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"Differences in job security satisfaction between native and migrant workers in Australia: Exploring gender dimensions"

By Shrina Shah and Rachel Ong

Curtin University

Differences in Job Security Satisfaction between Native and Migrant Workers in Australia: Exploring Gender Dimensions

by
Shrina Shah
State Workforce Planning, Department of Training and Workforce Development (DTWD)

Rachel Ong
School of Economics and Finance, Curtin University

Abstract

This paper investigates whether migrant workers are more or less satisfied with their job security than native workers, and whether these differences vary by gender using the 2007 Household, Income and Labour Dynamics in Australia (HILDA) survey. The analysis of migrants' satisfaction with job security is particularly important in an Australian labour market environment given that it is increasingly dominated by non-permanent jobs and migrant workers. The descriptive statistics indicate a significant difference in satisfaction with job security between migrant and native workers. Linear and ordered probit regressions are invoked to examine whether or not being a migrant has a negative impact on job security satisfaction levels after controlling for key socio-demographic, human capital and labour market characteristics and these regressions are conducted separately for male and female workers. The role of expectations in affecting one's satisfaction with job security is also explored. The model findings indicate that being a female migrant worker has a significant negative impact of job security satisfaction but the impact is insignificant for males. However, those who have spent the majority of their lifetime in Australia have assimilated more into the Australian labour market and are more comfortable with their job security.

1. Introduction

Due to rising life expectancies and long-run decline in fertility rates, population ageing is a demographic phenomenon that will imminently result in a shrinking of the labour force within developed countries. Immigration is internationally recognized as an important policy that can reduce

the rate of this decline in labour supply and therefore has an important role in the economic development of in developed countries. According to the latest Australian census data, approximately 24% of the Australian population in 2006 was born overseas and 45% were either born overseas or have at least one parent born overseas. This is high relative to the United Kingdom where only 10.6% was born overseas in the year 2007 and in the United States where 12.6% was born overseas in 2005.

In 2008, there were over 90,000 permanent additions in 2008 under the Australian migration program with the skills stream accounting for around two-thirds of the additions at over 60,000 people (Birrell et al 2006). It is therefore not surprising that there currently exists a large pool of literature on the assimilation of migrants into the Australian labour market. However, most of these studies have tended to focus on employment status and earnings as measures of labour market success (see, for example, Chiswick and Miller 1985; Beggs and Chapman 1988; Miller and Neo 2003; Chiswick and Miller 2008) instead of job security satisfaction.

The importance of job security derives from the fact that it is an important factor influencing the wellbeing of employee and is positively correlated with employee retention and organisational commitment (Yousef, 1998). Despite the fact that the growth in migration is taking place during a period when the Australian labour market is becoming increasingly precarious, no study has examined the labour market outcomes of migrant workers in terms of their job security satisfaction within the Australian labour market context. According to Burgess and Campbell (1997), the biggest element of the workforce and key form of temporary waged employment is casual employment. Australia has one of the largest percentage growth in precarious employment (around 85 per cent) of net employment and this is likely to grow in the future (Quinlan 1998; Moorehead et al 1997).

This paper investigates whether migrant workers are more or less satisfied with their job security than native workers, and whether these differences vary by gender and expectations. Job satisfaction is an affective response resulting from one's judgment of his/her own job (Locke 1973). It reflects one's assessment of one's job features such as earnings, use of skills, and learning prospects (Poulin 1995). Hence, the level of job satisfaction and its determinants are important indicators of future labour market behaviour (Long 2005). The analysis of migrants' satisfaction with job security is particularly important in an Australian labour market environment that is increasingly dominated by non-permanent jobs and migrant workers.

In any study of satisfaction, gender analysis is a crucial element because a consistent finding of existing studies is that women are significantly more satisfied with their jobs than their male counterparts. Lacy and Sheehan (1997) studied job satisfaction among academics and found that in Australia, females were significantly more satisfied than males with certain aspects of their job. Wooden and Warren (2004) found that for casual employees, low levels of job satisfaction were only found among men. Long (2005) offered further insights by reporting findings that gender differences in job satisfaction are more pronounced within population sub-groups with lower levels of education in lower skilled jobs. On the other hand, women in higher education and higher skilled jobs did not report higher levels of job satisfaction than their male counterparts.

This paper's analysis will draw on the 2007 Household, Income and Labour Dynamics in Australia (HILDA) survey, a nationally representative dataset that contains a rich set of variables on job satisfaction, other expectations, socio-demographic characteristics and human capital characteristics of migrant and native workers.

Section 2 describes the theory of subjective wellbeing and provides a review of the international and Australian literature on job satisfaction. Section 3 presents information on the data source and the advantages of using the HILDA Survey to compare the job security satisfaction levels of migrant and native workers and presents some descriptive statistics that provide prima facie of differences in satisfaction with job security between migrant and native workers. Section 4 outlines the regression methodologies designed to unravel the causal effect of being a migrant on job security satisfaction. Section 5 reports the key regression findings and section 6 concludes.

2. Theory and Background Literature

2.1 Theory of Subjective Wellbeing

In traditional microeconomics, it is shown that expanding one's budget increases the amount of goods and services an individual can purchase. Assuming that individuals are rational, this will result in an increase in one's subjective wellbeing or happiness. Hence, in traditional microeconomics, it is postulated that money buys an individual happiness; and an individual's revealed preference for Choice A over Choice B proves that they are happier with Choice A (Dockery 2003). In recent years a new strand of microeconomics have begun to emerge that links economics with psychology, postulating what has become known as the theory of subjective wellbeing (see Easterlin 1974 for a seminal work based on this theory). Job satisfaction is measured using the theory of subjective well being. Subjective well-being can be simply defined as the individual's current evaluation of his/her happiness. Diener (2000,1) described subjective well being as '*people's cognitive and affective evaluations of their lives.*' Subjective well-being is thus, at least in part, a proxy for global affective evaluation.

In analysis of labour market success using a subjective indicator such as job satisfaction, another vector *E* can be added, which includes variables that relates to an individual's expectations to account for their subjective well-being. According to Clark (1997), the vector includes variables representing an individual's previous experiences, his/her perceptions of others' endowments and thoughts about what he/she deserves. Clark and Oswald (1996) utilize a similar vector of variables derived from factors like quality of family life and friendships. Souza-Poza and Souza-Poza (2000b) also notes that job satisfaction is influenced by one's self-perception. Similarly, Furnham (1991) has noted the significance of an individual's personality characteristics in analysing work satisfaction.

Hence, following Clark (1997) and Long (2005), utility from work can be expressed as follows:
$$u = u(y, h, i, j, E) \qquad\qquad (1)$$
u = utility from work
y = income
h = hours of work
i = individual- specific characteristics
j = workplace specific characteristics
E = a vector of individual's expectations, individual's past experience, others' characteristics that one observes, ones' perceptions as to what s/he deserves

2.2 Background literature

Although several studies on job satisfaction exist in the literature, only a small number focus on the job satisfaction of migrants. This section describes the small pool of existing studies on the job satisfaction of migrants.

In the United States and Canada, several studies on job satisfaction have been conducted focusing on migrants from different ethnic and religious backgrounds, or different levels of English proficiency. A study conducted by Au et al. (1998) examined the relationship among work values, acculturation and the job satisfaction of Chinese professionals in the United States. The study results indicate that low levels of job satisfaction were pervasive among Chinese migrant professionals. Helper and Kleiner (2002) compared the degree of work satisfaction of English-reading and writing individuals within the plant to persons whose main language is Vietnamese and Portuguese. Ordinary least squares (OLS) regression analysis was conducted and results indicated that Vietnamese language speakers were less likely to perceive themselves as having many labour market opportunities relative to persons who were literate in English or Portuguese. A study using a hierarchical OLS regression analysis conducted for Muslim migrants in both US and Canada by Jamal and Bandawi (1993) suggested that job stress was negatively correlated with job satisfaction and motivation and organisational commitment in a sample of Muslim migrants. Krau (1983) linked vocational achievement to the job satisfaction of migrants of Eastern European origin and found that vocational training is helpful in leading to positive job satisfaction outcomes.

