

WEPAU

Gender Differences in Occupation of Employment Within Australia

by

Alison Preston and Gillian Whitehouse

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WEPAU, Curtin Business School,
Curtin University of Technology
GPO Box U1987, Perth 6845

<http://cbs.curtin.edu.au/wepau>

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ABOUT THE AUTHORS*

Associate Professor Alison Preston

In addition to her role as co-Director and Program Manager of the Women's Economic Policy Analysis Unit, Alison is Director of the MBA within the Graduate School of Business. Alison joined the GSB as a Senior Research Fellow, a position which was financed in part by a Curtin University post-doctoral fellowship. In addition to her role as MBA Director, Alison supervises research students and teaches economics and industrial relations on the MBA program.

Alison's research interests expand across a broad range of social and economic issues relating to women, including women's employment and pay, labour market structures, paid maternity leave, superannuation, ageing and access to welfare support. Financed by various large ARC grants, her current research focus is on nurse labour markets, career formation, pay equity and pension policy.

Gillian Whitehouse

Gillian Whitehouse is a Reader in Political Science with the School of Political Science & International Studies, University of Queensland. She has an expertise in employment equity and labour organisation and has published widely on these topics. Gillian is particularly well known for her work on pay equity. Her research in this area has been supported by several ARC grants. She has also undertaken consultancies for federal and state governments as well as international organisations such as the OECD.

Any questions or queries related to this discussion paper should be directed to:

Associate Professor Alison Preston

Graduate School of Business,
Curtin University of Technology.
GPO Box U1987,
Perth, WA 6845

Tel: +61 8 9266 7900
Fax: +61 8 9266 3368
Email: Alison.preston@gsb.curtin.edu.au

ABOUT WEPAU

The Women's Economic Policy Analysis Unit ("WEPAU") was founded in April 1999 in response to a growing void - within Australia and internationally - in the gender analysis of the economic and social policy issues that confront women. To most effectively address this void, WEPAU was established as an inter-disciplinary research program, spanning two divisions of Curtin University, the Curtin Business School (CBS) and the Division of Humanities.

WEPAU is committed to producing high quality quantitative and qualitative feminist research on a broad range of issues that women identify as undermining their ability to achieve equity and autonomy in the current context. Meeting this commitment is enabled by the breadth of experience and expertise brought to WEPAU by an increasing range of researchers.

Through its academic and consultancy research into women's experiences of social and economic policies WEPAU provides a meaningful gender analysis of policy. An analysis strongly put forward via active contribution to government policy debates.

Our broad objectives include:

- Identifying the cases and causes of women's disadvantaged social and economic status and to contribute appropriate policy initiatives to address this disadvantage;
- Demonstrating the way in which social factors, particularly gender, influence the construction of economic theory and policy;
- Extending current theory and research by placing women and their social context at the centre of analysis;
- Contributing an interdisciplinary approach to the understanding of women's position in society. In turn, this should enable the unit to better reflect the interrelatedness of the social, economic and political discourses in policy and their consequent implications for women;
- Fostering feminist research both nationally and internationally;
- Expanding linkages with industry;
- Establishing and supporting a thriving Curtin University postgraduate research community with a common interest in feminist scholarship.

For further details see: <http://www.cbs.curtin.edu/research/wepau/> and/or email WEPAU at wepau@cbs.curtin.edu.au.

Gender Differences in Occupation of Employment Within Australia

Abstract

Occupational segregation by sex is a persistent phenomenon in contemporary labour markets, and widely assumed to contribute to ongoing gender earnings inequality. In spite of continuing change in the occupational composition of labour markets and legislative efforts to proscribe sex discrimination in employment processes, only limited changes in overall indices of occupational segregation have been recorded in Australia over recent decades. This paper uses disaggregated data to show that even this modest level of integration is underpinned by trends that are not unequivocally favourable for women. Our analysis emphasises the influence of men's increased representation in part-time work, the impact of employment over female share effects, and highlights increased feminisation in some areas alongside integrating trends in others. Overall, we emphasise the continuation of marked differences between men's and women's occupational distribution, particularly at a disaggregated level.

1. INTRODUCTION

Sex differentiated patterns of employment are persistent features of labour markets that transcend national boundaries. They have been described as among the 'most important and enduring aspects of labour markets around the world' (Anker 1997: 315) and are widely associated with gender earnings inequality. While this relationship is far from straightforward¹, the concentration of women in comparatively poorly remunerated occupational groups (Grimshaw and Rubery 1997), their under-representation in the upper echelons of many occupations and over-representation in part-time/non-career jobs, and the widespread undervaluation of female dominated work underline the significance of sex differentiated patterns of employment for understanding gender inequality in labour markets.

Several changes in recent decades have led to expectations of declining occupational sex segregation. These include: changing occupational structures, with emerging occupations deemed less likely to be explicitly 'gendered' (Deakin 1984; Kruger 1993); trends towards convergence in male and female labour force participation rates² (albeit with marked gender differences in the take-up of part-time work); declining fertility rates and delayed first children; higher educational attainment among women (women's participation in higher

¹ For example, Rimmer (1991) and Preston (1997) have shown that giving women male patterns of occupational distribution in Australia would have widened the gender pay gap in the 1980s and early 1990s; and cross-national comparisons frequently highlight the coincidence of high levels of occupational segregation with relatively good pay equity outcomes (for example, Blau and Kahn 1992; Blackburn et al 2000). These outcomes reflect the complexities of vertical segregation within occupations and cross-national differences in the overall shape of the wage distribution.

² The gender participation gap (defined as the male participation rate minus the female participation rate) narrowed from 22 per cent in 1992 to 16 per cent in 2002; by November 2002 71.6 per cent of all men in the working age population were participating in the labour market.

education rose from 53.3 per cent in 1991 to 55 per cent in 2001 - ABS 2002 Cat. 4102.0, p.98); and legislative provisions to address sex discrimination in employment practices. In Australia, for example, the *Sex Discrimination Act 1984* and the *Affirmative Action (Equal Employment Opportunity for Women) Act 1986*³ have provided avenues for redress against discrimination and encouraged organisational strategies to address gender inequalities.

It is clear, however, that these trends and initiatives have had limited impact on occupational barriers. The Australian labour market is characterised by enduring sex segregation and employment growth during the 1990s has largely been concentrated in the part-time labour market, a sector where sex differentiation is particularly pronounced. However, the employment share of highly skilled employees, and of highly skilled females in particular, has increased in recent years (ABS 2002 Cat.4102.0, p.125). Employment shares amongst the lowest skilled groups have, simultaneously, fallen.

Recent analysis of occupational gender segregation by Watts (2003) shows that women have made some gains, with the Professional/Para-Professional group integrating the most, and growth in part-time employment apparently not hampering the overall rate of occupational integration. Using more disaggregated data, this paper builds on Watts (2003) and shows that integration is not a totally positive story for women. It is based partly on the movement of men into part-time work and declining full-time job opportunities in some areas, and conceals some areas of increasing feminisation and vertical segregation at the more disaggregated level. Our methodological approach extends beyond the notion of 'segregation' as an economy-wide symmetrical index (Blackburn et al, 2001: 512) to the concentration of women in specific disaggregated occupational groups, and enables us to uncover counteracting trends and some (limited) aspects of vertical segregation not visible in aggregate indices.

The remainder of the paper is organised as follows. We commence with a brief overview of key theoretical perspectives on gender segregation in the labour market. Thereafter we summarise recent evidence on patterns of segregation at the aggregate level before shifting to a more disaggregated analysis of the occupational structure using 2-digit and 4-digit level occupational data.

