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15/10: OCCUPATIONAL SEGREGATION AND WOMEN'S JOB SATISFACTION

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## Occupational segregation and women's job satisfaction

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#### Abstract:

Data on men and women's job satisfaction conditional upon the degree of feminisation of their occupation are used to explore potential causes and implications of occupational segregation by gender in the Australian labour market. We find some evidence for the notion of 'women's work' - that certain occupations are highly feminised because women prefer the type of work done in those occupations. However, this primarily applies to mothers, older women and wives and the results also offer strong support for the view that occupational segregation is generated by societal norms around the roles allocated to men and women. In particular, patterns in satisfaction with hours of work and with pay in highly feminised occupations are consistent with societal norms in which the work of married women and of mothers is seen as secondary to that of their male partner's. In contrast to suggestions in some of the existing Australian literature, the results also clearly indicate that more highly feminised occupations are relatively poorly paid, other things held equal.

Keywords: Occupational segregation, gender, job satisfaction, discrimination, occupational choice.

JEL Classification: J28; J71; J24

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#### 1. INTRODUCTION

In many respects Australian society offers a high degree of equality in opportunity between the sexes. The Global Gender Gap Index produced by the World Economic Forum and based on country gender gaps in economic, political, education and health criteria, ranked Australia 24<sup>th</sup> most gender equal out of 142 countries assessed, and equal first and 14<sup>th</sup> respectively for the sub-indices of educational attainment and economic participation and opportunity.<sup>1</sup> In the labour market, however, there are clear gender based differences which reflect lower opportunity for women, including a persistent gender wage gap, lower rates of female labour force participation and stark over-representation of women among part-time workers.

The Australian labour market also displays a high degree of occupational segregation by gender. This paper provides evidence on the nature of that occupational segregation and its role in shaping differential labour market outcomes for men and women. This is important because horizontal occupational segregation is intertwined with vertical inequalities in labour market outcomes by gender. Its root cause has implications for the extent to which such differences can be considered discrimination and, accordingly, should be the target of gender equity policy.

On the one hand it can be argued that women experience lower wages and more precarious employment arrangements because they choose to work in jobs offering those conditions. For example, it is argued that women have a preference for occupations which require many of the 'feminine' skills associated with the traditional household division of labour, such as caring, cooking and cleaning roles. If this is true, and those roles are not as highly valued in the market, then women will find themselves lower paid. Similarly, women may choose to enter occupations that offer part-time and more flexible working arrangements to enable them to realise priorities in non-work domains. In this were true, then lower wages and other outcomes associated with these occupations would not constitute discrimination, and should therefore not be seen as a societal 'problem' which should be countered by policy efforts (such as gender equality policies). Additionally, when conducting quantitative research, one would want to control for occupation when empirically measuring discrimination, such as when estimating the gender wage gap.

An alternative hypothesis is that the gendered nature of career paths - potentially commencing from early childhood and perpetuated through historically grounded social and institutional settings, and including labour market discrimination - disproportionately channel women into particular occupations. It has been argued that highly feminised occupations are low paid *because* they are highly feminised (Macdonald & Charlesworth 2013). In this case, the lower status of women due to their occupational 'choices' would constitute discrimination and something which should be on the policy agenda. Furthermore, one would not want to control for occupation when testing for the presence of discrimination.

A critical difference between these two views of occupational segregation is the extent to which women are seen to exercise free choice of careers, and associated occupations, on the basis of their preferences for the full bundle of wage and non-wage attributes of jobs. To explore this, we

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<sup>&</sup>lt;sup>1</sup> Australia preformed less well on the sub-indices of political empowerment (ranked 53<sup>rd</sup>) and health and survival (ranked 70<sup>th</sup>), although the latter reflects inequality in the form of superior health outcomes for women.

investigate women's job satisfaction by occupation using data from the Household, Income and Labour Dynamics in Australia Survey (HILDA) combined with measures of feminisation of occupations drawn from the Australian Bureau of Statistics' Census of Housing and Population. HILDA contains self-assessed ratings of overall job satisfaction, in addition to measures of satisfaction with a number of specific aspects of jobs: total pay, job security, the work itself, hours worked and flexibility to balance work and non-work commitments. If it is true that women are attracted to the type of work undertaken in highly feminised occupations, then it should be the case that they report higher satisfaction with 'the work itself' compared to men in those occupations and compared to women working in less highly feminised occupations. In contrast, if gender segregation occurs because of socially and institutionally constructed expectations of a woman's role as the primary carer and/or secondary breadwinner, then one would expect women to disproportionately work in occupations with job attributes that facilitate this role. This view suggests women working in highly feminised occupations should be particularly satisfied with their hours worked and the flexibility to balance work and non-work commitments.

We caution, however, that the ability for this approach to assess the voluntariness of women's occupational choices is tempered to the extent that women's preferences – and hence satisfaction ratings - are endogenous to existing labour market norms. The following section provides a broader background to these issues. Sections 3 and 4 then discuss the method and data. Results from empirical models of the relationship between gender, occupational feminisation and job satisfaction are then presented. Section 5 reports estimates from panel models for the full sample of workers, and their sensitivity to the inclusion of a wide range of variables relating to the individual, the job and the workplace. Section 6 presents analyses testing whether these results differ across women according to their age and family status. The concluding Section 7 summarises the findings and discusses their implications.

### 2. BACKGROUND

# Gender segregation and the Australian labour market

In the spirit of Becker's Human Capital theory (1964) and his Treatise on The Family (1981), occupational segregation by gender can be seen as arising from women making rational, cost-benefit type decisions. Hakim (2000) argues that gender differences in labour market participation can be explained by differences in the preferences of males and females, and by taking account of changes in women's preferences over stages of the life cycle. Hakim's emphasis on individual choice is commonly used as a point of departure by those who instead stress the importance of constraints on women's occupational choices (for example, Crompton & Harris 1998, Duncan et al. 2003, Hill 2007, Karamessini & loakimoglou 2007). Occupational segregation by gender is more commonly seen to result from socially constructed norms regarding women's roles. These include stereotypes about appropriate occupations for men and women (Kanji & Hupka-Brunner 2015), withinhousehold division of labour between paid and unpaid work, and appropriate mothering behaviour. In turn, institutional settings (Crompton & Harris 1998) and normative or moral frameworks (Duncan et al. 2003) develop that reinforce those stereotypes, for example, employers' perceptions of women as less stable employees may affect decisions relating to employee recruitment and progression (Rubery, Fagan & Maier 1996). Importantly, occupational segregation has been attributed as a causal factor in women's labour market disadvantage (Mandel & Semyonov 2005).

As noted, there are stark gender differences in the Australian labour market. In the first half of 2015 the female labour force participation rate averaged around 58.6%, 11.5 percentage points lower than the male rate of 71.1%. While this represents a marked improvement on the 35 percentage point gap recorded when this Labour Force Survey series commenced in early 1978 (43.4% for women compared to 79.3% for men), the growth in women's labour force participation has been mainly in part-time employment and that increase has stalled since 2009. Once in work, women are more than twice as likely to work part-time than are men (46.3% compared to 17.6%).<sup>2</sup>

The ongoing gap in labour force engagement persists despite women now being more likely than men to gain university level qualifications, and reflects different socially constructed roles for Australian men and women. While a wide variety of arrangements and attitudes slowly chip away at the 'male breadwinner/female carer' gender order that was at its peak in the 1950s, much of that model remains engrained in Australian culture (Baxter & Hewitt 2013, Broomhill & Sharp 2005, Hill 2007, Van Egmond et al. 2010). Based on 1996 Census data, Lee and Miller (2004) show that occupation segregation stems primarily from gender differences in occupations at entry to the labour market. Research points to substantial continuing gender segregation in the pathways taken by more recent cohorts of Australian school leavers (Buchler & Dockery 2015). A number of authors have noted a weakening in policy effort to pursue gender equity in the labour market in recent decades, notably in the realm of industrial relations (Barns & Preston 2010: 82). Furthermore, Hill (2007) argues that changes to Australia's tax and family benefits systems in the first half of the 2000s reinforced the male breadwinner model.

#### Occupational segregation and the gender wage

On average Australian women earn lower wages than men even when seemingly doing equivalent jobs. In the November 2014 ABS trend estimates of average weekly ordinary time earnings of full-time employees, male earnings were 23% higher than female earnings. This difference is already apparent at labour market entry, where women earn 80% of their male counterparts in their first significant job, with a portion (4%) remaining significant when numerous job characteristics, such as hours worked, occupation and education, are controlled (Buchler & Dockery 2015).

There is ongoing debate on the contribution of occupational segregation to the gender wage gap. Recent studies in the international literature generally point to occupational segregation being a contributing factor to wage inequality (Mandel & Semyonov 2005; Karamessini & Loakimoglou 2007, Blau & Kahn 2000). Hakim (1992: 128) reviewed earlier studies to suggest 20 to 25 per cent as a 'reasonable estimate' of the contribution of job segregation to the gender wage differentials. In contrast, Australian studies have suggested women's wages are higher as a result of this segregation (Barón & Cobb-Clark 2010, Lee & Miller 2004). That is, women in Australia would have lower pay if they had the same occupational distribution as men.

Using data from the 2001 to 2006 waves of HILDA, Barón and Cobb-Clark (2010) find that the wage gap can be largely explained by observable characteristics for workers in the public sector and those in the lower part of the wage distribution, but not for workers in the upper end of the wage distribution. Thus they conclude gender discrimination in Australia takes the form of 'glass ceilings'

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<sup>&</sup>lt;sup>2</sup> Labour force figures based on trend series contained in Australian Bureau of Statistics' *6202.0 Labour Force, Australia* time series workbook, downloaded from www.abs.gov.au.

rather than 'sticky floors'. Barón and Cobb-Clark (2010) also find that the inclusion of occupational controls significantly increases the 'unexplained' proportion of the gender wage gap, leading them to ponder "...why does occupational segregation seem to improve rather than undermine the relative wages of women in Australia when then [sic] opposite appears to be the case in other countries?".<sup>3</sup>

Barón and Cobb-Clark's assessment derives partly from Lee and Miller's (2005) calculation based on 1996 data which suggested the gender wage gap is attributable to intra-occupation differences rather than differences in pay rates between occupations. They calculate the contribution of occupational distribution to be negative: "The quite different occupational distributions of men and women actually lead to women having slightly higher earnings than would otherwise have been the case." (Lee & Miller 2004: 359). However, this calculation is based on only 9 different occupational categories. Lee and Miller note that if the exercise is repeated using the 44-minor occupational categories, the result reverses but "... is economically unimportant" (2004: 359). Section 4 below demonstrates that an even finer level of disaggregation is needed to capture the most pronounced degrees of occupational segregation.

#### The motherhood penalty

In addition to the influence of occupational segregation on the gender wage gap, research has shown that a second factor also plays substantial role: women's responsibility for childrearing Research consistently finds, across numerous Western nations, that mothers earn not only significantly less than men, but they also earn less than non-mothers (Anderson, Binder & Krause 2003; Budig & England 2001; Correll 2013). This difference is usually found to be 5-7% lower wages per child compared to childless women who are otherwise equal (Budig & England 2001). The existence of a motherhood penalty despite controls for human capital, workplace and other facts leads researchers to suspect a bias against mothers (Correll 2013). These two factors, occupational segregation and women's responsibility for childrearing, however, have been argued to be largely unrelated (England, 2005). Specifically, that the causes of segregation are not related to women's mothering responsibilities, and that penalties associated with motherhood are not caused by segregation (England, 2005). Part-time work, however, is more common amongst mothers (Chalmers, Campbell & Charlesworth 2005) and it is more common in highly feminised occupations. This indicates that the processes going on in the labour market leading to the gender wage gap are likely to be more multidimensional and complex then what is often presumed.

#### Women's job satisfaction

Despite women's lower wages, due in part to occupational segregation and in part to the motherhood penalty, women are consistently found to have higher levels of job satisfaction (Clark 1997; Kaiser 2007; Long 2005; Pichler & Wallace 2009), something which is often referred to as the

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<sup>&</sup>lt;sup>3</sup> The initial version of this Working Paper misreported Barón and Cobb-Clark's finding, stating instead that they had found the inclusion of occupational controls increased the *explained* proportion of the wage gap. We apologise to the authors for that error. A corrected version was posted in August, 2016.

