

Happiness, life satisfaction and the role of work: Evidence from two Australian surveys

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Abstract: This paper investigates factors that influence Australians' self-reported levels of happiness and life satisfaction with an emphasis on the role of labour market experience. The analysis is based on data from two surveys. The first, the 1995 Year 9 cohort of the Longitudinal Surveys of Australian Youth (LSAY), tracks a sample of young Australians in each year from Year 9 secondary school to age 19. The second is Wave 1 of the Household Income and Labour Dynamics in Australia Survey (HILDA). Ordered probit models are fitted to individuals' ratings of how happy they are with their lives as a whole (LSAY) and their life satisfaction (HILDA). There is some evidence of declining levels of happiness with duration of unemployment. However, the results illustrate the importance the quality of working life, rather than just having a job, and some evidence on the influence of various job attributes on wellbeing is presented.

Introduction

This paper investigates the factors that influence Australians' levels of happiness and life satisfaction with an emphasis upon the role of labour market experience. The line of research arises out of an initial attempt to relate time in unemployment to changes in individuals' psychological state as a source of negative duration dependence (Dockery 2003). That study showed that, by almost any measure, the lot of the unemployed in Australia is indeed a relatively miserable one. However, I failed to identify any pronounced deterioration in the circumstances of the unemployed with duration. From further analysis it became clear that it is dangerous to treat "employment" as a homogenous, alternative state to unemployment. There is strong evidence that being in a job with which one is dissatisfied can be just as detrimental to wellbeing as can being jobless. With a growing interest in happiness research in the international economics literature and vigorous ongoing debate about balancing work and family, closer analysis of the role of labour market circumstances on wellbeing seems warranted.

Data from the Longitudinal Surveys of Australian Youth (LSAY) and the Household Income and Labour Dynamics Australia survey (HILDA) are used to model self reported measures of happiness and life-satisfaction. The datasets allow the inclusion of an extensive set of variables likely to impact upon happiness in order to empirically isolate the effects of unemployment and various aspects of Australians' working lives on wellbeing. Following a brief literature review I provide an overview of the two datasets and present descriptive statistics on the measures of happiness and life satisfaction. I then estimate multivariate models of happiness ratings for young Australians contained in the LSAY and for life satisfaction ratings using the HILDA data.

Life satisfaction and happiness - a review

Like Veenhoven (1991), this paper takes the pragmatic approach of treating happiness, “wellbeing” and life satisfaction as synonyms capable of measurement by self-assessment, such that a higher score on an instrument measuring life satisfaction similarly suggests a higher level of happiness or wellbeing. Veenhoven uses the definition of life satisfaction as “the degree to which an individual judges the overall quality of his life-as-a-whole favourably.” (1991: 10) It must also be acknowledged that there are challenges to the validity of various measures used in the literature on a number of grounds, and also spirited defences (see Layard 2003a; Frey and Stutzer 2002; Davidson, Marshall, Tomarken and Henriques 2000; Schwarz and Strack 1991).

Drawing upon a meta-analysis of 245 studies in 32 countries, Veenhoven identifies the following factors as ones associated with happiness rather than unhappiness – living in an economically prosperous country where freedom and democracy are respected; political stability; being a part of a majority rather than a minority; being toward the top of the social ladder; being married and having good relationships with family and friends; being mentally and physically healthy; being active and open minded; feeling in control of one’s life; having aspirations in social and moral matters rather than money-making and being politically conservative (1991:16). Given the importance of work, both economically and socially, one’s achievements and experiences at work and the quality of their working life is another very important component of overall satisfaction. Unemployment – deprivation of work - can similarly be expected to be important. A number of studies emphasise the importance of the quality of social relationships and the relative unimportance of income in determining satisfaction. Indeed, the literature is divided as to the presence of an income effect (see Frijters, Haisken-De New and Shields 2003; Kraft 2000).

Several interesting debates arise from the consideration and attempted empirical measurement of wellbeing. What are the relative contributions of fixed personality traits, environmental circumstances and life events? Is it actual circumstances that matter, or rather relativities to some perceived norm? It is clear that humans have an intrinsic tendency to be happy and satisfied, or at least to report that they are happy and satisfied. When people are asked to rate their levels of happiness or life satisfaction on a scale the resulting distribution is highly skewed. If you picture a “neither satisfied nor dissatisfied” midpoint, the vast bulk of responses lie to the satisfied side of the scale. Clearly, a general sense of wellbeing is felt by people who have experienced vastly different degrees of fortune and adversity. People seem to be far more satisfied with aspects of their “private domain”, such as their marriage, family life and job, than they are with things in the public domain, such as the social security system, public safety or the environment (Glatzer 1991: 266-267). Cummins’ “Theory of Subjective Wellbeing Homeostasis” proposes that humans have evolved such that subjective wellbeing is actively maintained at a positive level by psychological devices, much like the body biologically maintains blood temperature and blood pressure in a narrow range (Cummins, Eckersley, Pallant, Van Vugt and Misajon 2003).