2. WOMEN AND OCCUPATIONAL 'CHOICE'

Our purpose in this paper is elaboration of trends in patterns of occupational sex segregation and concentration, rather than explanations of their origins. Nevertheless, a brief overview of contending approaches to these issues helps to clarify our analytical focus.

The literature seeking to explain occupational segregation ranges from human capital theory, in which occupational choice decisions are conceptualised within a utility maximising framework where individuals seek to maximise income over their lifetime, to feminist notions of women's subordination through sexist labour market practices and social constraints. From the human capital perspective, occupational outcomes (and thus the distribution of men and women across jobs) reflect the effects of earlier decisions ('choices') concerning human capital investments. Women who expect to work intermittently over their lifetime, perhaps because of anticipated household responsibilities (responsibilities which,

³ Both these Acts have been amended subsequently, with changes to the latter following a review in 1998 including reduced reporting requirements.

themselves, are assumed to be exogenously determined), are likely to invest less in education and training and/or choose jobs where the rewards and penalties for career interruptions are lower. Their occupational choices are therefore limited and constrained to relatively low skilled and/or low paid jobs.

Related arguments posit that women are less concerned with professional progress and happy to trade-off effort for jobs which have flexibility, thus allowing them to balance work and family needs (Becker, 1985). Similarly, Hakim (1995, 2000) views gendered employment patterns as the legitimate products of women's choice. She conceptualises different 'types' of women with different levels of 'work commitment' and therefore different preferences concerning the type and duration of paid work in which they engage.

While there has been longstanding criticism of human capital ideas from institutional and labour market segmentation perspectives, feminist writing is regarded as most effectively illuminating the non-labour market influences on occupational segregation that operate outside the framework of the human capital model (Anker, 1997: 324). In particular, this literature emphasises the inherent masculine bias in the human capital model (see, also, Hewitson, 1999). Feminist writing has also emphasised the constrained 'choices' available to women, such as societal norms concerning mothering and differing treatment of women and men in the labour market (Blau and Ferber 1991; Barns and Preston 2002); as well as the ways in which choices are shaped in specific labour market and regulatory contexts (Fagan, 2001; Crompton and Harris, 1998).

The extent to which employers discriminate against women, perhaps because they perceive them as being less committed and more likely to leave (statistical discrimination) or perhaps because they believe their skills, aptitudes and abilities are best suited to particular fields/lines of work, has also been an issue in the analysis of segregation, with feminist writers such as Cockburn (1991) elaborating the more subtle effects of masculine organisational and workplace cultures. In the case of the latter "...sheer attrition over time" may lead women to opt for work alongside other women (Panteli, Stack & Ramsay, 2001, pp11-12).

Viewing the determinants of occupational segregation in these broader ways helps to clarify why change over time has been more limited than might be expected from an examination of purely 'human capital' developments for women, and why the capacity of legislative measures to improve the representation of women across the occupational spectrum is restricted. In the next section of the paper we show how persistent sex differentiated patterns of employment are in Australia, notwithstanding some aggregate level trends towards integration.

3. AUSTRALIAN PATTERNS OF OCCUPATIONAL SEGREGATION

We take recent findings by Watts (2003) as a starting point for our analysis before moving to the more disaggregated data at 2-digit and 4-digit levels. In focusing our analysis at a more disaggregated level, we move beyond some of the problems associated with broad indices of occupational segregation. Aside from technical concerns about the construction of the index (see Watts 2003), interpretation of index results is also difficult, with different indices (such as the index of dissimilarity and the Karmel and MacLachlan (KM) index) apparently telling different stories (Rubery, Smith and Fagan, 1999, p.172; see also Blackburn et al 1995). From our perspective, a key limitation with the index approach to the study of segmentation is that the data used are necessarily presented in an aggregate form and, therefore, provide little information about underlying patterns of gender segmentation. We also note that indices have been criticised for their inability to address the issue of vertical segregation (Hakim 1998: 7), concealing the segregation of men and women into different hierarchical positions within an occupation, or different sub-occupational groups within broader occupational categories.⁴

Nevertheless, as Watts (2003) contains recent index computations that we are able to draw on, we commence our examination of the Australian data at this level. The analysis throughout is restricted to employees - in other words, employers and own-account workers (self-employed) are not included. Our time period for analysis is 1996 to 2002. The introduction of a new occupational classification system in 1996 (ASCO 2) explains the choice of start date.

Watts' (2003) computations with respect to changes in the KM Index (and thus rates of integration) are reproduced in Table 1. The trends, as illustrated by a negative sign, show an overall rate of integration equal to 2.73 per cent between August 1986 and August 2002. The data also show that the rate of integration has been faster amongst part-time employees. Integration has been greatest amongst the Clerical, Sales and Service Occupations, facilitated by the growth of male part-time employment opportunities (Watts, 2003, p.648).

Table 1 Rates of Occupational Sex Integration, Australia, 1986-2002.

Occupational Groups	Full-Time Employees		Total (All) Employees	
	Aug.86- Aug.02	Aug.00- Aug.02	Aug.86- Aug.02	Aug.00- Aug.02
	%	%	%	%
Managers & Administrators	-2.57	0.71	-1.16	0.16
Professionals & Para-Professionals	-4.60	-1.94	-10.81	-5.40
Sales, Service & Clerical	-7.25	-3.33	-7.32	-3.85
Tradesperson & Related Workers	4.3	1.87	1.32	1.89
Production Workers & Unskilled	1.2	0.81	-9.12	-3.60
Total	-2.73	-1.01	-6.57	-2.89

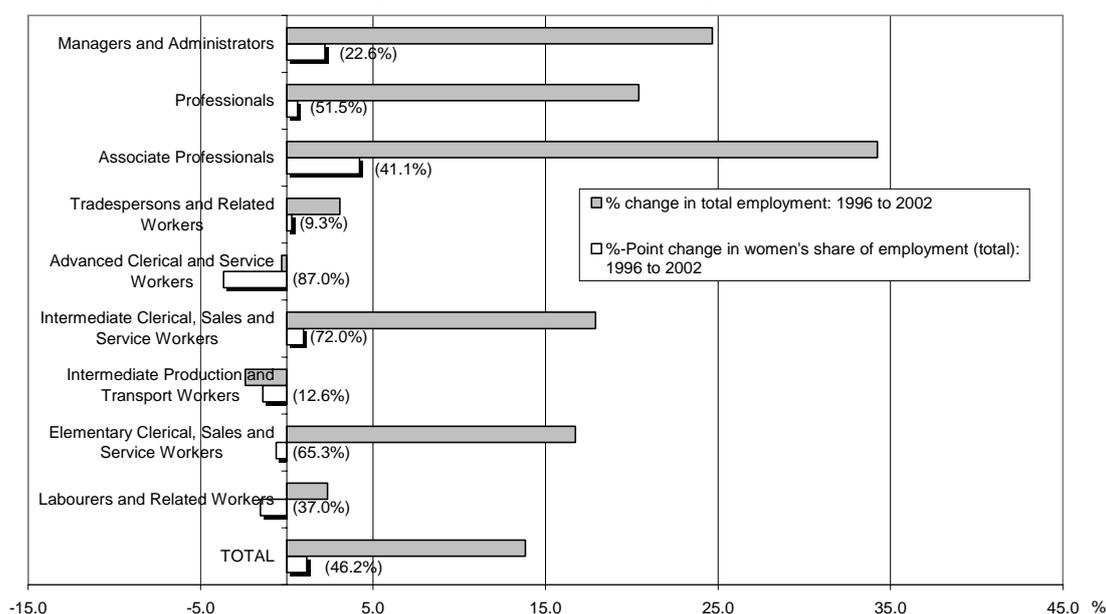
Source: Watts (2003, Table 3).