'the paradox of the contented female worker' (Bender 2005: 482). This has been found in many studies across wide range of countries, including the UK (Clark 1997; Gazioglu & Tansel 2006; Sloane & Williams 2000; Sousa-Poza & Sousa-Poza 2000), US (Bender 2005), Korea (Kim 2005) and Australia (Kifle, Kler & Shankar 2014a). An international comparative study, however, has shown that only eight out of 21 countries show the gender/job-satisfaction paradox, and that only in Great Britain, the United States, Hungary and New Zealand is the difference greater than 5% (Australia is not examined)(Sousa-Poza & Sousa-Poza 2000). After adding controls, significant differences only remain for Great Britain, the United States and Switzerland. This leads the authors to argue that a large job satisfaction differential in favour of women is a predominantly Anglo-Saxon phenomenon.

Examining variations in labour market and welfare state regimes in Europe, Kaiser (2007) finds that the gender/job-satisfaction paradox is more likely in countries where women's labour market access is more restricted. This suggests that when institutional labour market interventions that enable equal opportunities for men and women have been implemented, for example in the Scandinavian countries, women no longer have higher levels of job satisfaction (or alternatively, men no longer have lower levels of job satisfaction). Sousa-Poza and Sousa-Poza (2000) find that in countries where women have higher levels of job satisfaction compared to men, they also have higher work-role outputs than men, for example, are more likely to report good interpersonal relationships and feelings that their job is useful to society and helps other people.

# Job satisfaction and occupational gender segregation

Research from the US and UK has shown that women report higher levels of job satisfaction in female dominated workplaces (Bender 2005; Clark 1997; Sloane & Williams 2000). Bender (2005), however, shows with US data that this association becomes non-significant when job flexibility is accounted for. This finding suggests that it is not gender segregation, per se, that leads to women's higher levels of job satisfaction. Bender (2005) finds that when feelings that one must choose between family and advancing one's career is taken into account<sup>4</sup> the baseline effect of being female on job satisfaction becomes non-significant. Bender (2005) argues that women place greater value on flexibility between work and home lives, and self-select into workplaces with more job flexibility. It is, however, also plausible that industries that are dominated by women offer higher levels of flexibility as their workforce requires it due to family care responsibilities. Regardless of the explanation, these findings suggest that having responsibility for children, which leads women to seek out flexible workplaces, is of central importance for explaining the 'the paradox of the contented female worker'.

Indeed, Fleming and Kler (2014) and Kifle, Kler and Shankar (2014b) find that having children is associated with higher levels of job satisfaction amongst Australian women. Specifically, overeducated employees are more satisfied with their job overall, with pay, type of work, hours and workplace flexibility if they are mothers (as opposed to men and non-mothers) (Fleming & Kler 2014). Women with young children who work part-time are found to be particularly satisfied with hours worked (in comparison to women with older children or no children) and work-life balance (in comparison to women with older children). This is the opposite of the findings for full-time employees, where mothers of young children are significantly less satisfied compared to both groups

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<sup>&</sup>lt;sup>4</sup> The question wording is: 'At my place of employment, employees must choose between advancing in their job or devoting attention to their family or personal lives' (Bender 2005:490)

on both measures (Kifle et al. 2014b). Fleming and Kler (2014) suggest that mothers' main reasons for work may lie above and beyond obtaining a job that matches their skill set. In the same vain, women who are mothers, and therefore seek out flexible employment, may have different desires from work and work orientations compared to men and childless women.

Consistent with this Aletraris (2010) finds that Australian men employed as temporary agency workers report lower job satisfaction than workers on permanent contracts, but this does not hold for women. Booth and Van Ours (2009) find that among married Australian women those who work part-time are more satisfied with their hours of work than those who work full-time, while married men are most satisfied working full-time. Combining these results with data on life satisfaction and the division of housework between partners conditional on their working hours, Booth and van Ours argue the results are compatible with Akerlof and Kranton's (2000) gender identity hypothesis in which men and women may experience negative effects of a loss of identity if they deviate from societal norms on the within-household distribution between household work and market work.

#### 3. METHOD

To test competing explanations of the causes of occupational segregation in Australia we analyse men and women's job satisfaction with a range of aspects of their jobs and conditional upon the degree of gender segregation of their occupations. Data on gender segregation by occupation are incorporated into the rich panel dataset from the Household, Income and Labour Dynamics in Australia survey. This allows multivariate panel models of job satisfaction to be estimated across a large sample with controls for a wide range of potential confounding variables and unobservable individual effects. As the dependent variables (job satisfaction ratings) are ordered categorical variables, ordered probit models with random effects are estimated. Specifically, the XTPROBIT model available in STATA 13 is used. The XTPROBIT model has the advantage of utilising the full scale of the ordered dependent variable, whereas previous panel versions of probit or logit models required the outcome variable to be collapsed into a binary variable (such as 'satisfied' or 'dissatisfied'). There is, however, no fixed-effects version of XTPROBIT.

The multivariate models are of the general form:

$$JS_{it} = \alpha + \beta X_{it} + \gamma F_{it} + v_i + \varepsilon_{it}$$
 (1)

Where  $JS_{it}$  denotes individual i's self-reported job satisfaction at time t; X represents a vector of control variables relating to the individual, their job and their workplace with associated vector of coefficients,  $\beta$ , to be estimated.  $F_{it}$  is the proportion of females in total employment in the occupation that individual i is employed in at time t. The error term has a fixed individual component,  $v_i$ , and the classical component,  $\varepsilon_{it}$ , which is distributed independently with mean zero.

The effects of variables on women's job satisfaction relative to men's is captured in two ways: estimating models separately for the subsamples of male and female workers; and estimating models for the full population of workers with the inclusion of a female dummy and interaction terms between that dummy and other key variables.

The following section describes the dataset, before results from multivariate models are presented and discussed in sections 5 and 6.

#### 4. DATA

We use the data from the first 12 waves of HILDA (2001-2012) supplemented by data on employment by occupation from the 2006 Census. HILDA is a panel survey of individuals from a representative sample of private households. Within selected households all occupants aged 15 and over are surveyed annually. Around 13,000 individuals from over 7,000 households have responded in each year, with year-on-year attrition rates averaging below 10%. In 2011 an additional top-up sample of 2,153 households encompassing 4,009 responding individuals was recruited to the survey sample (HILDA Survey Annual Report 2012).

In addition to a wealth of information on individuals' demographic and labour market characteristics, HILDA collects attitudinal data on a range of aspects of life in Australia. For all employed persons, this includes an assessment of their satisfaction with various aspects of their job on a scale ranging from 0 (totally dissatisfied) to 10 (totally satisfied). The items assessed are: total pay; job security; the work itself (what you do); the hours you work; flexibility available to balance work and non-work commitments; and finally 'All things considered, how satisfied are you with your job?'. For all analyses contained in this paper the sample is restricted to exclude multiple job-holders and those who work as unpaid family helpers.

As has been observed in the international literature, Australian women report significantly higher satisfaction with their jobs than men, and this holds for all but one of the individual job aspects (see Table 1). That one exception is for satisfaction with the work itself, for which there was no significant difference in the means between men and women. The finding that women are more satisfied with their pay, despite being paid lower than men, fits squarely with the 'paradox of the contented female worker'. Relative to men, women appear most satisfied the hours they work, the flexibility to balance work and non-work commitments and with job security.

Table 1: Mean job satisfaction: men and women, pooled data 2001-2012

	Total	Job	The work	Hours	flexibility	Job
	pay	security	itself	worked		overall
Women	6.94	8.04	7.63	7.30	7.58	7.73
Men	6.90	7.86	7.62	7.08	7.39	7.59
Difference	0.04	0.19	0.01	0.22	0.19	0.14
t-test <sup>a</sup>	0.00	0.00	0.37	0.00	0.00	0.00

Notes: based on between 44,702 and 44,793 responses from women and 50,770 to 50,875 responses from men. a. Figures give the probability of observing the difference in the means between men and women under the null hypothesis that the means are equal.

In order to test the association between the degree of feminisation of occupations and women's job satisfaction, data on employment by gender and occupation were obtained from the 2006 Census of Population and Housing. As the Census covers virtually the entire Australian population, accurate data on gender composition by occupation can be obtained at a more finely grained level of occupation than is possible using the HILDA sample. The 2006 Census was used as this represented

<sup>&</sup>lt;sup>5</sup> See http://www.melbourneinstitute.com/hilda/ and Watson and Wooden (2010) for details on the survey.

roughly the midpoint of the HILDA panel, for which data spanning 2001 to 2012 was available to the authors.<sup>6</sup>

The level of feminisation was calculated at the Australian and New Zealand Standard Classification of Occupations (ANZSCO) 3-digit level. Table A1 of the Appendix lists the three-digit occupational categories in descending order of their degree of feminisation. This was assessed as being the most appropriate level to capture occupational feminisation while also retaining sufficient withinoccupation observations for analyses with the HILDA data. For example, the ANZSCO structure includes the 'Major Group' or '1-Digit' category of '2 Professionals'. In 2006, women made up the majority (53%) of the professional workforce. Within this Major Group is the 'Sub major' or 2-digit level of '25 health professionals', of whom 75% were female in 2006. Within this group, the degree of occupational segregation becomes starkly apparent at the 3-digit level: women made up just 35% of '253 medical practitioners', but 91% of '254 Midwifery and Nursing Professionals'. There were 5 3-digit occupations in which women comprised more than 90% of the workforce. Personal assistants and secretaries top the list at 98.1%, followed by receptionists, child carers, education aides and midwifery and nursing professionals. At the other end of the spectrum there are no fewer than eighteen occupations in which women comprise less than 10% of the workforce, with fabrication engineering trades workers and bricklayers, carpenters and joiners the most male dominated (each with just 0.9% women).

Table 2 shows the raw correlation between the degree of feminisation of an occupation, measured as the percentage representation of females in total employment, and job satisfaction. These raw correlations show that both men and women's satisfaction with job security and the flexibility to balance work and non-work commitments is higher in occupations in which a higher proportion of women are employed. In fact women's satisfaction increases with the degree of feminisation for all job aspects, although the relationship is not significant in the case of pay. However, for men satisfaction is negatively correlated with the degree of feminisation of their occupation for pay, the work itself, hours worked and with the job overall. The correlations are largest in magnitude for job security (men and women) and hours worked (women) but are generally very small in magnitude, though with the large sample size the hypothesis of a zero correlation can be confidently rejected in each case. The scattergrams in Figure 1 demonstrate how minor these relationships are for three of the key variables: satisfaction with the work itself, flexibility and overall job satisfaction.

<sup>&</sup>lt;sup>6</sup> The Australian Census is taken every 5 years. The data was downloaded from the ABS' online Table Builder facility.

<sup>&</sup>lt;sup>7</sup> Occupational categories described as 'not fully defined' were not included for the table or in the analysis.

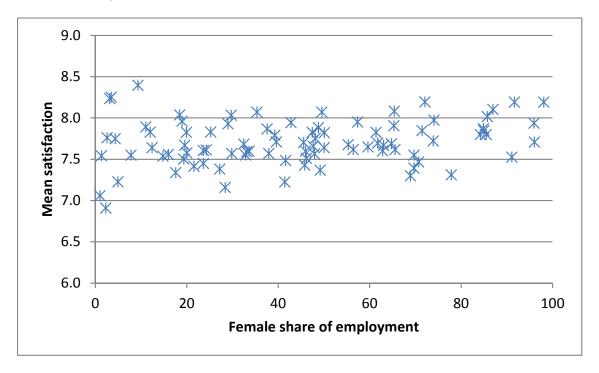
Table 2: Correlation coefficient between job satisfaction and degree of feminisation of occupation, pooled data 2001-2012

	Total	Job	The work	Hours	Flexibility	Job
	pay	security	itself	worked		overall
Women	+0.006	+0.053	+0.020	+0.067	+0.014	+0.041
	(0.23)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Men	-0.004	+0.047	-0.035	-0.020	+0.024	-0.019
	(0.41)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Notes: based on between 44,562 to 44,653 responses from women and 50,462 to 50,566 responses from men Figures in parentheses indicate the probability of observing a correlation of this magnitude under the null hypothesis that the true correlation is zero.

