Employment and Life-Satisfaction: Insights from Ireland

FINBARR BRERETON
J. PETER CLINCH
SUSANA FERREIRA
University College Dublin

Abstract: Mainstream neoclassical economics takes it as given that the consumption of goods and services (output) is positively related to well-being. Work (labour-input) is assumed to be negatively related to well-being at the margin and so is only undertaken in exchange for payment. This view has been challenged for decades in the psychology and sociology literature and results suggests that employment status (especially unemployment) has profound effects on well-being, even at the margin. It is surprising then that several labour force status categories have been under researched in the literature to date. In this paper, using a sample of Irish adults carried out in 2001, we extend the current literature to examine the impacts of additional labour force status categories on life-satisfaction based on International Labour Organisation (ILO) classifications. These include part-time employment, disconnection from the labour force and being disabled, unable to work. Additionally, we expand the analysis of unemployment in the happiness literature and examine if the effects of unemployment and part-time employment on life satisfaction are conditioned by gender. Insights show that being part-time employed has a significant negative effect on life satisfaction, particularly for males. Being unemployed is found to have a significant negative effect on well-being, independent of gender and income, but no such effect is found for the local unemployment rate.

I INTRODUCTION

Mainstream neoclassical economics takes it as given that the consumption of goods and services (output) is positively related to well-being. Work (labour-input) is assumed to be negatively related to well-being at the margin and so is only undertaken in return for income (see, e.g., Mankiw and Taylor,

2006). Contrary to traditional economic belief however, unemployment has negative impacts on the mental state of the individual (see e.g., Darity and Goldsmith, 1996; Bjorklund, 1985 or Mayer and Roy, 1991) above and beyond any fall in income (Clark and Oswald, 1994; Winkelmann and Winkelmann, 1998).[1] Personal costs include loss of job skills, loss of self-esteem and increased stress (see e.g., Clark and Oswald, 1994). Several theoretical perspectives exist on the social mechanisms involved in the relationship between unemployment and well-being i.e., beside the need for economic resources. The most commonly used has been the functionalistic approach (Jahoda, 1982; Warr, 1987), where the employment situation is seen as providing five psychological functions; time structure, social contacts, participation in collective purposes, status and identity and regular activity. The second is agency theory, developed by Fryer (1986), where people are seen as social actors who try to reach desirable goals. Here, the negative effect of unemployment is seen as a consequence of decreased control over the life-situation. Ezzy (1993) suggests a theory of status package, where mental well-being among the unemployed is seen as a product of the subjective meanings individuals give to their objective social relationships.[2] Furthermore, there is a body of literature that longitudinally take into account and compare the impact of more varied labour market statuses on well-being including unemployment exit, permanent/temporary employment contracts, university studies, second chance education and early retirement (see e.g., Korpi, 1997; Strandh, 2001).

The traditional neoclassical viewpoint has also been challenged in the field of economic psychology. This literature employs happiness data from surveys as empirical approximations of individual utility. These measures have been found to have a high scientific standard in terms of internal consistency, reliability and validity (Diener *et al.,* 1999) and have been used extensively in the economics literature in recent decades.[3] Findings in this literature suggest that being employed, self-employed, retired, or in full-time education is associated with higher well-being (Di Tella *et al.*, 2001; Blanchflower and Oswald, 2004a; Frijters *et al.*, 2004; Andersson, 2008), while being engaged in household duties is associated with reduced well-being (Stutzer, 2004;

[1] Winkelmann and Winkelmann (1998) report that the social costs of unemployment substantially exceed the costs of an economy operating below its potential.

[2] For an excellent review of these theories, see Nordenmark and Strandh (1999).

[3] See for example, Easterlin (1974; 1995; 2001); Frey and Stutzer (2000); Alesina *et al.* (2004), Stutzer (2004); Blanchflower and Oswald (2004a; 2004b); Frijters *et al.* (2004); Van Praag and Baarsma (2005); Welsch (2006); Bell and Blanchflower (2007); Ferrer-i-Carbonell and Gowdy (2007) or Clark *et al.* (2008).

Blanchflower and Oswald, 2004a), other things being equal.[4] This literature has also concluded that unemployment affects a male more severely than a female (van Praag and Ferrer-i-Carbonell, 2001), that it is easier being unemployed once one has been without work for some time (e.g., Blanchflower and Oswald, 2004a), but that it is harder being unemployed when the unemployment rate is low (e.g., Clark and Oswald, 2002; Bell and Blanchflower, 2007).[5] Di Tella *et al.* (2001) examine unemployment at the macro level and show that people en masse are happier when the unemployment rate is low.[6] Further insights show that the cross-national affects of unemployment on individual well-being are not uniform (Carroll, 2007). The general finding is that unemployment is associated with substantial negative non-pecuniary effects (see e.g., Jensen and Smith, 1990) which persist even after reemployment (Lucas *et al.*, 2003).

Given the consensus among previous studies on the influence of employment status on life satisfaction, it is surprising that several labour force status[7] categories have been under-researched in the literature to date. Blanchflower and Oswald (2004b) include a variable for part-time employed, but since employment status is not the focus of their paper they do not elaborate on the results. Bardasi and Francesconi (2004) include a range of employment status outcomes, including part-time employment and seasonal working, but the focus of their study is the determinants of 'low life satisfaction' (1 if life-satisfaction is 3 or lower on a scale of 1 − 7). Booth and van Ours (2008) explicitly examine part-time employment and life-satisfaction in Britain and find no difference in life-satisfaction between males and females.

Also, the literature tends to treat non-labour force categories ambiguously and these categories deserve specific attention. For example, Frijters *et al.* (2004) include a variable for being disabled and also for level of disability, but use this as a measure of health rather than as a labour force status category and do not distinguish between those in and out of the labour force. Bell and

[4] These results do not hold consistently across countries however. Frey and Stutzer (2000), for example, in their study of Swiss cantons, find those engaged in household duties to be more satisfied than the employed and Blanchflower and Oswald (2004b), in their study of happiness in the United States, find no statistically significant difference between these respondents and the employed. Andersson (2008) finds some evidence that self-employment appears to increase mental health problems.