Notes: these 'rates' measure rates of change in the KM Index magnitudes.

⁴ Blackburn et al (2001) seek to address this issue with the construction of an index that incorporates a vertical dimension. This approach is not applicable to the data we utilise in this paper.

Differences in recent patterns of job growth in full-time and part-time labour markets assist interpretation of Watts' findings (see Figures 1, 2 and 3 with total, full-time and part-time data, respectively). Between the 1996 and 2002 November quarters total employment grew by 13.8 per cent, with women's share of total employment increasing by 1.2 percentage points to 46.2 per cent.⁵ As Figure 1 shows, the occupational categories in which the female share has expanded most overall (Managers & Administrators and Associate Professionals) have been areas of strong employment growth. Over the period, the employment of Associate Professionals increased by 34.2 per cent, while the share of women as a proportion of all Associate Professionals increased by 4.2 percentage points to 41.1 per cent. Integration was assisted also by declining female shares in both advanced and elementary Sales, Service & Clerical groups, with both these areas experiencing declines in full-time jobs (Figure 2).

Figure 1: Change in Total Employment and Women's Share of Employment, Nov.96 to Nov.02 by major occupational group (total employees, aged 15 and over)



Source: ABS data-cubes, q5_aug96.srd. Women's share of total employment at Nov.02 is shown in parenthesis.

⁵ A summary of the employment shifts by status of employment is provided in the following table:
Change in Employment, Nov.96 to Nov.02, %

	Full-Time	Part-Time	Total
Men	7.1%	48.2%	11.6%
Women	10.7%	25.2%	16.7%
Persons	8.3%	30.7%	13.8%

Source: see notes to Table 2

Figure 2: Change in Full-Time Employment and Women’s Share of Full-Time Employment, Nov. 96- Nov.02 by major occupation group (total employees aged 15 and over)

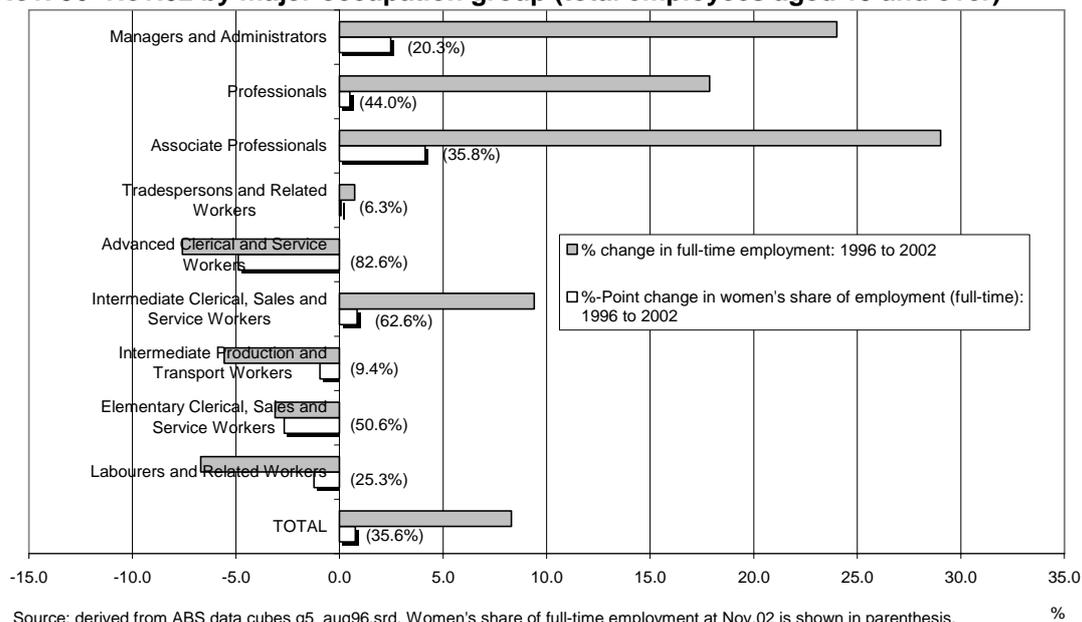
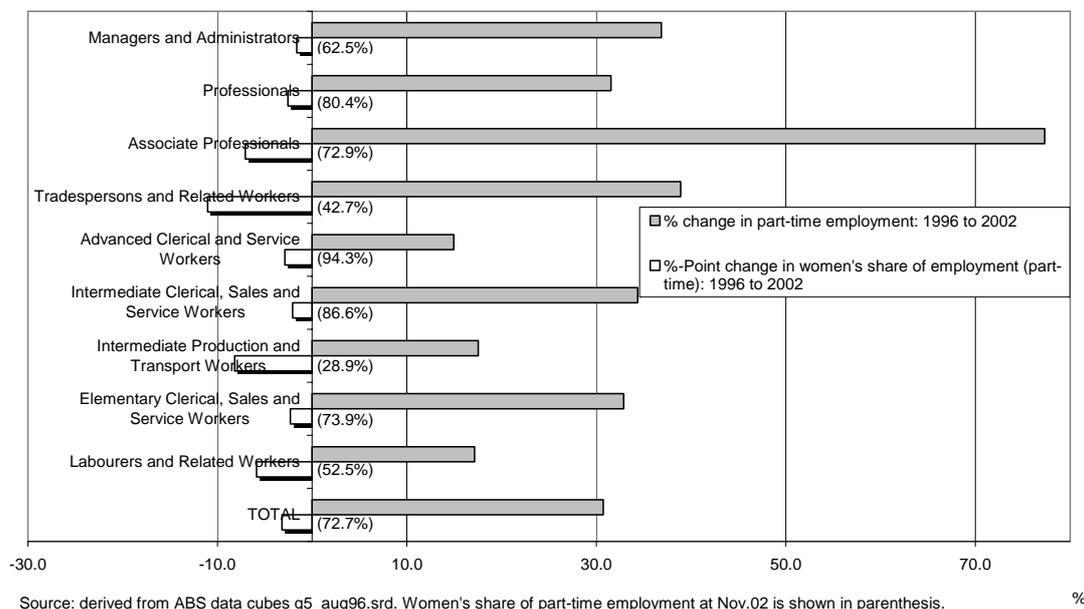


Figure 3: Change in Part-Time Employment and Women’s Share of Part-Time Employment, Nov. 96 to Nov. 02, by major occupation group (total employees aged 15 and over)

