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Working Hours, Work Identity and Subjective Wellbeing

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Abstract
Following theories of social and economic identity, we use representative data containing measures of personal identity to investigate the interplay of work identity and hours of work in determining subjective wellbeing (job satisfaction, job-related anxiety and depression, and life satisfaction). We find that work identity helps to explain wellbeing in two ways. First, for a given level of hours, having a stronger work identity is associated with higher wellbeing on most measures. Second, a strong work identity reduces the adverse effects of long hours working on some measures, notably job satisfaction and anxiety (for women) and on life satisfaction (for men). The associations of working hours and wellbeing confirm that work is a source of disutility, but these relationships are generally strengthened when controlling for identity – implying that individuals sort into jobs with work hours that match their identities. The effects of both work hours and identity are substantial relative to benchmark effects of health on wellbeing. Our work helps to rationalise recent findings in the literature on the effects of work hours and work hour preferences on wellbeing.

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1. Introduction

Work remains a central part of people's life experiences: despite predictions, dating back to at least Keynes (1930), that working hours would fall to as little as 15 hours per week by the early 21st century (Dower 1965; Kahn and Wiener 1967), the average working week in the UK is currently 32 hours and only 8% of the employed work 15 hours or less (ONS 2014). At the same time increasing shares of the population have been drawn into the workforce, with a secular rise in women's employment and, more recently, employment among older workers (Engelhardt et al 2008, Figure 3; Hotopp 2005, Figure 1). What has arguably changed over the last few decades is that while average working hours have remained fairly stable, there has been a trend towards more diverse work schedules, with an increase in both part-time jobs and, at least until the late 90s, also long-hours working (Green 2008).

The increasing diversity of work schedules has stimulated interest in the effect of non-standard working time on individuals' wellbeing, with concern expressed about the potentially deleterious effects of the long hours culture (Bunting 2004, Schor 1992) on the one hand, and underemployment (Bell and Blanchflower 2011) on the other. Meanwhile there have been renewed calls for radical reductions in average working hours (Skidelsky and Skidelsky 2013). Empirical research looking into the effect of working hours on wellbeing (job and life satisfaction) have found mixed results. It is the mismatch between preferred and actual hours worked that has been found to reduce wellbeing (Wooden et al 2009, Wunder and Heineck 2012, Iseke 2014, Angrave and Charlwood 2015), but it is not clear whether over and above this preference matching there is any negative effect of long hours.

In this paper, we test theories predicting that a key ingredient of a person's work-related wellbeing should be the importance of work for their self-image or their 'work identity'. To the extent that identity underlies preferences, this framework provides an explanation for preference mismatch literature. A few previous studies have investigated the role of identity in moderating the effects of work hours on wellbeing but they have used proxies for work identity (Pereira and Coelho 2012, Iseke 2014). In contrast we estimate the models for the UK using new individual-level data from *Understanding Society* which includes an explicit measure of work identity. We also extend research in this area which mainly focus on two 'evaluative' measures of wellbeing – job and life satisfaction – by also looking at two 'affective' measures of wellbeing – job-related anxiety and depression. To our knowledge this is the first time that the implications of the identity model for wellbeing have

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been tested using direct measures of identity rather than proxies for identity derived from observed social categories.

Our results generally confirm the role played by work identity in determining wellbeing, both as a direct factor and indirectly through its interactions with work hours. We find that, for a given level of hours, having a stronger work identity is associated with higher wellbeing, although the relationship is relatively weak for job-related anxiety (except among women working long hours). As we would expect from the standard economic assumption that work creates disutility, working long hours is associated with lower wellbeing and working part-time is associated with higher wellbeing, although for men we only find these relationships using the two affective wellbeing measures, job-related anxiety and depression (we find little effect of hours on their job or life satisfaction). But significantly, we also find that these relationships between hours and wellbeing are generally strengthened when controlling for identity implying that, consistent with theory, individuals sort into jobs with work hours that match their identities. Lastly, we find some evidence that work identity 'protects' partially against the adverse effects of long hours working. Women working long hours who have a strong work identity report less job-related anxiety and higher job satisfaction than similar women (working long hours) who have a weak work identity. Nevertheless, irrespective of their work identity, both men and women working long hours suffer more job-related anxiety and depression than those working standard full time hours (30-40 hours).

Our results are robust to controlling for personality traits that influence wellbeing and may also be correlated with identity and hours. We also exploit some time variation in the data to estimate fixed-effect (FE) versions of our models. We confirm that the estimated effects are due to work identity and not other dimensions such as family identity. We also confirm that the identity measure is not only relevant to those employed in professional occupations (and as a result picking up aspects of professional jobs not related to identity but correlated with success and wellbeing). Indeed some of the estimated effects are stronger among non-professional employees. Our estimates are not driven by interactions between (co-residential) partners, as some of the results are stronger for employees not in partnerships whose employment decisions are not tempered by their partners. Finally, the results are robust to survey non-response.

2. Background

There is a substantial literature investigating the implications of non-standard work, including both long and short hours jobs. Early research into part-time work tended to focus on objective job characteristics, for instance pay, conditions and prospects for career advancement (Blank 1990), but more recently researchers have turned to look at the effect of part-time work on subjective wellbeing and in particular on job and life satisfaction. Assuming that work is a source of disutility, we may expect part-time work to be associated with higher wellbeing than full-time work (after controlling for objective job quality). While some studies find that part-time work does indeed raise job satisfaction, especially among women (for Britain see Booth and van Ours 2008, Bardasi and Francesconi 2004), others find no significant effect (Booth and van Ours 2009 for Australia and D'Addio et al 2007 for Denmark), and a recent evidence from the Netherlands indicates that part-time work lowers women's job satisfaction there (Possenriede and Plantenga 2014). In a meta-analysis, Thorsteinson (2003) concludes that overall there is no significant effect of part-time work on job satisfaction.

For life satisfaction the results are similarly mixed. While there is evidence that part-time work (versus full-time) increases women's life satisfaction in Australia (Booth and van Ours 2009), Germany and Britain (Gash et al 2012), other studies with a different focus (and different empirical specifications) find no effects in Britain (Booth and van Ours 2008) and negative effects among mothers in Germany (Berger 2013). Meanwhile men in Australia experience higher satisfaction in full-time than part-time work (Booth and van Ours 2009).[1]

There is less research into the effect of long working hours on satisfaction measures (although there has been much work on health, stress and family relationships – see the discussion in Wooden et al 2009). In studies that include a continuous control for (log) working hours, the coefficient is typically negative and significant, indicating that longer hours lower job satisfaction (Clark 1996, Clark et al 1996, Chongvilaivan and Powdthavee 2012) and life satisfaction (Pereira and Coelho 2013). Only a few authors specifically look at long hours as opposed to standard full-time hours, but there is evidence that hours greater than 50 have a particularly adverse effect on women's job and life satisfaction, but not men's (Booth and van Ours 2009, Gray et al 2004).

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[1] In both their studies, Booth and van Ours looked at the impact of partner's as well as own hours of work. The main finding was that Australian women experienced greater life satisfaction if their partners worked full time. There was little evidence that partner hours influenced the satisfaction of either men or women in Britain.

Why should there be such a divergence of findings across different settings? Some authors have suggested that since preferences for working long or short hours can be expected to differ within the population, the mismatch between actual and preferred hours may matter more for wellbeing than actual hours worked (Wooden et al. 2009, Wunder and Heineck 2013, Angrave and Charlwood 2015, Iseke 2014; see also Green and Tsitsianis 2005). Wooden et al (2009) conclude that there is little relationship between job or life satisfaction and working hours for those working their preferred hours. But job satisfaction is reduced for those working fewer hours than they would like (and doing short hours), and among those doing more hours than they would like (especially when the hours are already long). Appealing to discrepancy theory, Iseke (2014) argues that job satisfaction depends on a combination of mismatches between the characteristics of the job and a worker's preferences and abilities. She finds that part-time work has an overall negative effect on job satisfaction, which is attributed to discrepancies such as a lack of career opportunities compared to full-time jobs.

