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The wellbeing of the young

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0. Introduction

Youth unemployment has risen rapidly around the world during the Great Recession. There are many similarities to what happened during the recession of the 1980s.¹ While labour markets were booming in the early part of this century, youth unemployment was still a concern. But the particularly rapid increase in youth unemployment during the current recession has once again sharpened the policy focus on this issue.

The OECD, for example launched a review on Jobs for Youth in sixteen countries - Australia, Belgium, Canada, Denmark, France, Greece, Japan, Korea, the Netherlands, New Zealand, Norway, Poland, the Slovak Republic, Spain, the UK and the USA, with proposals for reform.² These recommendations are principally on the supply side, concentrating on bringing the education system closer to the labour market. This makes sense in the longer term but the major issue has been the fact that the demand for labour has collapsed.

Firms in many countries have hoarded labor reducing hours, sometimes with the assistance of government subsidy, such as in Germany. Wages have also been flexible downwards. Plus there have been public sector hiring freezes at the start of the recovery as countries such as the UK moved toward withdrawing the various stimuli. All of this has had the effect of lowering the demand for youngsters newly entering the labour market. For example, in the UK, in the two year period from April-June 2008 and April-June 2010 total employment fell by 636,000; employment of 16-17 year olds fell by 140,000 while that of 18-24 year olds fell by 238,000. So nearly 60% of the job loss was amongst those under the age of twenty five, despite the fact that in 2010 they only account for 13% of total employment.

The sensible response from young people has been to return to education and training as the job option is less of an option than in the past. For example, applications to university in the UK were up 11% but the new coalition government actually cut the number of places. The likelihood is that more than 150,000 will be turned away. The alternative of apprenticeships look attractive but there are few places available. British telecom announced in August 2010 that it had received 24,000 applications for 221 places - up from 9000 the year before. This is more applications than were received by the University of Oxford (17,882) or the University of Cambridge (16,211). As we note below, students are especially *happy*.

This paper focuses initially on how youth *unemployment* has increased across countries at a time when the size of the youth cohort in many countries is larger than it has been for many years, and is larger than it will be for at least another decade. This is of particular importance in Russia, Latvia, Lithuania, Armenia and Moldova where the number of young people is set to approximately halve in a decade. The UK and Austria are going to see the number of twenty year olds fall by a fifth. In contrast, Ireland, Denmark and the

¹ See Freeman and Wise (1982) and Blanchflower and Freeman (1996, 2000).

² www.oecd.org/employment/youth

Netherlands will actually experience a rising youth cohort. The United States will see little change.

It is too early in the recession to determine what long-term impact the Great Recession is going to have on young people's working lives (Bell and Blanchflower, 2010a, 2010b). The question is whether the fact that so many of them are currently struggling to get a toe-hold in the labour market will damage them permanently. Time will tell. This paper should be considered an interim report. Here I report on the latest data on how young people are *feeling*. As we will discuss in detail below feelings of unhappiness and sadness predict poor outcomes in the future.

In this paper I examine young people's well-being and compare them to older groups. In particular I examine self-reported measures of happiness and life satisfaction in the United States, Europe and the UK. I make use of recent micro-data from the Behavioral Risk Factor Surveillance System survey and the General Social Surveys for the United States, the Eurobarometer surveys for Europe and the British Household Panel.

It is clear from these data that unemployment lowers happiness and there is some evidence to suggest that youth happiness declined with the onset of recession. I also find evidence that students are especially happy. Education looks like a good alternative to unemployment.

I then move on to look at various dimensions of job satisfaction of young workers, including pay, hours and job security using micro-data from the European Quality of Life Survey for 2009 in addition to the surveys described above. Young people enjoy their jobs and show high levels of job satisfaction.

Finally, I examine the responses of youngsters under the age of twenty five from a survey conducted in December 2009 by The Prince's Trust. I find evidence that young people who are neither in education, employment or training (NEETs) have very low levels of well-being on a large number of measures. It is apparent from this survey that joblessness while young has lowered individual's well-being to the point that they feel lonely, anxious, down and depressed, lost, isolated, unloved, rejected, sad, lacking direction, without hope and even suicidal. This is devastating.

In the first section we outline the major developments in the youth labour market around the world including a discussion of the strikingly large size of the youth cohort that is contributing to the problem. The second section examines happiness and life satisfaction. The third looks at the satisfaction of workers and the fourth at the a number of unhappiness measures in the UK. The final section draws conclusions.

1. The youth labour market.

The young, have been particularly hard hit, by the rising levels of unemployment associated with this recession, in both Europe and North America. **Table 1** shows the rise in youth unemployment rates from June 2008 to June 2010. The table presents unemployment rates for young people under the age of twenty-five and those twenty-five

and older. It is noticeable that youth unemployment rates have risen sharply in Cyprus (+10.8pp), Estonia (+31.4pp), Ireland (+15.2pp), Italy (+10.1pp), Latvia (+28.9pp), Lithuania (+23.9pp), Slovakia (+15.7pp) and Spain (+16.1pp) over this period. Currently youth unemployment rates for the under 25s in the EU27 are 20.3% and 18.2% in the United States respectively. They are especially high in Spain (40.3%), Estonia (39.8%) and Latvia (39.5%). They are everywhere higher than adult rates.

The final two columns give the ratio of youth to overall unemployment rates. Youth rates are more than three times adult rates in Austria, Belgium, Cyprus, the Czech Republic, Finland, Greece, Italy, Luxembourg, Norway, Romania, Sweden and the UK. The ratio has jumped markedly in Austria, Cyprus, the Czech Republic, Latvia and Slovakia, but has fallen sharply in several such as Denmark, France, Luxembourg, Romania, Slovenia and especially Sweden.

Youth unemployment rates tend to be especially high among young men, the least educated and minorities. (Bell and Blanchflower, 2010b, c). Bell and Blanchflower (2011) provide evidence to suggest that young people in the UK, have not only experienced rising levels of unemployment, but even where they are working they are underemployed. We found that young workers in the Great Recession were more likely than other age groups to express a preference to work more hours. We found that they were more likely to be in a part-time job because they said that 'no full-time job was available'. Young workers are especially likely to say they are in a temporary jobs because 'no permanent ones are available' and are also more likely to say they would prefer a permanent one. We also found evidence of discouraged workers among the young - youngsters in the UK who were out of the labour force were also more likely than other age groups to say they wanted a job.

Table 2 provides one major explanation for the rise in youth unemployment. The youth cohort is especially large at a time when the labor market is in the doldrums. The table shows the size of four single age cohorts in comparison to the size of the cohort of twenty year olds, which for simplicity is set to 100. In some countries twenty five year olds are the largest group while for others, the maximum occurs at a different age. We find that

a) In some Western countries the number of twenty year olds is greater than the number of twenty five year olds. Examples are the UK, Sweden, the Netherlands, Italy and Denmark that have very high youth unemployment rates. So the timing of the peak in the size of the youth cohort varies by country.

b) Significant exceptions to this finding are evident in Eastern Europe (Armenia, Belarus, Estonia, Georgia, Latvia, Lithuania, Moldova, Romania, Russia and the Ukraine) where the number of twenty year olds is well below the number aged twenty five, that have declining birth rates and hence aging populations.

c) The size of the youth cohort will quickly collapse, especially in Eastern Europe, especially in Russia, Lithuania, Latvia, Armenia and Moldova.

d) The decline in the size of the cohort is less marked in the United States, which has experienced considerable immigration, who tend to be young and have children. The other major exceptions are the Netherlands, Ireland and Denmark.

Thus, over the next five years, based on the current number of fifteen year olds, there will be a sharp decline in the number of twenty year olds in many countries. Progressively shrinking cohorts will have even more dramatic effects on the number of entrants to the labour market in ten and fifteen years time. In ten years time in the Euro area the number of twenty year olds is projected to have dropped by twelve percent.

The worry is that these high levels of unemployment amongst the young can have long lasting and harmful consequences, not just in terms of the lost output, but permanently, scarring the youngsters for ever. The fear is that this large cohort could become a 'lost generation'. There is a large academic literature supporting such a possibility.

In an important early contribution Ellwood (1982) examined the persistence and long-term impacts of early labor force experiences. The paper reports a rise in employment rates for a cohort of young men as they age, but points out that those persons with poor employment records early have comparatively poor records later. The paper found that the effects of a period without work do not end with that spell. A teenager who spends time out of work in one year will probably spend less time working in the next than he would have had he worked the entire year. Furthermore, the lost work experience Ellwood concluded was reflected in considerably lower wages. The reduced employment effects Ellwood examined appeared to die off very quickly. What appeared to persist were effects of lost work experience on wages.

More recently Mroz and Savage (2006) reached a similar conclusion using data from the NLSY for the US and also found evidence of long-lived blemishes from unemployment. A six month spell of unemployment at age 22 would result in an 8 per cent lower wage at 23 and even at ages 30 and 31 wages were 2-3 per cent lower than they otherwise would have been. Fairlie and Kletzer (1999) also using data for the US estimate that for young unemployed workers the costs of job loss in terms of annual earnings are 8.4% and 13.0%, for boys and girls, respectively.