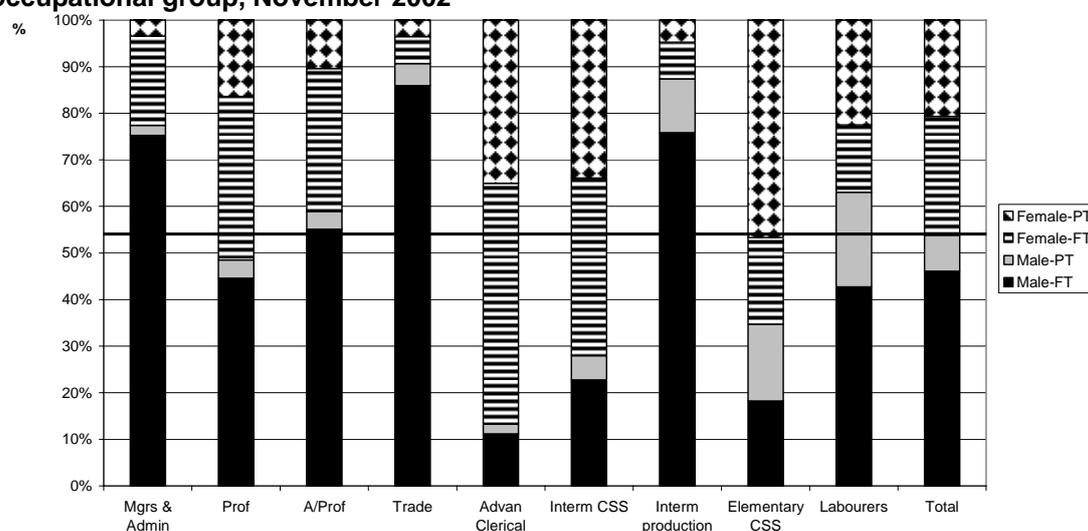


Strong employment growth in the male part-time labour market (albeit from a small base) underpinned falls in the female share of part-time work across all occupational groups represented Figure 3. Between the 1996 November quarter and 2002 November quarter, women’s share of part-time employment fell by 3.2 percentage points to 72.7 per cent. This recent growth in part-time employment, and of male part-time employment in particular, has contributed to the picture of a more integrated workforce shown in Table 1, with the uneven distribution of part-time jobs across occupational groups explaining the differential integration rates across total and full-time labour markets.

Overall, the implications for women of these changes are mixed. Where women have increased their share of full-time employment in highly skilled occupational groups, and these areas have experienced full-time employment growth, evidence of integration appears indicative of progressive trends, rather than simply the result of expanding part-time employment opportunities. However, there is less evidence that the integration observed in Sales, Service & Clerical occupations, which has been associated with declining full-time job opportunities; or in part-time work overall, which is still substantially female dominated, reflect significant advances for women.

Moreover, notwithstanding strong employment growth amongst women and modest overall levels of gender integration, the Australian labour market remains highly gendered. While women accounted for 46.2 per cent of all employment (comprised of 25.5 per cent full-time workers; and 20.7 per cent part-time workers) in 2002, they were disproportionately concentrated in clerical, sales and service (CSS) jobs. Women, for example, held 87 per cent of all Advanced Clerical jobs (51.8 per cent full-time and 35.2 per cent part-time); 72 per cent of all Intermediate CSS jobs (38.1 per cent full-time and 33.9 per cent part-time); and 65 per cent of all Elementary CSS jobs (18.6 per cent full-time and 46.7 per cent part-time). The solid horizontal line at the 53.8 per cent mark (men's overall share in employment) in Figure 4 clearly illustrates the degree to which women are disproportionately distributed across jobs relative to their share of total employment.

Figure 4: Male and Female Full-Time and Part-Time Employment Shares, by broad occupational group, November 2002

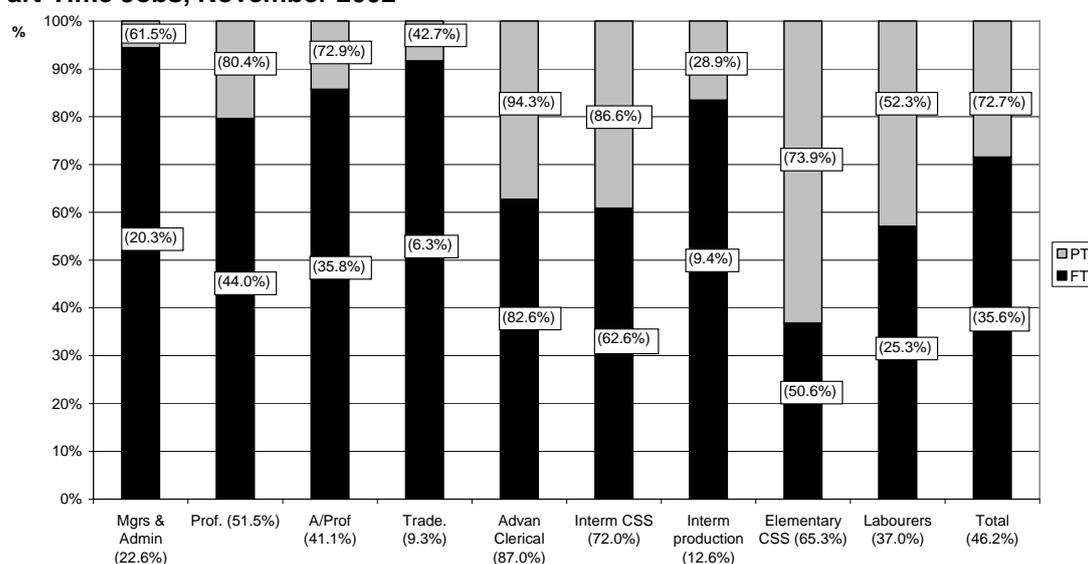


Source: ABS Super-cubs, q5_Aug96.srd

Additionally, in spite of the trends to integration noted above, sex segregation of employment is most pronounced within the part-time labour market. As shown in Figure 5, whilst 28.4 per cent of all employment is of a part-time nature (less than 35 hours per week), women hold a disproportionate share (72.7 per cent) of these jobs. This is particularly the case in occupations where the share of part-time employment is relatively high. Part-timers, for example, account for 63.1 per cent of all Elementary CSS jobs, and women hold 73.9 per cent of these part-time jobs. Similarly, part-time work accounts for 39.1 and 37.3 per cent of Intermediate CSS jobs and Advanced Clerical jobs, respectively. Women's share

of part-time work within these two occupational classifications is 86.6 and 94.3 per cent, respectively.

Figure 5: Distribution of Full-Time and Part-Time Jobs and Female Share of Full-Time and Part-Time Jobs, November 2002



Source: ABS super-cubs, q5_aug96.srd. Female share of each group is shown in parenthesis: eg. 46.2% all employees are women; 35.6% all full-time employees are women; 72.7% all part-time employees are women.

Part-time work clearly affects the level of sex segregation within the labour market, although even in the absence of part-time work, women are still disproportionately distributed into certain jobs, such as clerical work. For example, 82.6 per cent of all full-time Advanced Clerical jobs are held by women (see Figure 5).

We note that this aggregate level snapshot of sex differentiated patterns of employment tends to underestimate the extent of segregation by sex.⁶ For example, at the 1-digit level of aggregation 37.3 per cent of all employed women are in female-dominated occupations (occupations where the share of women is 70 per cent or more). At the 2-digit level of analysis, 55.8 per cent of women are employed in female-dominated occupations; 51.6 per cent of men are employed in male-dominated occupations (where the share of men is 70 per cent or more); and a third of the workforce (of men and of women) are employed in mixed occupations (see Table 2). When 4-digit level data are used the level of sex-segregation is shown to be even higher. In the 2002 November quarter, 62.6 per cent of all employed women worked in female-dominated occupations and 65 per cent of all employed men work in male-dominated occupations. It is clear from these figures that men and women are most likely to work in 'own-sex' occupations, and that an understanding of the trends underpinning aggregate measures of integration is essential to inform both theoretical and policy debates.

⁶ Similarly, several authors have noted that the impact of segregation on gender pay differentials may be underestimated with high levels of aggregation (see, for example, Treiman and Hartmann 1981; Kidd and Shannon 1996).

4. BENEATH THE AGGREGATE DATA

In this section of the paper we look first at the changes evident among 2-digit occupational groups, which we have grouped into three categories according to the female share of employment in 2002 November quarter. These are: female-dominated (70 per cent or more female); integrated (31-69 per cent female); and male-dominated (30 per cent or less female). In Table 2 we examine employment growth and changes in the female share within these groups between the 1996 and 2002 November quarters.