In this paper we argue that identity theory is a unifying framework that incorporates both job mismatches and role perception in explaining wellbeing. Identity theory originated in the 1950s and has since been developed both by social psychologists (Tajfel 1974, 1981; Turner et. al. 1994) and by sociologists (Stryker 1968, Stryker and Serpe 1982). The sociological variant of identity theory in particular emphasises that people acquire a sense of their social roles by interacting with others in a process that leads to self-meaning and self-definition. This process of self-examination and its conclusion with a successful achievement of identity results in higher levels of self-esteem and consequent subjective wellbeing (Phinney 1990, Cast and Burke 2002). Also a person who 'self-verifies' by performing their role satisfactorily (generally with the approval of others) will experience higher levels of self-esteem, while someone who perceives they are not performing their role adequately will experience psychological distress (Hogg et al 1995, Stets and Burke 2000). Some previous studies have also argued that identity plays a moderating role in determining wellbeing. Iseke (2014) shows that the negative effect of part-time work on job satisfaction is substantially reduced for people who place high importance on their role in the family; and Pereira and Coelho (2013) find, for instance, that work hours have less of an effect among those with a stronger occupational identity. Booth and van Ours (2009) also conclude that the differential pattern of work-related satisfaction across men and women can be rationalised by gendered identities that reflect societal norms about mothers' work-family roles. However, a drawback

of these studies is that they are not able to use direct measures of identity, instead they proxy for it using other outcomes (e.g. housework time as a proxy for family identity in Iseke 2014) or socio-economic characteristics (e.g. gender and supervisory role status in Pereira and Coelho 2013). In this paper we use direct measures of identity derived from questions about the importance of different domains to respondents' sense of self.

Our analytical framework is based on Akerlof and Kranton's (2000) adaption of identity theory to economics. In this approach the traditional utility function is augmented by a term capturing the 'identity utility' that results from the match between a person's actual behaviour and the 'ideal' behaviour prescribed by their social category. Some categories are defined by readily observable characteristics (such as sex and ethnicity), while others relate to more subjective inner states, for example a person's political identity or identification with a dominant culture (Akerlof and Kranton 2000: 726-727, 737). In our case, the relevant social category is defined by a strong identification with work.[2] In the spirit of Akerlof and Kranton (2000), we write the following utility function as a function of working hours:

Utility $= U(h, w, I)$, where $I = I(h; s, X, P(s))$

where h is weekly work hours, w is weekly earnings, s is work identity (the importance of work for a person's sense of self), and X is a vector of other personal and household characteristics; $P(s)$ is the set of ideal or prescribed behaviours corresponding to a given level of work identity s, and $I(.)$ is identity utility.[3]

The augmented utility function makes clear that work decisions and identity impact overall utility in several ways. In addition to the conventional direct channel – longer work hours are a source of disutility – they affect identity utility via a further two channels: first, there could be a direct contribution of work identity to identity utility if a strong identity s raises a person's sense of purpose or their self-esteem (Hogg et al 1990); second, identity utility depends on the match between the number of hours worked h (actual behaviour) and the ideal number of hours given by $P(s)$, with a close match increasing I (a large s implies a large $P(s)$. We assume that the behavioural norm associated with work identity is working long hours (or being willing to do so). This assumption is supported by findings from a meta-

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[2] Akerlof and Kranton (2002) "use the word identity to describe both a [person's] assigned category and the payoffs associated with self-image". For clarity we reserve the word identity for our social category of interest and use the term 'identity utility' to refer to the payoffs from self-image.

[3] A handful of related studies have looked at the implications of identity (or social norms) for the wellbeing of the unemployed. Clark (2003) and Stutzer and Lalive (2004) both find that the life satisfaction penalty for being unemployed is larger the stronger the work norm (proxied respectively by lower regional unemployment and political support for cutting unemployment benefits). Hetschko et al (2014) find that the life satisfaction of the unemployed increases when they retire, because on retirement their prescribed behaviour changes from working to not working.

analysis of work hours and occupational identity (Ng and Feldman 2008) and our data which shows that employees with stronger work identity do work longer hours (see Figure 4.2). And so a person with a strong work identity will derive more identity utility in a demanding, long-hours job than in a regular 9-5 job). Some effects may be opposing, most obviously in the case of a person with a strong work identity for whom longer hours reduce utility through the first channel but raise (identity) utility via the third channel.

To test the implications of the theory, we specify a set of empirical models beginning with a standard wellbeing equation:

$$y_i = \boldsymbol{x}_i \boldsymbol{\beta} + \alpha_1 h_i + \varepsilon_i \tag{1}$$

where $\boldsymbol{x}_i$ is a set of personal and job characteristics of individual i, h_i is working hours, and y_i is a measure of subjective wellbeing (discussed below and representing experienced utility).

We then add controls for identity:

$$y_i = \boldsymbol{x}_i \boldsymbol{\beta} + \alpha_2 h_i + \gamma_2 s_i + v_i \tag{2}$$

From economic theory, we expect the effect of work hours on wellbeing to be negative (as work increases disutility). But we may not observe this in the standard model (1), or at least the effect may be weaker, for the following reason. Workers sort into jobs where the work hours match their identity as closely as possible. Thus a person with a strong work identity will tend to choose jobs with longer work hours and those with weaker work identity will choose jobs with lesser work hours. All else equal, this matching of hours with their own work identity will increase their wellbeing and as a result the overall difference in wellbeing by work hours will be smaller than without any matching. So, once we control for work identity in (2), the net effect of work hours on wellbeing (due to work related disutility) will be larger. Thus we hypothesise that $\alpha_2 < 0$ and $\alpha_2 < \alpha_1$. Additionally, we hypothesise that $\gamma_2 > 0$, since as noted work identity itself should be positively correlated with wellbeing.

Finally, to test the full implications of the theory we add interactions of identity and work hours:

$$y_i = \boldsymbol{x}_i \boldsymbol{\beta} + \alpha_3 h_i + \gamma_3 s_i + \delta_3 h_i.s_i + \varepsilon_i \tag{3}$$

Here we hypothesise that $\alpha_3 < 0$, $\gamma_3 > 0$ and $\delta_3 > 0$. The last condition arises because, as explained above, we expect that the additional negative effect of working longer hours will be smaller for those with strong work identity.

4. Data & Methodology

Data

We use data from the nationally representative UK Household Longitudinal Survey, Understanding Society (UKHLS). This is a multipurpose survey with detailed information about individuals' socio-demographic characteristics, educational and labour market activities, objective and subjective measures of health and well-being and a host of questions on values, beliefs and attitudes including questions on identity across different domains. Questions on identity, job related anxiety and depression questions make this survey particularly useful for our analysis. Every year all adults (16 years or above) in the sampled households are eligible for interviews, with most conducted face-to-face. Those who agree to participate are also asked to complete a self-completion questionnaire which includes questions deemed to be sensitive and expected to be measured more accurately if not asked by the interviewer.

To test the hypotheses outlined in section 3, we estimate models using four alternative measures: job satisfaction, life satisfaction, job-related anxiety, and job-related depression. While job satisfaction reflects satisfaction with the job itself life satisfaction is also expected to measure, among other things, the impact of work-life balance. We expect the negative relationship between work hours and wellbeing to be stronger for job satisfaction than for life satisfaction. This is because working longer hours which match workers' work identity is likely to increase both their satisfaction with their job and life, but their life satisfaction is also determined by their work-life balance which may be reduced due to working long hours. These questions are asked every year. Survey respondents are asked to choose their level of satisfaction with their job and with life overall on a fully labelled 7 point scale where 1 is labelled completely dis-satisfied and 7 completely satisfied. Note the life satisfaction question is asked in a self-completion questionnaire while the job-satisfaction question is asked face-to-face.

