or Pay Scales across each survey to May 2004.

<sup>24</sup> In the 2008 survey, the occupations with the lowest average weekly total cash earnings for non-managerial full-time adults were Sales workers and Labourers.

**Chart 35: Proportion of award reliant employees by occupation, ASCO (second edition) classification**

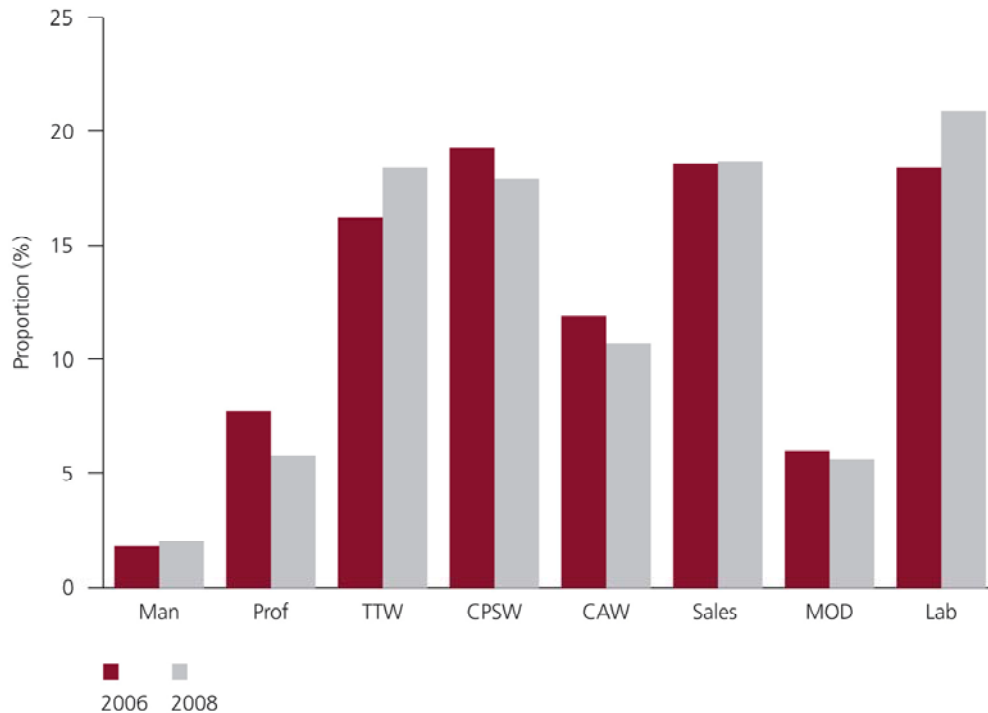


Note: Man: Managers and administrators; Prof: Professionals; A Prof: Associate Professionals; Trades: Tradespersons; ACSW: Advanced clerical and service workers; ICSSW: Intermediate clerical, sales and service workers; IPTW: Intermediate production and transport workers; ECSSW: Elementary clerical, sales and service workers; Lab: Labourers.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

Chart 36 shows that the composition of award reliance by occupation did not change significantly between 2006 and 2008. Around three quarters of all award reliant employees were employed in half of the occupation groups. Three of those occupations, Technicians and trade workers and Labourers, increased their share of award reliant employees between May 2006 and August 2008. While overall there was little change in the composition of award reliant employees by occupation, in 2006 Community and personal service workers comprised the highest proportion of award reliant employees, however this proportion fell to 2008 where Labourers comprised the highest proportion of award reliant employees.