Gregg and Tominey (2005) found using data from the NCDS for the UK that there was a significant wage penalty of youth unemployment even after controlling for education, region and a wealth of family and personal characteristics. Their results suggested a scar from youth unemployment of 13-21% age 41 although this penalty was lower at 9-11% if individuals avoid repeat exposure. Gregg (2001) also used NCDS data to show that unemployment experience up to the age of 23 drives unemployment in subsequent years.

Arulampalam (2001) found that joblessness leaves permanent scars on people and reduces the probability of employment and future earnings and increases the risk of future unemployment. She found that a spell of unemployment carries a wage penalty of 6% on re-entry in Britain, and after three years, they are earning 14% less compared to

what they would have received absent unemployment. Arulampalam et al. (2000) also found evidence of unemployment persistence, especially for young men.

Narendranathan and Elias (1993) also find evidence of state dependence and report that 'the odds of becoming unemployed are 2.3 times higher for youths who were unemployed last year than for youths who were not unemployed' (p.183). Arulampalam et al. (2001) report that the best predictor of an individual's future risk of unemployment is his past history of unemployment. They find that unemployment has a scarring effect for both future unemployment and future earnings. In addition Burgess et al. (1999) find that unemployment while young raises the probability of subsequent unemployment, but the size of any effect varies by skill level.

Blanchflower and Bell (2010) show, using data from the National Child Development Study to examine four outcomes in 2004/5 when the respondents were aged 46-47 years a) life satisfaction b) self-reported health status and two for workers only c) job satisfaction and d) (log of) gross weekly wages in 2004/5 in NCDS7. The issue is whether a period of unemployment when young has lasting effects; it turns out that it does. Spells of unemployment before the respondent was twenty-three lowered life satisfaction, health status, job satisfaction and wages over twenty years later.

There is new evidence that even youngsters who choose to go to college or university are hurt if they enter the labour market during a recession. Lisa Kahn (2010) has recently shown that the labour market consequences of graduating from college in a bad economy have large, negative and *persistent* effects on wages. Lifetime earnings are substantially lower than they would have been if the graduate had entered the labour market in good times. Furthermore, cohorts who graduate in worse national economies tend to end up in lower-level occupations.

Work by Giuliano and Spilimbergo (2009) suggests that the period of early adulthood (between 18 and 25) seems to be the age range during which people are more sensitive to macroeconomic conditions. They found that being exposed to a recession before age 17 or after age 25 has no impact on beliefs about life chances. However, youngsters growing up during recessions tend to believe that success in life depends more on luck than on effort; they support more government redistribution, but have less confidence in public institutions. Recessions seem to adversely effect youngsters' beliefs.

In summary, the recession has reversed recent reductions in youth unemployment in the developed world. Like other groups on the margins of the labour market, the young tend to experience particularly high rates of unemployment during recessions. The current experience fits this pattern. However, the youth cohort is diminishing in size in most countries, suggesting that, in the future, excess supply of younger workers is less likely to be problematic.

The question we address in the next section is how much damage has been done.

2. The overall wellbeing of the young

In this section we examine the evidence on the wellbeing of the young in a period of rising youth unemployment. To do so we examine responses from a number of surveys based on individual's self-reports on their well-being, usually in response to a question relating to their happiness or to how satisfied they are with how their lives have turned out. We later supplement these questions with additional questions relating to sadness, isolation, depression and other attitudes including thoughts of suicide.

Data on happiness and life satisfaction in particular are now available for many countries and for a large number of time periods. There have been a number of recent surveys of the happiness literature including Clark et al (2008); Frey and Stutzer (2002a, b) and Di Tella and MacCulloch (2006) which provide discussions of the relevant issues. As a simple validation, it turns out that the answers to happiness and life satisfaction questions are well correlated with a number of important factors (for references see Di Tella and MacCulloch, 2007).

1. Objective characteristics such as unemployment.
2. Assessments of the person's happiness by friends and family members.
3. Assessments of the person's happiness by his or her spouse.
4. Heart rate and blood-pressure measures of response to stress.
5. The risk of coronary heart disease
6. Duration of authentic or so-called Duchenne smiles. A Duchenne smile occurs when both the zygomatic major and orbicularis oris facial muscles fire, and human beings identify these as 'genuine' smiles (see Ekman, Friesen and O'Sullivan (1988) and Ekman, Davidson and Friesen, (1990)).
7. Skin-resistance measures of response to stress.
8. Electroencephelogram measures of prefrontal brain activity.
9. Healing is faster in happier people (Ebrecht et al., 2004).

There have been a number of recent surveys of the happiness literature including Clark et al (2007); Frey and Stutzer (2002a, b) and Di Tella and MacCulloch (2006) which provide discussions of the relevant issues. Happiness and life satisfaction data are easy to obtain at the macro level as the data are downloadable from the World Database of Happiness for over 100 countries. There are now also many micro surveys of individuals available to researchers.

Most surveys now use one or more of these three fairly simple questions, two on life satisfaction and one on happiness which typically take the following format.

Q1. 3-step happiness – e.g. from the US General Social Survey (GSS).

"Taken all together, how would you say things are these days – would you say that you are not too happy, pretty happy or very happy?"

Q2. 4-step life satisfaction 1 – e.g. from the European Eurobarometer Surveys.

"On the whole, are you not at all satisfied, not very satisfied, fairly satisfied, or very satisfied with the life you lead?"

Q3. 4-step life satisfaction 2 - e.g. from the US Behavioral Risk Factor Surveillance System (BRFSS).

"In general, how satisfied are you with your life - very dissatisfied, dissatisfied, satisfied or very satisfied?"

The standard econometric approach taken by economists is to use micro data on happiness and/or life satisfaction to estimate an ordered logit or an Ordinary Least Squares (OLS) regression with the coding such that the higher the number the more satisfied an individual is (e.g. Blanchflower and Oswald, 2004). Generally, it makes little or no difference if you use an OLS or an ordered logit: we choose to use OLS here for ease of exposition. The results are similar – but not identical – for happiness and life satisfaction. In this section we are going to present results for the United States, Europe and the UK. What stands out is the similarity in the correlates of happiness in all three places.

The structure of a happiness equation has the same general form in each industrialized country (and possibly in developing nations, though only a small amount of evidence has so far been collected). In other words, the broad statistical patterns look the same in France, Britain and the United States. As Di Tella and MacCulloch note "well-being equations, (where happiness and life satisfaction scores are correlated with the demographic characteristics of the respondents) are broadly “similar” across countries, (is) an unlikely outcome if the data contained just noise" (2007, p.9)

There is some evidence that the same is true in panels of people (that is, in longitudinal data). Particularly useful evidence comes from looking at windfalls, like lottery wins. There is adaptation. Good and bad life events wear off, at least partially, as people get used to them. Relative things matter a great deal. First, in experiments, people care about how they are treated compared to those who are like them, and in the laboratory will even pay to hurt others to restore what they see as fairness. Second, in large statistical studies, reported well-being depends on a person’s wage relative to an average or ‘comparison’ wage including Blanchflower and Oswald (2004); Ferrer-i-Carbonell (2005); Di Tella et al (2005) and Luttmer (2005).

Oswald and Wu (2010) found that well-being data contain genuine information about the quality of people's lives. That of course helps to validate the qualitative happiness data.

They found that the happiness data by US state were well correlated with objective qualitative quality of life rankings such as sunny days, clean air, violent crime, commuting time, 'greenness' etc.

Unemployment lowers happiness and by a lot. Blanchflower and Oswald (2004) found that to compensate US men exactly for unemployment would take a rise of income of \$60,000 per annum. At the aggregate level unemployment lowers happiness twice as much as inflation does (DiTella et al 2001; Blanchflower, 2007). It also appears that unemployment not only lowers the happiness of those who are unemployed but also the happiness of everyone else. In part because they know people who are unemployed but also because of the fears that they or their loved ones may become unemployed at some point in the future.

For the United States there seems to be relatively little evidence that despite rising affluence, happiness or life satisfaction have trended up much over time (Blanchflower and Oswald (2004). For example, in the 2008 GSS, 15.7% of respondents said they were not too happy, 54.6% pretty happy and 29.8% very happy. In 1972, the first year happiness data are available the numbers were 16.5%, 53.2% and 30.3% respectively. The picture is rather more mixed among European countries (Blanchflower, 2009).

The evidence for Europe also shows little improvement in happiness over time averaged over the 1990s; 2000-2007 and then for the last two years of data that cover the onset of recession. A few illustrative numbers are presented below, where I group European countries together to ensure adequate sample sizes and simply report the average score from Q2 above with 1=not at all satisfied; 2=not very; 3=fairly and 4=very satisfied. These numbers are obtained from the European *Eurobarometer* surveys we will use below. plus I report separate results for the young under twenty five and for the older group..