We also model measures of affective or experienced subjective wellbeing. Warr (1990) described a two-dimensional model in which feelings are represented on a conventional pleasure-displeasure continuum but in addition are characterised by their level of mental arousal (high to low). We consider two measures of affective (negative) wellbeing – job related anxiety and depression, which can be represented respectively as high-arousal-displeasure and low-arousal-displeasure states. However, note these measures are not to be interpreted as more stable substitutes of the job satisfaction measure, rather, they represent

additional psychological dimensions of wellbeing. Thus it is possible for a person working longer hours to be satisfied with her job but at the same to experience high levels of job related anxiety.

In the second wave of the study, employees were asked 6 questions to measure their job related anxiety and depression in the face-to-face interviews. Job related anxiety questions asked the respondents how much time in the past few weeks had their job made the respondent feel: tense, uneasy and worried; and job related depression questions asked how much of the time in the past few weeks had their job made them feel: depressed, gloomy, and miserable. The response options for each question were: Never, Occasionally, Some of the time, Most of the time, All of the time. As is standard, these scores (1 to 5) were averaged across the three items (for each measure) to produce the two variables we use in our analysis (see Green 2010)[4].

The second wave self-completion questionnaire also included questions to measure identity across different domains – profession, family, gender, political beliefs, ethnic or racial background, education, age and life stage[5]. These questions asked respondents how important these domains were to their sense of who they were. The response options were: Very important, Fairly important, Not very important and Not at all important, Don't know/does not apply. We consider individuals who report Very or Fairly important to the question on profession as having "strong work identity" and the rest as having weak work identity.

Every year respondents are also asked detailed questions about their jobs including the hours they usually work. We measure total hours worked as the usual hours worked per week plus any overtime hours (paid or unpaid). In common with much of the hours-wellbeing literature (e.g. Booth and van Ours 2008, Wooden et al 2009), we allow for distinct effects across the hours range (such as for long hours working) by dividing total hours worked per week into 4 categories: less than 30 hours (part-time work hours), 30-40 hours (standard full-time work hours), 40-50 hours (longer full-time work hours) and more than 50 hours (extremely long work hours). This is important to identify differences among full-time employees who work the standard number of hours with those who work much longer hours.

We restrict our main analysis to data from the second wave as it is the only available wave to include all the key variables together. As we include questions from the self-

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[4] The variant of the scale used by Green included positive as well as negative affect, with variables based on averages of 6 items each measured on a 6 point scale.

[5] The design of these and other identity questions are discussed in Nandi and Platt (2012).

completion questionnaire, our sample is restricted to those who complete the self-completion questionnaire (so excludes proxy respondents). In addition, to avoid the interaction of ethnic identity norms with work identity norms, we restrict the sample for the analysis to White majority respondents (from the nationally-representative General Population sample).[6] Finally we restrict the sample to the post-education, pre-retirement age (23 years to 59 years) paid employees. This results in a sample size of 10,597 comprising of 4,574 men and 5,967 women. The higher female-male ratio is the result of women being more likely to respond to these interviews than men. This difference in response rate is higher among employed than non-employed. The response rate for women is around 85% irrespective of employment status but the response rate is 79% among not-employed men and 71% among employed men. See Section 6 for non-response robustness checks.

Descriptive statistics: Gender differences

Our analysis focuses on work identity and its role in explaining the relationship between work hours and different measures of subjective well-being. Given men and women's different labour market experiences and existing evidence that the determinants of wellbeing differ across gender, all the analyses have been done separately for men and women. For detailed descriptive statistics by gender and p-values of tests of gender differences see Table 4.1. Differences by gender are along expected lines – female employees earn less than their male counterparts, are less likely to own a house and less likely to have a (own) child less than 5 years old in the household (as mothers of young children are less likely to be in paid employment). Female paid employees are also less likely to be in the highest professions or in skilled trades or process, plant and machine operatives. Very similar proportions of men and women are in paid employment (68% of men and 66% of women) but within our sample of employees, as expected there is a striking difference in the hours worked between men and women. While 37% of women work less than 30hours per week only 5% of men do so. At the other extreme 7% of women work more than 50 hours as compared to 22% of men.

<< TABLE 4.1 HERE >>

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[6] The GP sample, excludes the ethnic minority boost sample members (EMBS) and the British Household Panel Survey (BHPS) sample. As we only include White majority group members, excluding the EMBS results in excluding White majority respondents living with ethnic minority individuals. By excluding the BHPS sample we avoid any impacts of long term panel conditioning.

Descriptive statistics: Work identity and hours worked

Figure 4.1 shows the distribution of work identity among male and female employees. The most common response (nearly half the sample) is that a person's profession is "Fairly important" to their sense of self, while just over a quarter respond "Very important" and a fifth say "Not important". Women have slightly stronger work identity than men, but this appears to reflect some selection into employment: comparing the work identities of all men and women, we find that identity is slightly lower among women than men.[7]

<< FIGURE 4.1 HERE >>

In Section 3 we suggested that employees with stronger work identity would choose jobs with longer hours. The raw data broadly reflects this but the positive correlation between work identity and hours worked is much stronger for women than men (See Figure 4.2). The weaker association for men may reflect their lower prevalence of part-time work, with most adjustment taking place at the full-time overtime margin – again this highlights the importance of analysing men and women separately.

<< FIGURE 4.2 HERE >>

Descriptive statistics: Subjective well-being measures and hours worked

Next we focus on job satisfaction, life satisfaction and job related anxiety and depression, and how these vary by hours worked. Consistent with previous studies women report slightly higher levels of job satisfaction (Clark 1997). The mean job satisfaction reported by women is 5.4 and by men 5.2 and this difference is statistically significant. However, there is no statistically significant difference in the average life satisfaction reported by men and women (both report 5.3). Women report higher (statistically significant) levels of job related anxiety than men (average scores are 2.10 and 2.03) but similar levels of job related depression scores (average of 1.6) (See Figure 4.3).

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[7] We find that 43% of women who are not employed and 57% of men who are not employed report strong work identity (defined as those who report "Fairly important" and "Very important"), but among employees we find that 74% of men and 76% of women report strong work identity.

<< FIGURE 4.3 HERE >>

Comparing levels of job satisfaction across employees working different hours per week we find that both job and life satisfaction increase with hours worked for men with some evidence of the opposite pattern for women (See Figure 4.4). If work is a source of disutility, the patterns for men may seem counterintuitive, but these raw associations make no allowance for the role of identity. For instance, men with strong work identity may experience greater job satisfaction than those with weaker identity and also derive more 'identity utility' from working long hours. We disentangle these effects with the multivariate analysis in the next section.

The patterns for affective wellbeing are more in line with expectations. Job related anxiety increases with work hours for both men and women. Job related depression also increases somewhat with hours among women but much less so among men – average job related depression scores among men who work 40 or more hours per week is the same.

<< FIGURE 4.4 HERE >>

Estimation methods and sensitivity analyses

To test the hypotheses specified in section 3, we estimate models (1)-(3) using OLS (for job related anxiety and depression) and ordered logit (for job and life satisfaction), controlling for a standard set of characteristics known to have an effect on subjective well-being. The first model is a benchmark specification similar to those estimated in the existing literature, and includes total hours worked per week in addition to the controls. In the second model we also include strength of identification with one's profession (our measure of work identity), while in the third model we additionally include interactions of identity and hours .

Recent studies of wellbeing have emphasised the role of unobserved factors which influence subjective wellbeing but may also be correlated with key explanatory variables. Ferrer-i-Carbonell and Frijters (2004) show that not taking account of unobserved heterogeneity may substantially bias the parameter estimates in wellbeing models. Thus our cross-sectional estimates may be weakened as causal evidence. While acknowledging this issue, our primary goal in this paper is to test the relationships implied by identity theory rather than ascribe causality. Cross sectional relationships can also be seen as reflecting a long-term equilibrium in which the early-life development of identity and wellbeing has played out (Phinney 1990) and social norms have adjusted (Kranton 2016). In this

framework, cross-sectional correlations can still be a valid test of the theory, albeit a weaker test than a model which controls for unobserved heterogeneity.