**Chart 36: Proportion of award reliant employees by occupation, ANZSCO classification**



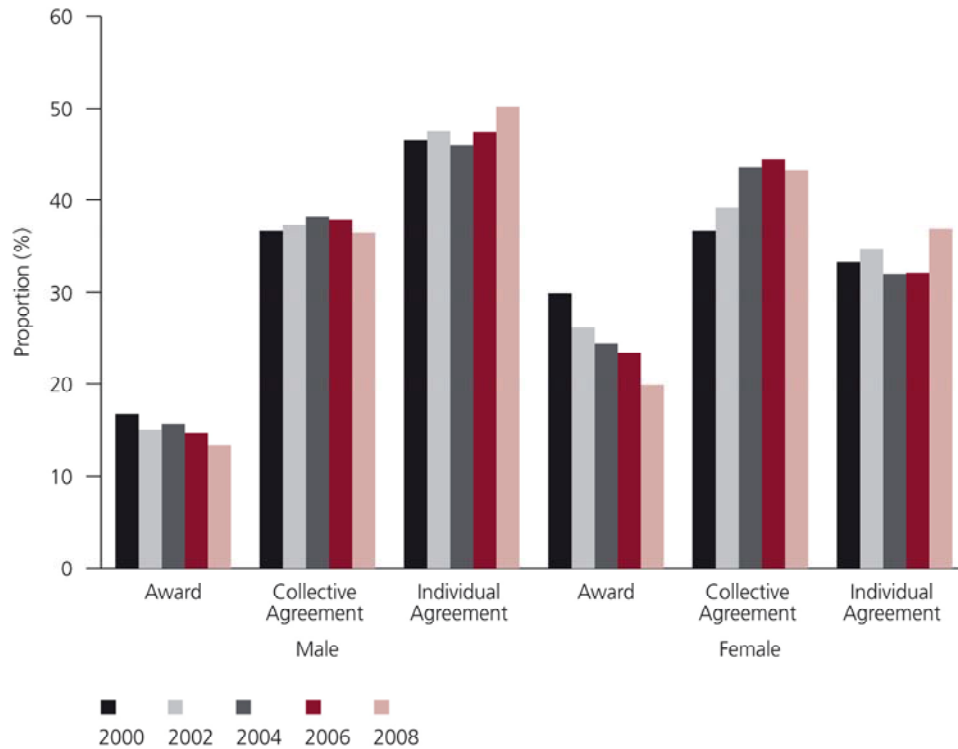
Note: Man: Managers; Prof: Professionals; TTW: Technicians and trade workers; CPSW: Community and personal services workers; CAW: Clerical and administrative workers; SW: Sales workers; MOD: Machinery operators and drivers; Lab: Labourers.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

Males are more likely to be employed on an individual agreement than a collective agreement and least likely to be reliant on an award (Chart 37). Across the surveys to August 2008, their reliance on awards decreased while their reliance on individual agreements mostly increased. Collective agreements are the most common method of setting pay for females, and the proportion reliant on these agreements increased over the period. Award reliance fell across each survey and, as with males, was mainly offset by an increase in individual agreements over the period to August 2008.

Differences in the methods of setting pay between males and females are largely due to their different industrial composition of employment (DEWR 2007). Industries with a higher proportion of male employees, such as Mining, Manufacturing and Construction were found to have relatively higher proportion of employees on individual agreements. While industries such as Accommodation, cafes and restaurants, Health and community services and Retail trade, which have a relatively high proportion of employees reliant on awards, comprised a relatively high proportion of female employees. Award reliant employees comprised a greater proportion of female employees than of male employees (Chart 38) across all surveys. However, it appeared that the proportion of female employees reliant on awards fell at a faster rate than that of males.