Whilst most growth occurred in jobs that, by 2002, could be defined as mixed sex a substantial share of the growth occurred in highly feminised jobs. By 2002 these highly feminised jobs accounted for 55.8 per cent of all employed women, down from 58.5 per cent in 1996; some individual occupations within the group, however, increased in female share (see below).

Many male dominated areas of the labour market experienced below average employment growth (in some cases negative growth). By 2002, 16 per cent of employed women and 34 per cent of employed men were in jobs where employment growth had been slow (5 per cent or less) or negative. Falling job prospects in male dominated areas, combined with strong employment growth within more integrated sectors of the labour market has increased women's employment shares across a number of occupations. Indeed, shift-share analysis suggests that such structural factors underpin the observed integration within a number of groups (these include Business and Information Professionals, Business & Administrative Associate Professionals, Managing Supervisors, Other Advanced Clerical & Service Workers and Elementary Sales Workers) (see Appendix A). In other words integration in these areas derives more from the fact that there has been strong employment (shift-effects) in areas employing women rather than from changes in actual female employment shares.

Areas where women made 'disproportionate' gains in employment share (defined by Wooton (1997) as areas where the percentage point change in women's share of employment is twice the increase in women's share of overall employment) are shown in bold (column 5) in Table 2. They include Health Professionals, where women's share of employment increased by 2.7 percentage points (from 75.7 per cent to 78.4 per cent) and Education Professionals (where women's share of the workforce increased by 4.3 percentage points to 68.1 per cent). Over the same period the share of women in the workforce increased by 1.2 percentage points; from 45 per cent to 46.2 per cent.

Overall it is apparent that beneath the trends as gleaned from segregation index measures (such as those reported in Watts 2003) there are some counterbalancing forces at work. The trend towards desegregation in Australia may be seen as co-existing alongside increased feminisation in some areas (for example, Health and Education Professionals).

The extent of this counter-trend is evident when the number of males and females affected is identified. In the 2002 November quarter, of all employed women, 34 per cent were in feminised occupations where the rate of feminisation increased between 1996 and 2002. Similarly, 18.4 per cent of all employed men were in male-dominated jobs which became more male dominated over the period 1996 to 2002 (see Table 3). Overall, only 45.6 per cent of all employed women and 34.2 per cent of all employed men were in

occupations where there had been some level of gender integration during the previous six years.

Table 2 Occupation (2-Digit Level) Growth Rates & Gender Shares, Total Employees

Occupation (2-digit, 35 groups)	Jobs Growth 1996-02 %	Rank	Female share (% of employees who are women)			2002 November quarter %-all employed:	
			Nov. 2002	Nov. 1996	%-point change	Women	Men
Female-dominated groups (at Nov.02)							
Secretaries & Personal Assistants*	-18.6	34	97.8	98.6	-0.9	4.7	0.1
Intermediate Service Workers	26.2	8	78.5	78.2	0.3	10.9	2.5
Health Professionals [#]	9.1	18	78.4	75.7	2.7	6.0	1.4
Intermediate Clerical Workers	11.3	16	74.7	73.5	1.2	17.4	5.1
Other Advanced Clerical & Service Workers*	36.0	4	74.2	74.8	-0.6	3.0	0.9
Elementary Sales Workers*	20.6	10	69.7	71.1	-1.5	13.9	5.2
Integrated-Groups (at Nov.02)							
Health & Welfare Associate Professionals*	16.1	14	69.2	75.0	-5.8	1.2	0.5
Education Professionals [#]	9.1	19	68.1	63.8	4.3	6.9	2.8
Cleaners*	3.3	22	58.7	63.4	-4.7	3.0	1.8
Elementary Clerks*	-15.4	33	54.5	61.5	-7.0	1.0	0.7
Social, Arts & Miscellaneous Professionals	18.6	13	47.8	45.9	1.9	2.9	2.7
Business & Administration Associate Professionals* [#]	57.0	1	47.0	44.4	2.6	4.2	4.1
Elementary Service Workers* [#]	18.8	12	42.1	36.5	5.6	1.3	1.5
Managing Supervisors (Sales & Service)* [#]	39.7	3	39.7	34.9	4.8	3.4	4.4
Business & Information Professionals*	42.7	2	36.2	35.6	0.6	4.6	7.0
Factory Labourers*	-9.1	32	35.7	33.8	1.9	2.0	3.1
Intermediate Sales & Related Workers* [#]	35.7	5	33.6	28.6	5.0	1.4	2.3
Food Tradespersons* [#]	-2.6	29	32.4	26.3	6.1	0.6	1.1
Intermediate Machine Operators	-21.8	35	31.6	35.6	-4.0	0.7	1.2
Male-dominated groups (at Nov.02)							
Other Tradespersons & Related Workers	5.2	21	28.8	30.3	-1.5	1.3	2.6
Other Associate Professionals* [#]	31.5	6	28.1	21.9	6.2	0.7	1.6
Other Labourers & Related Workers	9.5	17	27.0	28.4	-1.4	2.7	6.4
Specialist Managers* [#]	29.8	7	26.7	22.6	4.1	2.3	5.4
Science, Engineering & Related Associate Professionals* [#]	-5.7	31	22.4	19.5	2.9	0.7	2.1
Other Intermediate Production & Transport Workers	1.4	24	20.7	20.5	0.2	1.2	3.9
Science, Building & Engineering Professionals*	19.0	11	18.3	17.7	0.6	0.9	3.3
Farmers & Farm Managers	-2.6	28	15.8	25.6	-9.9	0.2	0.7
Generalist Managers*	22.1	9	12.4	11.6	0.8	0.3	2.1
Skilled Agricultural & Horticultural Workers	0.0	27	7.8	9.8	-2.0	0.1	1.1
Road & Rail Transport Drivers	1.4	25	5.4	5.9	-0.5	0.3	4.8
Intermediate Plant Operators	0.6	26	2.8	4.5	-1.7	0.1	3.9
Electrical & Electronics Tradespersons	6.6	20	1.9	2.6	-0.8	0.1	3.6
Construction Tradespersons	11.6	15	1.8	1.4	0.5	0.1	3.7
Mechanical & Fabrication Engineering Tradespersons*	-5.3	30	1.1	0.5	0.6	0.1	4.0
Automotive Tradespersons	2.7	23	0.0	0.0	0.0	0.0	2.6
Most feminised (female = 70% or more)						55.8	15.2
Mixed (female share = 31% to 69%)						33.1	33.2
Least feminised (female = 30% or less)						11.0	51.6

Source: ABS super-cubes, q5_aug96.srd. Notes: * = integrating occupational groups. Women as a share of total employment: 1996=45%; 2002=46%. Average occupational growth rate between Nov.1996 and Nov.02 equal to 11.6%. Occupations where women's share increased disproportionately are shown in bold in column 5 & marked by '#' in column 1.

Table 3 Employment Shares by Level of Gender-Segregation in 2002 & Level of Gender-Integration Over the Period 1996 to 2002

	Women	(Men)
Share of employed women (men) in feminised (male-dominated) jobs which became more feminised (male-dominated) over the period 1996-2002.	34.3%	(18.4%)
Share of employed women (men) in jobs where women are over-represented (>46.2%) (men under-represented) which became more gender-integrated over the period 1996-2002.	26.6%	(9.1%)
Share of employed women (men) in jobs where women are under-represented (<46.2%) (men over-represented) which became more gender-integrated over the period 1996-2002	19.0%	(25.1%)
Overall share of employed women (men) in jobs which became more gender-integrated over the period 1996-2002	45.6%	(34.2%)

Source: Table 2.