	1990s	2000-2007	2008+2009
All	3.38	3.39	3.41
All<25	3.13	3.11	2.98
All≥25	3.01	2.96	2.83
PIIGS <25	3.01	3.05	2.84
PIIGS ≥25	2.81	2.84	2.67
West <25	3.20	3.19	3.30
West ≥25	3.10	3.17	3.22
East <25		2.96	2.87
East ≥25		2.59	2.58

PIIGS=Portugal, Greece, Italy, Spain and Ireland

West=France, Germany, Austria Belgium, Denmark, Finland, France, Germany, Luxembourg, Netherlands, Sweden and the UK.

East=Czech Republic, Hungary, Poland, Slovakia, Latvia, Lithuania, Slovenia, Bulgaria, Romania, Croatia and Estonia

It is clear that there has been a recent drop in satisfaction outside the twelve larger Western countries. Happiness among the young has dropped sharply in both Eastern and Southern Europe where unemployment rates in general and youth rates in particular are high (Table 1).

There is a growing body of research using such happiness data that finds that young people are especially happy. This is true no matter how the question is asked - be it as happiness or life satisfaction - or which country is examined or what response options are provided. Indeed, it appears that there is a U-shape in age in happiness equations across countries (Blanchflower and Oswald, 2008, 2009). This U-shape pattern in age is illustrated in Table 3 for the United States which estimates an Ordinary Least Squares (OLS) data life satisfaction using Q3 above from the BRFSS surveys of 2005-2008 in columns 1 and 3 and the 2009 survey in columns 2 and 4.³ In total there are approximately 1.8 million observations. In what follows we always set the variable such that a higher score means happier so a positive coefficient implies more happiness. Separate results are available overall in the first two columns and for youngsters under age twenty-five in the last two columns.

Finding #1. The young are happy

Money does buy happiness for both young and old. Consistent with the findings of Clark and Oswald (1994) and Winkelmann and Winkelmann (1998) and others, unemployment lowers happiness. The U-shape is shown by the positive coefficient on the age variable alongside the negative on the age squared coefficient. Satisfaction falls from 18 years of age, minimizing at age 39 in both column 1 and column 2. We excluded the age squared term in column 4 as it was insignificant. In column 3 happiness declines with age as the minimum is well outside the range of age observations, but wants to be non-linear.

Consistent with the findings of the growing body of empirical evidence on happiness there are a number of consistent patterns in the data.

Overall well-being is higher among:

The young and the old – U-shaped in age

Women

Blacks

Hispanics

Married people

The highly educated

Those with high income

Those who take exercise

The self-employed

Those without children

Well-being is lower among:

³ Details of the surveys and downloads of the BRFSS data are available at www.cdc.gov/brfss. Note that the 2008 survey has a few observations present from 2009.

Separated people
Adults in their mid to late 40s
The unemployed
The less educated
The poor
Smokers
The overweight

In columns 3 and 4 the exercise is repeated for nearly 70,000 youngsters under the age of twenty five. The above patterns hold with two major exceptions. First, young blacks are less happy than young whites. Second, young men are happier than young women, from 2005-2008 but this seems to have disappeared in the 2009 data, although this is derived on a much smaller sample. Young people with higher incomes are happier. Interestingly, the coefficients on both the short-term unemployment variable and the 'unable to work' variables had larger negative coefficients in 2009 than in the earlier period.

Being unemployed for a young person has a bigger hit to happiness as moving from an income of \$15,000 to \$20,000 a year to one of over \$75,000 a year. This is based on a comparison in column 4 of the coefficient on being unemployed for up to twelve months (-.162) compared with moving from .027 to .153 on the two income variables.

Finding #2. The hit to happiness from unemployment is big for the young.

Of note is the fact that *students are the happiest group of young people* based on the significant coefficients of .05 in column 3 and .03 in column 4. Students are happier than employees, holding constant income. So the happiest youngster in the US are students with higher incomes, college graduates, those who take exercise, are married, not overweight, non-smokers.

Table 4 estimates happiness equations using the US General Social Surveys that were previously used by Blanchflower and Oswald (2000, 2004a, 2004b). This series has the advantage that a long time run of data, which is available from 1973, although it has the disadvantage that sample sizes each year are small, averaging under 2,000 observations a year. In the table happiness equations are estimated overall and for those under the age of twenty-five based on the Q1 3-step happiness question above. Consistent with the results in **Table 3** unemployment lowers happiness which is U-shaped in age once again. Marriage and the number of adults in the household and income increases happiness. Living with a single parent at the age of sixteen because the parents had divorced continued to lower happiness years later for adults as reported by Blanchflower and Oswald (2004). Young men are less happy than young women and young blacks are less happy than young whites. In contrast to the evidence from Table 3, blacks are less happy overall than whites. The reason for the difference in findings between the two surveys is unexplained currently

I included a time trend in the equations and, in contrast to Blanchflower and Oswald (2000) who found an upward trend in happiness for the young, who from 1973 to 1993,

this has now disappeared with the longer run of data. I replaced the time trend with a set of year dummies, making the year with the highest level of happiness - 1988 - the excluded category. Note the large negative coefficients on the 2008 dummy, especially for the young. Both overall and for the young happiness appears to have dipped in 2009 with the onset of recession, and markedly so for the young. So young people's happiness in the US has dipped with the onset of recession.

Table 5 estimates for an unbalanced panel of 32 European countries for the period 1975-2009 using data from a series of Eurobarometers. The coverage of the countries varies depending on when they joined the EU. It also includes several former Soviet bloc countries. It estimates life satisfaction questions using Q2 above, which are reported for all age groups in column 1 and for those aged 15-24 in column 2. As in the USA, happiness is also U-shaped in Europe minimizing at age 47, so youngsters are especially happy. Women are happier than men and married people are especially happy as are students. Unemployment lowers happiness. The correlates of happiness for the young are strikingly similar to the overall pattern. Just as in the United States students are the group that reports the highest levels of happiness - well above those in jobs.

Finding #3. Students are especially happy.

Of particular interest are the country rankings. It is well established in the literature that the Danes and the Dutch are especially happy and the Bulgarians and Romanians are the most unhappy and this is replicated in **Table 5**. Country rankings are reported below for all ages and for the young. The pattern is virtually identical with the one major exception of young people in Croatia who are higher in the rankings than is true overall. Young people are happiest in Denmark and least happy in Eastern Europe.

	Overall	<age 25		Overall	<age 25
Austria	11	12	Lithuania	29	23
Belgium	9	11	Luxembourg	5	5
Bulgaria	32	32	Macedonia	27	29
Croatia	20	14	Malta	13	13
Cyprus	12	6	Netherlands	2	2
Czech Republic	16	16	Norway	3	3
Denmark	1	1	Poland	21	17
Estonia	23	22	Portugal	24	24
Finland	8	7	Romania	31	31
France	18	20	Slovakia	26	27
Germany	15	19	Slovenia	10	8
Greece	25	25	Spain	14	15
Hungary	30	30	Sweden	4	4
Ireland	6	9	Turkey	17	18
Italy	19	21	Turkish Cyprus	22	26
Latvia	28	28	UK	7	10

Finding #4. Young people are happiest in Denmark and Holland and least happy in Eastern Europe.

Of note in [Table 5](#) also is the fact that, as in the USA, the levels of well-being have fallen a good deal from the high point they reached in 2007, which is the excluded year in the regressions. The 2009 dummy has a coefficient of -.048 in the first column and -.11 in the second suggesting the impact of the recession has had a major impact on the happiness of the young.

Finding #5. The happiness of the young has fallen with the onset of recession.

Column 1 of [Table 6](#) reports the results of estimating a 7-step life satisfaction equation for Great Britain using data from wave 18 of the British Household Panel Survey undertaken between September 2008 and April 2009. The respondent was asked the following question

Q4. Here are some questions about how you feel about your life. Please tick the number which you feel best describes how dissatisfied or satisfied you are with the following aspects of your current situation - your life overall. where 1=not satisfied at all and 7=completely satisfied.

Even though this is a slightly different formulation of the life satisfaction than used in [Table 3](#) and [Table 5](#) the broad patterns in the data are very similar once again. Happiness is U-shaped in age, is higher for the more educated, those with higher incomes and non-smokers. It is low for the separated, those with no qualifications and smokers. especially low for the unemployed. Due to the relatively small number of observations on the young we do not report a separate equation for the young but simply interacted the youth dummy with the unemployment rate but found no significant difference from the overall effect.

Column 2 of [Table 5](#) now moves on to estimate a GHQ score, which is a psychological morbidity score, where the acronym comes from the General Health Questionnaire. It is a well-known multi-item measure that has been used in hundreds of studies. It is made up of twelve components about sleep quality, confidence, happiness etc (Goldberg et al, 1997 and Cardozo et al, 2000). These measures are known to be measures of positive mental well-being and not merely of psychiatric illness. Each component is scored from 0 to 3 and then summed giving an index with values between 0 and 36, where a higher score suggests greater unhappiness (Hu et al, 2007).