**Chart 37: Proportion of method of setting pay by gender**



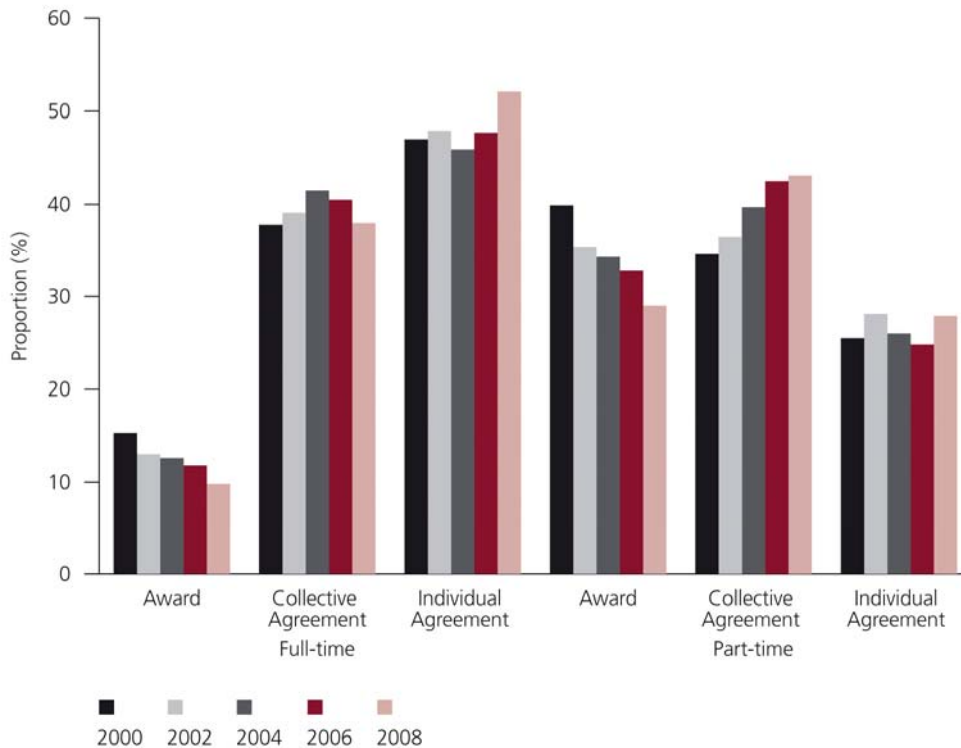
Note: Both the collective and individual agreements include registered and unregistered agreements.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

Award reliance had a higher incidence among part-time than full-time employees (Chart 39). However, the proportion of part-time employees reliant on awards fell considerably from May 2000 to August 2008 and was mainly offset by increases in collective agreements. Similarly, the proportion of full-time employees reliant on awards also fell, but from a much lower base. Individual agreements were the most common method of setting pay for full-time employees across each survey. For both full-time and part-time employees, the proportion of individual agreements increased between 2006 and 2008.



**Chart 38: Proportion of method of setting pay by full-time/part-time**



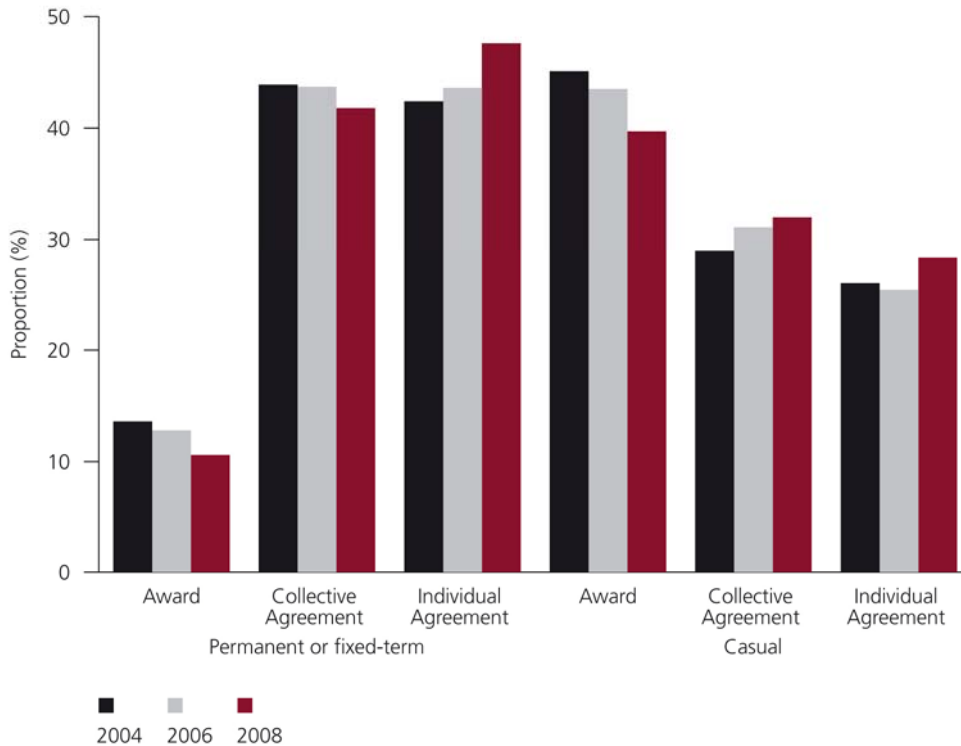
Note: Both the collective and individual agreements include registered and unregistered agreements.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