Figure 1: Women's mean satisfaction with job by level of feminisation of occupation ANZSCO 3-digit occupations, 2001-2012 HILDA (0=totally dissatisfied, 10=totally satisfied)

# (a) Overall job satisfaction



# (b) Satisfaction with the work itself

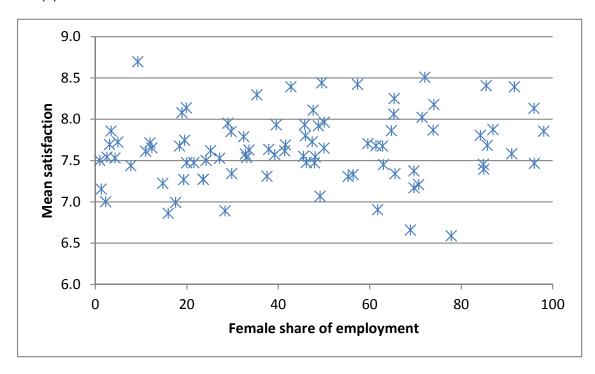
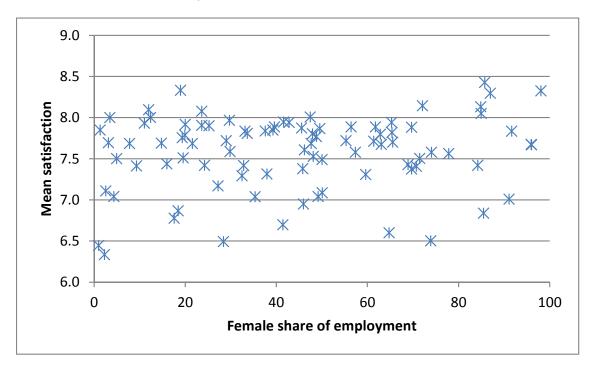


Figure 1: Women's mean satisfaction with job by level of feminisation of occupation (Continued)

(c) Satisfaction with ability to balance work and non-work commitments



### 5. Multivariate analysis

#### Reduced models

As a starting point to the multivariate analysis, reduced models of job satisfaction were estimated with only gender, age and age-squared included as explanatory variables, with key coefficients of interest presented in Table 3. Panel A shows the estimated coefficient on the female dummy variable from this basic model. In the absence of any other controls for characteristics of the individuals, their workplaces or their jobs, the estimated coefficients are consistent with the observation that women report significantly higher levels of satisfaction with their jobs. Here it applies to all five job aspects and to overall job satisfaction.

The degree of feminisation of the individual's occupation (Foccshare) is then added to the reduced model. This variable can theoretically range from zero if no women work in the occupation at all, to a value of one if no men work in the occupation. The coefficient on the occupational feminisation variable in this specification represents the average effect on job satisfaction, for men and women, of working in a more highly feminised occupation. At this stage, no other controls have been included for the characteristics of work done in those occupations. We see from Panel B that the effect of feminisation differs across job domains. People who work in more highly feminised occupations tend to be less satisfied with the work itself and with their pay, though the latter effect is only weakly significant. They are more satisfied with job security, hours worked and the flexibility to balance work and non-work commitments. No significant effect of occupational feminisation is

observed for overall job satisfaction, and the 'contented female worker' effect persists after controlling for the degree of feminisation of occupations.

Panel C reports the results when an interaction term between gender and occupation feminisation is added. In this specification the coefficient on the interaction term represents any *additional* effect of occupational feminisation on women's job satisfaction over and above that observed for men. The coefficient on the interaction term is positive but insignificant for satisfaction with job security. However, it is positive and significant in each of the other models – significant at the 1% level for satisfaction with the work itself, hours worked and overall job satisfaction; and at the 5% level for satisfaction with pay and flexibility. These results are confirmed by estimating separate models for men and women (Panel D). The difference between this specification and the inclusion of an interaction term is that, with estimation on separate samples, the effects of all covariates can differ between men and women. This has a limited effect here as the only other variables included are age and age-squared, but may be important for the expanded models reported in the next section.

Table 3: Ordered probit models of job satisfaction: selected coefficients from reduced models

			Satisfaction	on with		
Variable	Pay	Security	The work	Hours	Flexibility	Overall
			itself			
Panel A: Basic model						
Female <sup>a</sup>	0.055	0.134	0.038	0.153	0.138	0.139
	(0.000)	(0.000)	(0.015)	(0.000)	(0.000)	(0.000)
Panel B: Add Foccshare	e <sup>b</sup>					
Female	0.072	0.091	0.066	0.136	0.114	0.146
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Foccshare	-0.049	0.122	-0.085	0.054	0.078	-0.017
	(0.066)	(0.000)	(0.001)	(0.033)	(0.004)	(0.508)
Panel C. Add interaction	on term					
Female	0.013	0.062	-0.076	-0.123	0.055	-0.063
	(0.696)	(0.072)	(0.021)	(0.000)	(0.095)	(0.053)
Foccshare	-0.098	0.098	-0.204	-0.161	0.030	-0.191
	(0.003)	(0.005)	(0.000)	(0.000)	(0.403)	(0.000)
Female*foccshare	0.117	0.058	0.280	0.510	0.115	0.411
	(0.032)	(0.293)	(0.000)	(0.000)	(0.035)	(0.000)
Panel D. Separate sam	ples					
Foccshare - females	0.018	0.157	0.079	0.342	0.144	0.218
	(0.668)	(0.000)	(0.046)	(0.000)	(0.000)	(0.000)
Foccshare - male	-0.102	0.090	-0.220	-0.186	0.021	-0.212
	(0.004)	(0.012)	(0.000)	(0.000)	(0.557)	(0.000)

Notes: a. Number of observations varies from between 95,472 to 95,668 depending upon the model; b. 95024 95219 c. number of observations varies from between 81810 and 81897 depending upon the model.

These initial results indicate that, for women, working in a highly feminised occupation is associated with higher job satisfaction overall and on each of the individual job aspects with the exception of pay. The picture is different for men. Compared to other male workers, men working in more feminised occupations are less happy with the type of work they do, their hours of work, and their pay. They are more satisfied with the job security associated with more highly feminised occupations. With the exception of job security, there is a significantly different (more positive) effect for women, relative to men, of working in a more feminised occupation for all aspects of job satisfaction, including overall job satisfaction. To see how much of these effects may be attributed to differences in the characteristics of male and female workers, and between the jobs that men and

women undertake, the following section presents results from models with an expanded range of control variables.

#### Expanded models

For each of the six dependent variables, models were estimated with the inclusion of a wide range of control variables that have been used in previous empirical studies of job satisfaction using the HILDA data. To ensure all variables that potentially influence women's job satisfaction are retained, these models were estimated on the full sample of male and female workers and on the sub-sample of female workers, with variables progressively dropped only if the estimated coefficients were insignificant at the 10% level in both models. In embarking on this process of eliminating insignificant variables, note that variables for hours worked were not included in the models for satisfaction with hours worked or satisfaction with flexibility to balance work and non-work commitments; and the (log of) real hourly wages was not included in the model for satisfaction with total pay, as these relationships are considered too directly intertwined, however we comment on the sensitivity of the results to the omission of these variables. With the large sample size available few variables proved insignificant, resulting in the retention of an extensive set of control variables in all the models as can be seen in Tables A2 to A5 which report the full regression results for selected models.

Descriptive statistics for all variables used can be found in Table A10.

The key estimates of interest from the expanded models are summarised in Table 4, which provides corresponding results to those reported in Table 3 for the reduced models. Contrasting the results when the full range of controls for individual, workplace and job characteristics are included the first thing to note is that the 'contented female worker' effect persists for each job aspect and for overall job satisfaction (Panels A and B). That is to say, women report being more satisfied than men even after controlling for an extensive range of personal and job-related characteristics. This observation also holds when the degree of feminisation of the individual's occupation (the variable foccshare) is included. However, the inclusion of the interaction term allowing for a differential effect of occupational feminisation by gender leads to the female dummy variable becoming smaller and insignificant in the models for satisfaction with pay, the work itself, hours worked and overall job satisfaction. Hence it appears that part of the 'contented female worker' paradox can be attributed to women's job satisfaction with pay, the type of work and hours worked increasing with the degree of feminisation of the occupation, while men's does not (or men's satisfaction decreasing while women's does not).

The inclusion of this vast range of control variables has surprisingly little impact on the estimates of the effect of occupational feminisation. By and large, one would draw qualitatively the same conclusions relating to gender effects or the effect of occupational feminisation upon job satisfaction whether or not the vast array of additional control variables are included. An exception is that the added variables seem to account for any additional effect of occupational feminisation on flexibility satisfaction for women (the interaction term female\*focceshare becomes insignificant). This suggests that any such effects of individual gender or occupational segregation in the other domains and for job satisfaction overall are not mediated through these variables to any great extent.

Table 4: Ordered probit models of job satisfaction: selected coefficients from models with full range of controls.

		itself         0.040         0.162         0.077         0.139         0.119         0.108           0.015)         (0.000)         (0.000)         (0.000)         (0.000)         (0.000)           0.073         0.120         0.092         0.121         0.090         0.111           0.000)         (0.000)         (0.000)         (0.000)         (0.000)         (0.000)           0.111         0.146         -0.054         0.067         0.096         -0.008           0.000)         (0.000)         (0.005)         (0.013)         (0.001)         (0.783           rm         0.003         0.113         -0.043         -0.038         0.098         -0.053           0.937)         (0.002)         (0.235)         (0.267)         (0.006)         (0.135										
Variable	Pay	Security		Hours	Flexibility	Overall						
Panel A												
Female	0.040	0.162	0.077	0.139	0.119	0.108						
	(0.015)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)						
Panel B: Add Foccshare	е											
Female	0.073	0.120	0.092	0.121	0.090	0.111						
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)						
Foccshare	-0.111	0.146	-0.054	0.067	0.096	-0.008						
	(0.000)	(0.000)	(0.065)	(0.013)	(0.001)	(0.783)						
Panel C: Add interaction	on term											
Female	-0.003	0.113	-0.043	-0.038	0.098	-0.053						
	(0.937)	(0.002)	(0.235)	(0.267)	(0.006)	(0.135)						
Foccshare	-0.174	0.141	-0.163	-0.061	0.103	-0.141						
	(0.000)	(0.000)	(0.000)	(0.075)	(0.006)	(0.000)						
Female*foccshare	0.149	0.014	0.258	0.305	-0.015	0.316						
	(0.007)	(0.813)	(0.000)	(0.000)	(0.792)	(0.000)						
Panel D: Estimation or	separate sam	ples										
Foccshare - females	-0.052	0.182	0.104	0.243	0.093	0.163						
	(0.222)	(0.000)	(0.018)	(0.000)	(0.033)	(0.000)						
Foccshare - male	-0.170	0.115	-0.195	-0.104	0.074	-0.153						
	(0.000)	(0.004)	(0.000)	(0.005)	(0.063)	(0.000)						

Note: Full results for models reported in Panel A, Panel B and Panel D can be found in Appendix Tables A2-A5.

The results for workers' satisfaction with the separate job domains can be summarised as follows:

Pay: Workers are dissatisfied with pay received in more highly feminised occupations.
 However, this effect is entirely attributable to men's strong dissatisfaction with their pay in those highly feminised occupations. Women appear equally satisfied with their pay irrespective of the degree of feminisation of their occupation.

Recall that the actual rate of pay has not been controlled in the models of satisfaction with pay. The effect of including the log of hourly real wages can be seen in Appendix Table A6. The coefficient on the female variable becomes larger, positive and highly significant in each case, indicating that women are more satisfied than men with any given level of pay. However, the effect of occupational feminisation remains insignificant, and is now even insignificant for men. So men in more feminised occupations are no less satisfied than other men for a given wage rate. Their dissatisfaction evident from Table 4 arises because of the actual lower wages they receive in those occupations.

- Security: Both men and women report greater satisfaction with the security offered in more highly feminised occupations. There is no substantive gender differential in the impact of occupational feminisation on satisfaction with security.
- The work itself: Men tend to dislike the type of work done in more highly feminised occupations, while women tend to be more satisfied with the type of work they do.

- Hours of work: As the degree of feminisation of the occupation in which they work increases, women's satisfaction with their hours worked increases sharply, while men become less satisfied with their hours of work. Women, therefore, are satisfied with the working hours offered in more feminised occupations, possibly as they are more able to have their preferences matched, while men are not. Recall that actual hours worked have not been controlled in the models that generated these results. Table A6 reveals that the inclusion of hours worked in fact accounts for only a minor proportion of this effect of occupational feminisation, and the opposing effect by gender persists. The full results from those models (not reported) indicate that women who work part-time (between 16 and 30 hours per week) are most satisfied with their hours, while men are most satisfied in full-time work (31 to 38 hours per week).
- Flexibility: As with satisfaction with security, both men and women report greater satisfaction with the flexibility to balance work and non-work commitments available in more highly feminised occupations. There is no substantive gender differential in the impact of occupational feminisation on satisfaction with these job aspects. Note again that hours worked have not been controlled in the model for satisfaction with flexibility, and quite the opposite picture arises once hours worked are added to the models (Table A6). Coefficients on the female dummy become negative, somewhat out of character for the 'contented female worker'. The estimated effect of occupational feminisation overall also becomes negative, though this is significant only for men. Hence, the greater flexibility offered in more feminised occupations, and appreciated by both men and women, appears to derive solely from the differences in working hours. This is presumably due to greater scope to work part-time, but possibly also a lower incidence of long working hours. For a given number of hours worked, workers (particularly males) appear less satisfied with the flexibility offered in more feminised occupations. This would suggest that highly feminised occupations are lacking in other forms of flexibility, such as telecommuting, leave arrangements or discretion over the pace of work or how work is done.