Is the observed variation in happiness or life satisfaction predominantly due to “fixed effects”, where certain individuals have a positive disposition and others a negative disposition towards life, or is satisfaction mainly shaped by life events? The truth appears to be some combination of the two. There are personality traits and relatively stable characteristics, such as being married, which are associated with higher levels of life satisfaction. But life events, such as the death of a loved one, also clearly have an impact. The impact of life events will

also vary according to mediating factors such as personality traits. Social support networks for example, may improve wellbeing both directly and indirectly through an improved capacity to cope with life events. (Headey and Wearing 1991; Veenhoven 1991)

How transitory such effects are is another matter. Brickman, Coates, and Janoff-Bulman's (1978) famous study of lottery winners and persons who became paralysed after accidents shows that humans have a remarkable ability to cope with life events. Such findings provide strong support for "adaptation level theory" which suggests that humans become accustomed to their circumstances or "level of stimuli" and that it is only when there is a change in these factors that there is a resulting change in overall satisfaction (Argyle and Martin 1991: 82). This theory is useful in explaining the absence of a robust relationship between income and satisfaction – it is only changes in income that invoke a change in satisfaction. This could be put more generally to say that it is deviations from the individual's perceived norm that invokes heightened or diminished satisfaction. Thus a person's income relative to the average income in their neighbourhood or socio-economic circle may be more important than absolute income in shaping feelings of satisfaction.

Empirical support for the adaptation level theory and for the notion that comparisons are more important than absolutes can be readily found in the literature. The term "habituation" also appears for the phenomenon of people becoming satisfied with the circumstance they are used to and "rivalry" for the tendency of people to base their satisfaction on their circumstances relative to others (Layard 2003b). By the same token, there are persons who are permanently happy or unhappy, in contradiction to the idea of adaptation. It is also clear that absolute conditions can have a very strong effect on wellbeing – at the international level there is a correlation between measured happiness and income per capita. Economic conditions in poverty stricken nations drastically reduce happiness (Veenhoven 1991).

Happiness and the economic problem

In economics, we rely on the somewhat vague (perhaps usefully vague!) concept of utility to explain individuals' choices and behaviour. Within a given budget constraint, the consumer is both rational and welfare maximising. From the micro foundations of economics we can show that relaxing the budget constraint expands the individual's choice set between goods, services and leisure and, assuming freedom of choice and rational behaviour, this must also lead to increased "wellbeing" or "happiness". In microeconomic theory, unlike theories in psychology and other disciplines, money does buy you happiness; and an individual's revealed preference for Choice A over Choice B is proof that they are happier with A. Yet we see from experimental and other empirical evidence this conclusion may not be so sound (see, for example, Tversky and Griffin 1991: 114-115). More contentious still is the macroeconomic extension of this analysis that concludes that increased economic growth and increased happiness are synonymous.

A paradox in happiness research which has intrigued economists is that when you take a cross-section of the population at any point in time, there is a clear positive relationship between income and subjective wellbeing. Yet since the Second World War mean reported levels of happiness have not risen despite very large rises in real incomes. An obvious explanation is that of adaptation or habituation — the people questioned in later years are accustomed to higher material standards of living. However the pace of economic growth has been sufficient to ensure rising real incomes during the working lives of individual cohorts.

Thus one would expect to see a life-cycle effect in which happiness increases with age, for older people have indeed lived in times of significantly lower real per capita incomes. Generally, no such cohort effect seems to have been established from the literature. This suggests rivalry effects dominate. Evidence from cross-country studies show a positive relationship between GDP per capita and wellbeing up to an income level of US\$10,000 to US\$15,000 per capita, but the relationship does not appear to hold for the wealthier nations (Layard 2003a, Frey and Stutzer 2002, Easterlin 2001).

If happiness is purely based on a person's comparative situation, the policy implication that must logically follow is that there is nothing that can be done to increase overall wellbeing (Veenhoven 1991). This can also be taken as a justification for public taxation. One person's efforts to increase their income will come at a cost of reduced happiness among others. Akin to pollution, such economic externalities can be corrected by taxation to ensure the full social costs of agents' activities are taken into account as well as the individual benefits (see Layard 2003b). In the tradition of earnings functions, estimation of "happiness functions" can be used to compare the welfare gain or loss associated with different factors. Such studies have been used to estimate the "income equivalent" of a divorce (Kraft 2000); to imply the slope of the Philips Curve (Di Tella, MacCulloch and Oswald 2001); and to suggest that inequality has a significant negative effect of inequality on happiness in Europe but not in the US (Alesina, Di Tella and MacCulloch 2001).

The essence of this evolving body of research is that it throws doubt upon the efficacy of the pursuit to maximise economic growth, and to suggest that greater weight needs to be given to other factors that shape happiness and satisfaction. Indeed, many of the more important of these factors may have actually been sacrificed in the scramble for economic growth, such as a sense of community, being valued as a contributor to society beyond the pecuniary sense, altruistic as opposed to individualistic motivations and the quality of family relationships and leisure time.

Psychological effects of jobs and joblessness

The importance of work is reflected in an extensive literature that concentrates on "quality of working life", a rapidly growing literature on the ability of people to "balance" work and family life and analyses of the impact of work deprivation or unemployment on mental health and wellbeing. It seems clear that happiness in one's working life does "spill over" into one's non-work life. Tait, Padgett and Baldwin's (1989) review of studies of job and life-satisfaction across 34 countries finds an average correlation coefficient of 0.44 between measures of the two. However, there remains much contention about the direction of causality and the role of other factors (see Parasuraman and Simmers 2001; Iverson and Maguire 2000; Kossek and Ozeki 1998). Furnham (1991) outlines the importance of personality traits, including mental health and extraversion, in determining satisfaction in work and leisure.

Feather (1990) provides an excellent overview of theoretical treatments of the link between unemployment and wellbeing. A major contribution is Johoda's Functional Approach, which posits that participation in paid employment generates a range of functions in addition to income that are important for psychological wellbeing, such as a time-structure to the day, social interaction, self-identity and purpose (Jahoda 1982). Unemployment thus results in deprivation of these functions. Other theories suggest that the impact of unemployment on

psychological wellbeing will be influenced by the unemployed person's perceptions of the reason they became unemployed, the main causes of their ongoing unemployment and their perceived likelihood of finding a job in the near future. An important observation to be drawn is that the effect of unemployment is very different for different individuals. Potential mediating or compounding factors include the availability of financial resources and the ability to legitimise unemployment, such as by those close to retirement age or who take on child-minding activities; the level of social support available; and the individual's attitudes towards work (work ethic) and their role as a "breadwinner". (See Feather 1990: Chapter 4; Warr 1987; Bandura 1982; Harrison 1976.)