[5] However, Winkelmann and Winkelmann (1998) find no evidence that the long-term unemployed get used to their situation and partially recover from the initial adverse effect.

[6] In the context of a transition economy (former Soviet Russia), Eggers *et al.* (2006) find the effect to run in the opposite direction.

[7] In this paper 'labour force status' refers to the three categories defined by the ILO i.e. in employment, unemployed (the labour force) and inactive (out of the labour force).

Blanchflower (2007) analyse the characteristics of those who are inactive due to long-term illness or disability, but not their well-being. Winkelmann and Winkelmann (1998) include 'out of the labour force' in their analysis but do not distinguish between different types of inactivity. Frijters *et al.* (2004) include whether the respondent is a non-participant, but do not distinguish between different types of non-participation. Blanchflower and Oswald (2004b) include separate variables for 'temporarily not working', and 'other labour force status', but do not define what this other labour force status is. Frey and Stutzer (2000) include a variable for 'other labour force status' but do not expand on this.

Whereas the previous investigations have mostly focused on the well-being effects of employment, unemployment and non-participation, in this paper we produce a more refined analysis of the relationship between employment status and well-being. We do this in several ways by employing categories that: (1) separate full-time and part-time employed individuals, (2) contrast unemployment following previous employment with seeking work for the first time, and (3) allow examination of the effects of not seeking work or being unable to work on life-satisfaction. Additionally, given the findings in the previous literature, we examine the influence of the unemployment rate on well-being. We improve upon Di Tella *et al.* (2001) and Clark and Oswald (1994) who use national and regional unemployment rates respectively, by employing a more refined measure of the unemployment rate, i.e. at local level, which may be a more appropriate level of comparison. For example, Kling *et al.* (2004) in their study of randomised *Moving to Opportunity* experiment, show that individuals moving to lower-poverty census tracts report lower levels of psychological distress. Finally, given the consensus in the sociology literature on differing labour outcomes for males and females (see e.g., van Gellecum *et al.*, 2008), we examine gender differences.

The paper proceeds as follows: Section II describes the data and the estimation strategy used in the paper, Section III presents the results and Section IV concludes.

II METHODOLOGY

In this paper we use a micro-econometric function in which individual utility is a function of socio-economic and demographic characteristics (age, gender, employment status etc.) that are typically included in the literature (see e.g., Clark and Oswald, 1994; Di Tella *et al.*, 2001 or Stutzer, 2004). Since the individual's true utility is unobservable, we use self-reported well-being as a proxy.

2.1   *Data*

We use Irish data which is interesting in its own right, as fundamental changes in the makeup of the Irish labour market and economy in general, occurred in the last decade. Since 1993, the numbers in employment have increased by 45 per cent (1.183 million to 1.717 million) (Central Statistics Office, 2003) and the number of long-term unemployed in the Republic of Ireland has fallen from 125,000 (57 per cent of total unemployed) to 21,000 (31 per cent of total) in 2001 (Central Statistics Office, 2003) with the unemployment rate dropping from 18 per cent (1987) to 4 per cent (2001). Unemployment and life satisfaction has been studied in an Irish context by Whelan and McGinnity (2000), Gallie and Russell (1998) and Bell and Blanchflower (2007), however the latter do not discuss their results for Ireland.

Data on satisfaction with life, and on the socio-economic and socio-demographic characteristics used in the analysis, come from a survey of a representative sample of 1,500 men and women, aged 18 years and over and living in Ireland in 2001 (Urban Institute Ireland, 2001).[8] The satisfaction with life indicator (or proxy for individual utility) is based on the answers to the following question (which was preceded by a range of questions regarding various aspects of the respondent's life): 'Thinking about the good and bad things in your life, which of these answers best describes your life as a whole?'. Respondents could choose a category on a scale of one to seven ('As bad as can be'; 'very bad'; 'bad'; 'alright'; 'good'; 'very good'; 'as good as can be'). Some studies treat self-reported life-satisfaction data and happiness data interchangeably. Veenhoven (1997) states that "the word life-satisfaction denotes the same meaning and is often used interchangeably with happiness."

[8] The sample use in this paper is restricted to those of working age (18–64 years) and, due to missing observations, the final sample consists of approximately (depending on the model specification) 1,279 observations. The effective response rate is 66.6 per cent. The margin of error using the entire sample is ± 2.5 per cent at a 95 per cent confidence level. The 2000 *Register of Electors* was used as the sampling frame. The register is inclusive of all individuals nominated on Electoral Registration forms returned in July 2000. The register is compiled on a Local Authority basis of which there are 34 in Ireland. The sampling procedure adopted was a two stage proportionate random sampling procedure using probability proportionate to size (PPS). The rationale governing this choice of design was to ensure coverage of all 34 Irish Counties with proportionate representation of all county areas. In selecting potential respondents from each, a computerised random numbers procedure was again used to ensure that each elector listed had an equal chance of being selected. All interviews were conducted during the period 12 March 2001 to 25 May 2001. To test for non-response bias, four key variables from the sample (age, sex, marital status and economic activity) were compared with corresponding Irish census estimates. With some exceptions the characteristics of the sample are broadly similar to those of the Irish adult population. Given the broad representativeness of the sample no corrective weighting procedures were applied to the data (Urban Institute Ireland, 2001).

Di Tella *et al.* (2001) report a correlation coefficient of 0.56. However, Peiro (2006) points to happiness and satisfaction as two distinct spheres of well-being. He concludes that the first would be relatively independent of economic factors while the second would be strongly dependent. Given the lack of consensus in the literature, in the reminder of the paper we refer solely to life-satisfaction. The survey found a high life-satisfaction in general in Ireland with an average of 5.5 on the seven-point scale (see Figure 1 for the distribution among categories).