These effects upon satisfaction within the individual domains contribute to a pattern in overall job satisfaction that sees women on average being more satisfied when working in more feminised occupations, and men being less satisfied – with these two effects cancelling each other out if the differential effect of occupational feminisation by gender is not taken into account.

Overall, the results are consistent with the hypothesis that women choose to work in highly feminised occupations because they prefer the type of work done, and with the view that these occupations are highly feminised in the first place for that same reason. The results pertaining to hours worked, however, are also consistent with women choosing those occupations to allow them to accommodate family roles.<sup>8</sup> In both cases, it appears women are content to accept lower wages as a compensating differential for such job attributes.

<sup>&</sup>lt;sup>8</sup> Based on a simple linear regression of hours usually worked on occupational feminisation, for both men and women an increase in the share of female employment in an occupation by 10 percentage points is associated with one hour reduction in hours.

Note that these findings are confirmed though the inclusion of the gender-by-occupational feminisation interaction term and through the estimation with separate samples for males and females. The latter approach allows the effects of all other control variables on job satisfaction to also vary by gender. However, it does not take account of other potential differential effects of occupational feminisation aside from gender. The literature reviewed above suggests women's family status and cohort effects may be important in shaping work preferences. Consequently the following section tests whether the effect of occupational feminisation holds for younger and older women, and contingent upon marital status and the presence of dependent children.

#### 6. Family status and cohort effects

The literature reviewed in Section 2 suggests that attitudes relating work to gender roles may be shaped by women's stage in the life cycle and, in particular, by their roles and aspirations concerning motherhood and as a secondary versus primary breadwinner. The attitudes of women may change over time if women themselves revise their own expectations as a result of social changes, or because of 'cohort replacement' - more recent generations enter to the labour market with new sets of perceived norms developed in childhood and these gradually replace older cohorts (Van Egmond et al. 2010: p. 150). To test for differential associations between job satisfaction and occupational feminisation for women in varying family circumstances and life stages, three additional sets of models were estimated with the degree of occupational feminisation interacted with the following (full results not reported):

- Separate dummy variables for married and unmarried women<sup>9</sup> (see Panel A, Table 5)
- Separate dummy variables for women with dependent children and women without dependent children (see Panel A, Table 6)
- Separate dummy variables for women aged 40 and under and women age over 40.<sup>10</sup> (see Panel A, Table 7)

Models were further estimated for these subsets of women (see Panel B's in Tables 5-7). In the previous models (see Appendix Tables A2 to A5) the family status of the individual was classified into one of the following categories: Married with no children (the default category) or married/unmarried with dependent children aged 0-4, aged 5-14 or aged 15-24. This series of dummy variables is dropped for the models conditional upon marital status (Table 5) and dependent child status (Table 6). Again the sensitivity of the results to the inclusion of controls for actual hourly wages in the model of satisfaction with pay, and controls for hours worked in the models of satisfaction with hours and flexibility is tested. The comparative results for Tables 5 to 6 are presented respectively in Appendix Tables A6 to A8.

<sup>&</sup>lt;sup>9</sup> 'Married' is defined to include those legally married and those not married but cohabiting in a 'de facto' relationship. People who are legally marred but separated are considered as unmarried.

<sup>&</sup>lt;sup>10</sup> Women aged 40 or under accounted for 54% of the pooled observations for females in the sample.

Table 5: Occupational feminisation and marital status: selected coefficients from ordered probit models

			Satisfacti	on with		
Variable	Pay	Security	The work	Hours	Flexibility	Overall
			itself			
Panel A: Interaction ef	fects with mari	tal status				
foccshare	-0.175	0.136	-0.167	-0.064	0.100	-0.144
	(0.000)	(0.000)	(0.000)	(0.059)	(0.008)	(0.000)
Married female	0.021	0.151	-0.049	-0.037	0.070	-0.055
	(0.598)	(0.000)	(0.255)	(0.352)	(0.095)	(0.191)
Married female *	0.165	0.041	0.291	0.374	0.065	0.348
foccshare	(0.008)	(0.553)	(0.000)	(0.000)	(0.323)	(0.000)
Single female	-0.061	0.059	-0.042	-0.050	0.131	-0.059
	(0.223)	(0.271)	(0.421)	(0.298)	(0.010)	(0.254)
Single female *	0.132	-0.011	0.233	0.214	-0.120	0.285
foccshare	(0.083)	(0.887)	(0.003)	(0.004)	(0.125)	(0.000)
Panel B: Estimation on	separate samp	oles				
Foccshare – married	-0.028	0.218	0.145	0.308	0.170	0.184
women	(0.605)	(0.000)	(0.012)	(0.000)	(0.002)	(0.001)
Foccshare – single	-0.114	0.127	0.059	0.116	-0.018	0.098
women	(0.091)	(0.086)	(0.377)	(0.070)	(0.793)	(0.153)

Note: Refer to appendix Table A2 to see the full list of control variables included.

Table 6: Occupational feminisation and dependent child status: selected coefficients from ordered probit models

			Satisfacti	on with		
Variable	Pay	Security	The work	Hours	Flexibility	Overall
			itself			
Panel A: Interaction eff	fects with depe	endent child sta	atus			
Foccshare	-0.175	0.139	-0.168	-0.068	0.097	-0.145
	(0.000)	(0.000)	(0.000)	(0.046)	(0.010)	(0.000)
Female with dep.	0.000	0.156	-0.015	0.024	0.158	-0.010
children	(0.992)	(0.003)	(0.766)	(0.633)	(0.000)	(0.000)
Female with dep.	0.166	0.022	0.335	0.343	0.006	0.367
children * foccshare	(0.023)	(0.766)	(0.000)	(0.000)	(0.941)	(0.000)
Female without dep.	-0.017	0.095	-0.054	-0.075	0.060	-0.073
children	(0.666)	(0.028)	(0.200)	(0.058)	(0.154)	(0.078)
Female without dep.	0.142	0.008	0.222	0.285	-0.021	0.291
Children * foccshare	(0.025)	(0.903)	(0.001)	(0.000)	(0.755)	(0.000)
Panel B: Estimation on	separate samp	oles				
Foccshare – females	-0.062	0.217	0.180	0.274	0.142	0.181
with dep. children	(0.360)	(0.002)	(0.010)	(0.000)	(0.045)	(0.010)
Foccshare – females	-0.056	0.174	0.070	0.223	0.059	0.149
without dep. child	(0.300)	(0.003)	(0.207)	(0.000)	(0.289)	(0.006)

Note: Refer to appendix Table A2 to see the full list of control variables included.

Table 7: Occupational feminisation and cohort: selected coefficients from ordered probit models

			Satisfacti	on with		
Variable	Pay	Security	The work	Hours	Flexibility	Overall
			itself			
Panel A: Interaction ef	fects with coho	ort				
Foccshare	-0.174	0.141	-0.163	-0.060	0.103	-0.141
	(0.000)	(0.000)	(0.000)	(0.075)	(0.006)	(0.000)
Female≤40	0.027	0.130	-0.022	0.001	0.120	-0.027
	(0.516)	(0.003)	(0.604)	(0.982)	(0.005)	(0.518)
Female≤40 *	0.090	-0.010	0.213	0.243	-0.032	0.269
Foccshare	(0.170)	(0.882)	(0.002)	(0.000)	(0.639)	(0.000)
Female>40	-0.043	0.086	-0.073	-0.096	0.063	-0.093
	(0.372)	(0.098)	(0.164)	(0.051)	(0.020)	(0.068)
Female>40 *	0.230	0.049	0.326	0.395	0.009	0.386
Foccshare	(0.001)	(0.526)	(0.000)	(0.000)	(0.901)	(0.000)
Panel B: Estimation on	separate samp	oles				
Foccshare -	-0.122	0.161	0.063	0.183	0.045	0.112
Females≤40	(0.021)	(0.005)	(0.244)	(0.000)	(0.415)	(0.034)
Foccshare –	0.047	0.236	0.157	0.361	0.162	0.212
females>40	(0.494)	(0.001)	(0.034)	(0.000)	(0.023)	(0.003)

Note: Refer to appendix Table A2 to see the full list of control variables included.

Looking first at the results for overall job satisfaction, the same result is generally observed for each of these sub-samples of women: relative to men, working in a more feminised occupation is associated with increased job satisfaction. However, there is also a clear pattern that may have been predicted from the existing literature. It is married women, older women and those with dependent children for whom job satisfaction increases the most when they are working in highly feminised occupations. Put another way, the job preferences of unmarried women, younger women and those without children are closer to those of male workers. However, they are also still quite different to men: even for younger women and those without dependent children there is a significant and positive association between overall job satisfaction and occupational feminisation (Tables 6 and 7), while the association is negative for men (see Table 4).

Male workers and all these subsamples of female workers appear to gain a similar boost in job satisfaction from the increased security and flexibility offered (or perceived) in more feminised occupations. There are, however, some important differences with respect to other domains of job satisfaction. We noted above that males working in more feminised occupations were less satisfied with their pay, but this was not the case for women. We now see that unmarried and younger women working in more feminised are also less satisfied with their pay, though not quite to the same extent as males. The 'contentment' with pay in highly feminised occupations is restricted to older women and those who are married and/or have dependent children. Again these differential gender effects of occupational feminisation can mostly be accounted for by the inclusion of controls for actual wages (Appendix Tables A7-A9).

A similar story holds with respect to satisfaction with the type of work done. The previous section indicated that men dislike the type of work done in highly feminised occupations (or, equally, have a relative preference for the work done in male dominated occupations), while women prefer the type of work done in highly feminised occupations. In fact for unmarried women, those without children and those aged 40 and under, there is no significant relationship between occupational feminisation

and satisfaction with the type of work done. However, it is still the case that this absence of a relationship is statistically different from the negative relationship observed for men.

Men also generally dislike the hours worked in highly feminised occupations. For women there is a substantial difference between married and unmarried women, women with and without children, and older and younger women. There is a steeper and statistically stronger association between satisfaction with hours worked and the degree of feminisation of the occupation for those women who are older, married and with dependent children within the household. This is robust to the inclusion of actual hours worked, suggesting that working hours on offer in more feminised occupations align with the hours preferences of older women and those with family responsibilities, more so than for younger, unmarried women.

#### 7. Conclusion and discussion

In Australia, as in other countries, there is ongoing debate about the causal processes that generate occupational segregation by gender, the implications of that segregation for equity in labour market outcomes (such as for wages), and the appropriate role, if any, for government policy and human resource practice. If occupational segregation is the result of individuals exercising their free choices and reflects differences in preferences of men and women regarding the given set of job attributes across occupations, then one could argue that inequality in outcomes should not be considered as discrimination. To investigate the degree to which occupational segregation is driven by differences in preferences, this paper has analysed patterns in women's and men's job satisfaction conditional upon the degree of feminisation of the occupation in which they work.

Some caveats must be noted regarding the use of self-report of job satisfaction to reflect preferences. First, preferences themselves may be shaped by societal norms regarding gender roles in and between the family and the labour market, particularly through people identifying certain occupations as being 'men's work' or 'women's work'. In this sense it is argued that occupational choice is not so 'free', but significantly constrained by societal norms. Second, people's satisfaction reports can be shaped by the degree to which they conform to social norms (Triandis 2000), and thus individuals' reports of job satisfaction may partly reflect societal values rather than the actual value derived from the intrinsic elements of their jobs. <sup>11</sup> The fact that HILDA collects data on satisfaction with specific aspects of a job, as well as overall job satisfaction partly mitigates this concern. Finally, the job attributes that men and women are choosing between may not be 'given' but endogenous to that choice, such that job attributes change depending upon gender composition. An example is the suggestion that highly feminised jobs are lower paid *because* a high proportion of women choose those jobs.