The higher incidence of award reliance among casual employees compared with permanent or fixed-term<sup>25</sup> employees is shown in Chart 40. It is the most common method of setting pay among casual employees but the least common for permanent or fixed-term employees. For both employment types the proportion of employees reliant on awards fell across each survey. The proportion of individual agreements increased and the proportion of collective agreements decreased for permanent or fixed-term employees across the surveys. For casual employees, both types of agreements increased in the 2008 survey. In 2008, a casual employee was four times as likely to be reliant on an award compared with a permanent or fixed-term employee.

<sup>25</sup> Employment type is categorised by permanent or fixed-term employees and casual employees. Permanent employees are usually employed on an ongoing basis and entitled to paid and sick leave. Fixed-term employees are employed for a specified period and may be entitled to paid leave.

**Chart 39: Proportion of method of setting pay by employment type**



Note: Data was not collected in May 2000 or May 2002. Both the collective and individual agreements include registered and unregistered agreements.

Source: ABS, *Employee Earnings and Hours, Australia, various*, Catalogue No. 6306.0

This section has used the EEH survey to demonstrate the fall in the incidence of award reliance. As well, it has shown that award reliance is more likely to be found among employees who are female, part-time, casual and are employed in certain industries or occupations.

## 6 The effect of compositional change in the labour market on award reliance

This section discusses the potential affects of compositional change in the labour market on award reliance. Labour market composition can affect award reliance when the proportion of a particular group that has a relatively high (low) reliance on awards increases and consequently total award reliance increases (decreases).

Changes to Australia’s industrial relations system are likely to have had an impact on the types of industrial instruments that set employed persons’ pay, however these effects are difficult to quantify. The awards system in the 1970s and 1980s was relatively prescriptive with regard to part-time employment. For example, awards could include setting allowable ratios of part-time to full-time employees in the workplace and upper and lower limits on hours worked by part-time employees. Over the last two decades, a number of changes have been made to the workplace relations systems with the common

theme of increased managerial prerogative and the ability of employers to create part-time and casual positions. As well, changes to the framework that govern Australia's industrial relations system have shifted the focus away from awards to other employment arrangements over time. This has been reflected in the declining number of employees receiving an award rate of pay.

As shown in Charts 38 and 39, part-time and casual employment had a relatively higher reliance on awards than full-time or permanent employment. This would mean that an increase in part-time or casual employment would be expected to increase award reliance, despite a fall in award reliance occurring within both part-time and casual employment. Although the proportion of casual employment remained relatively steady between 1998 and 2008, the proportion of part-time employment increased relatively strongly.