We use two methods to test the sensitivity of our estimates to unobserved heterogeneity. The first method is to include personality measures, as suggested by Ferrer-i-Carbonell and Frijters (2004) and implemented by Kesavayuth et al (2016); also see Diener and Lucas (1999) and Argyle (1999). Boyce (2010) showed that personality traits are a key component of unobserved heterogeneity. In the third wave self-completion questionnaire, respondents were asked the 15-item Big Five personality module. We re-estimate the models after restricting the sample to those who completed the Wave 3 self-completion questionnaire and then again with the personality measures to see whether and how the results change. While personality does change with age, we are treating personality traits as time-invariant as they are not likely to change within the short period of one year.

The second method is to exploit the availability of repeated measures in the data. Following their collection at Wave 2, identity questions were asked again three years later in the Wave 5 of the survey. Life and job satisfaction are collected every wave, and anxiety and depression were collected again at Wave 4. For life and job satisfaction we estimate a standard Fixed Effects model using Waves 2 and 5. For job-related anxiety and depression, the specifications need to be modified because the repeat measures do not coincide temporally with the second identity measure. For these two outcomes, we therefore estimate FE models which hold identity fixed at its Wave 2 value, omitting it as a main effect but including an interaction of identity with working hours (to test whether the effect of hours on anxiety/depression depends on the original level of identity). A caveat with these models is that with just two time points, there could be limited variation in the regressors of interest.

The question we use to measure work identity asked respondents to say how important their own profession was to their sense of self. It is possible that some respondents interpreted this as only salient for those in professional jobs. So, we estimate the models separately for those in professional and managerial occupations and those in manual and service or administrative occupations.

Note job satisfaction, and job related anxiety and depression, are asked in face-to-face surveys while life satisfaction is asked in the self-completion questionnaire (as are the identity measures). Conti and Pudney (2011) find that gender differences in the effect of working hours (and wages) on job satisfaction are observed in face-to-face interviews where the interviewer is present but not in self-completion. As this is driven by differences in

reporting across interview mode among women, they conclude that women working longer hours feel compelled to report lower job satisfaction – as "women are more reluctant to report to the interviewer something that could conflict with gender roles prevalent in society". But as gender differences in these types of studies vary by interview modes and most of our wellbeing measures were asked face-to-face, we estimate the models separately by gender and do not comment on gender differences.

While we have excluded ethnic minority individuals to avoid interactions of ethnic identity and work identity prescriptions of behaviour, other competing identities that may have similar prescriptions are family and gender identity (particularly for women). We test differences in work hours by family and gender identity for men and women in paid employment and find that these differences are statistically significant only for family identity among male employees (see Figures 4.5 and 4.6). So, we ignore gender identity. To account for any effect of family identity which is positively correlated with work identity and work hours, we include variables such as whether there is a child younger than 5 years in the household and marital status as family identity prescriptions if relevant are more likely to be salient for parents and couples. Also, note that reporting strong family identity is very common and only 3.7% of female employees and 6.8% of male employees report weak family identity (compare with around 25% of employees report weak work identity and 40% of employees report weak gender identity). So, as a robustness check we also include family identity as an additional explanatory variable in Model 2.

As partners often jointly decide on their labour supply and each individual's wellbeing may be affected by their partner's hours (Booth and Van Ours 2008, 2009), it is possible that there are confounding cross-partner effects. As a further robust check we re-estimate our models for workers not in partnerships (that is, not married or living together as a couple), to see whether the relationships between work identity, work hours and wellbeing are stronger.

<< FIGURE 4.5 HERE >>

<< FIGURE 4.6 HERE >>

5. Results

We estimate the effect of hours worked and the strength of work identity on four different measures of employees' wellbeing across three models using OLS and ordered logit. The first

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model is similar to the subjective wellbeing specifications estimated elsewhere in the literature and thus serves as a benchmark. In addition to a set of control variables, it includes dummy variables for the four categories of hours worked. The second model additionally includes work identity measures and the third model includes an interaction term of these two factors. Estimated coefficients of all variables in Model 3 are reported in Table A2 in the Appendix. We find that the estimated coefficients of the control variables are in the expected directions for life satisfaction (Dolan et al 2008), including a positive effect from good versus poor health. Given that we find a robust positive health effect right across the four wellbeing measures, we use it as an approximate way to gauge the sizes of the hours and identity effects and compare them across measures. The estimated coefficients of hours worked and work identity in the three models are reported in Tables 5.1-5.4; for employee's job satisfaction see Table 5.1, job-related anxiety see Table 5.2, job related depression see Table 5.3 and overall life satisfaction or happiness see Table 5.4.

Job satisfaction

Looking at the estimated coefficients in the standard model for job satisfaction we find that job satisfaction is not always lower for employees who are working longer hours (Model 1, Table 5.1). While among female employees those working less than 30 hours per week report a higher level of job satisfaction than those working 30-40 hours (as expected), both male and female employees working 40-50 hours also report higher levels of job satisfaction. However once we control for work identity, and so 'undo' the effect of employees sorting into jobs on the basis of identity, we find that the positive effect of working longer hours disappears among both male and female employees; moreover the positive effect of shorter hours among women is strengthened (Model 2, Table 5.1). For women, working part-time is associated with 0.23 greater job satisfaction (as reflected in the latent index of the logit model); this represents almost half of the job satisfaction gap between those in good and poor health (Table A1).

Identity itself also has a direct association with wellbeing: those with stronger work identity report higher levels of job satisfaction (Models 2, Table 5.1) and the effects are large: for both men and women the difference in satisfaction between the two ends of the identity scale is about 1.9, which is nearly 4 times the health gap.

We also hypothesised that those who with stronger work identity will suffer less from working longer hours because they gain some identity utility from the match between their behaviour and self-image. We test this effect by interacting hours worked with strength of

work identity where work identity has been dichotomised (1 if Fairly or Very important, 0 otherwise) to allow sufficient cell sizes (Model 3, Table 5.1). We find that the decrease in wellbeing with increased hours worked is higher among female employees with weak work identity compared to those with strong work identity. In fact, among female employees with strong work identity, job satisfaction increases with hours worked (for 50+ hours the sum of the main and interaction effects is +0.16, compared with a main effect of -0.75 for women with weak work identity). This relationship is not observed among male employees. So, although we find that in general men working part-time are more satisfied with their job than others, once we control for work identity, we do not find this relationship among strong or weak work identity employees separately. This is possibly due to small sample sizes: numbers of part-time employed strong and weak work identity men are 86 and 153.

<< TABLE 5. HERE >>

Job-related anxiety

We now consider the affective measures of work-related wellbeing, beginning with anxiety. Estimated coefficients of Model 1 in Table 5.2 show that work-related anxiety is higher for those working longer hours and this effect is very similar for both men and women. The idea that more work is a 'bad' and less work is a 'good' shows up much more clearly in anxiety levels than in evaluated job satisfaction, even in the benchmark model not allowing for identity. The coefficients for hours worked variables have the expected signs and relative magnitudes and all are significant at the 1% level except for the coefficient on men's part-time hours. Working 50 or more hours is associated with an increase of 0.25 on the anxiety scale, the same amount as associated with poor versus good general health (Table A1). After we control for work identity, the hours worked coefficients change very little (Model 2, Table 5.2) for both men and women.

Among men and women with weak work identity, working longer hours has a greater effect on their job related anxiety than observed among all men and women (compare Models 2 and 3, Table 5.2). However, the differences between the strong and weak identity groups in Model 3 are only significant for women working longer hours. The difference in the effect of working 50+ hours compared to 30-40 hours on job-related anxiety between strong and weak work identity women is negative (-0.28) and statistically significant. While this effect is also negative for men it is not statistically significant.

15

Turning to the direct effects of identity, we find that anxiety levels are lower for employees with stronger work identity, but the effect is weak and imprecisely estimated (Model 2, Table 5.2). However, while strong work identity does not by itself reduce work related anxiety, as seen above we find that the negative effect of longer work hours is very high among those with weak work identity as compared to the whole sample.