With these caveats in mind, while the available evidence does not completely dispel the notion of 'women's work' as a contributing factor to segregation - that certain types of work are preferred by women rather than men - our analyses suggest that there are substantial differences between different groups of women. In particular we find that mothers, wives and older women - women who are more likely to have caring responsibilities and be doing more unpaid work (Collin 2008) – are especially likely to prefer the type of work done in those occupations that are more highly

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<sup>&</sup>lt;sup>11</sup> This is not to deny that people will also derive satisfaction from not conforming, as undoubtedly applies to some women who break into male dominated jobs.

feminised. On average unmarried, younger, childless women do prefer the type of work done in feminised occupations when compared to men, who tend to be less satisfied with work done in feminised occupations. However, unmarried, younger, childless women are not significantly more satisfied with the type of work done in feminised occupations relative to that done in other occupations. In this sense they are very different to married, older women and mothers, who do have a strong preference for work done in feminised occupations over that done in other occupations.

Exactly when and why these differences in preferences between these groups of women develop needs to be examined further. However, the results offer strong support for the view that occupational segregation is generated by gender norms and the roles allocated to men and women. In addition to liking the type of work done in more feminised occupations, mothers, wives and older women in those occupations are particularly more satisfied with hours of work and the flexibility available to balance work and non-work commitments. Compared to other women, women working in feminised occupations are less satisfied with their pay. This effect is stronger for younger, unmarried and childless women, while men working in highly feminised occupations are the most dissatisfied with their pay. These findings are all consistent with women being attracted to those occupations because they accommodate the role of carer or secondary income earner.

The differential gender effect for satisfaction with hours of work itself seems to be driven by differences in hours preferences, not by differences in the actual hours worked by men and women in more feminised occupations. Women, but in particular mothers, older women and wives, are most satisfied with part-time hours and men are most satisfied working full-time. The dissatisfaction men report with their hours of work in more highly feminised occupations is likely to be driven by men being less able to have their hours preference correctly matched, while women who have higher levels of unpaid work are more likely to have their preferences correctly matched, consistent with their social gender roles. However, the minimal difference between men and women with regard to satisfaction with flexibility is surprising. Once a wide range of variables is controlled for, men and women's satisfaction with flexibility appear to be similarly enhanced when working in more feminised occupations.

Thus differences in patterns of job satisfaction between women conditional upon family status and age provide evidence of the persistence of the male breadwinner model in shaping occupational segregation by gender. The women who are most likely to face work and family arrangements that conform to this model – married women and those with dependent children – are the women who most appreciate the hours of work and flexibility offered in highly feminised occupations. Married and older women are also less dissatisfied with wages in those occupations, consistent with women's role as the income earner often being secondary to her (male) partner's. That women's job preferences are a bit more like men's when they are younger, unmarried and before having children, but then drift towards preferencing highly feminised occupations is certainly suggestive of gender roles affecting occupational preferences. It is less clear why women who are older, married and with dependent children prefer the 'type of work' done in highly feminised occupations more so than their younger, unmarried, childless counterparts, since the type of work done should not affect their ability to take on family roles. A possible explanation is that there is a complementarity between the work done in those jobs and the roles they take on at home as wives and mothers that increases the preference for that type of work. Alternatively, or possibly fittingly, research has

shown that women's identities shift when they become mothers (Deutsch et al. 1988), and working in highly feminised occupations may more closely fit to their identity of 'mother' and secondary earner, leading to them being particularly satisfied when working in feminised occupations.

With regard to the causes of occupational segregation, Crompton and Harris (1998: 118) could well have been summarising our own results in concluding "employment structures are the outcome of both choice and constraint". However, the results present interesting new perspectives on the debate surrounding the gender wage gap in Australia. If it is true that the market does not highly value that type of work that women have a preference for, this may be a non-discriminatory reason for pay being lower in female dominated occupations. Our finding that men's satisfaction with their pay decreases with the degree of feminisation of their occupation, while that of women who are older, married and with children does not, could be interpreted as being consistent with this. However, it does not rule out the alternative possibility that institutional factors, such as lower bargaining power by women, contribute to lower pay in those occupations. Importantly, this differential effect by gender between pay satisfaction and occupational feminisation can be fully accounted for by controlling for *actual* wages. This clearly contradicts Baron and Cobb-Clark's (2010) suggestion that women's jobs are better paid, other things held equal. The observation that unmarried and younger women are particularly less satisfied than other women with pay in feminised occupations is also inconsistent with women's jobs being better paid.

In following this line of investigation, we have stumbled upon an empirical resolution to the paradox of the contented female worker. The higher reported job satisfaction for women, in Australia at least, can be attributed to women's satisfaction with the type of work they do and hours worked increasing with the degree of feminisation of the occupation, while men's does not; plus men's satisfaction with pay decreasing more rapidly than women's with the degree of feminisation. The inclusion of an interaction term between gender and occupational feminisation accounts for the higher average levels of overall job satisfaction reported by women. In a very reduced model of overall job satisfaction (Table 3) the inclusion of this term results in the coefficient for the female dummy variable switching from being positive and highly significant to negative and weakly significant, and then becoming insignificant with the introduction of a wide range of controls (Table 4). Thus differences in satisfaction between men and women conditional on occupational feminisation fully account for the higher average job satisfaction reported by women relative to men. Of course this raises further questions as to the source of those differences, and we stress the importance of paying attention to differences within the group of 'women': mothers are different from non-mothers, younger women are different from older women, and wives are different from unmarried women.

In this paper we have sought to explore the notion of 'women's work' as a factor contributing to occupational segregation - the idea that certain occupations are highly feminised because women have a strong preference for the type of work done in those occupations. The evidence we present indicates that this idea of 'women's work' applies to some degree for young, unmarried and childless women, but is primarily applicable to mothers, older women and wives. This indicates that it is critical to take a closer look at these groups of women and examine what factors contribute to these differences in preferences. It may be that these differences reflect men's, young, single and childless women's and older, married mother's differing roles in the 'world of work', where a man's work is seen as primary, a young, single and childless women's as intermediary and older, married mother's

work is seen as supplementary. We suggest that further research is warranted to examine how women's preferences, attitudes and expectations develop over the life cycle, with a focus on the effect motherhood and young women's fertility expectations.

Appendix Table A1: Employment and degree of feminisation by occupation; 2006 Census

ANZSO		Total	Percent
Code	ANZSCO Occupation Category	Employed	Female
521	Personal Assistants and Secretaries	138579	98.1
542	Receptionists	129500	96.0
421	Child Carers	85257	95.9
422	Education Aides	56768	91.7
254	Midwifery and Nursing Professionals	200393	91.1
512	Office and Practice Managers	103719	87.0
551	Accounting Clerks and Bookkeepers	188989	85.7
391	Hairdressers	47876	85.5
532	Keyboard Operators	52922	85.0
531	General Clerks	206294	84.9
423	Personal Carers and Assistants	155420	84.2
631	Checkout Operators and Office Cashiers	95681	77.8
451	Personal Service and Travel Workers	67338	74.1
241	School Teachers	288704	73.9
249	Miscellaneous Education Professionals	40077	72.1
411	Health and Welfare Support Workers	87930	71.5
552	Financial and Insurance Clerks	102741	70.7
431	Hospitality Workers	182439	69.7
639	Miscellaneous Sales Support Workers	43765	69.7
541	Call or Contact Centre Information Clerks	72995	68.9
621	Sales Assistants and Salespersons	583465	65.6
252	Health Therapy Professionals	44051	65.4
272	Social and Welfare Professionals	77005	65.3
134			64.8
	Education, Health and Welfare Services Managers	46876	
599	Miscellaneous Clerical and Administrative Workers	97444	63.1 62.8
223	Human Resource and Training Professionals	65018	
811	Cleaners and Laundry Workers	215091	61.8
311	Agricultural, Medical and Science Technicians	40767	61.4
251	Health Diagnostic and Promotion Professionals	47077	59.6
361	Animal Attendants and Trainers, and Shearers	20391	57.4
511	Contract, Program and Project Administrators	83902	56.4
851	Food Preparation Assistants	116027	55.3
141	Accommodation and Hospitality Managers	79810	50.1
132	Business Administration Managers	115902	50.1
452	Sports and Fitness Workers	43890	49.6
832	Packers and Product Assemblers	84869	49.2
393	Textile, Clothing and Footwear Trades Workers	14409	48.8
561	Clerical and Office Support Workers	92820	48.1
225	Sales, Marketing and Public Relations Professionals	82565	48.0
242	Tertiary Education Teachers	67750	47.7
224	Information and Organisation Professionals	91473	47.5
221	Accountants, Auditors and Company Secretaries	136424	46.2
142	Retail Managers	188732	46.0
212	Media Professionals	39224	45.8
612	Real Estate Sales Agents	59499	45.6
211	Arts Professionals	29093	42.8
234	Natural and Physical Science Professionals	67667	41.6
271	Legal Professionals	52021	41.4
232	Architects, Designers, Planners and Surveyors	78333	39.6
591	Logistics Clerks	88805	39.3

ANZSO		Total	Percent
Code	ANZSCO Occupation Category	Employed	Female
149	Miscellaneous Hospitality, Retail and Service Managers	103959	38.0
891	Freight Handlers and Shelf Fillers	62023	37.6
253	Medical Practitioners	55065	35.4
131	Advertising and Sales Managers	87320	33.6
611	Insurance Agents and Sales Representatives	110273	33.1
222	Financial Brokers and Dealers, and Investment Advisers	67935	32.9
351	Food Trades Workers	129082	32.5
711	Machine Operators	84558	29.8
121	Farmers and Farm Managers	176859	29.7
399	Miscellaneous Technicians and Trades Workers	52014	29.0
831	Food Process Workers	56557	28.4
139	Miscellaneous Specialist Managers	43103	27.2
841	Farm, Forestry and Garden Workers	96091	25.3
839	Miscellaneous Factory Process Workers	54371	24.3
262	Database and Systems Administrators, and ICT Security		
	Specialists	21100	23.6
313	ICT and Telecommunications Technicians	39039	23.6
135	ICT Managers	29964	21.6
261	Business and Systems Analysts, and Programmers	74412	20.0
111	Chief Executives, General Managers and Legislators	86461	19.9
392	Printing Trades Workers	25111	19.5
899	Miscellaneous Labourers	114006	19.4
362	Horticultural Trades Workers	66499	19.0
441	Defence Force Members, Fire Fighters and Police	65739	18.5
442	Prison and Security Officers	51493	17.6
741	Storepersons	96847	16.0
263	ICT Network and Support Professionals	30285	14.8
133	Construction, Distribution and Production Managers	179550	12.4
732	Delivery Drivers	31817	12.0
312	Building and Engineering Technicians	86590	11.1
731	Automobile, Bus and Rail Drivers	65580	9.3
233	Engineering Professionals	81345	7.8
231	Air and Marine Transport Professionals	17977	5.5
394	Wood Trades Workers	28967	5.0
712	Stationary Plant Operators	77362	4.3
332	Floor Finishers and Painting Trades Workers	46434	3.7
342	Electronics and Telecommunications Trades Workers	71585	3.5
721	Mobile Plant Operators	94143	3.2
733	Truck Drivers	130127	2.6
821	Construction and Mining Labourers	119305	2.3
324	Panelbeaters, and Vehicle Body Builders, Trimmers and Painters	29211	2.0
333	Glaziers, Plasterers and Tilers	54014	1.9
323	Mechanical Engineering Trades Workers	108804	1.4
341	Electricians	90242	1.2
334	Plumbers	56705	1.1
321	Automotive Electricians and Mechanics	87253	1.0
322	Fabrication Engineering Trades Workers	70935	0.9
331	Bricklayers, and Carpenters and Joiners	114420	0.9

Appendix Table A2: Job satisfaction: random effects probit models, HILDA 2001-2012 Full sample (without female employment share in occupation)