Economists have been interested in the reason an individual became (or remains) unemployed for a different reason — to address the debate as to whether unemployment is primarily a voluntary or involuntary phenomenon. The policy implications are obviously very different depending upon the view you take. The simple proposition put forward is that if unemployment were voluntary, we would not expect the unemployed to be any less content than the employed (Clark and Oswald 1994). The accumulating evidence on this test is clearly that unemployment is by and large an involuntary state. Empirical studies finding an adverse impact of unemployment on happiness include Frijters *et al* (2003); Clark, Georgellis and Sanfey (2001) and Winkelmann and Winkelmann (1998). There is also a closely related but distinct literature on the nature of the association between mental health, self esteem and time in unemployment (see Waters and Moore 2002 and Flatau, Galea and Petridis 2000 for recent reviews).

Descriptive overview - wellbeing measures in LSAY and HILDA

The LSAY

In the 1997-2000 waves of the LSAY each individual was asked to rate their level of satisfaction with a range of aspects of their life on a four-point scale ranging from very unhappy, fairly unhappy, fairly happy or very happy. The sample I use is restricted to those who responded to all years of the survey, a total of 6792 individuals. The means for the ratings of each aspect are reported in Table 1. Given that a score of three equates to "fairly happy" and a score of four to "very happy" it can be seen that these young people report being generally happy with most aspects of their life. As has been observed in previous studies, it is aspects within the "public domain" as opposed to those within the individual's "private domain" with which least satisfaction is expressed – the way the country is run and the state of the economy. Even on these items, however, the youth were happy rather than unhappy.

We concentrate on responses to the question "how happy are you with your life as a whole" as our summary indicator of wellbeing. There is a positive and highly significant correlation between this and individuals' rankings on each of the single items. Happiness with home life has the strongest correlation with the summary indicator, while perceptions of their future, standard of living, social life and how they get on with people in general are also strongly correlated. While people are least happy with the "public domain" aspects of how the country is run and the state of the economy, these have only weak associations with how happy one feels in general. A limitation of the data is the use of a four point-scale rather than one which would allow for a greater degree of variability. In each year, less than 3 percent of individuals indicated that they were either unhappy or very unhappy with their life as a whole.

Table 1: Mean response to questions: “How happy are you with” on a scale from 1=very unhappy to 4=very happy; 1997 to 2000 LSAY surveys

	1997	1998	1999	2000
The work you do, at school, at home or in a job ^a	3.28	3.21	3.25	3.26
What you do in your spare time	3.56	3.48	3.48	3.47
How you get on with people in general	3.54	3.58	3.60	3.60
The money you get each week	3.07	3.01	2.98	2.99
Your social life	3.46	3.53	3.55	3.53
Your independence - being able to do what you want	3.35	3.47	3.62	3.63
Your career prospects	3.23	3.28	3.33	3.35
Your future	3.28	3.31	3.39	3.42
Your life as a whole	3.44	3.49	3.50	3.52
Your standard of living	3.63	3.62	3.63	2.72
The way the country is run	2.77	2.68	2.78	2.59
The state of the economy	2.65	2.63	2.82	3.51
Where you live	3.52	3.52	3.51	3.53
Your life at home	3.56	3.53	3.52	3.62

Notes: Number of observations varies from 5909 to 6791 in accordance to the number of missing observations and “can’t say/not sure responses”; a. In the 1997 survey, this question was simply “How happy are you with the work you do?”.

As mentioned, a number of studies have been interested in the question of whether or not reported happiness levels are the result of fixed individual characteristics (personality traits) or whether they vary over time as a result of life events. Table 2 presents some preliminary evidence for young Australians. The correlations between responses in each year are certainly positive and highly significant, but are perhaps not as strong as might have been expected. Hence there may well be some fixed effects, but there is certainly also a considerable degree of variation. The means and correlations presented in this section are very similar for males and females.

Table 2: correlation between happiness with life as a whole in different years; 1997 to 2000 LSAY surveys

	1997	1998	1999	2000
1997	1.00			
1998	0.33	1.00		
1999	0.28	0.35	1.00	
2000	0.25	0.33	0.37	1.00

HILDA

HILDA is a survey of a random and representative sample of households in Australia. The survey consists of three questionnaire instruments – a household questionnaire administered to an adult member of the household; a person questionnaire, in which each member of the household aged 15 or over was interviewed, and a self-completion questionnaire which these individuals were requested to complete by themselves and return. The person questionnaire asked individuals to indicate how satisfied they are with a range of aspects of their life using an eleven-point scale ranging from 0 (totally dissatisfied) to 10 (totally satisfied). Table 3 shows means conditional upon selected characteristics. The self-completion questionnaire also questions about the respondent’s degree of satisfaction with the relationship with their

partner and a range of other relationships. Means for these are included in the bottom half of the table.

Table 3: Mean response to questions: “How satisfied are you with ...” on a scale from 0=totally dissatisfied to 10=totally satisfied, HILDA 2001.