Chart 37 showed that females were more likely to have their pay set by an award than males. Females are also relatively more likely to be employed in industries that have higher proportions of employees reliant on awards. The industrial composition of employment can significantly effect the composition of award reliance depending on the proportion of award reliant employees within each industry. Industries with a relatively high proportion of award reliance, as shown in Charts 29 and 30, included Retail trade, Health care and social assistance, Administrative and support services and Rental, hiring and real estate services and Accommodation and food services. The respective proportions of employment of these industries increased relatively strongly between 1991 and 2009 compared with other industries, particularly for Health care and social assistance and Retail trade. This would imply an increase in award reliance over the period.

Higher levels of female award reliance also reflect that more females were employed in part-time or casual employment than males. This is also linked the women's concentration in industries with higher levels of part-time or casual employment. The proportion of female employment continually increased over the 1990s and 2000s which would be expected to increase award reliance amongst employees.

However, despite these indicators showing increases in labour market segments that had a relatively higher proportion of award reliant employees, section 5 showed that it did not prevent award reliance from falling over the period.

The analysis in this paper also showed another effect of compositional change in the labour market on award reliance that came from the demand for skills. An increase in the demand for higher-skills was shown to have occurred across all segments of the labour market. This was also the case for the decrease in award reliance. Employed persons who are less-skilled are more likely to be employed in lower paid occupations and be more reliant on awards. The proportion of employment comprised of occupation groups with relatively high award reliance mostly fell over the period 2000 to 2008. These included occupations such as Labourers, Machinery operators and drivers and Clerical and administrative workers. This included within industries whose proportion of employment increased and also had a relatively high award reliance, such as Health care and social assistance and Administrative and support services. Of the more award reliant industries, only Administrative and support services experienced an increase in higher-skilled occupations.

The effect of an increase in demand for people with higher skill levels is more pronounced using educational attainment data. As employed persons reliant on awards are more likely to be less-skilled and have lower educational attainment levels, a decline in the proportion of employed persons without non-school qualifications, all other things being equal, is likely to have contributed to a fall in award reliance.

As awards are set for the lowest-paid and the employees who have the least bargaining power, a smaller proportion of these employees would lead to a smaller proportion of award reliant employees.

The increased diversity of working arrangements means that it is possible that employed persons are more likely to change between employment arrangements over their working lives. Therefore, an employed person's reliance on a particular industrial agreement, such as an award or enterprise agreement has reduced, as it is more common for employed people to shift between industrial instruments as they move between jobs and stages of their working life, rather than be on the same industrial instrument for much of their working life.

## 7 Conclusion

This paper examined compositional change in the Australian labour market and within award reliance. Changes to employment composition occurred across many sections of the labour market that in turn led to changes in other segments. An increase in the age of the workforce was due in part to demographic changes but also to an increase in the number of younger people remaining in education. This has led to an overall increase in the educational attainment level of the workforce, brought about in part by an increase in demand for higher-skilled employment, across most occupations and industries. A smaller share of employment comprised of lower-skilled workers would reduce the share of award or Pay Scale reliant workers in the labour market.

Much of the changes in occupation and industry employment were caused by the increase in the proportion of female workers. This was due to labour demand falling in male-dominated industries and rising in industries with higher levels of female employment. This, in part, has also been caused by the increase in part-time employment. An increase in part-time employment has been apparent across most aspects of the labour market, with older workers transitioning to retirement contributing to this.

Award reliance fell for all employees and this was also seen across all labour market segments.

Within the context of decreasing award reliance and increasing agreement making, industry, gender, part-time and casual employment indicators showed increases in labour market segments that had a relatively higher proportion of award reliant employees, in opposition to the general trend. It appears from the analysis that the demand for higher skills had a contrasting effect to the above indicators, as employed persons who are reliant on awards are more likely to be less-skilled and have lower educational attainment levels, and therefore a decline in the proportion of employed persons without non-school qualifications, all other things being equal, is likely to contribute to a fall in award reliance.