					S	atisfactio	on with					
	Pay	,	Secur	ity	The work	itself	Houi	rs .	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Female	0.040	0.015	0.162	0.000	0.077	0.000	0.139	0.000	0.119	0.000	0.108	0.000
Age	-0.016	0.000	-0.065	0.000	-0.022	0.000	-0.045	0.000	-0.035	0.000	-0.042	0.000
Age squared	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000
Has disability	-0.090	0.000	-0.069	0.000	-0.052	0.001	-0.049	0.001	-0.019	0.195	-0.072	0.000
Born: in Australia	_		_		_		_		_		_	
English speaking country	-0.070	0.012	-0.081	0.008	-0.031	0.298	-0.025	0.367	-0.015	0.601	-0.026	0.377
Non-English spkg country Highest qualification	-0.190	0.000	-0.190	0.000	-0.038	0.160	0.003	0.913	-0.101	0.000	-0.095	0.001
Post-graduate	0.150	0.000	-0.160	0.000	-0.175	0.000	-0.385	0.000	-0.198	0.000	-0.394	0.000
Degree	-0.006	0.818	-0.116	0.000	-0.214	0.000	-0.300	0.000	-0.216	0.000	-0.400	0.000
Diploma	-0.059	0.061	-0.127	0.000	-0.173	0.000	-0.189	0.000	-0.090	0.004	-0.285	0.000
Certificate III/IV	-0.036	0.108	-0.099	0.000	-0.087	0.000	-0.133	0.000	-0.104	0.000	-0.176	0.000
Completed Year 12	0.003	0.901	-0.033	0.144	-0.161	0.000	-0.140	0.000	-0.042	0.068	-0.199	0.000
Did not complete Year 12	_		_		_		_		_		_	
Lives in: Major capital city	_		_		_		_		_		_	
Inner regional	0.086	0.000	0.083	0.000	0.108	0.000	0.060	0.002	0.018	0.358	0.118	0.000
Outer regional/remote	0.180	0.000	0.132	0.000	0.086	0.001	0.089	0.000	0.005	0.836	0.152	0.000
SES of neighbourhood (decile) Marital/depndt. child status	0.009	0.000	0.007	0.014	-0.008	0.002					-0.008	0.002
Married, no children		0.054		0.000	- 0.442	0.000		0.000	- 0.405	0.000		0.000
Married, child aged 0-4	0.038	0.051	0.003	0.890	0.112	0.000	0.085	0.000	0.105	0.000	0.088	0.000
Married, child aged 5-14	0.017	0.418	-0.033	0.140	0.091	0.000	0.026	0.217	0.058	0.006	0.072	0.001
Married, child age 15-24	0.059	0.006	0.015	0.532	0.077	0.001	0.019	0.402	0.044	0.059	0.074	0.001
Single, no children	-0.021	0.198	-0.095	0.000	-0.036	0.040	-0.029	0.081	0.017	0.317	-0.013	0.455
Single, child aged 0-4	-0.180	0.011	-0.068	0.353	0.171	0.018	0.161	0.016	0.129	0.067	0.158	0.026

					S	atisfactio	n with					
	Pay		Securi	ty	The work	itself	Hour	'S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Single, child aged 5-14	-0.151	0.000	-0.062	0.170	0.121	0.004	-0.013	0.747	0.077	0.066	0.120	0.004
Single, child age 15-24	-0.107	0.016	-0.047	0.334	0.040	0.359	-0.069	0.137	-0.029	0.529	-0.005	0.921
Firm sector: Private for-profit	_		_		_		_		_		_	
Private not-for profit	-0.001	0.973	0.135	0.000	0.247	0.000	0.188	0.000	0.170	0.000	0.193	0.000
Government business	0.179	0.000	0.097	0.000	0.130	0.000	0.135	0.000	0.089	0.000	0.183	0.000
Public sector	0.158	0.000	0.167	0.000	0.199	0.000	0.182	0.000	0.117	0.000	0.250	0.000
Other	0.008	0.864	0.152	0.002	0.286	0.000	0.112	0.019	0.141	0.004	0.211	0.000
Workplace size: Small (1-19 workers)	_		_		_		_		_		_	
Medium (20-99 workers)	0.018	0.191	-0.035	0.014	-0.119	0.000	-0.087	0.000	-0.123	0.000	-0.088	0.000
Large (100+ workers)	0.133	0.000	-0.034	0.035	-0.159	0.000	-0.107	0.000	-0.136	0.000	-0.094	0.000
Operates from single location Employment contract:			0.087	0.000	0.100	0.000	0.042	0.001	0.087	0.000	0.091	0.000
Self-employed/employer	-0.228	0.000	-0.325	0.000	0.062	0.026	-0.143	0.000	0.191	0.000	0.118	0.000
Fixed term contract	0.052	0.003	-0.439	0.000	0.034	0.052	0.017	0.307	-0.025	0.141	-0.018	0.292
Casual contract	0.182	0.000	-0.488	0.000	-0.117	0.000	-0.102	0.000	0.247	0.000	-0.111	0.000
Permanent/ongoing	_		_		_		_		_		_	
Other	-0.193	0.025	-0.570	0.000	0.059	0.514	-0.050	0.599	-0.133	0.120	-0.171	0.067
Usual no. hours per week: 0 to 15 hours	0.025	0.287	0.084	0.001	-0.070	0.005					0.091	0.000
16 to 30 hours	-0.081	0.000	-0.004	0.829	-0.085	0.000					0.031	0.109
31 to 38 hours	-0.067	0.000	-0.015	0.312	-0.065	0.000					-0.029	0.042
39 to 44 hours	_		_		_						_	
45 to 54 hours	0.067	0.000	0.075	0.000	0.046	0.002					-0.030	0.046
55 hours or more	0.110	0.000	0.107	0.000	0.097	0.000					-0.098	0.000
Real hourly wage (log of)			0.025	0.067	0.051	0.000	0.254	0.000	0.203	0.000	0.197	0.000

					9	Satisfactio	on with					
	Pay	,	Secur	ity	The work	itself	Hou	rs	Flexibi	ility	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Union member	0.011	0.436	-0.040	0.011	-0.042	0.005	-0.049	0.001	-0.189	0.000	-0.068	0.000
Years in current occupation			0.004	0.079	-0.011	0.000	-0.005	0.010	-0.006	0.002	-0.013	0.000
Years in occupation squared			0.000	0.580	0.000	0.000	0.000	0.056	0.000	0.013	0.000	0.000
Years with current employer			0.011	0.000	-0.017	0.000	-0.011	0.000	0.004	0.106	-0.023	0.000
Years current employer squared			0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.017	0.001	0.000
Works non-standard hours	-0.014	0.289	-0.029	0.044	-0.041	0.004	-0.318	0.000	-0.183	0.000	-0.126	0.000
Works some hours from home			0.026	0.080	0.100	0.000	-0.136	0.000			0.056	0.000
Employed by labour hire firm			-0.376	0.000					-0.126	0.000		
Has supervisory responsibilities	0.002	0.855	0.185	0.000	0.061	0.000	-0.148	0.000	-0.110	0.000		
N(observations)	93448		81810		81892		81907		81865		81890	
N(individuals)	19054		17876		17891		17889		17879		17890	
Obs. per person												
minimum	1		1		1		1		1		1	
average	4.9		4.6		4.6		4.6		4.6		4.6	
maximum	12		12		12		12		12		12	
Wald Chi-square	1191	0.000	2478	0.000	1398	0.000	2069	0.000	1653	0.000	1777	0.000

Appendix Table A3: Job satisfaction: random effects probit models, HILDA 2001-2012 Full sample (with female employment share in occupation)

					S	atisfactio	on with					
	Pay		Securi	ity	The work	itself	Hour	S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Female	0.073	0.000	0.120	0.000	0.092	0.000	0.121	0.000	0.090	0.000	0.111	0.000
Age	-0.017	0.000	-0.065	0.000	-0.022	0.000	-0.044	0.000	-0.035	0.000	-0.042	0.000
Age squared	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000
Has disability	-0.090	0.000	-0.068	0.000	-0.051	0.001	-0.049	0.001	-0.018	0.222	-0.071	0.000
Born: in Australia	_		_		_		_		_		_	
English speaking country	-0.072	0.009	-0.085	0.006	-0.032	0.274	-0.022	0.418	-0.018	0.544	-0.029	0.330
Non-English spkg country	-0.190	0.000	-0.190	0.000	-0.041	0.130	0.000	0.994	-0.102	0.000	-0.097	0.000
Highest qualification Post-graduate	0.158	0.000	-0.163	0.000	-0.170	0.000	-0.389	0.000	-0.203	0.000	-0.394	0.000
Degree	0.000	0.985	-0.124	0.000	-0.207	0.000	-0.303	0.000	-0.222	0.000	-0.398	0.000
Diploma	-0.054	0.088	-0.136	0.000	-0.169	0.000	-0.193	0.000	-0.094	0.003	-0.283	0.000
Certificate III/IV	-0.038	0.094	-0.099	0.000	-0.084	0.000	-0.129	0.000	-0.103	0.000	-0.176	0.000
Completed Year 12	0.008	0.736	-0.038	0.097	-0.158	0.000	-0.141	0.000	-0.045	0.047	-0.198	0.000
Did not complete Year 12	_		_		_		_		_		_	
Lives in: Major capital city	_		_		_		_		_		_	
Inner regional	0.085	0.000	0.082	0.000	0.106	0.000	0.060	0.002	0.017	0.385	0.117	0.000
Outer regional/remote	0.179	0.000	0.134	0.000	0.084	0.001	0.090	0.000	0.007	0.794	0.151	0.000
SES of neighbourhood (decile)	0.009	0.000	0.006	0.022	-0.008	0.003					-0.008	0.002
Marital/depndt. child status Married, no children	_		_		_		_		_		_	
Married, child aged 0-4	0.036	0.068	0.002	0.924	0.111	0.000	0.086	0.000	0.104	0.000	0.087	0.000
Married, child aged 5-14	0.016	0.432	-0.036	0.108	0.090	0.000	0.025	0.228	0.056	0.008	0.071	0.001
Married, child age 15-24	0.060	0.005	0.015	0.541	0.079	0.000	0.018	0.435	0.044	0.060	0.075	0.001
Single, no children	-0.023	0.172	-0.095	0.000	-0.035	0.044	-0.028	0.088	0.017	0.332	-0.013	0.432
Single, child aged 0-4	-0.186	0.009	-0.073	0.325	0.170	0.019	0.159	0.018	0.125	0.075	0.153	0.031

					S	atisfactio	n with					
	Pay		Secur	ity	The work	itself	Hour	S	Flexibi	lity	Job ove	rall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Single, child aged 5-14	-0.153	0.000	-0.064	0.155	0.118	0.005	-0.015	0.704	0.073	0.082	0.114	0.006
Single, child age 15-24	-0.109	0.014	-0.051	0.300	0.040	0.371	-0.068	0.137	-0.030	0.507	-0.002	0.969
Firm sector: Private for-profit	_		_		_		_		_		_	
Private not-for profit	0.008	0.753	0.125	0.000	0.249	0.000	0.181	0.000	0.162	0.000	0.194	0.000
Government business	0.186	0.000	0.092	0.001	0.131	0.000	0.130	0.000	0.083	0.001	0.184	0.000
Public sector	0.167	0.000	0.158	0.000	0.202	0.000	0.175	0.000	0.109	0.000	0.252	0.000
Other	0.015	0.749	0.140	0.004	0.290	0.000	0.105	0.027	0.134	0.006	0.212	0.000
Workplace size: Small (1-19 workers)	_		_		_		_		_		_	
Medium (20-99 workers)	0.018	0.198	-0.038	0.008	-0.121	0.000	-0.087	0.000	-0.123	0.000	-0.089	0.000
Large (100+ workers)	0.131	0.000	-0.034	0.035	-0.161	0.000	-0.106	0.000	-0.136	0.000	-0.095	0.000
Operates from single location Employment contract:			0.091	0.000	0.100	0.000	0.045	0.000	0.088	0.000	0.091	0.000
Self-employed/employer	-0.231	0.000	-0.324	0.000	0.058	0.038	-0.141	0.000	0.194	0.000	0.118	0.000
Fixed term contract	0.050	0.004	-0.438	0.000	0.034	0.052	0.016	0.321	-0.026	0.133	-0.017	0.317
Casual contract	0.183	0.000	-0.487	0.000	-0.116	0.000	-0.103	0.000	0.244	0.000	-0.111	0.000
Permanent/ongoing	_		_		_		_		_		_	
Other Usual no. hours per week:	-0.194	0.023	-0.568	0.000	0.058	0.522	-0.048	0.612	-0.132	0.122	-0.169	0.069
0 to 15 hours	0.035	0.148	0.069	0.006	-0.064	0.010					0.093	0.000
16 to 30 hours	-0.075	0.000	-0.016	0.417	-0.080	0.000					0.032	0.103
31 to 38 hours	-0.065	0.000	-0.021	0.153	-0.064	0.000					-0.030	0.039
39 to 44 hours	_		_		_						_	
45 to 54 hours	0.066	0.000	0.077	0.000	0.046	0.002					-0.029	0.055
55 hours or more	0.107	0.000	0.111	0.000	0.098	0.000					-0.097	0.000
Real hourly wage (log of)			0.030	0.027	0.049	0.000	0.256	0.000	0.204	0.000	0.196	0.000