	Females	Males	Single	Married	All
The home in which you live	8.0	8.0	8.0	8.1	8.0
Your employment opportunities	6.6	6.7	6.3	6.8	6.6
Your financial situation	6.2	6.1	5.7	6.4	6.1
How safe you feel	7.8	8.0	7.8	7.9	7.9
Feeling part of your local community	6.7	6.6	6.4	6.8	6.7
Your health	7.4	7.4	7.3	7.4	7.4
The neighbourhood in which you live	8.0	8.0	7.8	8.1	8.0
The amount of free time you have	6.7	6.7	7.0	6.5	6.7
With your life, all things considered	8.0	7.9	7.7	8.1	8.0
Relationship with partner	8.4	8.6		8.7	8.5
Relationship with children	8.9	8.5	8.3	8.8	8.7
Partner's relationship with children	8.3	8.7		8.7	8.5
Relationship with parents	8.1	8.0	7.9	8.1	8.1

Table 4 presents the correlation coefficients between these measures and the main measure I will use to indicate wellbeing – reported satisfaction with your life, all things considered. All coefficients are positive and highly significant. In this sample it appears that it is satisfaction with one’s financial situation that is most strongly correlated with overall satisfaction, and not relationships as may have been expected from the literature (although the coefficient for the later is, by definition, calculated only for married individuals). The correlation between overall job-satisfaction and life-satisfaction of 0.39 for employed persons concords reasonably well with the average figure for such measures of 0.44 reported in Tait *et al*’s (1989) meta-analysis. For the HILDA sample this relationship is markedly stronger for employed males (0.43) than for employed females (0.34).

Table 4: Correlation coefficients between life satisfaction and satisfaction with other aspects; 2001 HILDA survey

	Satisfaction with life as a whole
The home in which you live	0.39
Your employment opportunities	0.34
Your financial situation	0.44
How safe you feel	0.40
Feeling part of your local community	0.37
Your health	0.41
The neighbourhood in which you live	0.37
The amount of free time you have	0.33
Relationship with partner	0.34
Relationship with children	0.25
Partner's relationship with children	0.24
Relationship with parents	0.22
Overall job satisfaction	0.39

Happiness and life satisfaction in Australia

As set out above, we have self-rated measures of young peoples' happiness with their life as a whole for four LSAY surveys conducted from 1997 to 2000 and of life satisfaction for the first wave of HILDA. As these dependent variables take on discrete values, ordered probit models are estimated. The discussion here concentrates on the critical aspects of the modelling and the results pertaining to the effects of labour force status. A more thorough discussion of the specification of explanatory variables and of the results can be found in Dockery (forthcoming).¹ Guided by the literature, variables likely to influence wellbeing are included where the survey data permits and retained if they are found to have a significant effect. The longitudinal nature of the LSAY data enables inclusion of "baseline" data collected in previous years and which can be used to capture fixed individual effects. Exploiting the longitudinal nature of the data in this way ensures exogeneity of the explanatory variables with respect to later life experiences and circumstances. The advantage of the HILDA data lies in the extensive availability of additional controls likely to impact upon wellbeing.

Young people and happiness - LSAY

In the first survey the (then) Year 9's were asked a series of 30 questions on their attitudes towards school. Respondents to the third (1997) survey were asked a series of questions relating to personality traits. Principal component analyses of these responses identify three factors relating to attitudes towards school (getting on with teachers, doing well at school, feeling happy at school) and two personality trait factors (being an extrovert and being easy going) which prove significant in the modelling. The standardised scores for these factors are included as controls for fixed individual effects. In 1996 students were asked whether there was a range of consumer goods in their home, such as a washing machine, microwave, computer and so on. Based on the number of these assets present in the home a "wealth" index is constructed, where items that were less commonly present were given a higher weighting.

Results are reported in Table 5. A drawback of the ordered probit model is the difficulty in presenting results that are readily interpretable. The dependent variable is coded such that a positive coefficient indicates a higher level of reported happiness is associated with higher values of the variable. A universal finding in such studies is that being married has a sizeable positive impact upon reported happiness, and the coefficient on this dummy variable provides a convenient benchmark. We see evidence here of a positive effect of being married and of being from "wealthier" families (or at least homes with more gadgets). The highly significant and persistent effect of the factors designed to capture the fixed effects of personality traits are immediately obvious. Very strong impacts from the "extrovert" and "easy-going" factor scores are found for 1997, though this may arise through endogeneity in that year. However, highly significant effects do persist, particularly for "extrovert", consistent with the previous literature. This provides some confidence that they do capture fixed effects and thus improve the efficiency of the estimates for other variables. The labour market or educational activity variables are a series of mutually exclusive dummies, requiring an omitted category. For 1997 and 1998 the omitted category is those still in secondary school. In the final two models it is those attending university — either attending university full-time or else attending university part-time and having no other identified full-time activity.

Table 5: Ordered probit results for happiness with your life as a whole, LSAY 1997-2000.