Further insight into the gendered nature of the occupational structure is shown in Table 4, based on 4-digit level data. For ease of presentation Table 4 only presents information on occupational groups where women made disproportionate gains in employment share (see above for a definition). It is apparent from this table that a broad set (two-thirds of the 4-digit classifications listed in Table 4) of occupations became more integrated over the six years to the 2002 November quarter. Women made disproportionate gains in a number of managerial areas such as Human Resource management, Information Technology management, Sales & Marketing management, Policy & Planning management and Media Producers & Artistic Directors. Within the Professional sphere women's representation within predominantly male fields such as Generalist Medical Practitioners, Specialist Medical Practitioners, Dental Practitioners and Veterinarians similarly increased over the six year period. Women made little progress in accessing male dominated fields at lower levels of the skill hierarchy. Indeed, although women's representation amongst Elementary Sales Workers increased disproportionately, closer examination reveals that the change derived from employment gains in highly feminised occupations such as Sales Demonstrators & Models. Other occupations where women made disproportionate employment gains and where the female employment share was already high include Health Services Managers, Registered Mental Health Nurses, Pre-Primary and Primary School Teacher, Medical Technical Officers and Office Managers.

The tendency for sex-differentiated patterns to become more marked with increasing disaggregation is also evident beyond these 4-digit figures. For example, according to these data women are now fairly represented within the 'University Lecturers & Tutors' occupational group. Their employment share of 45.5 per cent corresponds closely to their overall national employment share of 46.2 per cent. However, divisions within this occupational category⁷ illustrate high levels of vertical segregation within the University hierarchy. Nationally, for example, in spite of increasing proportions of women at higher promotional levels over recent years, in 2001 women comprised 54 per cent of the lowest promotional level (A), but only 17 per cent of those in the top two levels (D and E) (Ferguson, 2002).

⁷ The ABS only subdivides this group into lecturers and tutors, but these groups themselves (particularly 'lecturers') include strict vertical divisions.

Table 4 Occupations where women's representation increased disproportionately between 1996 and 2002, 4-Digit Level Analysis

	1996 Nov. Q	2002 November Quarter		Change Nov.96 to Nov.02	
	%-women	%- women	% Total employ	Employed (%)	F share (%-point)
Managers & Administrators					
<i>Specialist Managers</i>					
Human Resource Managers	42.1	45.0	0.2	5.3	2.9
Information Technology Mgrs	16.7	21.4	0.3	133.3	4.8
Sales & Marketing Mgrs	15.6	25.5	1.2	46.9	9.9
Policy & Planning Managers	30.8	38.5	0.2	0.0	7.7
Health Services Managers	66.7	83.3	0.1	100.0	16.7
Media Producers & Artistic Directors	20.0	60.0	0.1	0.0	40.0
Other Specialist Managers	20.0	25.0	0.2	33.3	5.0
Professionals					
<i>Health Professionals</i>					
Generalist Medical Practitioners	32.1	36.7	0.4	7.1	4.5
Specialist Medical Practitioners.	21.4	28.6	0.2	0.0	7.1
Registered Mental Health Nurses	66.7	80.0	0.1	-16.7	13.3
Dental Practitioners	20.0	25.0	0.0	-20.0	5.0
Veterinarians	33.3	50.0	0.0	33.3	16.7
<i>Education Professionals</i>					
PrePrimary School Teachers	92.3	100.0	0.2	30.8	7.7
Primary School Teachers	78.2	87.0	1.6	10.1	8.9
Secondary School Teachers	50.9	55.6	1.6	20.9	4.7
University Lecturers & Tutors	38.9	45.5	0.4	-8.3	6.6
Associate Professionals					
<i>Science, Engineering & Related A/Profess</i>					
Medical Technical Officers	63.6	70.6	0.2	54.5	7.0
<i>Business & Administration A/Prof</i>					
Branch Accountants & Managers (Financial Institution)	21.4	38.9	0.2	-35.7	17.5
Financial Investment Advisers	25.0	30.8	0.3	116.7	5.8
Office Managers	59.7	70.8	1.2	54.8	11.2
Real Estate A/Profes	40.5	43.5	0.6	24.3	2.9
<i>Managing Supervisors (Sales and Service)</i>					
Shop Managers	36.8	40.3	1.6	26.4	3.5
Restaurant & Catering Managers	52.6	56.4	0.5	105.3	3.8
Club Managers (Licensed Prem)	20.0	33.3	0.1	20.0	13.3
Sport & Recreation Managers	25.0	33.3	0.1	50.0	8.3
Customer Service Managers	22.2	40.0	0.2	122.2	17.8
Other Managing Supervisors	29.7	36.4	0.5	18.9	6.6
<i>Other Associate Professionals</i>					
Police Officers	14.0	20.0	0.6	4.7	6.0
Retail Buyers	33.3	40.0	0.1	66.7	6.7
Tradespersons & Related Workers					
<i>Food Tradespersons</i>					
Bakers & Pastrycooks	15.0	19.0	0.3	5.0	4.0
Cooks	56.7	61.3	0.4	3.3	4.6
Intermediate Clerical, Sales & Service Workers					
<i>Intermediate Sales & Related Workers</i>					
Retail & Checkout Supervisors	41.7	64.0	0.3	108.3	22.3
Elementary Clerical, Sales & Service Workers					
<i>Elementary Sales Workers</i>					
Sales Demonstrators & Models	75.0	80.0	0.1	25.0	5.0

Table 4 continued:

<i>Most highly feminised occupations (70% or more employees are women)</i>	<i>women as % total fem emp</i>	<i>Least feminised occupations (70% or more employees are male)</i>	<i>men as % total male emp</i>
Advanced Clerical and Service Workers	6.5	Advanced Clerical and Service Workers	0.1
Secretaries and Personal Assistants	4.7	Insurance Risk Surveyors, Investigators and Loss Adjusters	0.1
Bookkeepers	1.8		
Court and Hansard Reporters	0.0	Intermediate Clerical, Sales and Service Workers	1.0
Desktop Publishing Operators	0.1		
Intermediate Clerical, Sales and Service Workers	25.1	Other Intermediate Clerical Workers	0.2
General Clerks	2.5	Motor Vehicle and Related Products Salespersons	0.6
Keyboard Operators	2.2	Prison Officers	0.2
Receptionists	3.6	Gaming Workers	0.1
Accounting Clerks	3.0		
Payroll Clerks	0.5	Intermediate Production and Transport Workers	13.4
Bank Workers	1.2	*Intermediate Plant Operators	3.9
Inquiry and Admissions Clerks	1.8	*Intermediate Machine Operators	0.8
Library Assistants	0.3	*Road and Rail Transport Drivers	4.8
Personnel Clerks	0.2	*Other Intermediate Production and Transport Workers	3.9
Education Aides	1.4		
Children's Care Workers	1.8	Elementary Clerical, Sales and Service Workers	1.5
Special Care Workers	1.8	Messengers	0.2
Personal Care & Nursing Assistants	1.2	Street Vendors & Related Workers	0.1
Waiters	2.0	Service Station Attendants	0.1
Dental Assistants	0.5	Other Elementary Sales Workers	0.1
Veterinary Nurses	0.2	Guards and Security Officers	0.8
Personal Care Consultants	0.2	Ushers, Porters & Related Workers	0.1
Fitness Instructors & Related Workers	0.3	Caretakers	0.1
Travel and Tourism Agents	0.5		
Intermediate Production and Transport Workers	0.4	Labourers and Related Workers	7.8
Sewing Machinists	0.4	*Factory Labourers (including meat and fish process workers and factory hands)	1.4
Elementary Clerical, Sales and Service Workers	14.2	*Other Labourers and Related Workers	6.4
Registry and Filing Clerks	0.3		
Switchboard Operators	0.2		
Betting Clerks	0.1		
Office Trainees	0.0		
Sales Assistants	10.6		
Checkout Operators and Cashiers	2.5		
Sales Demonstrators and Models	0.1		
Domestic Housekeepers	0.1		
Laundry Workers	0.3		
Total: % women in feminised jobs	62.6	Total: % men in male-dominated jobs	65.0

Source: ABS supercubs, q5_aug96.srd. *indicates 2 digit level of occupational aggregation.