The problems of single-item measures are well known (Bertrand and Mullainathan, 2001). However, the single-item instrument employed in this paper, namely life satisfaction, has been used extensively in American, British and EU-based research and as such has the advantage of comparability with previous studies.[9]

An additional caveat and one that is rarely addressed in the econometrics of happiness literature is the issue of reverse causality. The use of panel (or longitudinal) data, where individual fixed effects can be controlled for, is one

Figure 1: *The Distribution of Life Satisfaction in Ireland (from 1 "as bad as can be" to 7 "as good as can be")*
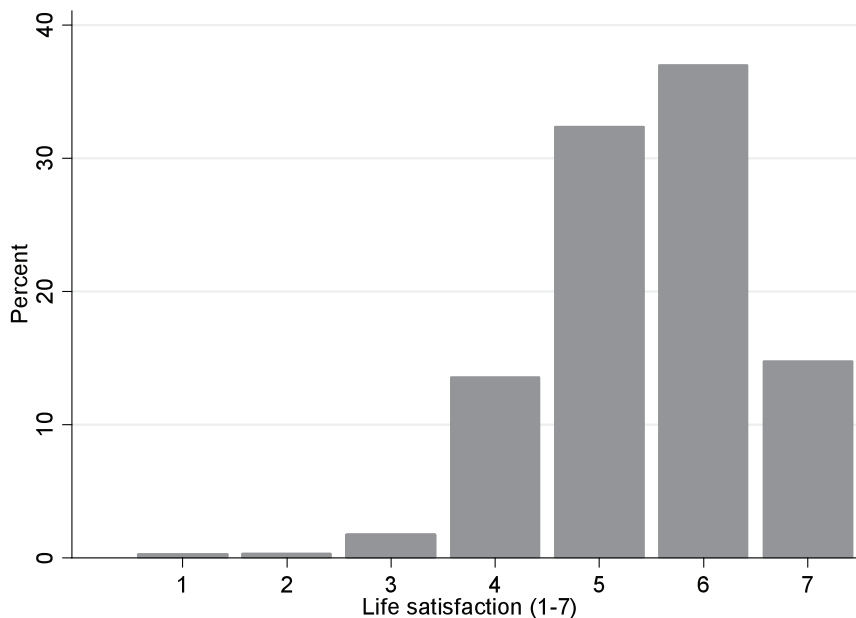
[9] In the psychology field see for example, Bradburn (1969); Freudiger (1983); Pittman and Lloyd (1988); Horwitz *et al.* (1996); Stack and Eshleman (1998). For literature in the economics field see Footnote 1.

possible solution. Gerlach and Stephan (1996), Korpi (1997) and Winkelmann and Winkelmann (1997) control for person specific fixed effects and find the coefficient on unemployment in a panel well-being equation turns out to be similar to that in a pure cross-section equation. Ferrer-i-Carbonell and Frijters (2004) find that allowing for fixed-effects regressions does not change their results substantially, while Luttmer (2005) in his study of relative income and well-being finds no evidence of selection effects. With specific reference to employment status, Frey and Stutzer (2000) conclude that "the main causation clearly runs from employment to happiness". Longitudinal analysis supports the argument that the direction of causality is from job loss to a reduced perception of well-being (see Whelan and McGinnity, 2000 for a review).[10]

As for the independent variables, the dataset includes an employment-status variable divided into ten separate categories which follow the International Labour Organisation classification (Table A1 in the Appendix): employed (self-employed, full-time employed and part-time employed), inactive (student, working on home duties, disabled, retired, those not working and not seeking work, and those on a government training scheme) or unemployed (CSO, 2006). Unemployment is further divided into two categories of those unemployed having lost or given up their job combined with those not working but seeking work, and those seeking work for the first time. This allows us to distinguish between the impacts of different types of unemployment in the analysis below. Furthermore, the categorisation used in this study i.e., the subdivision of the unemployment group in several categories, could potentially capture selection effects.

Additional individual characteristics contained in the dataset and typically employed in the literature are age, gender, educational attainment (primary, lower secondary/junior high school, upper secondary/senior high school and university degree), marital status (single, married, cohabiting, widowed and separated/divorced) and number of dependent children in the household (1, 2, 3+). As an indicator of individual health we use the number of times the respondent has visited the doctor in the past year (never or once, two to five times and six or more times a year). As a measure of material circumstances we use gross household income.[11] To adjust for the number of

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[10] We thank an anonymous referee for bringing this issue to our attention.

[11] Income (monthly) is expressed in thousands of euro. Missing values, 23.7 per cent of those interviewed, were imputed based on the respondent's socio-demographic characteristics including age, gender, marital status, education level, area inhabited and employment status. The original income variable was divided in 10 categories, so mid-points were used (as in Stutzer, 2004). The survey was carried out when Ireland was still using the Irish Pound, so we converted to euros using the fixed rate of IR£1= €1.26974.

adults and children living in the household, we divided household income by an equivalence factor based on OECD guidelines (as in Layte *et al.,* 2000).[12]

We also know the unemployment rate in the respondent's area, employing local unemployment rates (using the Irish 2002 census data), disaggregated at electoral division level.[13] The local unemployment rate varies from 4.11 per cent (in Dun Laoghaire) to 10.43 per cent (in Donegal). We also construct a dummy variable which equals 1 if the respondent is unemployed in an area with a below average unemployment rate.

2.2 *Estimation Strategy*

The results section begins with a description of the variables and the relationships between them. These descriptive statistics provide a first impression of the data, but in order to control simultaneously for socio-economic or socio-demographic variables we estimate Ordered Probit models. Also, the use of a latent variable framework will take care of measurement error in the dependent variable.

An initial regression of life satisfaction on socio-economic and socio-demographic variables (age, gender, employment status, educational attainment, number of dependent children, health, marital status and income) is estimated. This model (Model 1) is similar to that in the bulk of the published literature in this field (see, e.g., Clark and Oswald, 1994, 2002; Di Tella *et al.*, 2001; Alesina *et al.*, 2004; Stutzer, 2004; Bell and Blanchflower, 2007) where employment status is characterised as employed, unemployed, engaged in home duties, student, retired and a variable capturing all 'other' labour force status variables. This allows us to compare our results to those in the international literature. When examining the effects of employment status on well-being, one needs to control for income as this is one of the channels through which individuals are rewarded (compensated) for (un)employment. When income is included as a control variable, the coefficients on these variables measure the specific (non-pecuniary) effects (Winkelmann and Winkelmann, 1998).