## Bibliography

- Abhayaratna J, Andrews L, Nuch H and Podbury T, (2008) Part Time Employment: the Australian Experience, Staff Working Paper, Productivity Commission.
- Australian Bureau of Statistics, (2010) *Labour Force, Australia, Detailed – Electronic Delivery, December 2009*, Catalogue No. 6291.0.55.003, ABS, Canberra.
- Australian Bureau of Statistics (2009a), *Australian Labour Market Statistics, October 2009*, Catalogue No. 6105.0, ABS, Canberra
- Australian Bureau of Statistics (2009b), *Births, Australia, 2008*, Catalogue No. 3301.0, ABS, Canberra
- Australian Bureau of Statistics (2009c), *Employee Earnings and Hours*, various issues (May 2000, 2002, 2004, 2006, August 2008), Catalogue No. 6306.0, ABS, Canberra
- Australian Bureau of Statistics (2009d), *Education and Work*, various issues (May 1993 to 2008), Catalogue No. 6227.0, ABS, Canberra
- Australian Bureau of Statistics, (2009e) *Labour Force, Australia, Detailed, Quarterly, November 2009*, Catalogue No. 6291.0.55.003, ABS, Canberra.
- Australian Bureau of Statistics (2008), *Information Paper – Census of Population and Housing: Link Between Australian Standard Classification of Occupations (ASCO) Second Edition and Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006*, Catalogue No. 1232.0, ABS, Canberra
- Australian Bureau of Statistics (1991), *Award Coverage, Australia, May 1990*, Catalogue No. 6315.0, ABS, Canberra
- Barnes P, Johnson R, Kulys A and Hook S (1999), *Productivity and the Structure of Employment*, Productivity Commission staff research paper, AusInfo, Canberra
- Black D, Tseng Y and Wilkins R (2008), *The Decline in Male Employment in Australia: a Cohort Analysis*, Melbourne Institute working paper, No. 1/08
- Borland J and McDonald JT (2001), *Displaced workers in Australia 1984-1996: Macroeconomic Conditions and Structural Change*, The University of Melbourne Department of Economics working paper, Research Paper No. 824
- Bureau of Infrastructure, Transport and Regional Economics (2009), *Changes in Australia's industry structure: main cities 2001–06*, Information Sheet 32
- Dawkins P (2000), 'The Australian Labour Market in the 1990s', in Gruen D and Shrestha S (eds) *The Australian Economy in the 1990s, Proceedings of a Conference, H C Coombs Centre for Financial Studies, Kirribilli, 24-25 July 2000*, Sydney,: Veritage Press Pty Limited, pp. 316-352
- Debelle G and Swann T (1998), *Stylised facts of the Australian labour market*, Reserve Bank of Australia research discussion paper, 9804
- De Laine C, Laplagne P and Stone S (2000), *The Increasing Demand for Skilled Workers in Australia: The Role of Technical Change*, Productivity Commission staff research paper, AusInfo, Canberra, September