Our final approach to presenting and understanding patterns of segregation within the Australian labour market consists of a comparison of the most feminised and least feminised occupations. These are listed in Table 5. Amongst the skilled occupations the most feminised areas include health, teaching and caring (social work, welfare and child-care). Within the vocational field women dominate the clerical and related occupations. Males continue to dominated employment within traditional sites such as science, building, construction and engineering.

5. CONCLUSION

While Australia has made modest progress in recent years towards reducing overall levels of occupational segregation as measured by aggregate level indices (Watts 2003), the trends in sex differentiated patterns of employment presented in this paper show a more complex picture with some contrasting effects. We have emphasised that a major driver of recent integration is the pattern of employment growth, in particular the marked growth that has occurred in the part-time sector. Additionally, integration in a number of broad occupational groups was shown to reflect employment rather than female share effects. The use of disaggregated data also enabled us to show that integration has occurred alongside increased female share in some already highly feminised areas. Thus welcome evidence of women's increased share of some male dominated managerial and professional occupations is accompanied by the increasing feminisation of others such as Pre-Primary and Primary School Teachers.

Overall, our data emphasise the continuing differences between men's and women's occupational distribution in Australia, and highlight the vertical segregation that is often uncaptured even by highly disaggregated occupational codes. Our illustration of persistent sex differentiated patterns of employment in the Australian labour market and trends underlying recent modest improvements in the overall index of segregation emphasises the need for further research at the organisation level to complement this picture of occupational segregation, and to address more directly the debates over occupational 'choice' raised in the literature.

Table 5 Male and Female Employment Shares in Highly-Feminised and Least-Feminised Jobs, 4-digit occupational categories, 2002 November Quarter

<i>Most highly feminised occupations (70% or more employees are women)</i>	<i>Women as % total fem emp</i>	<i>Least feminised occupations (70% or more employees are male)</i>	<i>men as % total male emp</i>
Managers and Administrators	0.2	Managers and Administrators	8.2
Health Services Managers	0.1	*Generalist Managers	2.1
		*Specialist Managers (finance, production, information technology, sales & marketing)	5.4
Child Care Coordinators	0.1	*Farmers and Farm Managers	0.7
Professionals	12.4	Professionals	8.5
Librarians	2.5	*Science, Building & Engineering Professionals	3.3
Nurse Managers	0.1	Technical Sales Representatives	0.4
Registered Nurses	4.1	Computing Professionals	3.1
Registered Midwives	0.2	Business & Organisation Analysts	0.6
Registered Mental Health Nurses	0.1	Property Professionals	0.2
Occupational Therapists	0.1	Specialist Medical Practitioners	0.2
Physiotherapists	0.1	Dental Practitioners	0.1
Speech Pathologists	0.1	Ministers of Religion	0.3
Dietitians	0.1	Economists	0.1
Natural Therapy Professionals	0.0	Photographers	0.1
Other Health Professionals	0.1	Film, Television, Radio & Stage Directors	0.1
PrePrimary School Teachers	0.5	Air Transport Professionals	0.1
Primary School Teachers	3.0	Sea Transport Professionals	0.0
Special Education Teachers	0.2	Associate Professionals	5.8
English as a Second Language Teachers	0.1	*Science, Engineering and Related Associate Professionals	2.1
Education Officers	0.2	Financial Dealers and Brokers	0.7
Social Workers	0.2	Financial Investment Advisers	0.4
Welfare and Community Workers	0.6	Chefs	0.7
Actors, Dancers and Related Professionals	0.1	Club Managers (Licensed Premises)	0.1
Other Professionals	0.2	Transport Company Managers	0.1
Associate Professionals	3.0	Ambulance Officers & Paramedics	0.2
Medical Technical Officers	0.3	Senior Fire Fighters	0.0
Office Managers	1.8	*Other Associate Professionals (including Police Officers)	1.6
Enrolled Nurses	0.7	Tradespersons and Related Workers	18.4
Massage Therapists	0.0	*Mechanical and Fabrication Engineering Tradespersons	4.0
Library Technicians	0.1	*Automotive Tradespersons	2.6
Tradespersons and Related Workers	0.8	*Electrical and Electronics Tradespersons	3.6
Hairdressers	0.7	*Construction Tradespersons	3.7
Florists	0.1	*Food Tradespersons	
		Meat Tradespersons	0.5
		Bakers and Pastrycooks	0.4
		*Skilled Agricultural and Horticultural Workers	1.1
		*Other Tradespersons & Related Workers	2.6

6. REFERENCES

- Anker, R. (1997) "Theories of Occupational Segregation by Sex: an Overview", *International Labour Review* 136(3), 315-339.
- Australian Bureau of Statistics (2002), Australian Social Trends 2002 Cat. 4102.0
- Barns, A. and Preston, A.C. (2002) "Women, Work and Welfare: Globalisation, Labour Market Reform and the Rhetoric of Choice", *Australian Feminist Law Journal*,. 17, 17-32.
- Becker, Gary (1985) "The Allocation of Effort, Specific Human Capital, and the Differences Between Men and Women in Earnings and Occupations", *Journal of Labor Economics*, 31(1, Pt.2), S33-58.
- Blackburn, R., Brooks, B., and Jarman, J., (2001), "Occupational Stratification: the Vertical Dimension of Occupational Segregation", *Work, Employment & Society*, 15(3), 511-538.
- Blackburn, R., Jarman, J. and Brooks, B., (2000), "The Puzzle of Gender Segregation and Inequality: a Cross-National Analysis", *European Sociological Review*, 16 (2), 119-35.
- Blackburn, R., Jarman, J. and Siltanen, J., (1995), "The Measurement of Occupational Gender Segregation: Current Problems and a New Approach", *Journal of the Royal Statistical Society*, 158, part 2, 319-31.
- Blau, F. D. and Ferber, M. A., (1991) "Career Plans and Expectations of Young Women and Men: The Earnings Gap and Labor Force Participation", *Journal of Human Resources*, 26(4), 581-607.
- Blau, F. D. and Kahn, L. M. (1992) "The Gender Earnings Gap: Learning from International Comparisons", *American Economic Review, Papers and Proceedings*, May, 533-538.
- Cockburn, C., (1991), *In the Way of Women: Men's Resistance to Sex Equality in Organisations*, Macmillan, London.
- Crompton, R. and Harris, F., (1998), "Explaining Women's Employment Patterns: 'Orientations' to Work Revisited", *British Journal of Sociology*, 49(1), 118-136.
- Deakin, R., (1984), *Women and Computing: the Golden Opportunity*, Macmillan, Basingstoke.
- Fagan, C., (2001), "Time, Money and the Gender Order: Work Orientations and Working-Time Preferences in Britain", *Gender, Work and Organization*, 8(3). 239-266.
- Ferguson, Kerry (2002) *Locating the Women in the Higher Education Sector*, Australian Vice-Chancellors Committee (AVCC) Women Action Plan www.avcc.edu.au/policies_activities/university_management/uni_women_action_plan/. Accessed May 2003.