In recent years, Australian studies have begun to turn their attention to the satisfaction levels of migrants. Mahuteau and Junankar (2008) using a bivariate probit specification found that migrants have a higher probability of getting a good job using data drawn from all the waves of Longitudinal Survey of Migrants (LSIA) where one of the definitions of a "good job" is based on subjective conditions an individual's satisfaction with his/her current job. A study by Kifle and Kler (2008) investigated the determinants of financial satisfaction among African migrants in Australia using HILDA data. The study used a binomial probit adjusted ordinary least squares (POLS) method to find out whether the differences in average life satisfaction scores by birth place are usually statistically significant. Results show that African migrants in Australia exhibit low levels of financial satistisfaction compared to other immigrants. Using a bivariate ordered probit random effects panel model, Kostenko (2009) investigated the job-life relationship of Australian immigrants. The study also looked at the characteristics of migrants such as non-western males who have higher job concerns. The study's findings showed that non-Western males are more likely to have a lower life satisfaction in comparison to their Western counterparts. The study also discovered that well-educated female migrants' subjective wellbeing is hindered by trying to balance work and family.

The literature review highlights the fact that there is only a limited number of current studies on the job satisfaction of migrants in Australia and other countries. No Australian study has focused on examining the job security satisfaction of migrants. Hence, the present paper makes a distinct contribution to the existing literature by using a recent Australian dataset adding to model the factors influencing the job security satisfaction of Australian migrants.

3. Data and Descriptive Statistics

This paper utilises the 2007 HILDA Survey to examine the job security satisfaction levels of migrants relative to native workers. The HILDA dataset is nationally representative, and includes a broad range of labour market determinants that can be expected to affect a worker's sense of satisfaction with his/her job security. A critical feature of the HILDA Survey is that is contains variables allowing researchers to observe the expectations of individuals as well as various aspects of their job satisfaction. In addition, the survey contains comprehensive information on socio-demographic and

other labour market variables that potentially affect job security. In 2007, 6,089 employed individuals, comprising 5,248 native workers and 841migrant workers, provided full responses to interview questions required to assess their job security satisfaction levels taking into account their socio-demographic characteristics.

The job satisfaction measures are listed in table 1 below. For each measure, individuals are asked to rate their satisfaction level on a scale of 0 to 10, with 0 indicating totally dissatisfied rising to 10 indicating totally satisfied. As shown under the 'all workers' column in table 1, native workers have higher mean job satisfaction levels than migrant workers overall and where their job security and work hours are concerned. On the other hand, migrants appear to be more satisfied with their work-life balance. Little difference exists in the satisfaction of native and migrant workers in relation to total pay and the work itself.

However, the only statistically significant distinction appears to be in relation to job security satisfaction. Native workers have a mean job satisfaction level of 8.21 (out of 10), as compared to an average of 8.01 reported by migrant workers. This difference is statistically significant at the 1 per cent level. There are clear differences between native and migrant workers too, when male workers are assessed separately from female workers. The most notable is that among male workers, any differences in job satisfaction between native and migrant workers are statistically insignificant even at the 10 per cent level. On the other hand, the difference in job security satisfaction between female native workers (8.26) and migrant native workers (7.97) is statistically significant at the 1 per cent level. These summary statistics show that the aspect of job satisfaction that requires most attention is job security satisfaction. Furthermore, there are clear gender differences that need to be taken into account, a finding that echoes those of Lacy and Sheehan (1997) and Long (2005).

Table 1: Comparison of mean job satisfaction levels of native and migrant workers, 2007, by gender

Job satisfaction	All workers			Male workers			Female workers		
Measure	Native	Migrant	All	Native	Migrant	All	Native	Migrant	All
Total pay	7.07	7.06	7.07	7.00	7.09	7.01	7.14	7.02	7.12
Job security	8.21	8.01***	8.18	8.17	8.05	8.15	8.26	7.97***	8.22
Work itself	7.61	7.62	7.61	7.57	7.61	7.57	7.66	7.63	7.65
Hours of work	7.28	7.16	7.26	7.18	7.08	7.17	7.37	7.24	7.35
Work-life balance	7.51	7.55	7.51	7.39	7.55	7.41	7.63	7.56	7.62
Overall	7.70	7.68	7.70	7.61	7.64	7.61	7.79	7.73	7.78
Sample	5,248	841	6,089	2,619	425	3,044	2,629	416	3,045

Source: Author's calculations using the HILDA survey wave 7
Note: *** Difference significant at 1% level, ** Difference significant at 5% level, * Difference significant at 10% level, if no asterisk difference between the two groups insignificant

Migration into a new country sparks a process of labour market adjustment for migrants during they assimilate into the Australian labour market over time. Hence, observations need to be made regarding the differences between the migrant workers' country of origin and their country of destination as well as the length of time migrants have spent in Australia. Table 2 shows that over 40 per cent of migrant in the sample are from North-west European countries such as the United Kingdom. Noticeable proportions are from other parts of Europe, as well as South-east Asia, which is located more closely to Australia than other non-Oceanic countries. While the proportion of migrant workers from other countries in Oceania is small, this no doubt comprises mainly of migrants from New Zealand which is situated very close to Australia. It would appear that the ability to speak the destination country's language, in this case English, as well as proximity factor into decisions to migrate to Australia, as evidence by the dominance of North-west European individuals among migrants, many of whom are

likely to speak English as their first language, as well as relative high proportions from the South-east Asian and Oceanic regions.

It is therefore not surprising that around two-thirds of migrant workers speak English as their first language. There are some notable gender differences, however; almost 70% of male migrant workers speak English as their first language as compared to 60% of female migrant workers. The English proficiency levels of male migrant workers are therefore higher than females.

About 60% of migrant workers have spent at least half their lifetime in Australia; this is a significant proportion, indicating that most have spent ample time in their destination country relative to their country of origin. There are two programs for those seeking to live permanently in Australia – the migration program and humanitarian program. As shown in the table below, approximately 10% arrived under the humanitarian program in 2006, while the majority of workers arrived under the migration program. Data limitations in HILDA prevent further breakdown of the migration program into skilled and family streams, but Australian immigration data shows that in 2006, there were approximately 123,000 permanent arrivals in Australian under the migration program (excluding those aged under 16 years or over 64 years who are likely to be dependants rather than work-ready individuals). Of these, around 82,000 or two-thirds were arrivals under the skilled rather than family streams (Department of Immigration and Citizenship 2011a; 2011b).

Table 2: Characteristics of migrant workers, by gender, 2007, per cent by column

	All migrant workers	Male migrant workers	Female migrant workers
Country of birth			
Other Oceania and Antarctica	4.4	4.9	3.8
North-west Europe	42.4	44.5	40.4
Southern and Eastern Europe	10.0	9.2	10.8
North Africa and the Middle East	3.9	4.2	3.6
South-east Asia	12.8	9.9	15.9
North-east Asia	5.7	4.9	6.5
Southern and Central Asia	6.5	6.8	6.3
Americas	6.5	7.1	6.0
Sub-Saharan Africa	7.6	8.5	6.7
Whether English is first language			
English first language	64.6	69.2	60.0
English not first language	35.3	30.9	40.0
Percentage of lifetime spent in Australia (T)			
$T \leq 25\%$	9.9	8.2	9.0
$25\% < T \leq 50\%$	30.8	32.9	31.9
$50\% < T \leq 75\%$	25.6	25.2	25.4
$T > 75\%$	33.6	33.7	33.7
Permanent arrivals stream			
Migration program	89.5	88.2	90.9
Humanitarian program	10.5	11.8	9.1

Source: Author's calculations using the HILDA survey wave 7

Table 3 below continues to provide more information on the socio-demographic and human capital characteristics of migrant workers. This table is more comprehensive as it contains characteristics that can be compared with native workers. The following commentary focuses on differences between all native and migrant workers, as the differences appear to be consistent even when male workers and female workers are analysed separately.