					S	atisfactio	on with					
	Pay		Secur	ity	The work	itself	Hour	·s	Flexibility		Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Union member	0.012	0.394	-0.041	0.009	-0.042	0.005	-0.049	0.001	-0.190	0.000	-0.069	0.000
Years in current occupation			0.004	0.080	-0.011	0.000	-0.005	0.011	-0.006	0.002	-0.013	0.000
Years in occupation squared			0.000	0.604	0.000	0.000	0.000	0.062	0.000	0.014	0.000	0.000
Years with current employer			0.011	0.000	-0.017	0.000	-0.011	0.000	0.004	0.092	-0.023	0.000
Years current employer squared			0.000	0.024	0.000	0.000	0.000	0.001	0.000	0.013	0.001	0.000
Works non-standard hours	-0.014	0.300	-0.030	0.036	-0.039	0.006	-0.320	0.000	-0.185	0.000	-0.126	0.000
Works some hours from home			0.024	0.115	0.099	0.000	-0.136	0.000			0.055	0.000
Employed by labour hire firm			-0.372	0.000					-0.121	0.000		
Has supervisory responsibilities	0.001	0.889	0.185	0.000	0.060	0.000	-0.147	0.000	-0.110	0.000		
Female share in occupation (0-1)	-0.111	0.000	0.146	0.000	-0.054	0.065	0.067	0.013	0.096	0.001	-0.008	0.783
N(observations)	93013		81455		81537		81552		81510		81535	
N(individuals)	19029		17851		17866		17864		17854		17865	
Obs. per person												
minimum	1		1		1		1		1		1	
average	4.9		4.6		4.6		4.6		4.6		4.6	
maximum	12		12		12		12		12		12	
Wald Chi-square	1200	0.000	2491	0.000	1393	0.000	2070	0.000	1671	0.000	1770	0.000

Appendix Table A4: Job satisfaction: random effects probit models, HILDA 2001-2012, Females only

		Satisfaction with										
	Pay		Secur	ty	The work	itself	Hour	'S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Age	-0.012	0.033	-0.045	0.000	-0.008	0.211	-0.033	0.000	-0.018	0.002	-0.019	0.002
Age squared	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
Has disability	-0.100	0.000	-0.070	0.002	-0.063	0.004	-0.058	0.006	-0.038	0.082	-0.092	0.000
Born: in Australia	_		_		_		_		_		_	
English speaking country	-0.078	0.062	-0.082	0.067	0.005	0.902	0.032	0.408	0.036	0.386	0.014	0.752
Non-English spkg country	-0.226	0.000	-0.223	0.000	-0.096	0.010	-0.055	0.110	-0.140	0.000	-0.115	0.002
Highest qualification	0.070	0.460	0.047	0.000	0.470	0.000	0.404	0.000	0.201	0.000	0.465	0.000
Post-graduate	0.079	0.163	-0.247	0.000	-0.173	0.002	-0.424	0.000	-0.291	0.000	-0.465	0.000
Degree	-0.035	0.286	-0.127	0.000	-0.195	0.000	-0.328	0.000	-0.334	0.000	-0.433	0.000
Diploma	-0.108	0.010	-0.174	0.000	-0.190	0.000	-0.197	0.000	-0.123	0.004	-0.337	0.000
Certificate III/IV	-0.097	0.003	-0.124	0.000	-0.085	0.009	-0.148	0.000	-0.143	0.000	-0.203	0.000
Completed Year 12	-0.021	0.494	-0.063	0.037	-0.179	0.000	-0.179	0.000	-0.106	0.001	-0.242	0.000
Did not complete Year 12	_		_		_		_		_		_	
Lives in: Major capital city	_		_		_		_		_		_	
Inner regional	0.122	0.000	0.113	0.000	0.147	0.000	0.041	0.114	0.048	0.081	0.134	0.000
Outer regional/remote	0.215	0.000	0.123	0.001	0.116	0.001	0.081	0.012	0.038	0.287	0.176	0.000
SES of neighbourhood (decile)	0.005	0.147	0.011	0.005	-0.005	0.166					-0.008	0.042
Marital/depndt. child status												
Married, no children	_		_		_		_		_		_	
Married, child aged 0-4	0.021	0.500	0.028	0.410	0.098	0.003	0.183	0.000	0.178	0.000	0.077	0.015
Married, child aged 5-14	0.031	0.322	-0.045	0.173	0.101	0.002	0.082	0.008	0.070	0.023	0.049	0.127
Married, child age 15-24	0.076	0.015	0.041	0.235	0.083	0.007	0.040	0.211	0.014	0.674	0.063	0.047
Single, no children	-0.053	0.027	-0.102	0.000	-0.012	0.639	-0.071	0.003	-0.012	0.637	-0.027	0.281
Single, child aged 0-4	-0.206	0.007	-0.121	0.125	0.202	0.008	0.162	0.021	0.090	0.234	0.117	0.120
Single, child aged 5-14	-0.212	0.000	-0.104	0.045	0.101	0.036	-0.042	0.360	-0.010	0.836	0.051	0.277

	Satisfaction with											
	Pay	,	Secur	ity	The work	itself	Hour	S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Single, child age 15-24	-0.110	0.032	-0.054	0.344	0.045	0.376	-0.099	0.064	-0.076	0.159	-0.011	0.838
Firm sector: Private for-profit	_		_		_		_		_		_	
Private not-for profit	0.019	0.539	0.072	0.019	0.220	0.000	0.137	0.000	0.140	0.000	0.167	0.000
Government business	0.229	0.000	0.023	0.529	0.095	0.007	0.034	0.331	0.046	0.203	0.145	0.000
Public sector	0.202	0.000	0.048	0.092	0.160	0.000	0.092	0.000	0.068	0.013	0.216	0.000
Other	0.041	0.472	0.122	0.037	0.281	0.000	0.078	0.175	0.073	0.216	0.193	0.002
Workplace size: Small (1-19 workers)	_		_		_		_		_		_	
Medium (20-99 workers)	-0.002	0.936	-0.014	0.492	-0.116	0.000	-0.063	0.001	-0.082	0.000	-0.062	0.002
Large (100+ workers)	0.099	0.000	-0.024	0.310	-0.156	0.000	-0.093	0.000	-0.097	0.000	-0.073	0.002
Operates from single location Employment contract:			0.092	0.000	0.107	0.000	0.033	0.057	0.100	0.000	0.084	0.000
Self-employed/employer	-0.210	0.000	-0.226	0.000	0.086	0.083	-0.057	0.245	0.327	0.000	0.183	0.000
Fixed term contract	0.062	0.010	-0.566	0.000	0.034	0.176	0.012	0.597	-0.029	0.218	-0.020	0.419
Casual contract	0.227	0.000	-0.459	0.000	-0.065	0.006	-0.078	0.000	0.294	0.000	-0.039	0.100
Permanent/ongoing	_		_		_		_		_		_	
Other	-0.328	0.007	-0.808	0.000	-0.173	0.180	-0.110	0.409	-0.037	0.748	-0.289	0.039
Usual no. hours per week: 0 to 15 hours	0.058	0.055	0.051	0.111	-0.099	0.002					0.103	0.001
16 to 30 hours	-0.060	0.012	-0.028	0.264	-0.115	0.000					0.041	0.098
31 to 38 hours	-0.023	0.255	0.006	0.770	-0.075	0.000					0.005	0.823
39 to 44 hours	0.060	0.011	0.087	0.001	0.050	0.049					-0.037	0.135
45 to 54 hours	_		_		_						_	
55 hours or more	0.010	0.798	0.110	0.013	0.059	0.172					-0.202	0.000
Real hourly wage (log of)			0.055	0.005	0.052	0.007	0.232	0.000	0.210	0.000	0.184	0.000
Union member	-0.034	0.089	-0.034	0.129	-0.056	0.008	-0.094	0.000	-0.232	0.000	-0.115	0.000

					S	atisfactio	on with					
	Pay		Secur	ity	The work itself		Hours		Flexibility		Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Years in current occupation			0.006	0.055	-0.011	0.000	-0.006	0.030	-0.008	0.004	-0.015	0.000
Years in occupation squared			0.000	0.736	0.000	0.000	0.000	0.043	0.000	0.020	0.000	0.000
Years with current employer			0.012	0.003	-0.020	0.000	-0.005	0.183	0.010	0.013	-0.023	0.000
Years current employer squared			0.000	0.152	0.001	0.000	0.000	0.265	0.000	0.002	0.001	0.000
Works non-standard hours	-0.037	0.048	-0.001	0.972	-0.035	0.077	-0.295	0.000	-0.151	0.000	-0.119	0.000
Works some hours from home			0.057	0.010	0.100	0.000	-0.147	0.000			0.055	0.009
Employed by labour hire firm			-0.296	0.000	0.053	0.001			0.000	0.993		
Has supervisory responsibilities	-0.029	0.062	0.172	0.000			-0.134	0.000	-0.128	0.000		
Female share in occupation (0-1)	-0.052	0.222	0.182	0.000	0.104	0.018	0.243	0.000	0.093	0.033	0.163	0.000
N(observations)	43767		39283		39324		39331		39322		39324	
N(individuals)	9321		8811		8820		8820		8818		8820	
Obs. per person												
minimum	1		1		1		1		1		1	
average	4.7		4.5		4.5		4.5		4.5		4.5	
maximum	12		12		12		12		12		12	
Wald Chi-square	665	0.000	1318	0.000	751	0.000	1016	0.000	1056	0.000	1003	0.000

Appendix Table A5: Job satisfaction: random effects probit models, HILDA 2001-2012, males only

	Satisfaction with											
	Pay	,	Securi	ity	The work	itself	Hour	S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Age	-0.027	0.000	-0.082	0.000	-0.036	0.000	-0.059	0.000	-0.052	0.000	-0.068	0.000
Age squared	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000
Has disability	-0.077	0.000	-0.065	0.002	-0.038	0.064	-0.037	0.062	0.004	0.858	-0.046	0.027
Born: in Australia	_		_		_		_		_		_	
English speaking country	-0.068	0.065	-0.080	0.056	-0.062	0.137	-0.065	0.092	-0.061	0.125	-0.065	0.119
Non-English spkg country	-0.154	0.000	-0.153	0.000	0.022	0.587	0.067	0.078	-0.069	0.063	-0.073	0.078
Highest qualification	0.276	0.000	0.077	0.222	0.426	0.000	0.200	0.000	0.004	0.005	0.262	0.000
Post-graduate	0.276	0.000	-0.077	0.232	-0.136	0.022	-0.290	0.000	-0.094	0.095	-0.263	0.000
Degree	0.071	0.053	-0.124	0.002	-0.200	0.000	-0.220	0.000	-0.072	0.060	-0.311	0.000
Diploma	0.020	0.678	-0.092	0.063	-0.137	0.004	-0.170	0.000	-0.061	0.193	-0.203	0.000
Certificate III/IV	0.015	0.635	-0.060	0.070	-0.076	0.024	-0.089	0.005	-0.042	0.199	-0.140	0.000
Completed Year 12	0.034	0.308	-0.016	0.634	-0.131	0.000	-0.094	0.004	0.016	0.649	-0.151	0.000
Did not complete Year 12	_		_		_		_		_		_	
Lives in: Major capital city	_		_		_		_		_		_	
Inner regional	0.048	0.095	0.057	0.047	0.069	0.018	0.078	0.004	-0.012	0.671	0.100	0.000
Outer regional/remote	0.146	0.000	0.138	0.000	0.056	0.125	0.098	0.004	-0.021	0.558	0.126	0.001
SES of neighbourhood (decile)	0.012	0.001	0.002	0.690	-0.012	0.004					-0.010	0.012
Marital/depndt. child status Married, no children	_		_		_		_		_		_	
Married, child aged 0-4	0.034	0.186	-0.012	0.673	0.119	0.000	0.014	0.607	0.047	0.080	0.081	0.002
Married, child aged 5-14	-0.013	0.640	-0.029	0.343	0.077	0.009	-0.037	0.192	0.027	0.358	0.069	0.021
Married, child age 15-24	0.030	0.301	-0.028	0.426	0.068	0.035	-0.017	0.586	0.060	0.071	0.061	0.068
Single, no children	0.015	0.515	-0.084	0.001	-0.056	0.022	0.014	0.546	0.049	0.040	0.008	0.730
Single, child aged 0-4	-0.240	0.143	0.266	0.161	-0.178	0.363	0.035	0.817	0.168	0.336	0.108	0.533
Single, child aged 5-14	0.040	0.625	0.088	0.335	0.163	0.059	0.119	0.142	0.349	0.000	0.232	0.007