Grimshaw, D. and Rubery, J., (1997), *The Concentration of Women's Employment and Relative Occupational Pay: a Statistical Framework for Comparative Analysis*, OECD Occasional Paper No.26, Paris, Organisation for Economic Cooperation and Development.

Hakim, C., (2000), *Work-Lifestyles in the 21st Century: Preference Theory*, Oxford University Press, Oxford.

Hakim, C., (1998), *Social Change and Innovation in the Labour Market*, Oxford University Press, Oxford.

Hakim, C., (1995), "Five Feminist Myths about Women's Employment", *British Journal of Sociology*, 46 (3), 429-55.

Hewitson, G. (1999) *Feminist Economics: Interrogating the Masculinity of Rational Economic Man* Edgar Elgar London 1999.

Kidd, M. P. and Shannon, M., (1996), "Does the Level of Occupational Segregation Affect Estimates of the Gender Wage Gap", *Industrial and Labor Relations Review*, 49 (2), 317-29.

Kruger, A. (1993), "How Computers Have Changed the Wage Structure: Evidence from Micro-data, 1984-1989", *Quarterly Journal of Economics*, 108(1), 33-60.

Panteli, N., Stack, J. and Ramsay, H. (2001) "Gendered Patterns in Computing Work in the late 1990s", *New Technology Work and Employment* 16(1), 3-17.

Preston, A.C. (1997), "Where Are We Now With Human Capital Theory in Australia?" *Economic Record*, 73(222), 51-78.

Rimmer, S., (1991), "Occupational Segregation, Earnings Differentials and Status among Australian Workers", *The Economic Record*, September, 205-216.

Rubery, J., Smith, M., and Fagan, C., (1999) *Women's Employment in Europe: Trends and Prospects* Routledge, London & New York.

Treiman, D., and Hartmann, H., (1981), *Women, Work and Wages: Equal Pay for Jobs of Equal Value*, National Academy Press, Washington DC.

Watts, M., (2003), "The Evolution of Occupational Gender Segregation in Australia: Measurement and Interpretation", *Australian Journal of Labour Economics*, Vol. 6(4) (Special Issue on Women and Work), pp.631-655.

Wooton, B. H. (1997) "Gender Differences in Occupational Employment" *Monthly Labor Review*, April, 15-24.

Appendix A: Shift-Share Analysis

Shift-share analysis may be used to ascertain how much of the observed growth in female employment within occupations is a result of structural 'shifts' in the economy (i.e. growth in occupations employing women) or an increase in actual female employment (known as the 'share effect'). It may be that the integration observed derives from strong overall employment of groups that were already highly integrated (ie. a structural or shift effect) rather than any specific change in gender shares. Shift-share analysis allows us to decompose these alternative growth effects.

The results from the shift-share analysis are reported in Table A1. The crucial calculation is the share effect (shown in column iv). The overall change (shown in column ii) is equal to the sum of the national employment effect (column ii) plus the share effect (column iv) plus the structural effect (column v). Overall growth in female employment is dominated by the share effect (as reflected by an increasing entry of women into the labour market), however, at a disaggregated level, it is apparent that improved female employment shares in many areas derive more from structural effects than share effects. Female employment within the category 'Business and Information Professionals' increased by 36.7 per cent between November 1996 and 2002. However, this increase largely derived from structural effects (equal to 22.5 percentage points).

Table A.1

	Share of women employed (Nov.02)	% Change in Women's Employment Within Occupation	Growth Effect	SHARE EFFECT	Structural Effect
	(i) - %	(ii) - %	(iii) - %	(iv) - %	(v) - %
Managers & Administrators	2.8	32.0	12.9	10.3	9.1
Generalist Managers*	0.3	26.1	12.9	6.3	7.0
Specialist Managers*	2.3	42.3	12.9	16.7	13.1
Farmers & Farm Managers	0.2	-50.0	12.9	-47.6	-15.5
Professionals	21.3	19.7	12.9	1.2	5.6
Science, Building & Engineering Professionals*	0.9	20.7	12.9	3.3	4.5
Business & Information Professionals*	4.6	36.7	12.9	1.6	22.5
Health Professionals	6.0	12.3	12.9	3.5	-4.2
Education Professionals	6.9	15.3	12.9	6.6	-4.2
Social, Arts & Miscellaneous Professionals	2.9	21.1	12.9	4.2	4.1
Associate Professionals	10.2	39.7	12.9	10.8	16.5
Science, Engineering & Related A/Profess. *	0.7	8.0	12.9	13.8	-18.8
Business & Administration A/Professionals*	4.2	49.8	12.9	5.8	31.9
Managing Supervisors (Sales & Service) *	3.4	45.4	12.9	12.7	20.4
Health & Welfare A/Professionals*	1.2	6.9	12.9	-8.0	1.9
Other Associate Professionals*	0.7	51.2	12.9	24.8	14.4
Tradespersons & Related Workers	2.2	6.1	12.9	3.1	-9.9
Mechanical & Fabrication Engineering T.persons*	0.1	66.7	12.9	71.5	-18.4
Electrical & Electronics Tradespersons	0.1	-28.6	12.9	-34.8	-6.5
Construction Tradespersons	0.1	40.0	12.9	29.4	-2.0
Food Tradespersons*	0.6	18.2	12.9	20.8	-15.6
Skilled Agricultural & Horticultural Workers	0.1	-22.2	12.9	-22.2	-12.9
Other Tradespersons & Related Workers	1.3	0.0	12.9	-5.0	-7.9
Advanced Clerical & Service Workers	7.6	-4.4	12.9	-4.1	-13.2
Secretaries & Personal Assistants*	4.7	-21.4	12.9	-0.9	-33.3
Other Advanced Clerical & Service Workers*	3.0	29.7	12.9	-0.8	17.8
Intermediate Clerical, Sales & Service Workers	29.7	17.8	12.9	1.4	3.5
Intermediate Clerical Workers	17.4	12.3	12.9	1.6	-2.3
Intermediate Sales & Related Workers*	1.4	45.8	12.9	16.0	17.5
Intermediate Service Workers	10.9	23.6	12.9	0.4	10.3
Intermediate Production & Transport Workers	2.3	-12.9	12.9	-10.5	-15.4
Intermediate Plant Operators	0.1	-46.2	12.9	-46.7	-12.4
Intermediate Machine Operators	0.7	-36.1	12.9	-11.9	-37.1
Road & Rail Transport Drivers	0.3	-8.0	12.9	-9.4	-11.6
Other Intermediate Production & Transport Workers	1.2	2.3	12.9	0.9	-11.5
Elementary Clerical, Sales & Service Workers	16.1	14.5	12.9	-0.9	2.5
Elementary Clerks*	1.0	-28.6	12.9	-12.0	-29.4
Elementary Sales Workers*	13.9	16.6	12.9	-2.1	5.8
Elementary Service Workers*	1.3	31.3	12.9	14.4	4.2
Labourers & Related Workers	7.7	-1.7	12.9	-4.0	-10.6
Cleaners*	3.0	-4.4	12.9	-7.6	-9.7
Factory Labourers*	2.0	-3.9	12.9	5.6	-22.4
Other Labourers & Related Workers	2.7	4.0	12.9	-5.1	-3.9
Total	100.0	15.5	12.9	2.5	0.0

Notes: calculations based on data from ABS Supercubes q5_Aug96.srd. * illustrates gender integrating occupational groups (based on 1996 and 2002 comparisons and detailed in Table 2).