Model 2 then improves upon the existing happiness literature by including those categories of labour force status not typically examined and given that

[12] This states that for every extra adult and child under 14 years of age in a household, that specific household needs 0.7 and 0.5 times the resources of the first adult.

[13] There are around 3,440 electoral divisions in Ireland which represent the smallest enumeration area used by the Irish Central Statistics Office in the collection of Census data. These areas are relatively small, particularly in the city regions and those represented in our sample range in size from 18 hectares (in cities) to 6,189 hectares (open countryside) (mean = 1,767, standard deviation = 1,538).

over one-third of working age respondents in our sample are classified as inactive, we include categories both in and out of the labour force; being part-time employed, disabled and unable to work and not working, not seeking work. We also include whether the respondent is on a government-training scheme (as in Bell and Blanchflower, 2007). Given the consensus among previous psychological and sociological studies on the importance of unemployment as a source of lower well-being (e.g., Kessler *et al.*, 1989), we expand our measure to examine whether the type of unemployment matters. In our dataset, unemployed individuals can be further characterised into those unemployed having lost or given up their job combined with those not working but seeking work, and those seeking work for the first time. This allows us to distinguish between the impacts of different types of unemployment.

In Model 3 we examine the impact of the unemployment rate on well-being (as in Clark and Oswald, 1994 and Neumark and Postlewaite, 1998), and whether it is harder being unemployed when the unemployment rate is low (as in Clark and Oswald, 2002; Bell and Blanchflower, 2007), but improve upon the existing literature in this regard by employing a measure of the unemployment rate at local level. For the employed, a higher unemployment rate might indicate a lower level of job security, which reduces well-being. For the unemployed, it might mean less opportunity to secure a new job, and hence a longer expected unemployment duration which would reduce well-being. However, there could also be a social norm effect, in the sense that unemployment is less of a stigma if there is more of it (regionally) (as shown in Clark and Oswald, 1994), and hence more local unemployment might attenuate the negative effect of individual unemployment. It may even be the case that these two effects offset each other for the unemployed.

Winkelmann and Winkelmann (1998) exclude women from their analysis as they expect significant differences in the ways in which labour market events affect male and female life satisfaction. As a precautionary measure and due to observed differences between male and female participation rates in full-time and part-time employment in Ireland, the paper also examines if the life-satisfaction effects of labour force status are conditioned by gender.[14]

[14] Between 1993 and 2001, female labour force participation increased by 62 per cent, from 434,000 to 703,000 (CSO, 2003). Also, females make up a much larger proportion of those working part-time than do males, both in absolute numbers and as a percentage of total for their gender. Part time employed males make up fewer than 4 per cent of total employed males, compared to 27 per cent of total females employed in the Irish labour force. As a percentage of the total in part-time employment, females make up 82 per cent (CSO, 2002).

III RESULTS

3.1 *Descriptive Statistics*

Table 1 outlines the sample size and associated average life satisfaction scores for each labour force status category in our survey. The following pattern emerges: the self-employed are the most satisfied, followed by the full-time employed, the retired and then students, part-time employed and homemakers. Those not working, not seeking work, the disabled and the unemployed, with life satisfaction scores on average over one category (on a seven-point scale) lower than the self-employed, are least satisfied with their lives. These are the only categories with life satisfaction scores below 5. Table 2 presents differences in mean life satisfaction scores by labour force status and the t-test results reinforce the above findings. Additionally, no statistically significant difference is found between the life satisfaction of the unemployed, the disabled or those not working, not seeking work. The latter category may be 'discouraged workers' who have given up looking for a job (Murphy and Walsh, 1996). Murphy and Walsh (1996) find that a significant number of individuals classified as inactive in Ireland are in receipt of unemployment benefit, indicating the involuntary nature of their status. However, this result should be taken with caution as the sample size is very small (only 7 respondents are not working, not seeking work).

3.2 *Model 1 – Standard Model*

The third, fourth and fifth columns in Table 3 show the Ordered Probit results from the estimation of the models. The reference groups for the independent dummy variables are in parentheses. The pseudo-R^2 of Model 1, at 0.05, is comparable with those obtained in the literature. For example, Ferrer-i-Carbonell and Gowdy (2007) in their study of subjective well-being and environmental attitudes, obtain a pseudo-R^2 of 0.088.

The results for the employment status variables indicate that respondents engaged in household activities, the unemployed and those classified as being in the 'other' category are less satisfied with life than the full-time employed. An interesting further analysis would be to examine if there are differences in the reported life-satisfaction of those full-time employed who are permanent or on fixed-term contracts as Kaiser (2002) finds a fixed-term full-time contract implies a job satisfaction loss in every country except Denmark. Unfortunately, we do not have this level of data disaggregation in the current dataset. We find no evidence showing a difference between the full-time employed, the retired and students. These results are very similar to those in the published literature. Interestingly, and in concordance with previous studies (e.g. Blanchflower and Oswald, 2004a),

Table 1: *Descriptive Statistics Based on ILO Classifications (Working Age Population 18–64 Years)*