<< TABLE 5.2 HERE >>

Job-related depression

Working hours are also linked to job-related depression, which is higher for women working longer hours and lower for both men and women working 30 hours or less as compared to those working 30-40 hours per week (Model 1, Tables 5.3). After we control for strength of work identity, the effects become slightly stronger and are more precisely estimated for male and female employees (Model 2, Table 5.3). However, they appear somewhat smaller, relative to the effect of general health, than the anxiety effects (they are typically about a third of the size of the health effects).

We also find some weak evidence that work identity mitigates the depressive effects of working more than full-time hours. Among women working 40-50 hours, those with stronger work identity report lower levels of work related depression than those with weaker work identity (0.05 vs 0.20), both coefficients are statistically significant (Model 3, Table 5.3).

Testing for the direct effects of identity, we see that male and female employees with stronger work identity report lower levels job related depression (Model 2, Table 5.3), consistent with the idea that identity raises self-esteem (Phinney 1990, Cast and Burke 2002. Studies based on qualitative data and small scale surveys have found evidence of this direct effect but until this paper this has not been established by large scale survey data.

<< TABLE 5.3 HERE >>

Life satisfaction

Moving beyond the work-specific measures of wellbeing to look at overall life satisfaction we find that hours worked have no effect on life satisfaction for men but that it

decreases with hours worked for women (Model 1, Table 5.4). Once we control for work identity, these effects are slightly reinforced and are more precisely estimated, so there is now evidence that men working 50+ hours also experience significantly lower life satisfaction (Model 2, Table 5.4). For men the 50+ hours effect is about 15% of the size of the general health effect while for women it is a third of the gap (Table A1). We find weak evidence of the hypothesised differential impact on life satisfaction of hours worked by strength of work identification, but it is statistically significant only for men working more than 50 hours per week (Model 3, Table 5.4).

Work identity has a positive direct effect on life satisfaction for both men and women (Model 2, Table 5.4) but the estimates are somewhat larger for men. For them the difference in satisfaction between the two ends of the identity scale is about 0.9 (0.4 for women), almost the same size as the health gap (about 40% of health gap for women).

<< TABLE 5.4 HERE >>

6. Robustness checks

Robustness check 1: Controlling for unobserved heterogeneity

As explained in Section 4, we restrict the sample to those who responded in both Waves 2 and 3, and then re-estimated the above models with and without controlling for personality traits. Results are in Tables A2.1-3.4 in the Appendix. The top panel, panel A reports estimated coefficients for hours worked, work identity and their interactions across the three models without controlling for personality and the bottom panel, panel B, reports these coefficients estimated after controlling for personality traits. The added personality traits are significant predictors of wellbeing (in particular of the two satisfaction measures). These results, particularly that extaversion is positively and neuroticism is negatively associated with subjective wellbeing, is in line with existing empirical evidence (Lucas and Diener 2009). Nevertheless we find that the estimated coefficients of hours worked are very similar between the two panels in each of the Tables A2.1-A3.4. While in some cases the magnitude of the work hours and work identity coefficients after controlling for personality traits are slightly smaller (the differences are largest for life satisfaction models), in other cases the coefficients are little larger − and in particular the interaction effect of long hours

and identity is stronger across almost all models once personality traits are included.[8] Thus we find no evidence that our results are driven by differences in personality that are correlated with identity or hours worked.

Our second check for the effects of unobserved heterogeneity is to estimate FE models using repeat measures of the key variables. For the life and job satisfaction models, we restrict the sample to individuals included in the Wave 2 sample who were also interviewed in Wave 5 and provided valid responses. For the affective measure models we restricted the sample to Wave 2 respondents who were also interviewed in Wave 4 and provided valid responses. The estimates (in Tables A2.5-A2.8) are much less precise than the cross-sectional results – which may not be surprising as we are relying on having sufficient variation between only two time points (previous studies using FE techniques have been able to exploit longer runs of data with more frequent observations, for example annual observations across 8 years in Booth and Van Ours 2008 and 5 years in Wooden et al 2009). As such, the results are rather patchy – most of the coefficients are not significant. However, focussing on those which reach statistical significance, we see a pattern that is consistent with our expectations (including the interaction of identity and hours) and in no case contradicts them. Thus working part-time increases the job satisfaction of men with weak work identity but barely changes it for those with strong work identity (and working 40-50 hours increases job satisfaction for men overall, Table A2.5). Working more hours increases job-related anxiety for both men and women, and working fewer hours reduces it for women (Table A2.6). Similarly working fewer hours reduces job-related depression (for both sexes). Working 50+ hours increases job-related depression for women with a weak work identity, but has essentially no effect for those with a strong work identity (Table A2.7).

We do not find significant effects of hours (or hours-identity interactions) on life satisfaction (Table A2.8), but the pattern of point estimates is exactly as expected: that is, the coefficients on hours increase monotonically with hours and the coefficients on the hours-identity interactions decrease monotonically with hours. This pattern is repeated in the other three tables too. Our overall conclusion is that, taken together with the cross-sectional results, the FE estimates support the model.

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[8] Also, note that the results do not change substantially after we restrict the sample to those who responded in both Waves 2 and 3 (compare Table 5.1 with Table A3.1 Panel A, compare Table 5.2 with Table A3.2 Panel A and so on), although some effects are stronger in the restricted sample.

Robustness check 2: Measurement issue - Significance of measuring work identity using the term "profession"

We find that 85% of those in the top three occupations (managers and senior occupations, professional and, associated professional & technical occupations) report their "profession" being fairly or very important to their sense of who they are as opposed to 66% of employees in other occupations[9]. While it is possible that employees in the top three occupations have stronger work identity than others, it is also possible that the work identity question which asked how important a person's "profession" was to their sense of who they were was interpreted as being relevant only employees in these occupations. So, we estimated the wellbeing models separately for these two samples. In Table A3.1-A3.4 we report the estimated coefficients for Model 3 only, separately by these two samples and the combined sample (same estimates as in Tables 5.1-5.4, Model3).

For the job satisfaction, life satisfaction and depression models we find that the association of work identity on wellbeing for both samples is positive, and the magnitude is greater for top three occupations sample. As with the combined sample, the direct effect of work identity on job related anxiety is statistically insignificant for both samples.

We also find that the negative association of long hours among weak identity workers was generally stronger among the bottom six occupations and the positive association between working part-time and wellbeing among weak work identity women is stronger among the top three occupations. Among weak identity men, the decrease in job related depression associated with working part time and the decrease in life satisfaction and job related anxiety associated with working longer hours is also stronger for those in the top three occupations.

The positive association of long work hours and wellbeing among stronger work identity workers was also evident only among the employees in the bottom 6 occupations; except in the case of life satisfaction.

If the work identity question was being mis-interpreted by respondents as being only relevant for the top three (or professional) occupations then we should have seen the results only showing up for this sample. In that case, an alternative explanation of the association between identity and wellbeing could be that those in professional occupations are more successful which is contributing to their wellbeing. As that is not the case, we conclude that there is no measurement error. Instead it seems there are substantive differences in the way

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[9] We used the 1 digit SOC2000 classification

work identity affects the relationship between work hours on wellbeing between these two samples.

Robustness check 3: Is it family identity or work identity that matters

As discussed in Section 4, we wanted to check whether family identity mattered, particularly for men, and whether some of effects of work identity observed were actually the effects of family identity and so would disappear once we controlled for family identity. We included family identity in our models and the estimated coefficients were not statistically significant and adding this variable did not change the work identity coefficients.

Robustness check 4: Non-response bias

We also compared the characteristics of our sample with the potential sample (that is, 23-59 year old white British employees in GPS households that were enumerated in Wave 2) and found that our sample is more likely to include women, older individuals, with lower household incomes and those who are more likely to live in urban areas.

To correct for non-response bias, we re-estimated the models using weights which correct for both unequal selection probability and non-response. Weighted estimates were similar to unweighted ones, with some changes in the estimated standard errors. So, this shows the results are robust to non-response (at the household, individual and self-completion) level.