So the GHQ score should be thought of as a measure of unhappiness and consistent with that it appears to be close to being the inverse of the life satisfaction equation in the first column. Unhappiness follows an inverted U-shape. The unemployed are especially unhappy as inevitably, are the long-term sick. The youth interaction term was once again insignificant. Income lowers unhappiness. So the young are less unhappy than older age groups. Unhappiness maximises at around age 50. Men have significantly lower GHQ

scores than women, which contrasts with the finding of no difference for life satisfaction, so something slightly different is being picked up here.

The final column estimates a 'strain' equation using one of the twelve component variables of the GHQ score. The question asked is

Q5. Have you recently felt constantly under strain - not at all; no more than usual; rather more than usual and much more than usual?

The results broadly confirm the findings from the GHQ score and are consistent with the findings in the first column on life satisfaction. Strain follows an inverse U-shape maximizing in middle age, is lower for men and lower for those with higher income and more education.

The results on unhappiness seem to validate the findings from the happiness and life satisfaction equations.

The main finding from this section is that young people are especially happy. But unemployment hits them just as hard, measured by their self-reported well-being, as for other age groups. We did find evidence though that happiness has fallen recently with the onset of recession, and especially so for the young. Unemployment hurts.

3. Job satisfaction and job security

In this section we examine worker's well-being at the workplace and compare young workers with their peers. We examine, how satisfied are young people with their jobs and has that changed in this recession?

Early papers by economists on job satisfaction include Borjas (1979), Freeman (1978) and Hamermesh (1977), Clark (1996) and Blanchflower and Oswald (1999) across countries. More recently Green and Tsitsianis (2005) examined trends in job satisfaction in the UK and Germany, Bryson et al (2009) examined the relation between job satisfaction and union status while Clark et al (2009) used matched employer-employee data to show that job satisfaction is higher when other workers in the same workplace are higher paid. Booth and Van Ours (2008) examined job satisfaction for women and found they preferred part-time work using the BHPS. However, relatively little has been written explicitly on the job satisfaction of the young.

Here I examine a number of dimensions of the work environment across a variety of countries using a number of data sources. I start with **Table 7** which makes use of data once again from the General Social Surveys to estimate job satisfaction equations for a sample of workers only, and we impose that restriction on all of the equations to follow. The equations updates results reported in Blanchflower and Oswald (1999) using the same source. The equations include controls for union status, part-time, age education as well as a time trend. Column 2 adds the log of earnings while column three adds several controls relating to the individual's perceptions of whether they expect to lose their job

over the next twelve months, or if they left whether they could find a comparable job easily. The table shows the following facts in the data.

Job satisfaction *declines* through to middle-age but then rises again and is highest among those over retirement age. The young are less happy than other age groups, and this is true even controlling for wages or perceived job insecurity. I could find no evidence of a U-shape for the United States. Older workers are particularly contented.

Union members are less satisfied than non-members (Freeman, 1977). Job satisfaction is significantly higher if an individual feels he or she can find a similar job easily. In column 3 the coefficient on the variable 'find a job very easy' is large and statistically significant (.053, $t=5.3$). Job insecurity lowers worker's happiness. The self-employed are especially satisfied.

Table 8 makes use of data from the International Social Survey Programme for 2005 with data across 31 countries from both developed and developing countries. Three equations are estimated including a job satisfaction equation, whether the job is stressful and whether the individual worries about losing their job. Just as was found in the United States, young people report relatively *low* levels of job satisfaction. Examining columns 2 and 3 of the table that, despite the fact that young people have low levels of job satisfaction they are less stressed and do not worry as much about losing their jobs as other workers. Job security raises job satisfaction and tends to make workers worry less. Similarly knowing that they are difficult to replace raises the worker's job satisfaction and reduces worry and stress. I included a series of interaction terms with these various job security variables and the age <25 variable but none were significant suggesting the effect of these variables was the same across groups.

Blanchflower (1991) and more recently Blanchflower and Shadforth (2009) find that the fear of unemployment lowers earnings. There is a good deal of evidence from around the world that the fear of unemployment has risen. **Figure 1** illustrates individual responses from a set of monthly surveys taken by the European Union which asks individuals what they think is going to happen to unemployment over the next twelve months, with the answer reported as a survey balance.⁴ The more positive it is the more they expect unemployment to rise. Results are presented for the 27-member European Union, the 12 member Euro area and for the UK. It is clear that unemployment expectations jumped from the beginning of 2007, well before unemployment increased. They have improved in 2010 in the EU and the Euro Area but increased in the UK although recently they have fallen back. Worries about rising unemployment and job insecurity are likely to have lowered well-being.

Table 9 estimates a number of satisfaction equations relating to various aspects of the job using the 2009 BHPS again for UK workers only. This includes pay, security, hours worked and overall. Men are less satisfied as usual while satisfaction rises with earnings. I included a set of interactions between the various control variables and could find little

⁴ The source for the data are the seasonally adjusted total sector for consumers at http://ec.europa.eu/economy_finance/db_indicators/surveys/time_series/index_en.htm

evidence of a differential effect for the young. In the UK, the young have lower levels of satisfaction than the middle aged.

Finding #6. Job satisfaction is U-shaped in age. Youngsters have lower levels of job satisfaction than middle aged workers.

So the patterns in the job satisfaction are very consistent with those in the happiness data. Job insecurity and unemployment lowers well-being. Enhanced fears of losing a job in a recession lower satisfaction levels.

4. Youth attitudes in the recession - a study in the UK

Finally in this section we examine the attitudes of 2000 young people in the UK between the ages of 16 and 25 who were interviewed in a survey conducted by the Prince's Trust at the end of 2009. Respondents were asked a series of questions regarding their emotional well-being. The Trust kindly made the micro-data available to me and I estimated a series of equations where the dependent variable varied from whether they felt lost, sad, unhappy, down and depressed and so on.

Table 10 reports results of the various equations I estimated as well as details of the exact questions asked. In each case I included controls for age, gender, whether they were employed, or a NEET or doing an apprenticeship or some sort of training as well as 11 region dummies and five city or town dummies. The Table is supportive though of our *finding #1* that students who are in school, college or university, as well as apprentices are especially happy.

The table makes rather shocking reading in regard to those who are jobless or out of education: it is the NEETs who stand out. They are not in employment or education or training and they are miserable. What a waste.

Finding #7. Joblessness among the young has a devastating impact on their attitudes.

In comparison with those in school, college or university NEETs are less happy, more stressed, anxious, down and depressed, isolated, unloved, rejected, sad and most worryingly, suicidal. They also report that they have less hope for their future, have nothing to look forward to, that their life lacks direction and have little control over their lives. This is deeply concerning.

5. Conclusion

There is a striking similarity in young people's attitudes around the world. Happiness equations for the young look similar in the United States and Europe. Job satisfaction equations are also broadly comparable. This is remarkable given the big institutional differences.

Happiness is U-shaped in age which means the young are especially happy. The downside of this is that as they move into adulthood their happiness declines. If they are

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a student they are additionally happy, so there seems to be something in the adage that your student days are the best in you life.

There is evidence that the onset of the Great Depression which has caused a marked increase in youth joblessness, has lowered the happiness of the young particularly.

It does appear though that young people are less satisfied in their jobs than middle-aged workers. So adulthood is likely to bring some improved happiness at work. Job insecurity though lowers the happiness of young and old.

Unemployment makes people unhappy. It not only lowers the happiness of the unemployed themselves but of everyone else. I find recent evidence that the unemployed feel sad, lonely and even suicidal. The worry is that these attitudes will translate themselves into bad outcomes down the road such as lost confidence and self-esteem. Happiness is associated with good subsequent outcomes and unhappiness with bad ones. Happy people heal faster, for example.

The fact that students are especially happy is instructive. Governments that reduce the number of university places such as has occurred in the UK, despite an increase in applications, look to be very short-sighted. Being in education is better than being on the dole.

There is little evidence that any recovery is going to deliver jobs very quickly especially if firms have hoarded labour. Public sector hiring freezes will hit the young hardest. It is very likely then that any recovery may be jobless. The worry is that these jobless young people will be scarred for life having been unable to establish a foothold in the labour market, and become a lost generation. The time to act is now.