	All			Males			Females		
	n	*Per Cent*	*Average SWB*	*n*	*Per Cent*	*Average SWB*	*n*	*Per cent*	*Average SWB*
In employment									
Self-employed	129	10	5.78 (0.82)	101	16	5.8 (0.73)	27	4	5.7 (0.84)
Full-time employed	553	42	5.61 (0.85)	347	56	5.6 (0.87)	206	30	5.7 (0.86)
Part-time employed	112	9	5.4 (1.01)	18	3	4.9 (0.72)	92	14	5.5 (1.04)
Unemployed									
Having loss or given up a job, and working, seeking work	39	3	4.4 (1.16)	25	4	4.5 (1.29)	14	2	4.4 (0.93)
Seeking work for the first time	12	1	5.33 (1.23)	7	1	5.28 (1.11)	5	0.5	5.4 (1.51)
Inactive (not in labour force)									
Not working, not seeking work	7	0.5	4.7 (0.81)	4	0.5	4.3 (0.57)	3	0.5	5 (1.00)
Homemaker	257	20	5.31 (1.01)	3	0.5	5.5 (0.57)	254	37	5.3 (1.02)
Retired	50	4	5.68 (0.92)	36	6	5.68 (0.93)	14	2	5.7 (0.94)
Student	86	6	5.5 (0.90)	48	7	5.5 (0.89)	37	5	5.6 (0.92)
Disabled	29	2	4.8 (1.31)	23	3.5	4.7 (1.28)	6	1	5.2 (1.47)
Government training scheme	16	1	5.06 (0.59)	6	1	5 (0.63)	10	2	5.11 (0.6)
Total	1290	98.5		618	98.5		668	98	

Note: Totals may not add up to 100 per cent due to missing values. Standard deviations in parenthesis.

Table 2: *t-Tests of Differences in Means (Life Satisfaction – max 7, min 1)*

	Self-employed	Full-time employed	Part-time employed	Unemp.	Home-maker	Retired	Student	Disabled	Govt. Training Scheme	Not Working, Not Seeking Work
Self-employed	–	2.13**	3.38***	7.83***	5.08***	2.55**	2.1**	5.05***	3.31***	3.27***
Full-time employed		–	2.43**	7.73***	5.13***	1.48*	0.74	4.67***	2.46**	2.70**
Part-time employed			–	4.59***	1.00	–0.81	–1.07	4.67***	1.20	1.71**
Unemployed				–	–4.45***	–5.08***	–5.47***	–1.12	–1.82**	–0.36
Homemaker					–	–2.20**	–2.15**	2.19**	0.78	1.45*
Retired						–	–0.31	2.92**	1.47*	1.80**
Student							–	3.24***	1.94**	2.29**
Disabled								–	–0.66	0.28
Government training scheme									–	1.25
Not working, not seeking work										–

Note: For all t-tests, the null hypothesis (Ho.) is that the difference between mean life satisfaction for the different categories is 0. Where the null is rejected, a positive (negative) t-statistic indicates that life satisfaction in the left hand column (top row) is higher.

Significance: *** P <0.000, ** P <0.050, * P <0.10.

unemployment is significantly negatively associated with life satisfaction. Unemployment has been found to be the primary economic source of unhappiness (Oswald, 1997) and Blanchflower and Oswald (2004a) find that to compensate men exactly for unemployment would take a rise in income of approximately $60,000 per annum.

The socio-economic and demographic results show that those with middle (lower secondary/high school) or higher education (upper secondary/high school) are more satisfied with life than are those with a lower education level. We find a similar result for those with a college education, in contrast to Clark and Oswald (1994) who find that highly educated individuals show more distress than others which they opine may be some kind of comparison effect caused by high aspirations. However, their study examines the determinants of mental health, not life satisfaction. We find no statistically significant relationship between age and life satisfaction. This is in contrast to the literature which generally finds a U-shaped association between well-being and age (see, e.g., Clark and Oswald, 1994 or Clark *et al.,* 1993). Males are less satisfied than females, while having three or more dependent children (compared to none) emerges significant and negative in the regression. With respect to health, we find that those respondents visiting their doctor two or more times a year are less satisfied with their lives than those not attending or attending only once. Being widowed, or separated or divorced emerges significant in the regression and these respondents are less likely to be satisfied with their lives than are single respondents. These results are generally in line with previous studies (such as Clark and Oswald, 1994; Blanchflower and Oswald, 2004a). However, these studies also find that married respondents report being more satisfied with their lives than single respondents. This contrasting result is not all that surprising in an Irish context however, as Ireland is a predominately Roman Catholic country with a very low divorce rate compared to most developed nations and there is still a stigma associated with divorce amongst the older generation. A referendum on divorce was passed in 1995 by a majority of less than 1 per cent, coming into law two years later and evidence suggests that living in a nation with a low rate of divorce is associated with lower levels of reported happiness among the married (Stack and Eshleman, 1998).

As predicted by the standard economic textbook utility function, our proxy for individual utility, life satisfaction, is an increasing function of income. Income emerges significant at the 1 per cent level. Given the minor affect of income on well-being in the literature (Easterlin, 1995; Oswald, 1997; Frey and Stutzer, 2000), in terms of macroeconomic policy, it might be reasonable to conclude that the maintenance of full-employment is more important than maximising incomes in a rapidly growing and rich economy (in concurrence with Oswald, 1997).

In sum, the socio-economic and demographic variables in Model 1 yield similar results to those found in, for example, Blanchflower and Oswald (2004a), Di Tella *et al.* (2001) or Frey and Stutzer (2000), namely that unemployment substantially reduces well-being, while income has a statistically significant and positive affect on it. Clark and Oswald (1994) state that if their equations accurately capture a causal link, joblessness depresses well-being more than any other single characteristic included in their regression (including important negative ones such as divorce and separation). The results in this paper concur with this statement.