Migrant workers are more likely to be legally married, though they are also more likely to have undergone household dissolution. This reflects the fact that many migration moves are directly associated with changes in household composition including marriage, divorce and even children leaving home. Migrant workers are more likely to have older children; this is in line with the fact that they are more likely to be older than native workers as well. As expected migrant workers are less likely to have health problems as health is a consideration when individuals apply to migrate to Australia.

Most migrant workers prefer to locate in major cities, where labour market opportunities are more abundant. Migrant workers appear to be more likely to settle in the South-eastern states of New South Wales and Victoria which are the more densely populated states, as well as Western Australia which is situated closer to South-east Asia than most other states and has a booming mining economy offering job opportunities.

The human capital characteristics of migrant workers strong reflect the emphasis Australian immigration policy places on high levels of human capital that can contribute to boosting skills shortage in the economy. While migrant workers are significantly less likely to speak English as their first language, the majority of migrant workers who do not speak English as their first language tend to speak English well or very well, not a surprising observation given that the majority of migrants have arrived under the skilled migration stream, under which English proficiency is deemed important. The higher educational qualifications of migrant workers as well as their higher proportion of time spent in paid work also reflects the importance of educational attainment and work experience respectively under Australia's skilled migration stream. Migrant workers are also noticeably more likely to be in high-skilled occupations (managers and professionals) than native workers and therefore earn higher earnings on average, reflecting the emphasis placed on skills by Australian immigration policy.

It is interesting to note the differences in expectations between native and migrant workers, which are likely to affect their subjective wellbeing. Migrant workers are more likely to feel that they can do little to change important aspects of their lives and more likely to feel pushed around in life. Furthermore, migrant workers are less likely to be confident that the future depends on oneself or that s/he can do just about anything once his/her mind is set. Overall, migrant workers appear to feel a lower sense of autonomy and are less confident than native workers, the exception being that the former are less likely to feel helpless in dealing with problems. Again the native-migrant differences are consistent across gender, though it is worth noting that female workers (regardless of whether they are native or migrant) tend to feel a lower sense of autonomy and are less confident than male workers.

Table 3: Characteristics of migrant and native workers, by gender, 2007, % by column unless stated otherwise

	All workers			Male workers			Female workers		
	Native	Migrant	All	Native	Migrant	All	Native	Migrant	All
Marital status									
Legally married	46.8	63.0	49.1	49.7	66.0	52.1	43.8	60.0	46.1
De facto	17.8	12.2	17.0	18.0	11.8	17.1	17.6	12.7	16.9
Separated or divorced	7.7	10.1	8.0	5.3	7.7	5.7	9.9	12.5	10.3
Widowed	0.8	1.5	0.9	0.2	0.5	0.3	1.4	2.5	1.6
Single never married	27.0	13.2	25.0	26.7	14.1	24.9	27.2	12.2	25.1
Presence of children (categories are not mutually exclusive)									
Have children aged 0-4 years	12.8	11.1	12.6	15.0	12.2	14.6	10.7	9.9	10.6
Have children aged 5-14 years	22.0	25.9	22.5	20.5	24.0	21.0	23.4	27.7	24.0
Have children aged 15-24 years	16.2	26.1	17.6	13.5	22.0	14.7	18.8	30.3	20.4
Other demographic characteristics									
Age (years)	37.5	44.5	38.5	37.7	44.9	38.8	37.4	44.0	38.3
Have disability / long-term health condition	13.2	11.4	12.9	13.2	12.5	13.1	13.2	10.4	12.8
Region									
Major city	62.7	79.2	65.0	61.9	81.6	64.7	63.4	76.7	65.3
Inner regional Australia	24.3	13.7	22.8	24.8	12.0	22.9	23.9	15.5	22.7
Outer regional Australia	13.0	7.0	12.1	13.3	6.4	12.4	12.6	7.9	12.0
State									
New South Wales	27.6	32.2	28.3	27.3	32.0	28.0	28.0	32.3	28.6
Victoria	25.1	27.2	25.4	25.1	27.4	25.4	25.1	27.0	25.4
Queensland	22.8	14.8	21.7	22.8	14.7	21.7	22.8	14.8	21.7
South Australia	9.1	6.2	8.7	8.8	6.6	8.5	9.4	5.8	8.9
Western Australia	8.7	13.0	9.3	9.3	14.1	10.0	8.1	12.0	8.6
Tasmania or the territories	6.7	6.6	6.7	6.7	5.2	6.4	6.7	8.0	6.9
English proficiency									
English first language	97.5	64.6	92.8	97.3	69.2	93.2	97.8	60.0	92.4
English not first language but speaks very well	2.3	23.7	5.4	2.5	20.2	5.0	2.2	27.3	5.7
English not first language but speaks well	0.1	11.3	1.7	0.2	10.0	1.6	0.0	12.7	1.8
English not first language and does not speak well	0.0	0.3	0.1		0.7	0.1	0.0		0.0
Highest education qualification									
Postgraduate degree	3.7	9.0	4.5	4.2	10.0	5.0	3.3	8.1	4.0
Graduate diploma or certificate	6.3	9.2	6.7	5.1	7.5	5.5	7.4	10.9	7.9
Bachelor degree	15.6	22.1	16.5	13.3	20.9	14.4	17.9	23.3	18.7
Diploma	9.4	11.8	9.7	8.6	11.8	9.1	10.2	11.8	10.4
Certificate	23.2	18.5	22.5	29.3	23.3	28.5	17.0	13.4	16.6
Year 12 or below	41.9	29.5	40	39.5	26.5	37.7	44.2	32.6	42.5
Labour force characteristics									
Employed full-time	68.1	69.3	68.2	84.3	85.5	84.5	51.9	52.9	52.0
Employed part-time	31.9	30.7	31.8	15.7	14.5	15.5	48.1	47.1	48.0

Trade union member	25.5	24.7	25.4	26.3	23.4	25.9	24.8	26.1	25.0
Labour market history since left full-time education									
Percentage of time in paid work	79.4	82.2	79.8	84.4	87.3	84.8	74.5	77.0	74.9
Percentage of time unemployed	2.8	2.3	2.7	3.1	2.7	3.0	2.5	2.0	2.4
Percentage of time not in the labour force	8.9	11.6	9.3	4.1	6.2	4.4	13.7	17.1	14.2
Occupation									
Managers	10.7	12.9	11.0	13.9	17.0	14.4	7.5	8.8	7.7
Professionals	23.8	30.8	24.8	20.0	27.0	21.0	27.7	34.6	28.6
Technicians and trades workers	13.5	11.0	13.2	23.5	18.4	22.7	3.6	3.5	3.6
Community and personal service workers	11.3	10.2	11.1	6.9	6.8	6.9	15.6	13.6	15.3
Clerical and administrative workers	15.5	16.6	15.7	8.0	10.4	8.3	23.1	22.9	23.1
Sales workers	11.0	5.9	10.3	6.8	4.1	6.4	15.2	7.9	14.1
Machinery operators and drivers	5.7	3.7	5.4	10.0	6.8	9.5	1.5	0.5	1.4
Labourers	8.4	8.9	8.4	10.9	9.5	10.7	5.8	8.3	6.2
Income									
Average annual wage ($'000)	46.6	53.3	47.6	57.4	64.9	58.5	35.9	41.5	36.7
Expectations[a]									
Little one can do to change important aspects of life	9.1	11.0	9.3	8.2	10.2	8.5	10.0	11.8	10.2
Feel helpless in dealing with problems	10.7	8.8	10.5	9.4	6.6	9.0	12.1	11.1	12.0
Feel pushed around in life	14.0	15.1	14.2	12.8	13.4	12.9	15.2	16.9	15.4
Future is mostly dependent on oneself	82.8	79.5	82.3	83.0	82.3	82.9	82.6	76.7	81.8
Can do just about anything once mind is set	80.2	74.8	79.4	81.2	73.7	80.1	79.1	76.0	78.7

Source: Author's calculations using the HILDA survey wave 7

Note:

a. The interviewees are asked to rate on a scale of 1 to 7 their response on each expectations statement (1 representing strongly disagree to 7 representing strongly agree). Persons who answer 5 or higher are assumed to agree with the expectation statement.