Robustness check 5: Are workers in partnerships different from those who are not?

As discussed in Section 4, to identify more precise estimates of the relationship between work hours, work identity and wellbeing (that is not confounded by additional issues of joint labour supply decisions and correlation between each couple's wellbeing) we re-estimate the models for only those workers who are not in partnerships. Note as a result the sample size drops from 10,541 to 2,588. Comparing workers not in partnerships to those in the whole sample, we find that, in general, the decrease in wellbeing associated with working longer hours among workers with weak work identity is stronger as is the mitigating effect of stronger work identity. In other words, the relationship between work hours, work identity and subjective wellbeing is a little stronger among workers not in partnerships.

7. Conclusions

Based on theories of social and economic identity, we have investigated the interplay of work identity and hours of work in determining subjective wellbeing. Basic economic theory posits

work as a source of disutility that should be associated with lower wellbeing and yet previous empirical research has failed to uncover such a simple relationship. It seems that what counts is not so much the number of hours as mismatches between hours (and other job characteristics) and preferences. But what lies behind preferences? We argue that a key ingredient is the importance of work to a person's sense of self. Once we account for the role of work identity, we find effects of work hours on wellbeing that are much more in line with theoretical expectations. Working long hours is associated with lower wellbeing and working part-time is associated with higher wellbeing – but these relationships are mediated (and for long hours moderated) by the work identity of the employee. The strongest relationships between hours and wellbeing are for the measures of experienced wellbeing. This may be because experiential measures are more strongly affected by a person's current situation (Dolan and Kudrna 2016). For example, not having a job reduces a person's own evaluation of their life as compared to an employed person but as they can use their higher leisure time for pleasurable activities and there is little difference in their experienced utility (see Dolan and Kudrna 2016, Knabe, Rätzel, Schöb, & Weimann 2010).

More specifically, our analysis has uncovered three ways in which identity and hours interact to determine wellbeing. First, for a given level of hours, having a stronger work identity is associated with higher wellbeing. This is consistent with predictions from social psychology that the achievement of identity and its verification in a social role (in this case that of a worker) leads to higher self-esteem that is reflected in greater subjective wellbeing (Cast and Burke 2002). The only surprising result we find is that identity is only weakly related to job-related anxiety (although strongly to job-related depression).

Second, identity plays a mediating role between hours and wellbeing that is consistent with the sorting of individuals into jobs with work hours that match their identities. Once we control for identity, and so 'undo' the sorting, the expected relationships between hours and wellbeing are generally revealed or strengthened. The changes are modest particularly for job related anxiety. But we resolve an anomalous result for men and women: in standard specifications men appear to be more satisfied with their jobs if they work 40+ hours and women if they work 40-50 hours as compared to their counterparts working 30-40hours per week. These effects disappear once we control for identity.

Third, again consistent with identity theory, we find some evidence that work identity mitigates the adverse effects of long hours working. Women working long hours who have a strong work identity report less job-related anxiety and higher job satisfaction than similar

women (working long hours) who have a weak work identity, and for men we see a similar effect on their life satisfaction.

The sizes of the effects are often substantial when benchmarked against the wellbeing effect of good versus poor health. For instance, long hours are associated with about the same increase in job-related anxiety as the health effect, part-time work among women is associated with an increase in job satisfaction that is half the health effect, and the difference in job satisfaction between the two ends of the identity scale is nearly four times the health effect.

Kranton (2016) argues that identity economics can be understood in the short, medium and long run. In the short run people choose actions (hours) taking identity as given, while in the medium term there may be scope for identity to change, and in the long run everything, including norms and prescribed ideal behaviours, can change. Our cross-sectional results arguably reflect steady-state relationships in which, to some extent, hours and identities may have moved into line. In contrast, the FE results (changes over 2 or 3 years in our sample) are driven by Kranton's medium-term scenario (with some limited changes of identity). The fact that the two sets of results are broadly consistent suggests that identity remains a factor in both the medium and long term.

Our results confirm the role played by work identity in determining wellbeing, both as a direct factor and indirectly through its interactions with work hours. It might be tempting to conclude that a strong work identity is a desirable trait, but our results across the different wellbeing measures suggest this would be premature. For instance, even though women with stronger work identity choose to work longer hours and evaluate their job satisfaction positively, working longer hours increases their job related anxiety and depression and thus may have an adverse impact on their current and future health.

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Tables

Table 4.1: Descriptive statistics of the analysis sample

	Men	Women	p-value
Age group			0.05
22-29 years	15%	14%	
30-49 years	59%	58%	
50-59 years	26%	28%	
Highest educational qualifications			0.00
First degree or higher	29%	29%	
Other higher degree	13%	16%	
A-level or equivalent	23%	19%	
GCSE or equivalent	21%	24%	
Other qualification	8%	7%	
No qualifications	4%	5%	
Marital status			0.00
Married	60%	56%	
Cohabiting	19%	17%	
Never married	15%	14%	
Separated, divorced or widowed	6%	13%	
Region of residence			0.11
London	6%	5%	
Rest of England	76%	76%	
Wales	5%	5%	
Scotland	9%	9%	
Northern Ireland	5%	5%	
General health status (SF1)			0.19
Fair or poor health	12%	11%	
Good, very good or excellent health	88%	89%	
Has a long standing disability or illness?			0.21
No	75%	74%	
Yes	24%	26%	
Has at least one child younger than 5 years old in the household?			0.00
No	82%	86%	
Yes	18%	14%	
Owns the house living in?			0.02
No	21%	23%	
Yes	79%	77%	

Table 4.1: Descriptive statistics of the analysis sample (continued)

	Men	Women	p-value[a]
Occupation			0.00
Manger and senior official	23%	13%	
Professional occupations	15%	14%	
Associate professional and technical occupations	16%	19%	
Administrative and secretarial occupations	6%	19%	
Skilled trades occupations	13%	2%	
Personal service occupations	3%	15%	
Sales and customer service occupations	3%	9%	
Process, plant and machine operatives	12%	2%	
Elementary occupations	10%	9%	
Hours worked per week			0.00
Less than 30	5%	37%	
30-40	29%	35%	
40-50	44%	21%	
50 or more	22%	7%	
Usual gross monthly wages	£2602.09	£1595.89	0.00
Number of observations	4,574	5,967	

Sample: Understanding Society Wave 2 (2010-11), General Population Sample, 23-59 year old White majority self-completion respondents in paid employment

[a] p-value of test of difference by gender

Table 5.1: Coefficients of a model of job satisfaction estimated by Ordered Logit

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.19**	0.28*	0.23**	0.22+	0.04	0
Ref: 30-40 hours						
40-50 hours (FT)	0.13*	0.13*	0.05	0.03	-0.15	0.02
50+ hours (FT)	0.1	0.16*	-0.04	0.01	-0.75*	-0.06
Work identity						
Don't know/Doesn't apply			-0.09	-0.28		
Not at all important			-1.22**	-1.33**		
Not very important			-0.65**	-0.80**		
Ref: Fairly important						
Very important			0.66**	0.54**		
Strong work identity						
Very or fairly important					0.72**	0.95**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0.23+	0.42
40-50 hours (FT) X strong work identity					0.32*	0.07
50+ hours (FT) X strong work identity					0.91*	0.17
No. of Observations	5967	4574	5967	4574	5967	4574

Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table 5.2: Coefficients of a model of job related anxiety estimated by OLS

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.14**	-0.07	-0.15**	-0.07	-0.10+	-0.1
Ref: 30-40 hours						
40-50 hours (FT)	0.09**	0.10**	0.09**	0.11**	0.16*	0.11+
50+ hours (FT)	0.25**	0.26**	0.26**	0.26**	0.50**	0.33**
Work identity						
Don't know/Doesn't apply			0.13	-0.03		
Not at all important			0.11+	0.12*		
Not very important			0.02	0.06+		
Ref: Fairly important						
Very important			-0.06*	0.01		
Strong work identity						
Very or fairly important					-0.02	-0.05
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.06	0.05
40-50 hours (FT) X strong work identity					-0.09	0
50+ hours (FT) X strong work identity					-0.28+	-0.09
No. of Observations	5967	4574	5967	4574	5967	4574
R-squared	0.069	0.06	0.071	0.061	0.07	0.061

Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table 5.3: Coefficients of a model of job related depression estimated by OLS

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.11**	-0.19**	-0.12**	-0.19**	-0.07	-0.18
Ref: 30-40 hours						
40-50 hours (FT)	0.07*	0.02	0.08**	0.04	0.20*	0.09
50+ hours (FT)	0.11*	0.06	0.13**	0.09*	0.23	0.16+
Work identity						
Don't know/Doesn't apply			0.14	0.04		
Not at all important			0.35**	0.34**		
Not very important			0.15**	0.17**		
Ref: Fairly important						
Very important			-0.08**	-0.05+		
Strong work identity						
Very or fairly important					-0.16**	-0.17**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.05	-0.02
40-50 hours (FT) X strong work identity					-0.15+	-0.07
50+ hours (FT) X strong work identity					-0.12	-0.11
No. of Observations	5967	4574	5967	4574	5967	4574
R-squared	0.035	0.058	0.049	0.073	0.046	0.071

Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table 5.4: Coefficients of a model of (overall) life satisfaction estimated by Ordered Logit

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.24**	0.09	0.25**	0.06	0.25*	0.26
Ref: 30-40 hours						
40-50 hours (FT)	-0.13+	-0.04	-0.16*	-0.09	-0.22	-0.03
50+ hours (FT)	-0.31**	-0.08	-0.36**	-0.16+	-0.52*	-0.38*
Work identity						
Don't know/Doesn't apply			0.05	0.53+		
Not at all important			-0.14	-0.50**		
Not very important			-0.27**	-0.30**		
Ref: Fairly important						
Very important			0.23**	0.35**		
Strong work identity						
Very or fairly important					0.28**	0.40**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.02	-0.3
40-50 hours (FT) X strong work identity					0.1	-0.06
50+ hours (FT) X strong work identity					0.22	0.32+
No. of Observations	5967	4574	5967	4574	5967	4574

Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Figures
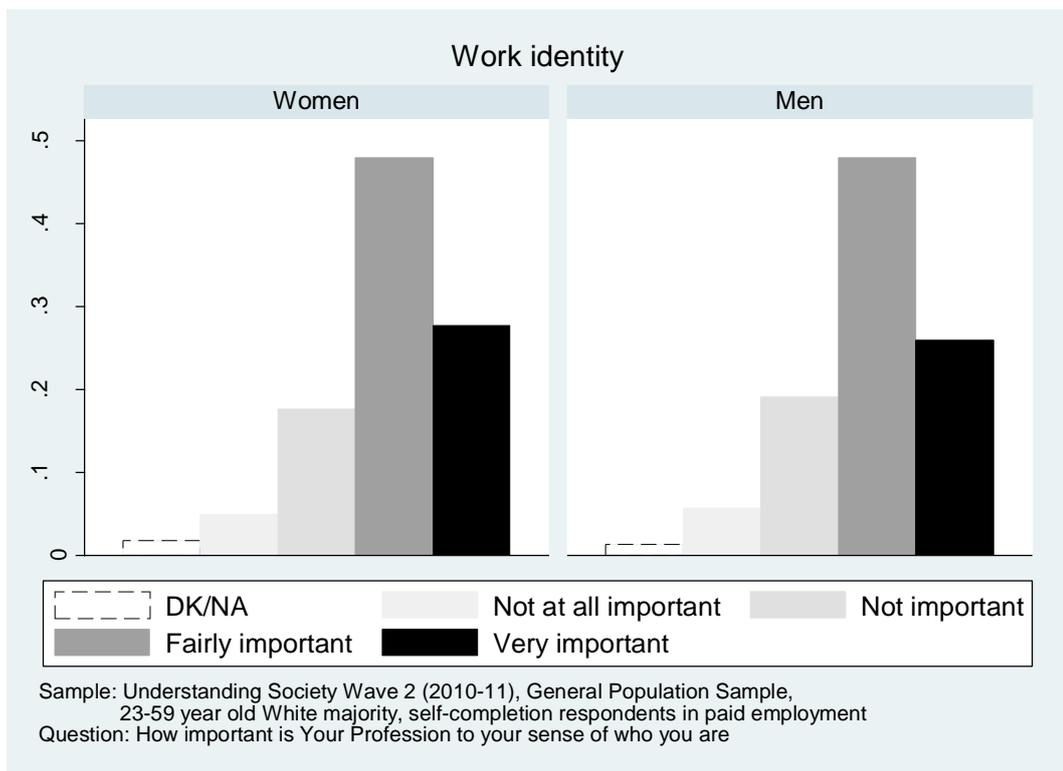
Figure 4.1: Distribution of work identity among men and women in paid employment
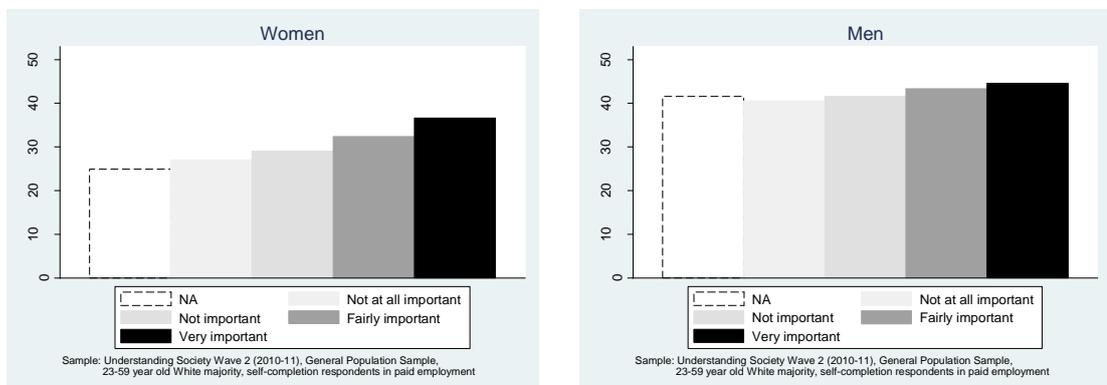
Figure 4.2 Average hours worked by work identity among men and women in paid employment
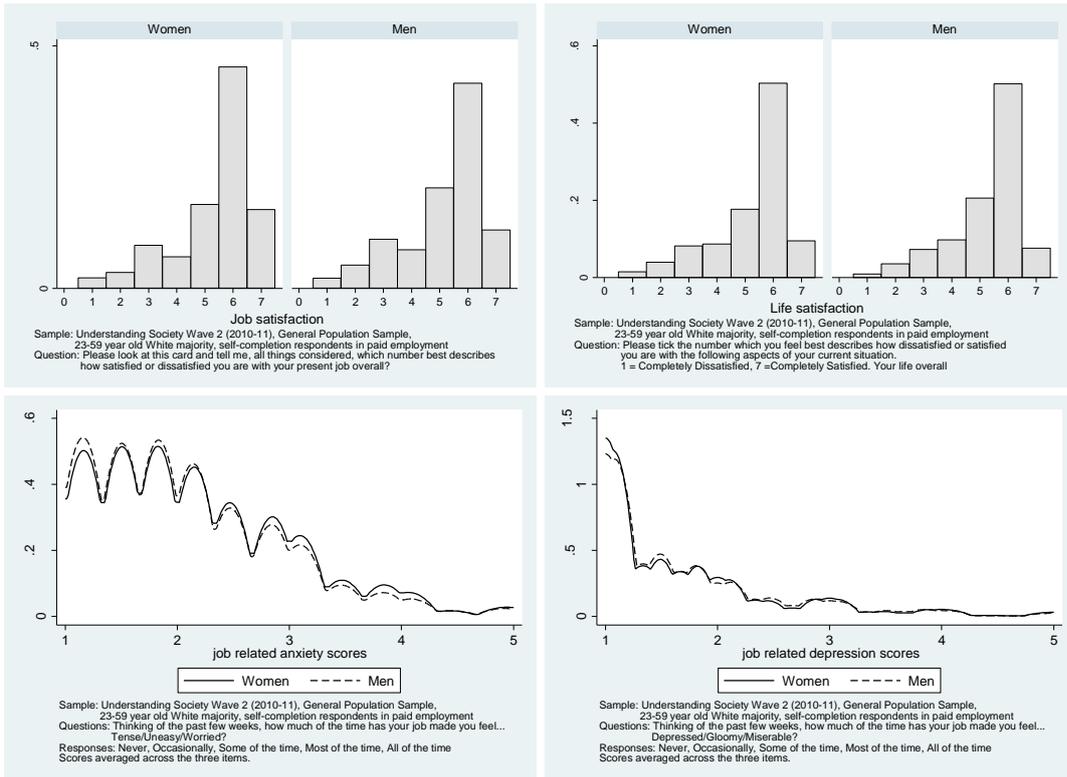
Figure 4.3: Distribution of measures of subjective well-being among men and women in paid employment
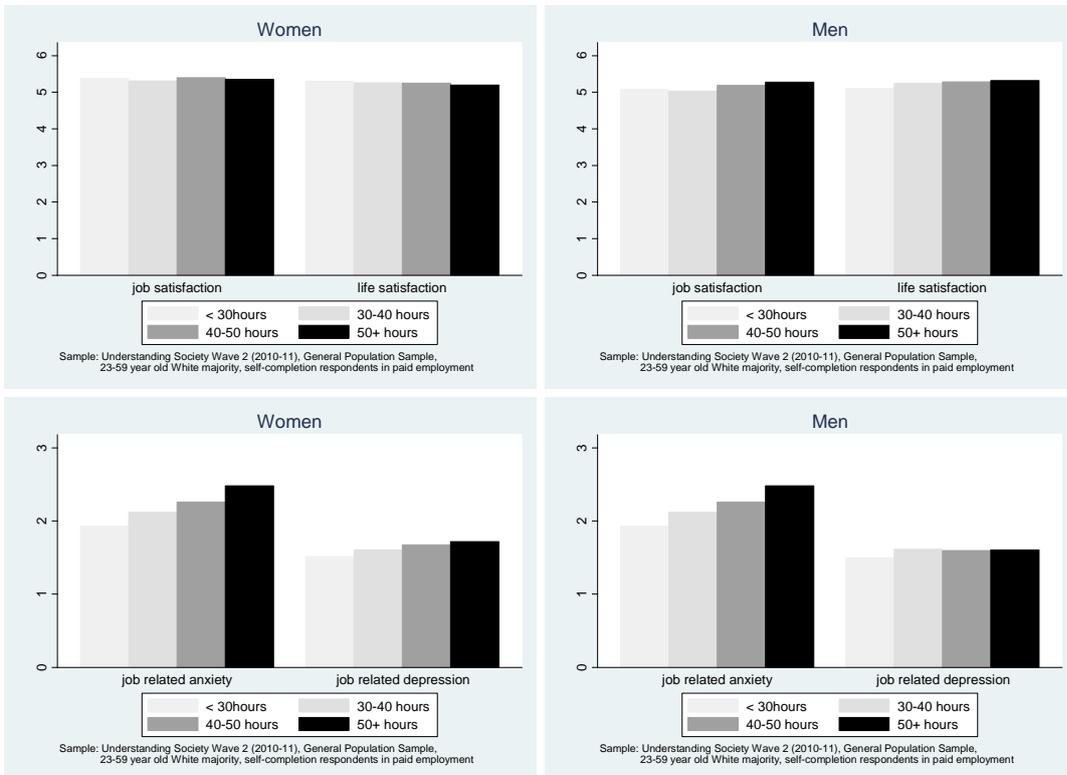
Figure 4.4: subjective well-being by hours worked among men and women in paid employment