Table 3: *Ordered Probit Regressions/Dependent Variable 'Life-Satisfaction' (Working Age Population 18-64 Years)*

Variable Name		*Model 1*	*Model 2*	*Model 3*
Employment status *(full-time employed)*	Unemployed (Combined)	–0.8181*** (4.39)		
	Employed	0.0024 (0.03)		
	Other employment status	–0.4183** (2.10)		
	Student	0.0980 (0.64)	0.1018 (0.67)	0.0862 (0.41)
	Retired	0.2783 (1.49)	0.2750 (1.46)	0.2776 (1.46)
	Engaged in home duties	–0.2574*** (2.62)	–0.3163*** (3.20)	–0.3147*** (2.84)
	Unemployed (Separated)		–1.0316*** (5.07)	–1.3020*** (4.64)
	Seeking work for 1st time		–0.2178 (0.58)	–0.2200 (0.59)
	Not working, not seeking work		–0.7511*** (2.82)	–0.7589*** (2.80)
	Disabled, unable to work		–0.3780 (1.13)	–0.3991 (1.00)
	On a government training scheme		–0.4257* (1.94)	–0.4353* (1.92)
	Self-employed		0.1892* (1.80)	0.1945* (1.88)
	Part-time employed		–0.2389** (2.10)	–0.2343* (1.76)
	Local unemployment rate			–0.0079 (0.28)
	Unemployed in an area of low unemployment			0.5033 (1.31)

Table 3: *Ordered Probit Regressions / Dependent Variable 'Life-Satisfaction' (Working Age Population 18-64 Years) (contd.)*

Variable Name		Model 1	Model 2	Model 3
Age		0.0043	0.0049	0.0050
		(1.34)	(1.48)	(1.19)
Gender				
(Female)	Male	–0.1021	–0.1678**	–0.1695**
		(1.52)	(2.40)	(2.02)
Education				
(Primary)	Lower secondary/Junior	0.3369**	0.3576***	0.3363*
	high school	(2.57)	(2.71)	(1.83)
	Upper secondary/Senior	0.2982***	0.2992***	0.2762**
	high school	(2.61)	(2.60)	(2.14)
	Degree	0.2396*	0.2369*	0.2165
		(1.91)	(1.88)	(1.42)
Health	2 – 5 doctor visits	–0.2546***	–0.2474***	–0.2497***
(Visited the		(3.88)	(3.77)	(2.65)
doctor 0 or 1 in	6 or more doctor visits			
the last year)		–0.3067**	–0.3010*	–0.2929*
		(2.07)	(1.92)	(1.67)
Marital Status				
(Single)	Married	0.0669	0.0491	0.0516
		(0.68)	(0.50)	(0.46)
	Co-habiting	–0.0593	–0.0671	–0.0645
		(0.36)	(0.41)	(0.31)
	Widowed	–0.4941**	–0.5336***	–0.5452**
		(2.47)	(2.64)	(2.41)
	Separated and Divorced	–0.5161***	–0.5156***	–0.4956**
		(2.70)	(2.67)	(2.56)
Number of	1 Child	0.0581	0.0815	0.0741
children in the		(0.52)	(0.72)	(0.61)
household	2 Children	–0.1233	–0.1026	–0.1081
(No children)		(1.25)	(1.04)	(1.13)
	3 or more children			
		–0.2447**	–0.2138**	–0.2180**
		(2.54)	(2.20)	(2.39)
Income	Income (1000s)	0.0171***	0.0159***	0.0157**
		(3.31)	(3.05)	(2.42)
Number of				
Observations		1266	1266	1266
Log Likelihood		–1638.79	–1631.85	–1630.28
Pseudo-R^2		0.04	0.05	0.05

Note 1: * Significant at 10 per cent level; ** significant at 5 per cent level; *** significant at 1 per cent level.
Note 2: t-statistics in parentheses computed using White's Heteroskedasticity estimator.

3.3 *Model 2 – Additional Labour Force Status Variables*

Model 2, the results of which are reported in the fourth columns of Table 3, expands the Model 1 to incorporate the additional labour force status variables not typically examined and also the influence of different types of unemployment on life satisfaction. Unemployment is divided into those seeking work for the first time, and those unemployed having lost or given up their job combined with those not working but seeking work. The revised unemployment variable (minus those seeking work for the first time) emerges significant and negatively associated with life satisfaction at the 1 per cent level, while the coefficient on seeking work for the first time is insignificant at standard statistical levels. These results indicate that the type of unemployment matters to well-being, with substantial negative effects present only for those who have previously had a job. This finding is in line with loss aversion theory (Kahneman and Tversky, 1979) which suggests that humans value a loss about twice as much as a similar gain.

The coefficient for not working, not seeking work is negative and significant at the 1 per cent level. This variable may be capturing a 'discouraged workers' effect (Murphy and Walsh, 1996), given that our specification now captures all alternative explanations for not being in the labour force (student, housewife, retired and disabled categories are considered). This result should be seen in the light of a record fall in Irish unemployment from a rate of nearly 17 per cent in 1993 to approximately 4 per cent in 2001. In a full-employment economy, it seems that being a 'discouraged worker', when everyone else appears to have a job, makes people considerably less happy. As previously stated, this result should be taken with caution as the sample size is very small in relation to the category in question and it is plausible that other effects are being captured such as mental health problems or caring responsibilities for instance.

We find that the coefficient on part-time employment emerges negative and significant compared to being full-time employed. Additionally, respondents on a government-training scheme are less satisfied with life than the full-time employed. In concurrence with Blanchflower (2004) we find that the self-employed are more satisfied with life.

3.4 *Model 3 – The Local Unemployment Rate*

The results from Model 3 are shown in the fifth column of Table 3. This model includes variables capturing the local unemployment rate and whether the unemployed are living in an area of low unemployment. We find a negative, but insignificant association between the local unemployment rate and well-being. Clark and Oswald (1994) and Di Tella *et al.* (2001) find that higher unemployment rates are associated with lower well-being, but their

studies examine the unemployment rate at the regional and national level respectively. We find that being unemployed in an area with a below average unemployment rate is positively related to the well-being of the unemployed, in contrast to Clark and Oswald (2002), but this emerges insignificant in the regression. Carroll (2007) finds that the influence of unemployment on well-being is not uniform across countries, suggesting social norms and institutional differences as contributing factors. That our results were found in the context of a full-employment economy suggests that economic trends may be further influences.