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The table above compares the characteristics of native and migrant workers in the sample for analysis. The table shows that the proportion of male and females among migrant workers is almost the same as native workers. Almost half of the native workers are mature age (48.7 per cent) and only 8.7 per cent are young. Contrastingly, only around one-third of migrant workers are mature age, and almost one-quarter are young. Clearly, age wise, there is a larger proportion of mature age workers among the native compared to the migrants. Both native and migrant workers tend to be more likely to work full-time more than working part-time. The percentage of native workers whose first language is English is 12 times more than the percentage migrant workers whose first language is English. High skilled workers dominate the native group making up 41.4 per cent of native workers compared to one-third of the migrant group. There are higher proportions of both the medium-skilled and the low- skilled workers among the migrant group than the native group.

The descriptive statistics demonstrate that migrant workers possess different characteristics from native workers. These characteristics may have important influences on their job security satisfaction. However, some of the observations appear to go against the grain of expectations. For example, since migrant workers tend to be more highly educated and be in more high-skilled occupations, one would expect that they would possess more job security satisfaction. It is puzzling therefore, that migrant workers have significantly lower job security satisfaction than native workers. Perhaps this is confounded by their subjective wellbeing, migrant workers feeling a lower sense of autonomy and less confidence than native workers. Hence, in the next section, regression analysis is performed to isolate confounding influences including socio-demographic, human capital and expectations characteristics to determine whether the difference in job security satisfaction between native and migrant workers should be attributable to their observable characteristics or unobservable influences such as discrimination that reflect lower returns to migrant status.

4. Methodology

We perform regression analysis based on the framework outlined in equation 1 expressed as follows:
$$S = f(E,\ F,\ W,\ X,\ E,\ M) \qquad\qquad (2)$$
where
S = level of job security satisfaction on a scale of 0 to 10
X = socio-demographic and human capital characteristics
Y = annual earnings
J = job characteristics
E = expectations or subjective wellbeing
M = whether migrant

The vector of explanatory variables used in the regression are drawn from the variables listed in table 2.The vector of socio-demographic characteristics includes marital status, presence of children, age, health and region variables. In addition to the age variable, an age squared variable has been included in the regression model. The purpose of the age squared variable is to account for potential non-linearities in the relationship between age and job security satisfaction. Human capital variables include English proficiency, education as well as work history since leaving full-time education. These socio-demographic and human capital variables form part of the vector X.

Annual earnings, Y, are included to account for the impact of income and work hours on utility. The

vector *J* of job characteristics includes full-time versus part-time status (which also captures hours of work), occupational categories and whether a worker is a trade union member. The vector *E* comprises expectations or subjective wellbeing variables that reflect an individual's expectations and personality.

After controlling for the above variables, the variable *M* captures any residual unobserved influence that being a migrant has on job security satisfaction, such as discrimination, for example. Understandably, migrants are a heterogeneous group given their different origins. However, the heterogeneity is mitigated somewhat in that the sample comprises mainly of persons who have migrated to Australia under its skilled (or associated family) migration stream and are in fact persons who have secured jobs in Australia. Nonetheless, further steps are taken to account for any remaining diversity among migrants by estimating three models. Model 1 combines all migrants into one group, so that the migrant category is simply represented by one binary variable which equals one if a worker was born outside Australia. Model 2 takes into account the process of assimilation that migrants go through in that migrant workers who have spent a longer time in Australia are likely to have acquired labour market experience and cultural and social attitudes that are more similar to native workers than those who have spent a shorter time in Australia. Here, in model 2, migrants are divided into two groups, those who have spent more than half their lifetime in Australia and those who have spent less than half. Model 3 attempts to further isolate migrants from cultures that are different from Australia whose rate of assimilation into Australian labour markets may therefore be slower than those from cultures similar to Australia by adding in a third binary variable that equals one if a migrant is from a region other than North-western Europe and the Oceanic region. Models 1-3 are estimated for for male workers and female workers separately.

The regression utilizes the ordinary least squares (OLS) specification. The OLS was used by Dockery et al (2008) to model subjective wellbeing, specifically the impact of being a minimum wage worker on life and pay satisfaction. However, it can be argued that the job security satisfaction variable, being on a scale of 0 to 10, is not a continuous, but a semi-continuous or ordinal variable for which an ordered probit specification is more suitable. Hence, the analysis is also carried out by running an ordered probit which determine whether the results hold when an alternative specification is used. As the ordered probit results are similar to the OLS results, the focus of the discussion in the next section is around the OLS regression results, while the ordered probit results are reported in the appendix.

5. Regression Findings

Table 4 presents the OLS regression results for male workers under models 1, 2 and 3. Age is an important socio-demographic factor influencing job security satisfaction. The older a male worker gets, the less likely he is to find satisfaction in job security. The age squared variable has an extremely small magnitude (though significant and positive) indicating that the rate at which job security satisfaction declines slows down as one ages.

Somewhat surprisingly, having no post-school qualifications appears to be associated with higher job security satisfaction than possessing higher qualifications such as a bachelor degree. However, this result is not divergent from other research findings in recent years that have shown that a negative relationship exists between higher educational attainment and happiness, even after life expectations have been controlled for (see for example, Hickson and Dockery 2008; Dockery 2010). However, possessing a graduate qualification is more likely to be associated with higher job security satisfaction than possessing lower qualifications such as certificates or school qualifications.

As expected, job characteristics turn out to be important. Part-timers have lower job security satisfaction, potentially due to the lack of permanence associated with part-time contracts, while belonging to a trade union boosts confidence in job security. Labour market history has a small, but significant impact on job security satisfaction for male workers. The higher the percentage of time spent in paid work since leaving full-time education, the higher a male worker's job security satisfaction; the opposite is true the higher the percentage of time spent unemployed. Medium and low skilled occupations tend to be associated with lower job security satisfaction than high skilled occupations (manager and professional). For example, being a labourer lowers job security satisfaction by 0.33 units (or 4% when expressed as a percentage of the average job security satisfaction level of male workers of 8.15 in table 1) relative to being a manager. The earnings variable turns out to be insignificant, mainly because of its correlation with occupational status.

The expectation variables are clearly important. Feelings of being unable to change important aspects of life or of being pushed around results in a lower job security satisfaction among male workers. On the other hand, having confidence that one can do anything once his mind is set on it boosts job security satisfaction.

The impacts of the above described variables are consistent across models 1-3. Of importance is the fact that after controlling for these confounding influences, the impact of being a migrant on job security satisfaction reduces to zero among male workers, a finding that is different from table 1. Attempts to separate migrants into smaller groups on the basis of time spent in Australia and culture in models 2 and 3 yield the same results. Being a migrant has no statistically significant impact on the job security satisfaction of male workers after controlling for observable characteristics.