	1997 (aged 16)	1998 (aged 17)	1999 (aged 18)	2000 (aged 19)
Intercept	-0.04	0.27 ***	0.03	0.17 **
Male	0.07 **	-0.02	-0.09 **	-0.13 ***
married ^a			0.35 ***	0.52 **
defacto ^a				0.32 ***
Wealth index for family (1996) ^b	1.5x10 ⁻³ **		1.3 x10 ⁻³ *	1.5 x10 ⁻³ **
Sole parent family (1997)	-0.18 ***	-0.20 ***	-0.14 ***	
Has left home	-0.12	-0.18 **		
Had left home last year			-0.14 *	
Maths Score in 1995 (quartile) ^c	-0.03 *	-0.06 ***		-0.04 **
Factor Scores^d				
Gets on with teachers (1995)	0.06 ***	0.05 **		0.06 ***
Doing well at school (1995)	0.06 ***	0.05 ***	0.07 ***	0.03 *
Happy at school (1995)	0.10 ***	0.09 ***	0.09 ***	0.07 ***
Extrovert (1997)	0.28 ***	0.24 ***	0.17 ***	0.18 ***
Easy going (1997)	0.26 ***	0.13 ***	0.11 ***	0.09 ***
Has a disability		-0.27 ***		
Education/LM activity				
In school			0.04	na.
University	na.	na.		
Other post-school study	0.02	0.06	0.06	-0.09
Working:				
Would like job as a career	0.26 ***	0.30 ***	0.37 ***	0.21 ***
Wouldn't like job as a career	-0.49 ***	-0.14 *	-0.05	0.00
Work and study (neither FT)	na.	na.	-0.15	-0.17
Looking for work				
Short term unemployed	-0.16	-0.28	-0.06	-0.28 **
Medium term unemployed	-0.43 **	0.15	-0.15	-0.47 **
Long term unemployed		-0.34 *	-0.25 **	-0.41 **
Not in the labour force	-0.58	0.14	0.16	0.05
Inter.2	2.29	2.25	2.13	2.31
Inter.3	3.27	3.05	2.76	3.03
Observations	5286	5286	5336	5250
Log Likelihood	-3785.54	-3803.07	-3949.36	-3751.49

Notes: a. in 1999 married includes married and defacto; b. Index can range from 0 to 100; c. Quartile based on scores in standardised maths tests conducted in 1995, where 1 indicates the top quartile; d. factor scores have a mean of 0 and standard deviation of 1.

For those who have left school in 1997 and 1998, possible states include further study, working, looking for work and not in the labour force. People who are working are further divided into two subcategories: those who indicated the job they had was one which they would like to have as a career, and those who did not. People in the looking for work category are divided into duration categories based on their response to a question on how many weeks in the last year they had been not working but looking for work. In 1997, those looking for work are divided into two categories — short-term unemployed (looking for work

for less than 10 weeks) and medium to longer-term unemployed (searching for work for 10 weeks or more). For the remaining years three categories are used — short-term unemployed (up to 12 weeks), medium term unemployed (13 to 26 weeks) and long-term unemployed (more than 26 weeks). As only around ten percent of the sample had left school in 1997, the sample sizes in the other labour market categories are relatively small.

In 1997 we identify no significant differences in happiness between those in school and those who had left school and were working. From age 17 to 19, however, those who were working were slightly happier than those still in school (1998) or at university (1999-2000). A pronounced effect is found when we differentiate between those who are in “good” jobs and other workers. Those in a job that they indicated was the type of job they would like to have as a career are significantly happier in each year. There is a very strong negative effect for 16 year olds who have left school and are in jobs they do not want as a career.

There is also evidence that those youth who have left school and are looking for work are less happy. When a single “looking for work” category is included, the coefficient is negative and significant for each year at the ten percent level or higher. Moreover, results from different specifications do suggest that the duration of unemployment is relevant. In the models reported, we see higher levels of significance and larger (more negative) coefficients against the longer duration categories relative to the short-term unemployed category. Other specifications tested reaffirm the deleterious effect of time in unemployment on young people’s reported levels of happiness. The unemployment duration variables from previous years’ surveys were also included in an effort to identify “scarring” effects of prior spells of unemployed. No consistent scarring effect was found with only one of these lags proving significant.

In summary, the main factors associated with happiness for these young people are being married, being an extrovert and being in a “good” job. Importantly, we do find that lengthy periods of unemployment do appear to significantly reduce happiness. The patterns discussed largely hold for both genders when the models are estimated separately for men and women.

Satisfaction with life in Australia - HILDA

At this stage, results from the HILDA surveys can be based only on one year’s data - a cross-section. Decisions on which variables should be included or excluded among the explanatory variables are thus problematic. Variables relating to factual circumstances, such as age, marital status and employment status, can be considered exogenous. However, for many of the effects we would like to model the measures are highly subjective. These include health status, mental health and job satisfaction. The danger with such variables is that the respondent’s affective state (mood) may result in them systematically giving higher or lower scores on these variables as well as on their level of overall satisfaction. That is, the variables are simply acting as alternative measures of the respondent’s state of mind. In some cases, but not all, more accurate assessment of the contribution of different factors will be possible with the availability of longitudinal data.

For now I concentrate on the impacts of variables relating to labour market status. After allowing for missing values there are around 12,000 observations available for the estimation. The first column of results in Table 6 is for all persons with only four dummies used to capture labour market status: employed full-time, employed part-time, unemployed and the

omitted category of not in the labour force. These are expanded in the second model. In the third and fourth columns the expanded model is estimated separately for males and females. The similarities between the sexes are probably more surprising than the differences.

Somewhat surprisingly we find that persons who are employed and those who are unemployed are less satisfied with their life overall than those who are not in the labour market. Further, those working full-time are less satisfied than those working part-time. As expected, it is the unemployed who are least satisfied with their life overall. Persons who were working were also asked to rate their overall job satisfaction. Creating dummy variables representing roughly the four quartiles of the job satisfaction response distribution, we see that the average person needs to have a very high degree of contentment in their job for them to be more satisfied with their life than those not in the labour force – in fact they needed to respond that they were “totally satisfied” with their job (10 on a scale of 0 to 10). However, these workers who are in jobs with which they are totally satisfied do report a very high degree of life satisfaction — the estimated effect of being in such a job is greater than the effect of being married. Even those who gave their job satisfaction a rating of 8 or 9 out of 10 are significantly less satisfied with their lives than those not in the labour force. There is a very large negative effect on wellbeing from being in a job with which one has low satisfaction. It seems that overall life satisfaction is more responsive to job satisfaction for men than it is for women. As cautioned above, there is potential endogeneity between the two subjective satisfaction measures.