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Table 1. European and US Unemployment Rates by Age, 2008 and 2010

	(1)	(2)	(3)	(4)	(5)	(6)
	Age 25-74	Age 25-74	<Age 25	<Age 25	(3)/(1)	(4)/(2)
	June-08	June-10	June-08	June-10	June-08	June-10
EA16	6.5	8.9	15.3	19.6	2.35	2.20
EU27	5.8	8.3	15.4	20.3	2.66	2.45
Austria	3.0	3.1	6.9	9.5	2.30	3.06
Belgium	5.8	7.1	17.7	23.9	3.05	3.37
Bulgaria	5.0	8.7	13.5	22.3	2.70	2.56
Cyprus	2.9	5.9	8.7	19.5	3.00	3.31
Czech Republic	3.9	6.4	9.8	19.3	2.51	3.02
Denmark	2.3	5.6	7.6	12.0	3.30	2.14
Estonia	3.6	16.4	8.4	39.8	2.33	2.43
Finland	4.9	6.8	16.1	21.9	3.29	3.22
France	6.4	8.5	19.1	22.4	2.98	2.64
Germany	6.9	6.7	9.8	9.3	1.42	1.39
Greece	6.4	9.6	21.5	29.5	3.36	3.07
Hungary	6.9	9.3	20.1	24.5	2.91	2.63
Ireland	4.9	11.7	12.3	27.5	2.51	2.35
Italy	5.6	7.0	21.6	27.7	3.86	3.96
Latvia	5.6	17.3	10.6	39.5	1.89	2.28
Lithuania	3.9	15.6	10.5	34.4	2.69	2.21
Luxembourg	3.9	4.4	17.8	16.2	4.56	3.68
Malta	4.6	5.3	12.4	13.1	2.70	2.47
Netherlands	2.2	3.7	5.2	8.1	2.36	2.19
Norway	1.8	2.7	6.9	9.8	3.83	3.63
Poland	6.0	8.1	17.2	23.3	2.87	2.88
Portugal	7.0	9.9	16.2	21.5	2.31	2.17
Romania	4.4	5.9	18.6	20.9	4.23	3.54
Slovakia	8.7	12.9	19.3	35.0	2.22	2.71
Slovenia	3.6	6.2	10.6	13.5	2.94	2.18
Spain	9.4	18.1	24.2	40.3	2.57	2.23
Sweden	4.0	5.6	24.1	25.9	6.03	4.63
United Kingdom	3.8	5.7	14.6	19.7	3.84	3.46
United States	4.3	8.2	12.8	18.2	2.98	2.22

Source: Eurostat, 30th July 2010

Table 2. Size of youth cohort in 2008 where the number of 20 year olds=100

	5 yrs	10 yrs	15 yrs	25 yrs	# Age 20
Euro area	87.6	88.3	93.3	110.8	3,814,153
Armenia	50.0	70.2	93.7	91.7	63,333
Australia	89.3	92.1	96.2	104.4	296,556
Austria	81.5	88.2	99.4	111.7	100,537
Belarus	53.9	54.1	77.0	97.4	162,934
Belgium	90.7	95.0	102.4	105.3	127,376
Bulgaria	64.5	57.4	80.0	104.7	103,028
Croatia	73.0	92.7	88.4	112.2	55,644
Cyprus	68.3	81.8	99.4	114.5	11,757
Czech Republic	69.5	67.3	90.7	109.4	134,600
Denmark	104.9	111.6	114.3	98.3	61,689
Estonia	59.1	55.2	76.4	93.0	21,838
Finland	90.8	96.8	109.2	111.6	61,957
France	97.4	93.0	96.2	101.9	817,614
Georgia	62.8	73.6	96.8	94.1	72,102
Germany	73.6	83.1	85.8	102.7	982,931
Greece	87.4	88.0	94.8	130.2	119,656
Hungary	76.8	78.5	95.6	108.5	125,807
Iceland	93.6	98.2	106.9	109.7	4,399
Ireland	104.1	98.2	95.1	136.5	59,194
Italy	93.8	93.0	100.2	115.1	591,715
Latvia	52.8	48.6	79.6	91.8	37,681
Lithuania	53.3	65.6	93.6	87.3	55,381
Luxembourg	104.3	109.7	106.5	115.3	5,504
Macedonia	68.8	77.7	93.5	100.0	33,263
Moldova	49.3	58.4	80.2	82.3	73,876
Montenegro	80.4	82.1	90.7	100.9	10,053
Netherlands	101.2	97.9	101.3	97.3	198,534
Norway	98.5	107.1	108.8	100.2	58,239
Poland	60.7	70.2	87.0	113.6	579,666
Portugal	94.3	88.4	93.8	124.6	120,091
Romania	58.5	62.2	71.1	89.0	352,397
Russian Federation	53.7	49.9	65.4	96.6	2,556,769
Serbia	81.6	78.0	87.4	106.2	95,973
Slovakia	61.1	70.1	89.4	109.8	82,551
Slovenia	67.7	70.1	76.8	111.0	26,541
Spain	88.9	81.6	86.8	131.5	502,550
Sweden	86.2	82.4	110.5	94.9	115,360
Switzerland	84.1	92.3	102.2	106.9	88,726
Ukraine	51.7	57.4	76.6	97.8	744,442
United Kingdom	80.9	89.4	96.1	97.6	820,200
USA	96.7	94.2	102.3	102.8	4,168,920

Table 3. Life satisfaction in the USA, 2005-2009

	All ages		Ages 18-24	
	2005-2008	2009	2005-2008	2009
Age	-.0055 (29.15)	-.0063 (16.08)	-.1055 (3.64)	-.0206 (6.09)
Age ²	.00007 (38.89)	.00008 (21.02)	.0021 (3.06)	
Male	-.0294 (28.10)	-.0264 (12.66)	.0207 (4.11)	-.0192 (1.65)
#adults in household	.0034 (4.71)	-.0022 (1.52)	.0023 (0.99)	-.0046 (0.87)
Exercise past 30 days	.1178 (101.75)	.1367 (60.17)	.0741 (11.87)	.1180 (8.27)
Black	.0318 (16.04)	.0390 (10.14)	-.0697 (8.17)	-.0520 (2.69)
Asian	-.0805 (19.42)	-.0587 (7.53)	-.1188 (6.91)	-.0908 (2.65)
Hawaiian	.0149 (1.43)	.0314 (2.09)	-.0478 (1.55)	-.0643 (1.25)
American Indian	.0309 (7.46)	.0279 (3.73)	-.0097 (0.63)	-.0206 (0.66)
Hispanic	.0296 (13.10)	.0361 (6.52)	-.0149 (1.87)	-.0089 (0.37)
Divorced	-.1664 (102.07)	-.1701 (51.87)	-.2085 (9.65)	-.1943 (3.51)
Widowed	-.1369 (72.77)	-.1450 (39.81)	-.1753 (2.53)	-.4023 (2.27)
Separated	-.2461 (72.14)	-.2511 (35.05)	-.2503 (12.32)	-.3074 (5.89)
Single	-.1663 (91.98)	-.1675 (45.29)	-.1684 (23.30)	-.1898 (10.12)
Living as married	-.1183 (36.48)	-.1103 (16.26)	-.1453 (14.78)	-.1535 (6.01)
#children in household	-.0043 (8.09)	-.0012 (1.15)	.0014 (0.66)	.0095 (1.82)
Self-employed	.0279 (15.83)	.0264 (7.31)	.0214 (1.78)	.0375 (1.23)
Unemployed <12 mths	-.2189 (56.73)	-.2317 (35.19)	-.1306 (8.80)	-.1620 (6.05)
Unemployed ≥12 mths	-.1793 (53.11)	-.1840 (33.51)	-.1171 (12.30)	-.0872 (4.48)
Home worker	.0202 (10.21)	.0197 (4.84)	.0501 (4.56)	.0469 (1.69)
Student	.0589 (15.56)	.0343 (4.16)	.0487 (7.87)	.0307 (2.20)
Retired	.0475 (28.50)	.0397 (12.42)	.0108 (0.15)	.3032 (1.64)
Unable to work	-.2632 (115.41)	-.3027 (68.28)	-.1562 (9.23)	-.2507 (6.36)
BMI	-.0041 (49.19)	-.0042 (25.31)	-.0054 (12.60)	-.0033 (3.45)
Grades 1-8	-.0184 (1.39)	-.0201 (0.68)	-.0065 (0.09)	.1586 (0.99)
Grades 9-12	-.0121 (0.92)	-.0037 (0.13)	-.0238 (0.35)	.1535 (1.01)
HS graduate	.0074 (0.57)	.0047 (0.16)	.0279 (0.42)	.1823 (1.21)
Some college	.0044 (0.34)	-.0022 (0.08)	.0801 (1.19)	.2207 (1.46)
College graduate	.0494 (3.78)	.0329 (1.13)	.1805 (2.67)	.2922 (1.92)
Smoked 100 cigarettes	.0393 (47.24)	-.0591 (29.61)	.0895 (20.24)	-.1516 (11.72)
\$10k & <\$15k income	.0192 (6.23)	.0325 (5.28)	-.0180 (1.33)	-.0400 (1.30)
\$15k & <\$20k income	.0487 (16.52)	.0752 (12.81)	-.0067 (0.57)	.0267 (0.96)
\$20k & <\$25k income	.07323 (25.50)	.0895 (15.60)	.0163 (1.42)	.0503 (1.82)
\$25k & <\$35k income	.11127 (39.71)	.1193 (21.19)	.0482 (4.26)	.0812 (2.94)
\$35k & <\$50k income	.15876 (56.88)	.1724 (30.86)	.0822 (7.16)	.1052 (3.89)
\$50k & <\$75k income	.2136 (74.82)	.2257 (39.63)	.1224 (10.13)	.1413 (5.07)
\$75k or more income	.2951 (102.66)	.3066 (53.82)	.1487 (12.58)	.1525 (5.81)
Constant	3.4069	3.4724	4.6695	3.7553
N	1,411,768	382,182	57,946	11,511
Adjusted R ²	.1238	.1302	.0785	.0855

Notes: excluded categories – Income<\$10,000, white; married; employees and never attended school. Additional controls included if variable was missing - results not reported plus columns 1 & 3 include four year dummies. Equations include 50 state dummies plus dummies for Guam, Puerto Rico and US Virgin Islands. T-statistics in parentheses.