Table 4: Job security satisfaction regression, male workers, ordinary least squares, 2007[a]

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Constant	8.440 ***	0.477	8.487 ***	0.479	8.451 ***	0.481
De facto	0.018	0.106	0.018	0.106	0.021	0.106
Divorced or separated	-0.060	0.155	-0.056	0.156	-0.057	0.156
Widowed	0.990	0.668	0.971	0.668	0.983	0.668
Single never married	0.060	0.123	0.057	0.123	0.057	0.123
Age	-0.040 **	0.018	-0.039 **	0.018	-0.039 **	0.018
Age squared	0.000 **	0.000	0.000 **	0.000	0.000 **	0.000
Have children aged under 15 years	-0.018	0.091	-0.018	0.091	-0.017	0.091
Have a disability or long-term health condition	0.008	0.103	0.009	0.103	0.010	0.103
Resides in a major city	-0.053	0.074	-0.051	0.074	-0.052	0.074
English is first language	0.049	0.149	0.022	0.151	0.061	0.161
Graduate diploma or certificate	0.495 **	0.210	0.478 **	0.211	0.480 **	0.211
Bachelor degree	0.242	0.177	0.227	0.177	0.229	0.177
Diploma	0.051	0.193	0.030	0.194	0.034	0.194
Certificate	0.339 *	0.178	0.322 *	0.179	0.329 *	0.179
Year 12 or below	0.363 **	0.178	0.343 *	0.179	0.348 **	0.179
Percentage of time in paid work since left full-time education	0.003 **	0.001	0.003 **	0.001	0.003 **	0.001
Percentage of time unemployed since left full-time education	-0.010 **	0.005	-0.010 **	0.005	-0.010 **	0.005
Employed part-time	-0.274 **	0.111	-0.281 **	0.111	-0.283 ***	0.111
Belongs to trade union	0.170 **	0.081	0.167 **	0.081	0.165 **	0.081
Professional	-0.089	0.121	-0.088	0.121	-0.089	0.121
Technicians and trades worker	-0.246 **	0.123	-0.250 **	0.123	-0.251 **	0.123

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Community and personal service worker	-0.104	0.165	-0.101	0.165	-0.102	0.165
Clerical and administrative worker	-0.374 **	0.150	-0.377 **	0.150	-0.380 **	0.150
Sales worker	-0.233	0.170	-0.226	0.170	-0.228	0.170
Machinery operators and driver	-0.429 ***	0.150	-0.429 ***	0.150	-0.431 ***	0.150
Labourer	-0.331 **	0.150	-0.331 **	0.150	-0.333 **	0.150
Earnings ($'000)	0.000	0.001	0.000	0.001	0.000	0.001
Little one can do to change important aspects of life	-0.070 **	0.031	-0.070 **	0.031	-0.071 **	0.031
Feel helpless in dealing with problems	-0.053	0.036	-0.052	0.036	-0.052	0.036
Feel pushed around in life	-0.135 ***	0.032	-0.136 ***	0.032	-0.136 ***	0.032
Future is mostly dependent on oneself	0.019	0.028	0.020	0.028	0.020	0.029
Can do just about anything once mind is set on it	0.121 ***	0.032	0.119 ***	0.032	0.119 ***	0.032
Migrant	-0.031	0.110				
Migrant who has spent up to half of lifetime in Australia			-0.166	0.164	-0.238	0.191
Migrant who has spent up more than half of lifetime in Australia			0.044	0.129	-0.011	0.149
Migrant from dissimilar culture					0.146	0.197
F-stat	6.733 ***		6.571 ***		6.398 ***	
R-square	0.059		0.059		0.058	

Source: Author's calculations using the HILDA survey wave 7

Notes:

a. All variables are binary except for age, age squared, percentage of time in paid work and unemployed, and the expectation variables. Among binary variables, the omitted categories are married, postgraduate qualification and manager. Expectation variables are on a scale of 1-7, with 1 representing 'Strongly disagree' and 7 representing 'Strongly agree'.

b. Migrants from a culture dissimilar to Australia include migrants from regions other than North-west Europe and Oceanic region.

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

Table 5 presents the OLS regression results for female workers under models 1, 2 and 3. Here, we find some gender differences in that marital status is important for female workers. Being in de facto relationships, separated or divorced appear to be associated with lower job security satisfaction than being legally married among female workers. Here, age is only mildly significant at the 10 per cent level. Like male workers, having no post-school qualifications appears to be associated with higher job security satisfaction than possessing higher qualifications such as a bachelor degree among female workers, further reinforcing recent findings from subjective wellbeing studies regarding the negative relationship between higher educational attainment and happiness, even after life expectations have been controlled for (see for example, Hickson and Dockery 2008; Dockery 2010).

Job characteristics are not so important for females, except for the security confidence in job security that comes with belonging to a union. Higher earnings results in higher job security satisfaction. On the other hand, occupational status appears to be generally unimportant though this is correlated with earnings.

The expectation variables remain important among female workers. Feelings of being unable to change important aspects of life, and feelings of helplessness or of being pushed around all result in lower job security satisfaction. On the other hand, having positive expectations such as confidence in

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the future depending on oneself or confidence that one can do anything once her mind is set on it do not boost job security satisfaction. It is feelings of low autonomy that negatively impact on job security satisfaction among female workers; unlike their male counterparts, feelings of confidence do not boost their job security satisfaction.

The impacts of the above described variables are consistent across models 1-3. The migrant variables clearly show that after controlling for observable characteristics, the impact of being a migrant on job security satisfaction remains negative among female workers and this is significant at the 1 per cent level. In model 1, being a female migrant worker lowers job security satisfaction by 0.313 units relative to native workers. This is equivalent to almost 4% of the average job security satisfaction of 8.22 among female workers. In model 2, dividing migrants into those who have spent less than half and more than half of their lifetime in Australia show that it is those who have spent less time in Australia who suffer from the lower job security satisfaction, this time by 0.568 units or 7% less than native workers. Those who have spent the majority of their lifetime in Australia have presumably assimilated more into the Australian labour market and are more comfortable with their job security as indicated by the insignificant (though still negative) coefficient on the variable that represents migrants who have spent more than half their lives in Australia. As shown in model 3, differences in culture do not appear to have an impact on job security satisfaction (though cultural differences may have more impact on social wellbeing indicators such as social and community participation).

Table 5: Job security satisfaction regression, female workers, ordinary least squares, 2007[a]

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Constant	8.629 ***	0.512	8.709 ***	0.514	8.691 ***	0.520
De facto	-0.246 **	0.108	-0.247 **	0.108	-0.246 **	0.108
Divorced or separated	-0.295 **	0.121	-0.302 **	0.121	-0.302 **	0.121
Widowed	-0.048	0.285	-0.048	0.285	-0.051	0.286
Single never married	-0.176	0.116	-0.180	0.116	-0.179	0.116
Age	-0.035 *	0.020	-0.034 *	0.020	-0.034 *	0.020
Age squared	0.000 *	0.000	0.000	0.000	0.000	0.000
Have children aged under 15 years	-0.075	0.094	-0.071	0.094	-0.072	0.094
Have a disability or long-term health condition	0.091	0.105	0.083	0.105	0.084	0.105
Resides in a major city	-0.033	0.075	-0.035	0.075	-0.036	0.075
English is first language	-0.189	0.153	-0.244	0.155	-0.230	0.166
Graduate diploma or certificate	0.650 ***	0.214	0.633 ***	0.214	0.635 ***	0.215
Bachelor degree	0.770 ***	0.194	0.750 ***	0.194	0.752 ***	0.194
Diploma	0.633 ***	0.212	0.622 ***	0.212	0.625 ***	0.212
Certificate	0.779 ***	0.209	0.754 ***	0.210	0.757 ***	0.210
Year 12 or below	0.839 ***	0.200	0.812 ***	0.201	0.815 ***	0.201
Percentage of time in paid work since left full-time education	0.000	0.001	0.000	0.001	0.000	0.001
Percentage of time unemployed since left full-time education	-0.002	0.005	-0.002	0.005	-0.002	0.005
Employed part-time	-0.080	0.083	-0.086	0.083	-0.085	0.084
Belongs to trade union	0.210 **	0.086	0.200 **	0.086	0.200 **	0.086
Professional	0.017	0.147	0.024	0.146	0.025	0.147
Technicians and trades worker	-0.028	0.225	-0.038	0.225	-0.037	0.225
Community and personal service worker	-0.066	0.162	-0.059	0.162	-0.059	0.162
Clerical and administrative worker	0.120	0.149	0.124	0.149	0.124	0.149
Sales worker	0.030	0.171	0.033	0.171	0.033	0.171
Machinery operators and driver	-0.859 ***	0.324	-0.850 ***	0.324	-0.851 ***	0.324