As with Dockery (2003) and Flatau, Galea and Petridis (2000), I again find no simple relationship between duration of unemployment and satisfaction. Being recently unemployed has no significant impact. This is surprising since this group must include a considerable proportion of people who had recently lost their jobs. A variable indicating that the person lost their job involuntarily (eg. fired or retrenched) was tested and found not to be significant. After this initial period, satisfaction does fall off rapidly with duration, and seems to reach a nadir sometime between 4 weeks and one year, after which it ceases to decline and if anything seems to improve. It must be noted, however, that the estimated effect of being jobless for anything from 3 weeks to one year, which encompasses around two-thirds of the unemployed in this sample, is highly detrimental.

Table 6: Ordered probit results for overall life satisfaction, HILDA 2001.

	All persons	All persons	Males	Females
Intercept	-1.26 ***	-1.24 ***	-1.35 ***	-1.25 ***
Gender/marital status				
Married male	0.27 ***	0.27 ***	0.33 ***	
Married female	0.19 ***	0.18 ***		0.22 ***
Separated male	-0.06	-0.10	-0.06	
Separated female	-0.11 **	-0.13 **		-0.09
Single male	—	—	—	
Single female	-0.06	-0.08 **		—
Has children	-0.03	-0.07 **	-0.09 **	-0.06
Age (years)				
15 to 19	0.14 ***	0.14 ***	0.24 ***	0.05
20 to 24	0.12 ***	0.13 ***	0.20 ***	0.08
25 to 34	0.05	0.04	0.05	0.03
35 to 44	—	—	—	—
45 to 54	0.14 ***	0.11 ***	0.09 *	0.13 ***
55 and over	0.44 ***	0.41 ***	0.37 ***	0.43 ***
English language status				
English is 1 st language	—	—	—	—
English good or v. good	-0.16 ***	-0.17 ***	-0.15 ***	-0.18 ***
Poor or no English	-0.47 ***	-0.49 ***	-0.46 ***	-0.50 ***
Aboriginal or Torres St Islander	0.17 **	0.11	0.20	0.06
Lived in sole parent HH (age 14)	-0.06 *	-0.06 *	-0.09 **	-0.02
Qualifications				
No qualifications	—	—	—	—
Low qualifications	-0.12 ***	-0.10 ***	-0.12 ***	-0.08 **
Medium qualifications	-0.13 ***	-0.11 ***	-0.07 **	-0.16 ***
High qualifications	-0.31 ***	-0.24 ***	-0.25 ***	-0.24 ***
Home owner	0.08 ***	0.09 ***	0.11 ***	0.07 **
Labour Market Status				
Works - full-time	-0.24 ***			
- part-time	-0.18 ***			
Works – low job satisfaction		-0.77 ***	-0.92 ***	-0.62 ***
- medium job satisfaction.		-0.55 ***	-0.60 ***	-0.49 ***
- high job satisfaction		-0.20 ***	-0.19 ***	-0.20 ***
- v. high job satisfaction		0.38 ***	0.49 ***	0.29 ***
Unemployed	-0.34 ***			
- 0 to 3 weeks		-0.17	-0.15	-0.21
- 4 to 12 weeks		-0.40 ***	-0.42 ***	-0.38 ***
- 13 to 52 weeks		-0.48 ***	-0.41 ***	-0.62 ***
- more than 1 but < 2 yrs		-0.30 *	-0.43 **	-0.19
- more than 2 years		-0.30	-0.40 *	0.03
Not in the labour force	—	—	—	—
Self assessed health				
Poor health	-0.78 ***	-0.81 ***	-0.81 ***	-0.84 ***
Fair health	-0.20 ***	-0.21 ***	-0.23 ***	-0.20 ***
Good health	—	—	—	—
Very good health	0.17 ***	0.17 ***	0.14 ***	0.19 ***
Excellent health	0.43 ***	0.39 ***	0.38 ***	0.40 ***

Table 6: Continued

	All persons	All persons	Males	Females
Health compared to a year ago				
In better health	0.05 *	0.04	0.04	0.04
About the same	—	—	—	—
In worse health	-0.15 ***	-0.14 ***	-0.09 *	-0.18 ***
Exercises 7 days per week	0.10 ***	0.09 ***	0.06	0.13 ***
Alcohol consumption				
Does not drink	—	—	—	—
Less than once a week	-0.09 ***	-0.09 ***	-0.08	-0.10 ***
1 to 4 days per week	-0.17 ***	-0.16 ***	-0.12 **	-0.18 ***
5 days a week or more	-0.17 ***	-0.16 ***	-0.07	-0.26 ***
Factor scores – social support^a				
Has many friends	0.22 ***	0.22 ***	0.21 ***	0.22 ***
Enjoys socialising	0.17 ***	0.16 ***	0.17 ***	0.15 ***
Financial well being (self-ass)				
Poor or very poor	-0.30 ***	-0.32 ***	-0.32 ***	-0.31 ***
Just getting along	—	—	—	—
Reasonably comfortable	0.30 ***	0.28 ***	0.26 ***	0.31 ***
Very comfortable/prosperous	0.52 ***	0.47 ***	0.41 ***	0.53 ***
Lives in a major city	-0.16 ***	-0.13 ***	-0.11 ***	-0.15 ***
Socio-ec disadv of CD (decile)	-0.01 ***	-0.01 **	-0.01	-0.01 *
Importance of religion (0-10)	0.03 ***	0.03 ***	0.03 ***	0.02 ***
Observations	12192	12125	5724	6401
Log Likelihood	-19636	-19145	-8977	-10120

Notes: ***, ** and * denote significance at the 1%, 5%, 10% levels respectively; a. factor scores have a mean of 0 and standard deviation of 1.