Table 4. Life satisfaction in the USA, 1973-2008

	All ages	Age <25
Age	-.0133 (8.44)	-.0189 (2.60)
Age ²	.0001 (9.31)	
Male	-.0533 (6.94)	-.0750 (3.44)
Black	-.1374 (12.42)	-.1621 (5.09)
Other race	-.0503 (2.94)	-.0625 (1.36)
High school	.0446 (4.11)	.0679 (2.25)
Junior college	.0731 (4.22)	.1989 (3.56)
Bachelor degree	.1194 (8.81)	.2774 (5.55)
Graduate degree	.1345 (8.23)	.1165 (0.52)
Married	.2127 (20.95)	.1764 (6.68)
Widowed	-.1011 (4.71)	.0987 (0.47)
Divorced	-.0533 (4.01)	-.1145 (1.47)
Separated	-.1017 (4.94)	-.2333 (2.62)
Part-time	-.0008 (0.08)	-.0427 (1.50)
Temp not working	-.0599 (2.87)	-.0122 (0.16)
Unemployed	-.2095 (10.64)	-.1730 (4.00)
Retired	.0581 (2.08)	-.1380 (0.24)
School	.1402 (4.88)	.1525 (3.84)
Home worker	-.0029 (0.15)	-.0073 (0.14)
Other Labor Force	.0159 (0.29)	-.3147 (1.91)
2002	-.0408 (1.48)	-.2398 (2.87)
2004	-.0561 (1.96)	-.1484 (1.64)
2006	-.0619 (2.57)	-.2224 (3.10)
2008	-.0877 (3.38)	-.3496 (4.47)
Parents divorced at 16	-.0299 (2.85)	-.0337 (1.32)
No religion	-.0790 (6.93)	-.0564 (1.95)
#adults in household	.0131 (2.70)	.0262 (2.44)
Log income	.0336 (8.23)	.0358 (3.31)
Constant	2.0514	2.3790
N	28,123	3,259
Adjusted R ²	.0795	.0770

Source: General Social Surveys

Notes: excluded categories; full-time; 1988; single and less than high school

Table 5. Life satisfaction in Europe, 1975-2009

	All ages	Age <25
Age	-.0160623 (56.11)	-.0140 (18.92)
Age ²	.0001707 (56.67)	
Male	-.0293 (17.50)	-.0231 (6.46)
ALS<age 15	.1810 (8.18)	.2262 (2.48)
ALS age 16-19	.2634 (11.91)	.2725 (2.99)
ALS ≥age 20	.3542 (15.99)	.3591 (3.93)
Still studying	.3087 (13.15)	.3101 (3.38)
Married	.1249 (52.12)	.0984 (16.37)
Living as married	.0566 (15.53)	.0480 (7.30)
Divorced	-.1494 (34.90)	-.2235 (11.12)
Separated	-.1942 (27.71)	-.1908 (7.24)
Widowed	-.0845 (22.42)	-.0673 (2.57)
Home worker	-.0212 (8.27)	-.0586 (6.99)
Student	.0669 (8.33)	.0478 (4.86)
Retired	-.0553 (19.58)	-.0856 (5.28)
Unemployed	-.3655 (110.79)	-.3337 (51.00)
Belgium	.0497 (9.21)	.0620 (4.76)
Bulgaria	-.9814 (100.56)	-.6960 (27.20)
Croatia	-.2654 (27.23)	-.0464 (1.81)
Cyprus	-.0096 (0.91)	.0904 (3.29)
Czech Republic	-.1944 (20.69)	-.1038 (3.85)
Denmark	.4645 (85.30)	.4330 (32.41)
Estonia	-.3453 (35.80)	-.2352 (9.59)
Finland	.0942 (14.45)	.0902 (5.84)
France	-.2173 (40.30)	-.1801 (13.92)
Germany	-.1005 (19.55)	-.1537 (12.21)
Greece	-.4262 (77.09)	-.3041 (22.93)
Hungary	-.6098 (63.52)	-.4631 (16.26)
Ireland	.1318 (24.30)	.0785 (6.20)
Italy	-.2607 (48.37)	-.2240 (17.36)
Latvia	-.5027 (52.44)	-.3228 (14.15)
Lithuania	-.5188 (53.71)	-.2421 (10.13)
Luxembourg	.2302 (36.30)	.1383 (9.27)
Macedonia	-.4748 (20.75)	-.3805 (6.76)
Malta	-.0239 (1.87)	-.0444 (1.23)
Netherlands	.2828 (52.20)	.2753 (20.63)
Norway	.2728 (27.31)	.2555 (11.37)
Poland	-.2865 (29.46)	-.1057 (4.37)
Portugal	-.3975 (69.43)	-.2718 (20.24)
Romania	-.7190 (73.56)	-.5195 (20.39)
Slovakia	-.4270 (45.68)	-.3226 (11.64)
Slovenia	.0074 (0.77)	.0873 (3.54)
Spain	-.0777 (13.63)	-.0473 (3.55)
Sweden	.2580 (39.37)	.2086 (12.74)

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Turkey	-.2151 (21.36)	-.1438 (6.79)
Turkish Cyprus	-.3236 (16.86)	-.3105 (7.49)
UK	.1177 (22.63)	.0672 (5.37)
2004	-.0139 (2.73)	-.0244 (1.75)
2005	-.0253 (6.09)	-.0252 (2.24)
2006	-.0271 (5.34)	-.0483 (3.47)
2009	-.0567 (11.18)	-.1074 (7.74)
Constant	3.1551	3.2213
N	866,357	153,010
Adjusted R ²	.1757	.1252

Source: Eurobarometers. 1975-2009

Notes: excluded categories: 2007, employed: Austria; no formal education and single. Equations also include a full set of year dummies not reported. No data available for 1995, 1996 or 2008.

Table 6. Happiness and Unhappiness in the UK, 2009

	Life satisfaction	GHQ	Strain
Age	-.0267 (6.40)	.0451 (2.38)	.0068 (2.57)
Age ²	.0002 (7.01)	-.0004 (2.64)	-.0001 (4.01)
Male	.0096 (0.43)	-1.2982 (12.90)	-.1538 (10.85)
Married	.1678(5.00)	.3054 (2.01)	.0745 (3.47)
Separated	-.2743 (3.24)	1.7727 (4.60)	.2149 (3.96)
Divorced	-.1537 (3.22)	.5450 (2.51)	.0836 (2.73)
Widowed	-.1315(2.32)	1.0138 (3.94)	.1062 (2.93)
Civil partnership	.2378 (1.78)	-.2740 (0.45)	.0002 (0.00)
Civil dissolved	-1.2798 (1.09)	9.8339 (1.85)	.9879 (1.32)
Self-employed	.0429 (0.98)	.0574 (0.29)	.0475 (1.70)
Unemployed	-.4778 (6.40)	2.1439 (6.33)	.1109 (2.32)
Retired	.0592 (1.30)	.4283 (2.07)	-.0707 (2.43)
Maternity leave	.1982 (1.39)	.4211 (0.65)	.0289 (0.32)
Family care	-.2150 (4.45)	1.2072 (5.49)	.0809 (2.62)
FT study	.1169 (2.19)	-.4862 (2.01)	-.0554 (1.63)
Long term sick	-1.1197 (19.94)	5.7740 (22.69)	.4164 (11.61)
Government scheme	-.0927 (0.35)	-1.8329 (1.53)	-.5059 (2.99)
Other LF status	-.3424 (2.25)	1.5197 (2.20)	.1537 (1.58)
Smoker	-.2532 (9.47)	.8584 (7.06)	.1017 (5.94)
1 st degree	.0357 (0.54)	-.1003 (0.33)	-.0087 (0.21)
HND/HNC teaching	.1125 (1.58)	-.3402 (1.05)	-.0868 (1.91)
A-level	-.0093 (0.15)	.1990 (0.69)	-.0542 (1.33)
O-level	.0577(0.92)	-.0084 (0.03)	-.1261 (3.13)
CSE	.0879 (1.16)	.1870 (0.54)	-.1563 (3.22)
No qualifications	.1353 (2.09)	.2012 (0.68)	-.1197 (2.88)
Log household income	.0815 (4.93)	-.2099 (2.80)	-.0209 (1.98)
Age <25*unemployed	.0067 (0.05)	.0103 (0.02)	.0078 (0.10)
Constant	5.0849	11.7805	2.2978
N	12,484	12,433	12,511
Adjusted R ²	.0871	.0860	.0507