3.5 *Gender Differences*

When we disaggregate labour force status by gender, pronounced differences are observed (see Table 1). In common with the 2002 Census, significantly more males are self-employed than females, whereas more females work part-time, and females dominate household duties. We then carry out the regressions with employment status interacted with gender (Table 4) to test the hypothesis that unemployment affects a male more severely than a female and to examine the influence of part-time employment by gender. Results show that part-time employment emerges significant and negatively associated with life satisfaction only for males. The finding is interesting for males as in our sample, 85 per cent of those employed part-time are female (the figure is 77 per cent in the Irish labour force). The ILO classifies as underemployed those who are part-time employed, but are looking and available for another job and have explicitly stated that the hours currently worked are too few (CSO, 2006). It appears from the results that this might be the case for the part-time employed men in our sample. Unemployment emerges negative and significant at the 1 per cent level for both genders. T-tests (Table A2 in the Appendix) show no statistically significant difference between the life satisfaction of unemployed males and females, i.e. they are equally dissatisfied, contrary to literature from other countries which suggests that unemployment affects a male more severely (see, e.g., Blanchflower and Oswald, 2004a or Jahoda, 1982). However, Carroll (2007), in an Australian survey, finds that unemployment affects females more severely than males.

Table 4: *Interactions on Gender and Employment Status/Ordered Probit Regressions/ Dependent Variable 'Life-satisfaction'*

Variable Name		*Male*	*Female*
Employment status *(Full-time employed)*	Self-employed	0.2502**	0.1256
		(2.26)	(0.69)
	Part-time	–0.5679***	–0.0305
		(3.49)	(0.25)
	Unemployed	–0.8319***	–1.1408***
	(Separated)	(3.12)	(5.63)
	Seeking work for 1st time	–0.2229	–0.0868
		(0.57)	(0.12)
	Not working, not seeking work	–0.9980***	–0.4129
		(4.44)	(1.20)
	Engaged in home duties	0.0113	–0.1515*
		(0.03)	(1.77)
	Student	0.0567	0.2499
		(0.32)	(1.24)
	Retired	0.2225	0.6073**
		(1.05)	(2.05)
	Disabled, unable to work	–0.3888	0.0936
		(1.10)	(0.13)
	On a government training scheme	–0.4036	–0.2909
		(1.08)	(1.13)
Age		0.0043	0.0054*
		(1.34)	(1.76)
Education *(Primary)*	Lower secondary/Junior high school	0.3138**	0.3717***
		(2.43)	(2.85)
	Upper secondary/Senior high school	0.2850**	0.3315***
		(2.57)	(2.94)
	Degree	0.2744**	0.2610**
		(2.24)	(2.10)
Health *(Visited the doctor 0 or 1 in the last year)*	2 – 5 doctor visits	–0.2391***	–0.2413***
		(3.67)	(3.68)
	6 or more doctor visits	–0.3350**	–0.3949***
		(2.15)	(2.75)
Marital Status (Single)	Married	0.0324	0.0086
		(0.33)	(0.09)
	Co-habiting	–0.0726	–0.0732
		(0.46)	(0.45)
	Widowed	–0.4211**	–0.5928***
		(2.08)	(2.87)
	Separated and Divorced	–0.5034***	–0.5602***
		(2.67)	(2.88)

Table 4: *Interactions on Gender and Employment Status/Ordered Probit Regressions/Dependent Variable 'Life-satisfaction' (contd.)*

Variable Name		*Male*	*Female*
Number of	1 Child	0.0319	0.1324
children in the		(0.28)	(1.17)
household	2 Children	−0.1709*	−0.0731
(No children)	3 or more children		
		−0.2722***	−0.1987**
		(2.79)	(2.07)
Income	Income (1000s)	0.0185***	0.0211***
		(3.67)	(4.18)
Number of		1266	1266
Observations			
Log Likelihood		−1644.22	−1646.91
Pseudo-		0.04	0.04

Note 1: * Significant at 10 per cent level; ** significant at 5 per cent level; *** significant at 1 per cent level.

Note 2: t-statistics in parentheses computed using White's Heteroskedasticity estimator.

IV CONCLUSIONS

In common with the existing literature, the results presented in this paper show that employment status is an important determinant of life satisfaction. Being self-employed is found to be significantly positively associated with life-satisfaction. Less well established in the literature are the links between other labour force status categories and well-being, namely part-time employment and being a 'discouraged worker' (in the terminology of Murphy and Walsh (1996)). This paper finds that being in part-time employment has a significant negative effect on life satisfaction, particularly for males. Those who are discouraged workers in a full-employment economy tend to be even less satisfied with their lives. Consideration of these variables is important in terms of advancing our understanding of how labour force status affects well-being. Further research is required however, to investigate if the result found for discouraged workers is valid.

Additionally, we expand the analysis of unemployment on well-being. In concordance with previous results, being unemployed is negatively associated with life satisfaction, but our results show that not all types of unemployment are alike. Being unemployed having lost or given up one's job is negatively associated with life satisfaction, but those seeking work for the first time, however, report high levels of well-being, similar to those of the full-time employed. Furthermore, we find that unemployed males and females are

equally dissatisfied. In contrast to the literature, we find no negative effect of living, or being unemployed, in an area of above average unemployment and if anything, our results suggest that being unemployed in an area with a below average unemployment rate is positively related to the well-being of the unemployed. It should be noted, however, that (after a decade of falling unemployment rates) our results are found in the context of a full-employment economy.

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APPENDIX I

Table A1: *ILO Labour Force Classification*

Labour force type		
ILO Labour Force Classification	In employment	Persons who worked in the week before the survey for one hour or more for payment or profit, including work on the family farm or business and all persons who had a job but were not at work because of illness, holidays etc. in the week.
	Unemployed	Persons who, in the week before the survey, were without work and available for work within the next two weeks and had taken specific steps, in the preceding four weeks to find work.
	Inactive population (not in Labour force)	All other persons.
Participation, employment and unemployment rates	Participation Rate	The Participation Rate is the number of persons in the labour force expressed as a percentage of the total population aged 15 or over.
	Employment Rate	The employment rate is the number of employed aged 15 to 64 years expressed as a percentage or the total population aged 15–64 years.
	Unemployment Rate	The unemployment rate is the number of unemployed expressed as a percentage of the total labour force.
Labour force		The labour force comprises persons employed plus unemployed.
Duration of unemployment		The duration of unemployment is the length of time since a person last had a job or began looking for work, whichever is more recent. The long-term unemployment rate is the number of persons unemployed for one year or more expressed as a percentage of the total labour force.
Underemployment		In the LFS and in the first two quarters of the QNHS, a person who had a part-time job was classified as underemployed if he/she was looking and available for another part-time job or a full-time job. Underemployed is based on a question relating to the respondent's satisfaction with their current hours.