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Labourer	-0.272	0.199	-0.261	0.199	-0.261	0.199
Earnings ($'000)	0.007 ***	0.002	0.007 ***	0.002	0.007 ***	0.002
Little one can do to change important aspects of life	-0.063 **	0.032	-0.063 **	0.032	-0.064 **	0.032
Feel helpless in dealing with problems	-0.081 **	0.033	-0.082 **	0.033	-0.082 **	0.033
Feel pushed around in life	-0.125 ***	0.030	-0.124 ***	0.030	-0.124 ***	0.030
Future is mostly dependent on oneself	0.039	0.030	0.040	0.030	0.040	0.030
Can do just about anything once mind is set on it	0.020	0.033	0.016	0.033	0.016	0.033
Migrant	-0.313 ***	0.119				
Migrant who has spent up to half of lifetime in Australia			-0.568 ***	0.173	-0.592 ***	0.202
Migrant who has spent up more than half of lifetime in Australia			-0.176	0.136	-0.195	0.159
Migrant from dissimilar culture					0.047	0.207
F-stat	7.110 ***		7.029 ***		6.827 ***	
R-square	0.062		0.063		0.063	

Source: Author's calculations using the HILDA survey wave 7

Note:

a. Refer to notes under table 4

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

As noted in the previous section, it can be argued that the job security satisfaction variable, being on a scale of 0 to 10, is not a continuous, but a semi-continuous or ordinal variable for which an ordered probit specification is more suitable. The model is re-run using the same variables but an ordered probit. It turns out that the results remain similar under all model versions and for both male and female workers under the ordered probit specification (see appendix tables A1 and A2). The only difference worth noting is that under models 2 and 3 in table A1 for male workers, the variable representing migrant workers who have spent less than half their lifetime in Australia is negative and mildly significant at the 10 per cent level. Overall, the ordered probit results still indicate that the negative impact of being a migrant worker is significantly stronger for female workers who have spent less than half their lifetime in Australia after controlling for observable characteristics.

6. Conclusion

This paper attempts to examine differences in the job security satisfaction level between native and migrant workers in Australia. The existing literature which focuses primarily on employment status and earnings of migrants inadequately reflects their levels of satisfaction or dissatisfaction with their jobs. Job satisfaction level is crucial both to an individual's personal well-being and his/her employer's performance. Since many studies confirm that women are significantly more satisfied with their jobs than their male counterparts, a gender analysis has thus been carried out. The analysis of migrants' satisfaction with job security is important in Australia's labour market since a significant proportion of Australia's workforce is made up of non-permanent and migrant workers.

This paper has employed regression analysis specifically the ordinary least squares (OLS) to estimate whether or not being a migrant has an adverse effect on job security satisfaction levels after controlling for key socio-demographic, human capital and labour market characteristics. Since the job security satisfaction variable can be defined as a semi-continuous or ordinal variable, an ordered probit specification is used to validate the OLS results. Findings show that the ordered probit results are similar to the OLS results. Overall, the OLS and ordered probit results indicate that the negative impact of being a migrant worker is significantly stronger for female workers who have spent less than half their lifetime in Australia after controlling for observable characteristics.

Three model variants are run separately for males and females under the OLS and ordered probit specifications, resulting in 12 model variants. Model 1 accounts for migrant workers born outside Australia as one binary variable; model 2 divides migrants into two groups, those who have spent more than half their lifetime in Australia and those who have spent less than half; and model 3 isolates migrants from cultures that are different from Australia as their rate of assimilation into Australian labour markets maybe slower than those from cultures similar to Australia.

The migrant variable captures the residual impact of immigrant status on job security satisfaction after controlling for other characteristics. For all three models, the migrant variable explicitly indicates that being a female migrant worker has a significant negative impact of job security satisfaction at the 1 per cent level for females but the impact is insignificant at the 1 or 5% level for males. Those who have spent the majority of their lifetime in Australia have presumably assimilated more into the Australian labour market and are more comfortable with their job security as indicated by the insignificant (though still negative) coefficient on the variable that represents migrants who have spent more than half their lives in Australia. As shown in model 3, differences in culture do not appear to have an impact on job security satisfaction.

There already exists a large pool of literature pointing to gender inequalities in the labour market in Australia (see, for example Miller 2005 and Kee 2006). Potential explanations that have been put forward have included lower returns to gender among female workers (Kee 2006). This paper adds to existing findings by highlighting the fact that female migrant workers are doubly vulnerable to insecure labour that is associated with both their gender and migrant status. Overseas studies such as Morokvasic (1991) and Jayaweera and Anderson (2009) have highlighted this same finding on the added vulnerability produced by the interaction between gender and migrant status. Potential explanations that have been offered up include institutional discrimination that reduces the access of female migrant workers to more secure jobs. Secondly, many female migrants are also viewed in their

destination country as dependants, where their male partner is the principal applicant and considered the family breadwinner, regardless of the skills or educational attainment of the woman herself. Some female migrants also take up jobs that are not seen to contradict their cultural norms of what acceptable work means (Morokvasic 1991). While the regressions in this paper include occupational status control factors, the occupational categories do not capture the extent to which an occupation is seen to comply with cultural norms of a migrant's country of origin. However, the findings of this paper supports the assimilation theory, in that female migrant workers who have spent the majority of their lifetime in Australia are more likely to find themselves in jobs that offer them similar levels of job security satisfaction as female native workers.

Appendix

Table A1: Job security satisfaction regression, male workers, ordered probit, 2007[a]