Source: British Household Panel, 2009

Notes: excluded categories; employee, higher degree and single. T-statistics in

Table 7. Job Satisfaction in the USA, 1973-2008

	(1) 1973-2008	(2) 1973-2008	(3) 1977-2008
Union member	-.0460 (3.15)	-.0811 (5.10)	-.0582 (2.49)
Part-time	-.0532 (3.55)	-.0098 (0.55)	-.0142 (0.54)
Temp not working	-.0353 (1.13)	-.0123 (0.36)	.0191 (0.40)
Age 15-24	-.1705 (8.96)	-.1231 (5.65)	-.1352 (4.14)
Age 25-34	-.0696 (5.02)	-.0499 (3.25)	-.0628 (2.88)
Age 45-54	.0114 (0.75)	.0167 (0.98)	.0238 (0.99)
Age 55-64	.1561 (8.85)	.1546 (7.62)	.1335 (4.49)
Age >=65	.2269 (10.03)	.3391 (10.45)	.3091 (6.15)
Self-employed	.1956 (12.39)	.1946 (10.94)	.1736 (6.75)
Black	-.1738 (11.18)	-.1680 (9.39)	-.1546 (5.78)
Other race	-.0536 (2.17)	-.0357 (1.31)	-.0290 (0.74)
High school	.0688 (4.78)	.0038 (0.22)	-.0526 (1.93)
Junior college	.1580 (6.44)	.0653 (2.34)	-.0097 (0.24)
Bachelor degree	.1354 (7.42)	.0305 (1.39)	-.0241 (0.74)
Graduate degree	.2151 (9.35)	.1018 (3.83)	-.0188 (0.49)
Male	-.0094 (0.91)	-.0631 (5.20)	-.0567 (3.27)
Time	-.0004 (0.86)	-.0034 (5.07)	-.0022 (2.16)
Find a job very easy			.0533 (5.29)
Find a job somewhat easy			.1087 (5.11)
Lose job fairly likely			.0165 (0.83)
Lose job not too likely			-.0450 (0.87)
Lose job not likely			.0808 (1.91)
Log income		.0727 (11.29)	.2362 (5.82)
Constant	3.2331	2.6636	2.6670
N	25175	18977	8450
Adjusted R ²	.0374	.0461	.0605

Source: General Social Surveys

Notes: excluded categories; find a job not easy; lose job very likely ages 35-44 and less than high school

Q1. Thinking about the next 12 months, how likely do you think it is that you will lose your job or be laid off - very likely, fairly likely, not too likely or not at all likely? (available from 1977).

Q2. About how easy would it be for you to find a job with another employer with approximately the same income and fringe benefits as you have? Would you sat very easy, somewhat easy or not easy at all? (available from 1977).parentheses.

Table 8. Job satisfaction and job security, ISSP 2005.

	Job satisfaction	Stressful job	Worry lose job
Age <25	-.0978 (3.10)	-.1565 (5.41)	-.1158 (4.82)
Age 25-34	.1031 (4.69)	-.0237 (1.18)	-.0161 (0.96)
Age 45-54	.0104 (0.48)	-.0354 (1.77)	.0190 (1.14)
Age 55-64	.1057 (3.93)	-.1552 (6.29)	-.0701 (3.42)
Age ≥65	.2444 (4.51)	-.3888 (7.82)	-.2308 (5.60)
Male	-.0075 (0.46)	-.0234 (1.56)	-.0032 (0.26)
Lowest formal qualification	.2185 (4.38)	-.2249 (4.93)	-.0257 (0.68)
Above lowest qualification	.2395 (5.10)	-.2501 (5.83)	-.1104 (3.10)
Higher secondary completed	.2852 (6.19)	-.2212 (5.25)	-.1577 (4.50)
Above higher secondary	.3276 (7.01)	-.1532 (3.58)	-.2010 (5.66)
Degree completed	.3299 (7.05)	-.0612 (1.43)	-.2445 (6.87)
Other education	.7426 (1.32)	.0620 (0.12)	-.3366 (0.78)
Part-time	.0036 (0.16)	-.2631 (12.54)	-.0669 (3.84)
Less than part-time	.0483 (0.77)	-.5340 (9.38)	-.1688 (3.56)
Family worker	-.1735 (1.44)	-.0515 (0.47)	-.0348 (0.38)
Belgium	-.2115 (3.80)	-.0787 (1.55)	-.2153 (5.10)
Bulgaria	.1853 (2.75)	-.3743 (6.07)	.8092 (15.83)
Canada	.0826 (1.36)	.0569 (1.02)	-.0321 (0.69)
Cyprus	.6660 (8.80)	-.5937 (8.57)	-.3440 (5.95)
Czech Republic	.0085 (0.14)	-.4589 (8.29)	.4283 (9.33)
Denmark	.2570 (4.94)	-.1391 (2.92)	-.1431 (3.62)
Dominican Republic	.2682 (4.94)	-.3230 (6.49)	.8790 (21.27)
East Germany	.3787 (4.57)	.0064 (0.08)	.4291 (6.81)
Finland	.1947 (3.29)	-.1174 (2.17)	-.2750 (6.10)
France	-.0887 (1.73)	.1804 (3.84)	.0563 (1.44)
Hungary	.0702 (1.04)	-.0651 (1.05)	.0951 (1.85)
Ireland	.4570 (7.23)	-.3506 (6.06)	-.2300 (4.79)
Israel	.2488 (4.10)	-.3826 (6.87)	.0438 (0.95)
Japan	-.2416 (3.46)	-.0188 (0.29)	.0654 (1.23)
Latvia	.0980 (1.34)	-.4043 (6.03)	.6305 (11.28)
Mexico	.7898 (12.75)	-.4604 (8.12)	1.2506 (26.49)
New Zealand	.0360 (0.67)	-.1963 (4.00)	-.1279 (3.14)
Norway	.1274 (2.37)	-.0435 (0.88)	-.1642 (4.02)
Philippines	.2970 (4.72)	-.0563 (0.98)	1.3716 (28.68)
Portugal	.1945 (3.64)	-.0491 (1.00)	.3971 (9.73)
Russia	-.1483 (2.76)	-.1304 (2.64)	.6645 (16.19)
Slovenia	-.1140 (1.74)	-.0767 (1.28)	.4068 (8.13)
South Africa	.1552 (2.73)	-.0447 (0.86)	.5428 (12.61)
South Korea	-.2219 (3.67)	.1839 (3.32)	.2121 (4.62)
Spain	.0921 (1.46)	-.1044 (1.81)	.5261 (10.92)
Sweden	.0051 (0.09)	.0766 (1.52)	-.1672 (3.99)
Switzerland	.5257 (9.01)	-.1197 (2.24)	.0114 (0.26)
Taiwan	-.0859 (1.76)	-.2065 (4.62)	-.2373 (6.40)
UK	.1332 (2.07)	.0115 (0.19)	.0383 (0.78)

USA	.2310 (4.49)	.0343 (0.73)	.0046 (0.12)
West Germany	.2190 (3.36)	.0949 (1.59)	.2628 (5.29)
Nationalized industry	.0138 (0.42)	-.0236 (0.77)	.0673 (2.66)
Private sector	.0715 (3.23)	-.0864 (4.26)	.0424 (2.52)
Self-employed	.2187 (6.91)	-.1454 (5.01)	-.0674 (2.80)
Other worker type	.0265 (0.15)	-.0383 (0.24)	-.1449 (1.10)
Trade union member	.0436 (2.02)	.0900 (4.55)	.0534 (3.24)
Previously union member	.0035 (0.15)	.0005 (0.02)	.0096 (0.52)
Secure - agree	.3356 (8.12)	-.0853 (2.26)	-.3066 (9.75)
Secure - neither	.5129 (12.55)	-.1669 (4.46)	-.5147 (16.54)
Secure - disagree	.7900 (20.63)	-.2400 (6.85)	-.8166 (28.01)
Secure - strongly disagree	1.0538 (26.53)	-.2685 (7.38)	-1.0672 (35.29)
Replace - very difficult	.4085 (12.24)	.1788 (5.85)	-.2707 (10.65)
Replace - fairly difficult	.2929 (11.03)	.0414 (1.70)	-.2057 (10.16)
Replace - neither	.3030 (12.10)	.0058 (0.25)	-.1501 (7.87)
Replace - fairly easy	.1640 (6.77)	-.0314 (1.42)	-.0805 (4.36)
Constant	3.9852	3.7791	2.7684

N	20777	20797	20742
Adjusted R ²	.1255	.0602	.2911

Notes: excluded categories; Australia; replace - very easy; secure - strongly agree; full-time and age 35-44. T-statistics in parentheses.