Source: CSO (2006).

Table A2: *t-tests of Differences in Means (Life Satisfaction Scores – Max 7, Min 1) Inter Gender Differences*

Female / Male	Self Emp.	Full-time emp.	Part-Time Emp.	Unemp.	Home Maker	Retired	Student	Disabled	Gov train sch.	Not Working, Not Seeking Work
Self-employed	**0.89**	1.44*	2.56***	5.72***	4.90***	1.05	1.22	1.77**	2.47***	1.66**
Full-time employed	–0.51	**–1.35***	0.92	4.82***	4.02***	–0.58	–0.29	1.12	1.59*	1.14
Part-time employed	–3.24***	–3.63***	**–2.07***	1.75**	–1.35*	–2.44	–2.72***	–0.49	–0.59	–0.11
Unemployed	–3.96***	–6.15***	–3.86***	**0.23**	–3.47***	–3.91***	–3.91***	–1.07	–1.30	–0.61
Homemaker	–	–	–	–	–	–	–	–	–	–
Retired	–1.09	–2.37***	–0.35	3.28***	1.33*	**–1.26**	–0.98	0.71	0.85	0.66
Student	–0.92	–1.48*	0.05	3.38***	1.29*	–0.84	**–0.71**	0.74	1.17	0.89
Disabled	–3.18***	–4.84***	–2.89***	0.78	–2.37***	–3.08***	–3.08***	**–0.70**	–0.82	–0.33
Government training scheme	0.00	–1.98**	–1.10	1.35*	–0.65	–1.35*	–1.58*	–0.25	**–0.34**	0.00
Not working, not seeking work	–3.04	–2.79***	–1.88**	–0.16	–1.59*	–1.95**	–2.36**	–0.91	–1.95**	**–1.00**

Note: Males – left hand column, females – top row. For all t-tests, the null hypothesis (Ho.) is that the difference between mean life satisfaction for the different categories is 0. Where the null is rejected, a positive (negative) t-statistic indicates that male (female) life satisfaction is higher.

Significance: *** P <0.000, ** P <0.050, * P <0.10.

Table A3: *Variable Listing – Socio-economic and Socio-demographic Variables*

Variable Name	Description	String
Socio economic and demographic variables		
Self-reported well-being	Thinking about the good and bad things in your life, can you say which of these answers best describes your life as a whole? Answers ranged from 'as good as can be' to 'as bad as can be'.	Discrete (1-7)
Age	Age of respondent	Continuous.
Gender	Male/ female.	Dummy
Employment status		
Working full-time	Respondent works full-time.	Dummy
Retired	Respondent is retired.	Dummy
Engaged in home duties	Respondent is a homemaker.	Dummy
Student	Respondent is in full-time education.	Dummy
Seeking work for 1st time	Respondent is seeking work for the 1st time.	Dummy
Unemployed	Consists of those not working, seeking work and those unemployed having lost or given up their job.	Dummy
Not working, not seeking work	Respondent is not working, not seeking work.	Dummy
Self-employed	Respondent is self-employed.	Dummy
Working part-time	Respondent works part-time.	Dummy
Government Scheme	Respondent is on a government training/ education/employment scheme.	Dummy
Permanently unable to work	Respondent is unable to work due to permanently illness or disability.	Dummy
Education		
Primary	Respondent has just primary (no secondary) education.	Dummy
Lower Secondary	Respondent has a lower secondary education (Junior/Group/Inter).	Dummy
Upper Secondary	Respondent has a technical or vocational qualification, or the Leaving Certificate or both of these.	Dummy
Third level	Consists of non-degree, primary degree, professional qualification, both of these and post-graduate degree.	Dummy

Table A3: *Variable Listing – Socio-economic and Socio-demographic Variables (contd.)*

Variable Name	Description	String
Health		
0-1 doctor visits	In past year, respondent has visited doctor never or once	Dummy
2-5 doctor visits	In past year, respondent has visited doctor 2 to 5 times	Dummy
6 or more doctor visits	In past year, respondent has visited doctor 6 or more times	Dummy
Income	Gross household income/ 1000	Continuous
Marital Status		
Single	Respondent is single (never married)	Dummy
Married	Respondent is married	Dummy
Cohabiting	Respondent is cohabiting	Dummy
Separated/ Divorced	Respondent is separated/ divorced	Dummy
Widowed	Respondent is widowed	Dummy
Number of dependent children		
No Children	Respondent has no dependent children	Dummy
1 child	Respondent has 1 dependent child	Dummy
2 children	Respondent has 2 dependent children	Dummy
3 or more children	Respondent has 3 or more dependent children	Dummy

Note: Comparison dummy variable for each category in parenthesis

Table A4: *Descriptive Statistics – Dummy Variables (18–64 Years)*

Variable	n	Per cent
Well-being		
As good as can be	179	13
Very good	505	39.5
Good	422	33
Alright	157	12.5
Bad	18	1.5
Very bad	4	0.3
As bad as can be	3	0.2
Gender		
Male	616	47.5
Female	682	52.5
Marital Status		
Single (never married)	481	37
Married	699	54
Co-habiting	36	2.5
Separated or divorced	45	3.5
Widow	31	2.5
Children		
No children	732	56.5
1 child	119	9
2 children	231	18
3 or more children	216	16.5
Education		
Primary	106	8.5
Lower secondary	240	19
Upper secondary	657	52.3
Degree	249	20
Health (Doctor visits)		
Never or once	798	61.5
Two to five times	400	31
Six or more times	99	7.5