Explanatory variables [a]	Model 1			Model 2			Model 3		
	Coef.		Std. error	Coef.		Std. error	Coef.		Std. error
Threshold $S=0$	-2.782	***	0.279	-2.820	***	0.280	-2.808	***	0.281
Threshold $S=1$	-2.554	***	0.275	-2.592	***	0.276	-2.580	***	0.277
Threshold $S=2$	-2.283	***	0.272	-2.321	***	0.273	-2.309	***	0.274
Threshold $S=3$	-2.075	***	0.271	-2.113	***	0.272	-2.101	***	0.273
Threshold $S=4$	-1.877	***	0.270	-1.916	***	0.271	-1.904	***	0.272
Threshold $S=5$	-1.594	***	0.269	-1.632	***	0.270	-1.620	***	0.272
Threshold $S=6$	-1.357	***	0.269	-1.396	***	0.270	-1.383	***	0.271
Threshold $S=7$	-0.947	***	0.268	-0.985	***	0.269	-0.972	***	0.271
Threshold $S=8$	-0.263		0.268	-0.300		0.269	-0.288		0.270
Threshold $S=9$	0.450	*	0.268	0.413		0.269	0.426		0.270
De facto	0.011		0.060	0.011		0.060	0.012		0.060
Divorced or separated		***	0.087	0.003		0.087	0.002		0.087
Widowed	0.759	*	0.417	0.745	*	0.417	0.749	*	0.417
Single never married	-0.015		0.069	-0.017		0.069	-0.017		0.069
Age	-0.031	***	0.010	-0.031	***	0.010	-0.031	***	0.010
Age squared	0.000	***	0.000	0.000	***	0.000	0.000	***	0.000
Have children aged under 15 years	-0.011		0.051	-0.011		0.051	-0.010		0.051
Have a disability or long-term health condition	0.011		0.058	0.012		0.058	0.012		0.058
Resides in a major city	-0.053		0.042	-0.051		0.042	-0.051		0.042
English is first language	0.024		0.084	0.002		0.085	0.016		0.090
Graduate diploma or certificate	0.282	**	0.118	0.268	**	0.119	0.269	**	0.119
Bachelor degree	0.129		0.099	0.117		0.099	0.118		0.099
Diploma	0.011		0.108	-0.006		0.108	-0.004		0.108
Certificate	0.164	**	0.100	0.150		0.100	0.152		0.100
Year 12 or below	0.186	*	0.100	0.171	*	0.100	0.172	*	0.100
Percentage of time in paid work since left full-time education	0.002	***	0.001	0.002	**	0.001	0.002	***	0.001
Percentage of time unemployed since left full-time education	-0.005	*	0.003	-0.005	*	0.003	-0.005	*	0.003
Employed part-time	-0.148	**	0.062	-0.154	**	0.062	-0.155	**	0.062
Belongs to trade union	0.078	*	0.046	0.076	*	0.046	0.075	*	0.046
Professional	-0.012		0.068	-0.012		0.068	-0.012		0.068
Technicians and trades worker	-0.087		0.069	-0.091		0.069	-0.091		0.069
Community and personal service worker	0.011		0.093	0.013		0.093	0.013		0.093
Clerical and administrative worker	-0.197	**	0.084	-0.200	**	0.084	-0.201	**	0.084

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Sales worker	-0.111	0.096	-0.105	0.096	-0.106	0.096
Machinery operators and driver	-0.209 **	0.085	-0.210 **	0.085	-0.211 **	0.085
Labourer	-0.131	0.085	-0.131	0.085	-0.132	0.085
Earnings ($'000)	0.000	0.000	0.000	0.000	0.000	0.000
Little one can do to change important aspects of life	-0.043 **	0.018	-0.043 **	0.018	-0.044 **	0.018
Feel helpless in dealing with problems	-0.035 *	0.020	-0.034 *	0.020	-0.034 *	0.020
Feel pushed around in life	-0.071 ***	0.018	-0.072 ***	0.018	-0.072 ***	0.018
Future is mostly dependent on oneself	0.019	0.016	0.019	0.016	0.019	0.016
Can do just about anything once mind is set on it	0.079 ***	0.018	0.077 ***	0.018	0.077 ***	0.018
Migrant	-0.044	0.062				
Migrant who has spent up to half of lifetime in Australia			-0.151 *	0.091	-0.175 *	0.107
Migrant who has spent up more than half of lifetime in Australia			0.016	0.073	-0.002	0.084
Migrant from dissimilar culture					0.049	0.111
Pearson Chi-square	31,056.131 ***		31,133.132 ***		31,136.325 ***	
Nagelkerke R-square	0.079		0.080		0.080	

Source: Author's calculations using the HILDA survey wave 7

Notes:

a. All variables are binary except for age, age squared, percentage of time in paid work and unemployed, and the expectation variables. Among binary variables, the omitted categories are married, postgraduate qualification and manager. Expectation variables are on a scale of 1-7, with 1 representing 'Strongly disagree' and 7 representing 'Strongly agree'.

b. Migrants from a culture dissimilar to Australia include migrants from regions other than North-west Europe and Oceanic region.

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

Table A2: Job security satisfaction regression, female workers, ordered probit, 2007[a]

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Threshold $S=0$	-2.778 ***	0.296	-2.835 ***	0.297	-2.834 ***	0.300
Threshold $S=1$	-2.621 ***	0.293	-2.678 ***	0.294	-2.677 ***	0.298
Threshold $S=2$	-2.365 ***	0.290	-2.423 ***	0.291	-2.421 ***	0.295
Threshold $S=3$	-2.143 ***	0.289	-2.202 ***	0.290	-2.200 ***	0.294
Threshold $S=4$	-1.946 ***	0.288	-2.004 ***	0.289	-2.003 ***	0.293
Threshold $S=5$	-1.620 ***	0.287	-1.678 ***	0.288	-1.677 ***	0.292
Threshold $S=6$	-1.339 ***	0.287	-1.397 ***	0.288	-1.395 ***	0.291
Threshold $S=7$	-0.958 ***	0.287	-1.016 ***	0.287	-1.014 ***	0.291
Threshold $S=8$	-0.362	0.286	-0.419	0.287	-0.417	0.291
Threshold $S=9$	0.273	0.286	0.217	0.287	0.219	0.291
De facto	-0.132 **	0.060	-0.133 **	0.060	-0.133 **	0.060
Divorced or separated	-0.121 *	0.067	-0.126 *	0.067	-0.126 *	0.067
Widowed	-0.075	0.160	-0.075	0.160	-0.075	0.161
Single never married	-0.120 *	0.065	-0.123 *	0.065	-0.123 *	0.065
Age	-0.026 **	0.011	-0.025 **	0.011	-0.025 **	0.011
Age squared	0.000 **	0.000	0.000 **	0.000	0.000 **	0.000

Explanatory variables [a]	Model 1		Model 2		Model 3	
	Coef.	Std. error	Coef.	Std. error	Coef.	Std. error
Have children aged under 15 years	-0.032	0.052	-0.029	0.052	-0.029	0.052
Have a disability or long-term health condition	0.086	0.059	0.081	0.059	0.081	0.059
Resides in a major city	-0.018	0.042	-0.020	0.042	-0.020	0.042
English is first language	-0.089	0.085	-0.127	0.087	-0.126	0.093
Graduate diploma or certificate	0.346 ***	0.119	0.335 ***	0.119	0.335 ***	0.119
Bachelor degree	0.429 ***	0.107	0.417 ***	0.107	0.417 ***	0.108
Diploma	0.348 ***	0.117	0.341 ***	0.117	0.341 ***	0.118
Certificate	0.447 ***	0.116	0.430 ***	0.116	0.430 ***	0.117
Year 12 or below	0.480 ***	0.111	0.462 ***	0.111	0.462 ***	0.112
Percentage of time in paid work since left full-time education	0.000	0.001	0.000	0.001	0.000	0.001
Percentage of time unemployed since left full-time education	-0.002	0.003	-0.002	0.003	-0.002	0.003
Employed part-time	-0.041	0.047	-0.046	0.047	-0.046	0.047
Belongs to trade union	0.090 *	0.048	0.084 *	0.048	0.084 *	0.048
Professional	0.058	0.082	0.064	0.083	0.064	0.083
Technicians and trades worker	0.051	0.126	0.043	0.126	0.043	0.126
Community and personal service worker	-0.032	0.091	-0.027	0.091	-0.027	0.091
Clerical and administrative worker	0.057	0.083	0.060	0.083	0.060	0.083
Sales worker	0.000	0.096	0.002	0.096	0.002	0.096
Machinery operators and driver	-0.430 **	0.178	-0.425 **	0.178	-0.425 **	0.178
Labourer	-0.099	0.111	-0.092	0.111	-0.092	0.111
Earnings ($'000)	0.004 ***	0.001	0.004 ***	0.001	0.004 ***	0.001
Little one can do to change important aspects of life	-0.028	0.018	-0.028	0.018	-0.028	0.018
Feel helpless in dealing with problems	-0.049 ***	0.019	-0.050 ***	0.019	-0.050 ***	0.019
Feel pushed around in life	-0.078 ***	0.017	-0.077 ***	0.017	-0.077 ***	0.017
Future is mostly dependent on oneself	0.020	0.017	0.021	0.017	0.021	0.017
Can do just about anything once mind is set on it	0.020	0.019	0.017	0.019	0.017	0.019
Migrant	-0.171 **	0.066				
Migrant who has spent up to half of lifetime in Australia			-0.343 ***	0.096	-0.345 ***	0.112
Migrant who has spent up more than half of lifetime in Australia			-0.076	0.076	-0.077	0.089
Migrant from dissimilar culture					0.004	0.115
Pearson Chi-square	31,670.771 ***		31,957.382 ***		31,962.933 ***	
Nagelkerke R-square	0.076		0.078		0.078	

Source: Author's calculations using the HILDA survey wave 7

Note:

a. Refer to notes under table A1.