	Satisfaction with											
	Pay		Secur	ity	The work	itself	Hour	'S	Flexibi	lity	Job ove	erall
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Single, child age 15-24	-0.127	0.143	-0.079	0.397	0.024	0.775	0.024	0.755	0.048	0.561	-0.032	0.722
Firm sector: Private for-profit	_		_		_		_		_		_	
Private not-for profit	0.017	0.691	0.192	0.000	0.276	0.000	0.233	0.000	0.214	0.000	0.234	0.000
Government business	0.143	0.000	0.172	0.000	0.169	0.000	0.242	0.000	0.127	0.000	0.229	0.000
Public sector	0.125	0.000	0.306	0.000	0.249	0.000	0.286	0.000	0.172	0.000	0.297	0.000
Other	-0.031	0.678	0.133	0.125	0.266	0.003	0.111	0.166	0.233	0.007	0.222	0.013
Workplace size: Small (1-19 workers)	_		_		_		_		_		_	
Medium (20-99 workers)	0.041	0.036	-0.053	0.009	-0.121	0.000	-0.103	0.000	-0.160	0.000	-0.108	0.000
Large (100+ workers)	0.167	0.000	-0.042	0.064	-0.161	0.000	-0.116	0.000	-0.174	0.000	-0.112	0.000
Operates from single location Employment contract:			0.084	0.000	0.084	0.000	0.047	0.009	0.071	0.000	0.088	0.000
Self-employed/employer	-0.238	0.000	-0.357	0.000	0.055	0.112	-0.177	0.000	0.122	0.001	0.092	0.010
Fixed term contract	0.037	0.135	-0.310	0.000	0.030	0.212	0.020	0.400	-0.024	0.332	-0.019	0.443
Casual contract	0.128	0.000	-0.513	0.000	-0.182	0.000	-0.134	0.000	0.172	0.000	-0.190	0.000
Permanent/ongoing	_		_		_		_		_		_	
Other	-0.084	0.481	-0.359	0.004	0.251	0.043	-0.012	0.927	-0.227	0.066	-0.094	0.446
Usual no. hours per week: 0 to 15 hours	-0.033	0.417	0.077	0.081	-0.013	0.767					0.051	0.241
16 to 30 hours	-0.096	0.002	-0.007	0.844	-0.023	0.504					0.000	0.996
31 to 38 hours	-0.107	0.000	-0.054	0.009	-0.060	0.004					-0.069	0.001
39 to 44 hours	0.065	0.000	0.081	0.000	0.048	0.012					-0.025	0.203
45 to 54 hours	_		_		_		_		_		_	
55 hours or more	0.134	0.000	0.128	0.000	0.120	0.000					-0.060	0.022
Real hourly wage (log of)			0.013	0.499	0.049	0.009	0.280	0.000	0.199	0.000	0.208	0.000
Union member	0.061	0.003	-0.049	0.028	-0.034	0.113	-0.004	0.846	-0.139	0.000	-0.021	0.344

	Satisfaction with											
	Pay		Security		The work itself		Hours		Flexibility		Job overall	
	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
Years in current occupation			0.002	0.530	-0.012	0.000	-0.004	0.091	-0.004	0.127	-0.012	0.000
Years in occupation squared			0.000	0.817	0.000	0.000	0.000	0.380	0.000	0.194	0.000	0.001
Years with current employer			0.010	0.003	-0.014	0.000	-0.014	0.000	0.001	0.727	-0.022	0.000
Years current employer squared			0.000	0.118	0.000	0.001	0.000	0.000	0.000	0.299	0.001	0.000
Works non-standard hours	0.013	0.487	-0.061	0.003	-0.044	0.034	-0.342	0.000	-0.219	0.000	-0.127	0.000
Works some hours from home			-0.009	0.659	0.104	0.000	-0.119	0.000			0.068	0.000
Employed by labour hire firm			-0.456	0.000					-0.210	0.000		
Has supervisory responsibilities	0.032	0.031	0.200	0.000	0.073	0.000	-0.147	0.000	-0.083	0.000		
Female share in occupation (0-1)	-0.170	0.000	0.115	0.004	-0.195	0.000	-0.104	0.005	0.074	0.063	-0.154	0.000
N(observations)	49246		42172		42213		42221		42188		42211	
N(individuals)	9709		9041		9047		9045		9037		9046	
Obs. per person												
minimum	1		1		1		1		1		1	
average	5.1		4.7		4.7		4.7		4.7		4.7	
maximum	12		12		12		12		12		12	
Wald Chi-square	665	0.000	1330	0.000	770	0.000	1204	0.000	760	0.000	921	0.000

# Appendix Table A6: Sensitivity analysis: comparative results to Table 4 when additional variables included

	Satisfaction with				
	Pay	Hours	Flexibility		
	(if include	(if include	(if include		
	hourly wage)	hours worked)	hours worked)		
Panel A					
Female	0.160	-0.029	-0.085		
	(0.000)	(0.075)	(0.000)		
Panel B: Add Foccshare					
Female	0.164	-0.007	-0.062		
	(0.000)	(0.700)	(0.001)		
Foccshare	-0.011	-0.069	-0.078		
	(0.688)	(0.010)	(0.007)		
Panel C: Add interaction term					
Female	0.187	-0.186	-0.080		
	(0.000)	(0.000)	(0.026)		
Foccshare	0.008	-0.214	-0.093		
	(0.828)	(0.000)	(0.014)		
Female*foccshare	-0.045	0.344	0.034		
	(0.428)	(0.000)	(0.550)		
Panel D: Estimation on separate					
Foccshare - females	-0.056	0.088	-0.064		
	(0.202)	(0.031)	(0.145)		
Foccshare - male	0.010	-0.169	-0.082		
	(0.795)	(0.000)	(0.040)		

# Appendix Table A7: Sensitivity analysis: comparative results to Table 5 when additional variables included

	Satisfaction with				
	Pay	Hours	Flexibility		
	(if include	(if include	(if include		
	hourly wage)	hours worked)	hours worked)		
Panel A: Interaction effects with	marital status				
foccshare	0.008	-0.217	-0.094		
	(0.824)	(0.000)	(0.012)		
Married female	0.206	-0.196	-0.105		
	(0.000)	(0.000)	(0.011)		
Married female * foccshare	-0.940	0.407	0.094		
	(0.532)	(0.000)	(0.146)		
Single female	0.139	-0.178	-0.036		
	(0.007)	(0.000)	(0.472)		
Single female * foccshare	-0.044	0.254	-0.059		
	(0.568)	(0.001)	(0.446)		
Panel B: Estimation on separate :	samples				
Foccshare - married women	-0.049	0.108	-0.032		
	(0.382)	(0.040)	(0.568)		
Foccshare – single women	-0.098	-0.010	-0.146		
	(0.154)	(0.870)	(0.032)		

# Appendix Table A8: Sensitivity analysis: comparative results to Table 6 when additional variables included

	Satisfaction with				
	Pay	Hours	Flexibility		
	(if include	(if include	(if include		
	hourly wage)	hours worked)	hours worked)		
Panel A: Interaction effects with	dependent child s	tatus			
Foccshare	0.008	-0.217	-0.094		
	(0.830)	(0.000)	(0.013)		
Female with dep. children	0.007	-0.211	-0.132		
	(0.000)	(0.000)	(0.010)		
Female with dep children *	-0.046	0.426	0.070		
foccshare	(0.541)	(0.000)	(0.356)		
Female without dep. children	0.154	-0.169	-0.051		
	(0.000)	(0.000)	(0.221)		
Female without dep. Children *	-0.039	0.293	0.013		
foccshare	(0.551)	(0.000)	(0.839)		
Panel B: Estimation on separate	samples				
Foccshare – females with dep.	-0.083	0.100	-0.030		
children	(0.232)	(0.124)	(0.669)		
Foccshar - females without dep.	-0.043	0.064	-0.103		
children	(0.445)	(0.223)	(0.062)		

## Appendix Table A9: Sensitivity analysis: comparative results to Table 7 when additional variables included

	Satisfaction with				
	Pay	Hours	Flexibility		
	(if include	(if include	(if include		
	hourly wage)	hours worked)	hours worked)		
Panel A: Interaction effects with	dependent child s	tatus			
Foccshare	0.007	-0.214	-0.092		
	(0.843)	(0.000)	(0.015)		
Female≤40	0.183	-0.126	-0.040		
	(0.000)	(0.001)	(0.341)		
Female≤40 * Foccshare	-0.067	0.266	0.008		
	(0.312)	(0.000)	(0.903)		
Female>40	0.199	-0.280	-0.142		
	(0.000)	(0.000)	(0.004)		
Female>40 * Foccshare	-0.013	0.459	0.074		
	(0.857)	(0.000)	(0.309)		
Panel B: Estimation on separate	samples				
Foccshare - Females≤40	-0.080	0.029	-0.113		
	(0.146)	(0.564)	(0.040)		
Foccshare – females>40	-0.012	0.215	0.012		
	(0.867)	(0.001)	(0.863)		

Appendix Table A10: Variable means by gender, pooled data 2001-2012.

Variable	Females	Males	Persons
Female share in occupation (0-1)	0.65	0.31	0.47
Satisfaction with [0-10]			
Pay	6.94	6.90	6.92
Security	8.05	7.86	7.94
The work itself	7.63	7.62	7.62
Hours worked	7.30	7.08	7.19
Flexibility	7.58	7.39	7.48
Overall job satisfaction	7.73	7.59	7.66
Female	1.00	0.00	0.47
Age	38.50	39.19	38.87
Age squared	1662.15	1723.77	1694.92
Has disability	0.13	0.13	0.13
Born in:			
Australia	0.81	0.80	0.80
English speaking country	0.09	0.10	0.09
Non-English spkg country Highest qualification	0.10	0.10	0.10
Post-graduate	0.04	0.05	0.04
Degree	0.25	0.18	0.21
Diploma	0.10	0.09	0.09
Certificate III/IV	0.15	0.28	0.22
Completed Year 12	0.18	0.16	0.17
Did not complete Year 12	0.28	0.25	0.26
Lives in: Major capital city	0.68	0.67	0.67
Inner regional	0.20	0.21	0.21
Outer regional/remote	0.12	0.13	0.12
SES of neighbourhood (decile)	5.88	5.76	5.81
Marital/depndt. child status			
Married, no children	0.29	0.30	0.30
Married, child aged 0-4	0.10	0.15	0.13
Married, child aged 5-14	0.16	0.15	0.15
Married, child age 15-24	0.09	0.08	0.08
Single, no children	0.28	0.30	0.29
Single, child aged 0-4	0.01	0.00	0.01
Single, child aged 5-14	0.04	0.01	0.02
Single, child age 15-24	0.03	0.01	0.02
Firm sector: Private for-profit	0.64	0.79	0.72
Private not-for profit	0.08	0.03	0.06
Government business	0.05	0.05	0.05
Public sector	0.22	0.12	0.17
Other	0.01	0.01	0.01
Workplace size:			
Small (1-19 workers)	0.43	0.48	0.46
Medium (20-99 workers)	0.29	0.25	0.27
Large (100+ workers)	0.28	0.26	0.27

Variable	Females	Males	Persons
Operates from single location	0.37	0.44	0.41
Employment contract:			
Self-employed/employer	0.12	0.20	0.16
Fixed term contract	0.08	0.07	0.08
Casual contract	0.23	0.14	0.18
Permanent/ongoing	0.57	0.58	0.57
Other	0.00	0.00	0.00
Usual no. hours per week:			
0 to 15 hours	0.19	0.07	0.13
16 to 30 hours	0.26	0.08	0.17
31 to 38 hours	0.23	0.18	0.20
39 to 44 hours	0.17	0.25	0.21
45 to 54 hours	0.11	0.25	0.18
55 hours or more	0.05	0.16	0.11
Real hourly wage (log of)	3.14	3.25	3.20
Union member	0.25	0.24	0.25
Years in current occupation	8.44	10.64	9.61
Years in occupation squared	159.37	238.03	201.20
Years with current employer	6.35	7.73	7.08
Years current employer squared	96.71	143.30	121.49
Works non-standard hours	0.26	0.25	0.26
Works some hours from home	0.24	0.26	0.25
Employed by labour hire firm	0.02	0.03	0.02
Has supervisory responsibilities	0.42	0.51	0.47

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