Dependent variables

Q1. How satisfied are you in your (main) job - completely dissatisfied, very dissatisfied, fairly dissatisfied, neither satisfied nor dissatisfied, fairly satisfied, very satisfied, completely satisfied?

Q2. How often do you find your work stressful - never, hardly ever, sometimes, often, always?

Q3. To what extent, if at all, do you worry about the possibility of losing your job? I don't worry at all; I worry a little; I worry to some extent; I worry a great deal

Insecurity variables

Q4. For each of these statements about your (main) job, please tick one box to show how much you agree or disagree that it applies to your job. My job is secure - strongly disagree, disagree, Neither disagree nor agree, agree, strongly agree?

Q5. How difficult or easy do you think it would be for your firm or organization to replace you if you left - very difficult, fairly difficult, neither easy nor difficult, fairly easy, very easy?

Table 9. Job satisfaction, UK, 2009

	Overall	Total pay	Security	Work itself	Hours worked
Age 15-24	-.9125 (4.07)	-.3125 (1.19)	-.1896 (0.73)	-.8180 (3.44)	-.9508 (3.85)
Age 25-34	.1347 (2.98)	.1907 (3.58)	.1964 (3.73)	.0073 (0.15)	.1957 (3.92)
Age 45-54	.0825 (1.98)	.1500 (3.06)	.0993 (2.04)	.0209 (0.47)	.1575 (3.42)
Age 55-64	.2074 (4.16)	.3162 (5.40)	.1975 (3.40)	.1654 (3.14)	.1597 (2.91)
Age >=65	.5192 (4.97)	.6120 (4.98)	.6138 (4.99)	.5181 (4.68)	.5041 (4.38)
Male	-.1154 (3.35)	-.1950 (4.81)	-.1555 (3.86)	-.1148 (3.15)	.0298 (0.79)
Self-employed	.2094 (1.33)	.1157 (0.63)	-.0279 (0.15)	.1377 (0.83)	.0940 (0.54)
1 st degree	-.0419 (0.54)	.0138 (0.15)	.1221 (1.35)	-.0450 (0.55)	-.0411 (0.48)
HND/HNC teaching	.1065 (1.23)	.0221 (0.22)	.3412 (3.36)	.1732 (1.88)	.1353 (1.41)
A-level	.0612 (0.79)	-.0462 (0.51)	.1100 (1.22)	-.0045 (0.06)	.1864 (2.19)
O-level	.1270 (1.65)	.0098 (0.11)	.1823 (2.02)	.0857 (1.05)	.1866 (2.20)
CSE	.1199 (1.26)	.0598 (0.53)	.0812 (0.73)	.1107 (1.09)	.1142 (1.09)
No qualifications	.1266 (1.48)	.0156 (0.15)	.2122 (2.11)	.1118 (1.23)	.1437 (1.52)
Gross monthly pay*102	.0077 (5.57)	.0268 (16.31)	.0072 (4.42)	.0054 (3.67)	-.0033 (2.19)
Private sector	-.1851 (4.92)	.0361 (0.82)	-.3146 (7.18)	-.1541 (3.87)	-.1744 (4.21)
Usual hours	-.0127 (6.68)	-.0175 (7.81)	-.0048 (2.16)	-.0049 (2.44)	-.0250 (11.88)
Union member	-.0838 (2.29)	-.0621 (1.44)	.0040 (0.09)	-.1324 (3.41)	-.0315 (0.78)
Union member*age<25	.3789 (2.32)	.2865 (1.50)	.3646 (1.92)	.1482 (0.86)	.2815 (1.57)
Usual hours*age<25	.0344 (5.47)	.0063 (0.86)	.0221 (3.02)	.0299 (4.48)	.0385 (5.55)
Private sector*age<25	-.1340 (0.91)	-.0645 (0.37)	.0493 (0.29)	-.1293 (0.83)	-.3326 (2.04)
Gross monthly pay*age<25	-.0001 (0.84)	.0002 (1.91)	-.0002 (2.00)	-.0001 (0.76)	-.0000 (0.01)
Constant	5.7321	5.0993	5.4550	5.6610	6.09797
N	5887	5887	5867	5888	5888
Adjusted R ²	.0298	.0585	.0271	.0182	.0566

Source: British Household Panel, 2009

Notes: excluded categories; age 35-44; and higher degree. Gross pay refers to last payment. T-statistics in parentheses.

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Q1. All things considered how satisfied or dissatisfied are you with your present job overall using the scale 1=completely dissatisfied, 4=neither satisfied or dissatisfied, 7=completely satisfied.

Q2. I am going to list various aspects of jobs, and after each one I would like you to tell me...which number best describes how satisfied or dissatisfied you are with that particular aspect of your own present job. 1=completely dissatisfied, 4=neither satisfied or dissatisfied, 7=completely satisfied. a) The total pay including any overtime or bonuses b) your job security c) that actual work itself d) the hours you work?

Table 10. Happiness and Unhappiness in the Prince's Trust Survey of the Young, December 2009

	Male	Age	Employed	Apprentice	NEET	N	Adjusted R ²
a) Happy	-.111 (3.55)	-.016 (2.03)	-.023 (0.56)	-.016 (0.14)	-.404 (5.81)	2076	.0282
b) Stressed	-.213 (5.99)	-.006 (0.63)	-.091 (1.92)	.030 (0.24)	-.035 (0.45)	2075	.0205
c) Anxious	-.149 (4.07)	-.000 (0.00)	-.045 (0.91)	-.009 (0.07)	.199 (2.44)	2068	.0092
d) Down & depressed	-.072 (1.91)	-.004 (0.45)	-.008 (0.16)	.111 (0.85)	.475 (5.68)	2076	.0167
e) Lost	-.052 (1.27)	.006 (0.57)	-.064 (1.17)	.031 (0.21)	.464 (5.08)	2068	.0193
f) Isolated	.077 (1.84)	-.007 (0.69)	-.059 (1.06)	.107 (0.73)	.500 (5.40)	2074	.0178
g) Loved	-.378 (8.96)	.009 (0.89)	.003 (0.05)	.014 (0.09)	-.333 (3.55)	2073	.0446
h) Rejected	.057 (1.48)	-.014 (1.49)	.016 (0.32)	.074 (0.55)	.402 (4.64)	2068	.0172
i) Sad	-.555 (16.24)	-.013 (1.59)	.062 (1.36)	.147 (1.23)	.318 (4.18)	2072	.1271
j) Suicidal	-.201 (3.34)	-.009 (0.59)	-.013 (0.16)	.374 (1.76)	.378 (2.81)	2068	.0118
k) Hope	-.031 (0.83)	-.019 (2.06)	-.081 (1.61)	-.035 (0.26)	-.459 (5.43)	2069	.0238
l) Look	.127 (2.67)	-.007 (0.62)	.292 (4.60)	.437 (2.59)	.751 (7.05)	2074	.0400
m) Direction	-.091 (1.99)	-.010 (0.86)	-.260 (4.27)	-.061 (0.38)	-.847 (8.32)	2071	.0483
n) Control	.080 (1.95)	-.015 (1.44)	-.067 (1.23)	-.151 (1.03)	-.427 (4.62)	2073	.0158

Notes: Excluded category in school, college or university

Equations all include 11 region dummies and five city or town dummies.

- a) How often do you feel happy - never; rarely; sometimes; most of the time; all of the time?
b) How often do you feel stressed - never; rarely; sometimes; most of the time; all of the time?
c) How often do you feel anxious - never; rarely; sometimes; most of the time; all of the time?
d) How often do you feel down and depressed - never; rarely; sometimes; most of the time; all of the time?
e) How often do you feel lost - never; rarely; sometimes; most of the time; all of the time?
f) How often do you feel isolated - never; rarely; sometimes; most of the time; all of the time?
g) How often do you feel loved - never; rarely; sometimes; most of the time; all of the time?
h) How often do you feel rejected - never; rarely; sometimes; most of the time; all of the time?
i) How often do you feel sad - never; rarely; sometimes; most of the time; all of the time?
j) I have felt suicidal - strongly disagree, disagree; neither agree nor disagree; agree; agree strongly.
k) I have hope for my future - strongly disagree, disagree; neither agree nor disagree; agree; agree strongly.
l) I have nothing to look forward to - strongly disagree, disagree; neither agree nor disagree; agree; agree strongly.
m) My life has direction - - strongly disagree, disagree; neither agree nor disagree; agree; agree strongly.
n) I have control over my life - - strongly disagree, disagree; neither agree nor disagree; agree; agree strongly

Figure 1. Fear of unemployment, 1985-2010