Happiness and work

The results highlight that work has a very large impact upon people's feelings of wellbeing. Moreover, it is not just the state of being in work that affects wellbeing, but rather the quality of one's working life. So what are the aspects of jobs that contribute to or detract from workers' sense of wellbeing? There is of course an extensive literature from management-associated disciplines dealing with employee- or job-satisfaction. The departure here is our concern with the wider measure of wellbeing. Indeed factors that increase motivation or attachment to an employee's firm may increase job satisfaction at the cost of wellbeing in other aspects of life. I restrict the LSAY and HILDA samples to those employed at the time of the surveys to investigate these issues.

LSAY

I restrict the sample to those whose main activity was working and concentrate on levels of happiness reported in 1999 and 2000, the years in which around 40 percent of the cohort had left school or further study. The main variables applicable to employed persons from the previous models are included along with additional variables relating to individuals' jobs. These cover the self-assessed levels of satisfaction with a number of aspects of their work and, for those observed to be in the same job as they were last year, whether there had been

changes in their pay, the skill-level of their work, the responsibility they have and whether or not they had received a promotion.

As would be expected higher satisfaction with the various job attributes is positively correlated with workers' overall happiness (see Table 7). Satisfaction with the people you work with, your boss and the tasks you are assigned seem to have greatest influence. The effects of satisfaction with pay, recognition for tasks well done, opportunities for promotion and training opportunities are less robust. With the inclusion of these additional job-related variables, the effect of the worker being in a job they would like to have as a career is also now far less strong than in the previous models.

Table 7: Workers' happiness with their life as a whole, ordered probit results, LSAY 1999 and 2000.

	Employed in 1999	Employed in 2000
Intercept	-2.08 ***	-2.99 ***
Male		-0.11 *
Married/defacto	0.77 ***	0.40 ***
Sole parent family (1997)	-0.19 **	
Had left home last year	-0.23 *	
Maths Score in 1995 (quartile) ^c		-0.07 **
Factor Scores^d		
Doing well at school (1995)		0.07 **
Happy at school (1995)	0.06 *	0.10 ***
Extrovert (1997)	0.15 ***	0.13 ***
Easy going (1997)	0.10 ***	
Job Characteristics		
Full-time		0.14 *
Hourly wage (log of)	-0.17 *	
Hourly wage in top quartile		0.21 **
Would like job as a career	0.12 *	
In same job as last year and:		
Now doing more skilled work	0.17 **	
Now has more responsibility		0.21 ***
Received a promotion since last year		-0.19 **
Satisfaction with : (1=very dissatisfied, 4=very satisfied)		
The people you work with	0.15 **	0.12 ***
Your immediate boss/supervisor	0.15 ***	0.31 ***
The pay you get	0.12 **	0.07 *
Opportunities for training	0.08 *	0.12 ***
The tasks you are assigned	0.18 ***	0.24 ***
Recognition for tasks well done	0.10 **	
Opportunities for promotion		0.10 **
Inter.2	2.15	2.55
Inter.3	3.01	3.35
Observations	1693	1986
Log Likelihood	-1179.8	-1294.27

Notes: ***, ** and * denote significance at the 1%, 5%, 10% levels respectively. a. in 1999 married includes married and defacto; b. Index can range from 0 to 100; c. Quartile based on scores in standardised maths tests conducted in 1995, where 1 indicates the top quartile; d. factor scores have a mean of 0 and standard deviation of 1.

The models for employed persons provide more evidence on the importance or otherwise of income. I attempt to capture pay effects in a number of ways. The workers' hourly wage is calculated and tested as a dollar amount and in its logarithm. A dummy variable is included indicating whether or not the workers' hourly wage was in the top quartile of earners.

Workers are also asked whether their pay had increased or decreased since the last interview if they were still in the same job. Recall that, added to the mix, workers' self-rated level of satisfaction with their pay is already controlled for. In the 1999 model, happiness actually decreases with the log of hourly wages. Although the effect is only weakly significant, it may suggest that there is some interaction between wage rates and expectations — namely that expectations increase more quickly than wages do with certain endowments. The coefficient on the log of the wage rate is insignificant if the variable for satisfaction with pay is removed.

For the 2000 model, however, we do find those with the highest 25 percent of hourly wage rates to be happier, while satisfaction with pay also has a weakly significant and positive effect. Perversely, for this year, having received a promotion is negatively associated with overall happiness while taking on more responsibility increases happiness. Again it may be that there are mismatches between individuals' expectations of pay rates and the actual rates that are associated with increased responsibilities or promotions. Neither of the dummy variables indicating the worker received an increase in pay or a decrease in pay are significant, and this holds whether or not the other pay-related variables are excluded.

HILDA

The HILDA data is richer in terms of variables relating to individuals' employment situations. It includes satisfaction ratings with pay, job security, the work itself, the hours of work and flexibility to balance work and non-work commitments. Satisfaction with each of these aspects of work is highly significantly associated with overall life-satisfaction. Of these, satisfaction with the work itself appears the most important determinant of overall wellbeing, and this holds for men, women and persons married with children. Essentially, however, nearly all the other information seems to be well reflected in these assessments and few other job-related variables are significant. This is not overly informative – we see, for example, that satisfaction with hours of work leads to greater overall life satisfaction, but what is it about the hours of work that makes the person satisfied? Hence I drop these variables in a bid to identify more underlying factors contributing to satisfaction.