- De Laine C, Lee K and Woodbridge G (1997), *Microeconomic reform and structural change in employment*, Industry Commission staff research paper, AGPS, Canberra, October
- Department of Employment and Workplace Relations (2007), *Agreement making in Australia under the Workplace Relations Act 2004-2006*, viewed 9 September 2009  
<http://www.workplace.gov.au/NR/rdonlyres/69C9E741-61BA-489B-AEA0-D27F48398ECA/0/AgreementMakingWR20042006.pdf>
- Downes P and Stoeckel A (2006), *Drivers of structural change in the Australian Economy*, Centre for International Economics, Canberra, December
- Evans MDR and Kelley J (2004), *Trends in Women's Labour Force Participation in Australia: 1984-2002*, Melbourne Institute of Applied Economic and Social Research working paper No. 23
- Fahrer J and Heath A (1992), *The Evolution of Employment and Unemployment in Australia*, Reserve Bank of Australia research discussion paper, No. 9215
- Flatau P, Dockery M and Stromback T (2008), *The Economic and Social Circumstances of Australian Young People Aged 15-20 Years*, Centre for Labour Market Research, report commissioned by the Australian Fair Pay Commission, Melbourne
- Freebairn J (1998), 'Microeconomics of the Australian Labour Market' in DeBelle G and Borland J (eds), *Unemployment and the Australian Labour Market, Proceedings of a Conference, H C Coombs Centre for Financial Studies, Kirribilli, 9-10 June*. Canberra: Alken Press Pty Ltd, pp. 110–133
- Giesecke J and Meagher GA (2009), *Population Ageing and Structural Adjustment*, Centre of Policy Studies, Monash University, No. G-181, Melbourne
- Hall R, Bretherton T and Buchanan J (2000), *It's not my problem: The growth of non-standard work and its impact on vocational education and training in Australia*, National Centre for Vocational Education Research, Adelaide
- Kennedy S and Hedley D (2003), *A note on educational attainment and labour force participation in Australia*, Department of Treasury, Working Paper 2003-03, November
- Kennedy S, Stoney N and Vance L (2009), *Labour force participation and the influence of educational attainment*, Department of Treasury, Economic Roundup Issue 3, September
- Mitchell W, Myers J and Juniper J (2005), *The dynamics of job creation and job destruction in Australia*, Centre of Full Employment and Equity working paper, No. 05-13
- Morehead A, Steele M, Alexander M, Stephen K and Duffin L (1997), *Changes at Work: The 1995 Australian Workplace Industrial Relations Survey*, Longman, Melbourne
- Murtough G and Waite M (2000), *Unemployment and Re-employment of Displaced Workers*, Productivity Commission staff research paper, AusInfo, Canberra
- OECD (2002), *Structural Change and Growth: Trends and Policy Implications*, viewed 21 August 2009  
<http://www.oecd.org/dataoecd/43/13/2087106.pdf>
- OECD (2009), *Employment Outlook: Tackling the jobs crisis*, OECD, September

Preston A (2001), *The Changing Australian Labour Market: Developments During the Last Decade*, Curtin University of Technology, Women's Economic Policy Analysis Unit discussion paper, No. 16, August

Productivity Commission (1998), *Aspects of Structural Change in Australia*, Productivity Commission, Research Report, AusInfo, Canberra

Productivity Commission (2005), *Economic Implications of an Ageing Australia*, Research Report, Canberra

Productivity Commission (2006), *The Role of Non-Traditional Work in the Australian Labour Market*, report commissioned by the Productivity Commission, Melbourne

Richardson S and Law V (2009), 'Changing Forms of Employment and Their Implications for the Development of Skills', *Australian Bulletin of Labour*, vol 35, no. 2, pp. 355–392

Rozenbes D and Mowbray N (2009), 'Changes in the industrial and skill composition of employment', in Mowbray N, Rozenbes D, Wheatley T and Yuen K, *Changes in the Australian Labour Market over the Economic Cycle*, report commissioned by the Australian Fair Pay Commission, No. 9/09, June.

Salma U, Li J, Lin M, Kendall JD and Michalas G (2008), *Understanding the Role of Key Socio-Demographic Characteristics in Labour Force and Industry Employment Outcomes*, Department of Innovation, Industry, Science and Research working paper, November 2008

Smith M and Ewer P (1999), *Choice and Coercion: Women's experience of casual employment*, Evatt Foundation, Sydney

Van Wanrooy B, Wright S and Buchanan J (2009), *Who Bargains?*, report prepared for the NSW Office of Industrial Relations, Workplace Research Centre, The University of Sydney.

Vickery J (1999), *Unemployment and skills in Australia*, Reserve Bank of Australia Economic Research Department discussion paper 1999-12

Weller S (2004), *Non-Regulatory Impediments to the Labour Market Participation of Mature Workers*, University of Melbourne School of Anthropology Geography and Environmental Studies, report commissioned by the Department of Treasury and Finance Strategic Policy Group, Melbourne