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

Reference List

Au, A., J. Garey, N. Bermas, and M. Chan. 1998. The relationship between acculturation and job satisfaction among Chinese migrants in the New York city restaurant business. *International journal of hospitality management* 17 (1): 11.

Beggs, J. and B. Chapman. 1988. Immigrant wage adjustment in Australia: Cross-section and time-series estimates. *Economic Record* 64(186): 161-167.

Birrell, B., V. Rapson, and F. Smith. 2006. Australia's Net Gains from International Skilled Movement: Skilled Movements in 2004-05 and earlier years, Centre for Population and Urban Research, Monash University.

Birrell, R., and L. Hawthorne. 1997. Migrants and the Professions in Australia (Melbourne, Monash University).

Chiswick, B. and P. Miller, 1985. Immigrant generation and income in Australia. *Economic Record* 61(173): 540-553.

Chiswick, B., and P. Miller. 2008. Occupational attainment and migrant economic progress in Australia. *Economic Record*. 84: S45-S56.

Clark, A. 1997. Job Satisfaction and Gender: Why are Women so Happy in Work?. *Labour Economics* 4: 341-372.

Clark, A., and A. Oswald. 1996. Satisfaction and comparison income. *Journal of Public Economics* 61 (3): 359.

Department of Immigration and Citizenship. 2011a. *Settlers by Gender by Age on Arrival (Family Migration Stream)*. Settlement Report generated on http://www.immi.gov.au/settlement/#sr=step_1 (04/01/11).

Department of Immigration and Citizenship. 2011b. *Settlers by Gender by Age on Arrival (Skilled Migration Stream)*. Settlement Report generated on http://www.immi.gov.au/settlement/#sr=step_1 (04/01/11).

Diener, E., C. Scollon, S. Oishi, V. Dzokoto, and M. Suh. 2000. Positivity and the construction of life satisfaction judgments: global happiness is not the sum of its parts. *Journal of Happiness Studies* 1: 159-76.

Dockery, A.M. 2003. Happiness, Life Satisfaction and the Role of Work: Evidence from two Australian Surveys,working paper No 03/10, School of Economics and Finance, Curtin University of Technology.

Dockery, A.M. 2010. *Degrees of Misery: Why aren't our University Graduates Happier*, Paper presented at the National Institute of Labour Studies Seminar, Adelaide, 22 April.

Dockery, M., Ong, R. And Seymour,R. 2008. Life on the minimum wage: An empirical investigation. In *Proceedings of Fair Pay Commission Minimum Wage Research Forum*, Melbourne.29-31 October. Melbourne: air Pay Commission.

Easterlin, R. 1974. Does Economic Growth Improve the Human Lot? Some Emperical Evidence. *Academic Press, New York,89-125*.

Furnham. 1991. Work and Leisure Satisfaction. *Subjective Wellbeing:An Interdisciplinary approach. Pergamon Press,Great Britain*: 235-59.

Helper, S., and M. Kleiner. 2002. When Management Strategies Change: Employee Well-Being at an Auto Supplier.

Hickson, H and Dockery, A.M. 2008. *Is Ignorance Bliss? Exploring the Links between Education, Expectations and Happiness*. Paper presented at the Australian Conference of Economists, Brisbane, 30 September – 3 October.

Immigration statistics USA, viewed 24 January 2011, <http://www.mapsofworld.com/usa/immigration/immigration-statistics-usa.html>.

Jamal, M., and J. Badawi. 1993. Job stress among Muslim migrants in North America: Moderating effects of religiosity *Stress medicine* 9 (3): 145.

Jayaweera, H. And Anderson B. 2009. *Migrant Workers and Vulnerable Employment: A Review of Existing Data*, London: TUC Commission on Vulnerable Employment.

Kee, Hiau Joo. 2006. "Glass ceiling or sticky floor? Explaining the Australian gender pay gap." *Economic Record*, 82(259):408-19.

Kifle.2008. The Financial Satisfaction of African Immigrants in Australia. *Australasian review of African studies* 29(1/2):66

Kostenko, W. 2008. Does Labour Market Achievement Matter for the Wellbeing of Australian Immigrants? Culture and Gender Differences. Melbourne Institute Working Paper Series.

Krau, E. 1983. How Important Is Vocational Success to the Overall Satisfaction of Migrants?*Journal of Applied Social Psychology* 13 (6): 473.

Lacy, F.J. and Sheehan, B.A.1997. Job satisfaction among academic staff: an international perspective, *Higher Education*, 34(3):305-22.

Locke, E. 1973.Satisfiers and dissatisfiers among whitecollar and blue-collar employees. *Journal of Applied Psychology* 58: 67-76.

Long, A. 2005. Happily ever after? A study of job satisfaction in Australia. *Economic Record* 81 (225): 303.

Mahuteau, S., and Junankar, P. 2008. Do Migrants Get Good Jobs in Australia?The Role of Ethnic Networks in Job Search. *Economic Record* 84 (s1): S115 - S130.

Miller , P. and Neo, L. 2003. Labour Market Flexibility and Migrant Adjustment *Economic Record* 79: 336-356.

Miller, P. 2005. "The role of gender among low-paid and high-paid workers." *Australian Economic Review* 38(4):45-417.

Moorehead, A., Steele, M., Alexander, M., Kerry, S. and Duffin, L. 1997. *Changes at Work: The Second Australian Workplace Industrial Relations Survey*, Longman, Melbourne.

Morokvasic, M. 1991. Fortress Europe and migrant women. *Feminist Review* 39(Autumn):69-84.

Poulin, J. 1995. Job satisfaction of social work supervisors and administrators. *Administration in Social Work* 19 (4): 35-49.

Quinlan, M. 1998. Labour market restructuring in industrialised societies: an overview.*The Economic and Labour Relations Review*9(1):1-30.

Sloan, P. and H. Williams. 2000. Job Satisfaction, Comparison Earnings and Gender. *Labour* 14: 473-501.

Souza –Poza, A., and Souza –Poza, A.A. 2000b. Well-Being at work: A Cross-National analysis of the levels and Determinants of Job Satisfaction. *Journal of Socio-Economics* 29: 517-38.

UK National Statistics (2011), viewed 24 January 2011, <http://www.statistics.gov.uk/hub/index.html>.

Wooden, M. and Warren, D. (2004). Non-standard employment and job satisfaction:Evidence from the HILDA Survey. *Journal of Industrial Relations, 46* (3), 275-297.

Yousef, D.A. 1998. Satisfaction with job security as a predictor of organizational commitment and job performance in a multicultural environment.*International Journal of Manpower*.19(3):184.