The variables identified as significant in the models from Table 6 are included as controls. For brevity I report only the additional results for the job-related variables (Table 8). Again the surprising finding relates to the stability of the coefficients across different sub-samples. I estimate separate models for males, females and for workers with a family (ie. married with at least one child living in the household). It may be expected that the latter group would be more affected by things such as awkward hours or job insecurity. For full-time workers, working more hours than they would like to does significantly detract from overall life satisfaction – “significantly” both in the statistical sense and in magnitude. Further, around 25 percent of workers fall into this category indicating that this problem of “overwork” is quite widespread. Surprisingly, however, the estimated effect is almost unchanged when the sample is restricted to workers who are married with children. This suggests that the problem of “overwork” is not only one of balancing work and family. For part-time workers the effects of preferring to work more hours and preferring to work less hours are similar.

Workers in the “private not-for-profit” and “other non-commercial” sectors display a greater sense of wellbeing. There is weak evidence that workers from small firms are also more satisfied in their lives. A peculiar finding arises with respect to job security. Workers were asked to estimate the likelihood that they would lose their job in the coming 12 months. Almost 50 percent of workers indicate zero chance of losing their jobs. I use two dummy variables to capture feelings of job insecurity, one for the 20 percent of workers who thought there was between 10 and 50 percent chance of losing their jobs, and one for the small group of workers (about 6 percent) who thought they were more likely than not to lose their job. The effect of feeling moderately insecure is in fact markedly more detrimental to wellbeing than the effect of being highly insecure. Variables reflecting the type of contract people were employed under — permanent, fixed term or casual — may also proxy job security. When tested, these were insignificant for all groups.

The effects of working shift work, of being a union member and length of tenure in the job were also found to be insignificant. Having supervisory responsibilities seems only to improve wellbeing for workers with families.

Table 8: Workers’ satisfaction with their life as a whole, ordered probit results, HILDA 2001.

	All persons	Males	Females	Married with Children
Satisfaction with hours worked				
Prefer about the same hours	—	—	—	—
Works FT and prefer less hours	-0.21 ***	-0.19 ***	-0.23 ***	-0.22 ***
Works FT and prefer more hours	-0.11 *	-0.12 *	-0.12	-0.06
Works PT and prefer less hours	-0.17 **	-0.11	-0.19 **	-0.18 **
Works PT and prefer more hours	-0.18 ***	-0.17 **	-0.21 ***	-0.17 ***
Has multiple jobs	-0.10 **		-0.12 **	-0.15 ***
Sector – not for profit or “other”	0.14 **	0.17 *	0.14 **	0.11
Job Security (likelihood of losing job in next 12 months)				
Less than 10%	—	—	—	—
10 to 50%	-0.17 ***	-0.16 ***	-0.17 ***	-0.21 ***
Greater than 50%	-0.08 **	-0.04	-0.11 **	-0.05
Has supervisory responsibilities	0.05 *			0.09 ***
Workplace size				
Less than 5 employees			0.08 *	
5-9 employees			0.11 *	
Observations	7665	4082	3617	4182
Log Likelihood	-11911.9	-6362.61	-5569.81	-6425

Note: ***, ** and * denote significance at the 1%, 5%, 10% levels respectively.

Conclusions

Consistent with previous international research, we find a strong tendency for Australians to report high levels of happiness and life satisfaction with most aspects of their lives. The availability of longitudinal data through the LSAY enables the inclusion of controls for fixed effects, although formal fixed effect models have not been estimated. The positive effect of

marriage that pervades the empirical research is confirmed. A distinct “U” shape in the relationship between satisfaction and age is also consistent with previous findings. For Australians, satisfaction with life is lowest at the ages of 35-44. In contrast to many other studies, however, I do identify positive effects of wealth on wellbeing and some evidence of a negative effect of duration in unemployment. It is also clear that it is important to take into account the “quality” of employment when comparing wellbeing between the employed and those in other labour market states.

In estimating subjective happiness among young Australians we find that fixed effects are important, notably the personality trait of extroversion. The models confirm that young people in unemployment are less happy than those in either study or employment, and that happiness further declines for those unemployed with longer durations. While there is some evidence that coming from a wealthier background is associated with greater happiness among youth, actual income earned in employment does not appear to be important. Other indicators of job quality appear more important to happiness for young people.

The cross-sectional nature of the HILDA data creates the unavoidable likelihood of endogeneity influencing the results for some variables. Putting that reservation aside for now, we find that satisfaction is indeed lower for unemployed persons. There is no clear relationship between satisfaction and duration of unemployment, however it appears the detrimental effect does not kick in until the individual has been out of work for around one month. This is in contrast to other studies and the adaptation/habituation theories that suggest the detrimental effect will be greatest in the initial stage of a spell of unemployment. The results here indicate satisfaction remains low at least for durations of up to one year.

An important finding, however, is that being in employment but in a job in which one has low job satisfaction has an even greater detrimental effect on reported life satisfaction than unemployment. This result that may well arise due to endogeneity, and deserves more attention when the second wave of HILDA data becomes available. However, it also echoes the finding from the LSAY data when we distinguish between “good” and “bad” jobs. Further exploration of the impact of particular job attributes shows that many aspects of work-life influence overall wellbeing, consistent with the existence of “spill-over” effects between the work and non-work domains. Satisfaction with the actual nature of the work being performed appears a particularly important factor, as are relationships with co-workers. The results from both surveys confirm that *satisfaction* with one’s pay contributes to greater wellbeing, but the relationship between wellbeing and *actual* pay rates is more obscure.

There is strong evidence of a problem of “overwork” among the full-time working population, however this problem does not seem particular to those workers with families. Certainly there is considerable scope to further explore issues relating to the balancing of work and family commitments using the HILDA data. Unexpected findings regarding the effects on wellbeing of job insecurity also warrant further analysis.

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ⁱ A copy can be obtained from the author by email upon request.