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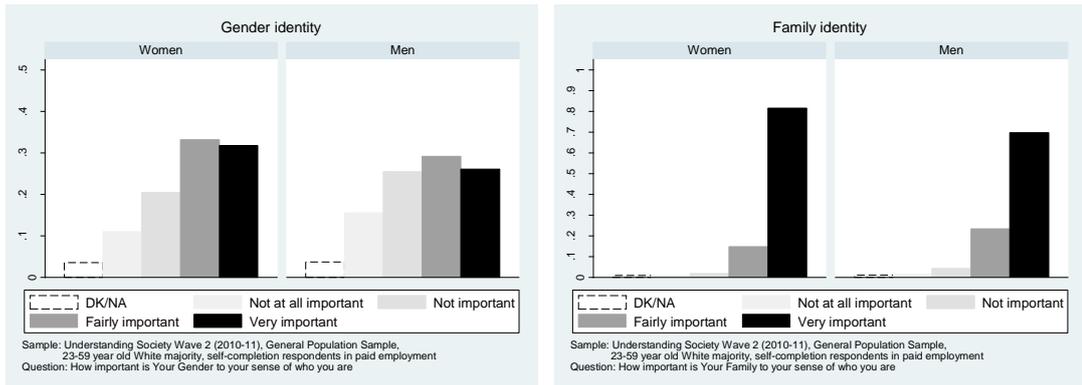
Figure 4.5: Distribution of family and gender identity among men and women in paid employment
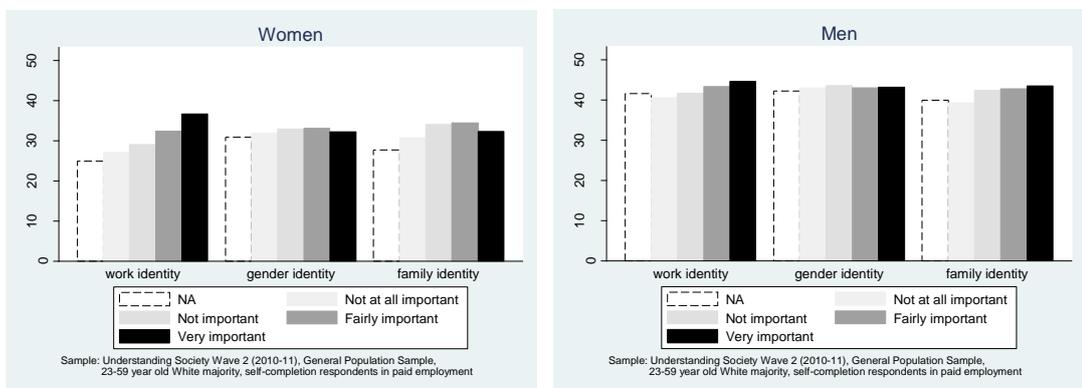
Figure 4.6: Average hours worked per week by work, family and gender identity among men and women in paid employment

Appendix

Table A1: Estimated coefficients of subjective wellbeing models (Specification: Model 3)

	Job Satisfaction (Ordered logit)		Job related anxiety (OLS)		Job related depression (OLS)		Life satisfaction (Ordered Logit)	
	Women	Men	Women	Men	Women	Men	Women	Men
Age	0.02	-0.05*	-0.01	0.03**	0	0.03**	-0.12**	-0.14**
Age squared	0	0.00*	0	-0.00**	0	-0.00**	0.00**	0.00**
Marital status (Ref: Married)								
Never married	-0.24**	-0.11	0.01	0.04	0.05	-0.01	-0.60**	-0.49**
Cohabiting	-0.13+	-0.32**	0.05	0.12**	0.06+	0.07*	-0.23**	-0.21**
Separated, divorced or widowed	-0.11	0.14	0.01	0.05	0.09*	0.05	-0.75**	-0.75**
Highest educational qualification (Ref: None)								
Degree	-0.42**	-0.70**	0.18**	0.21**	0.04	0.11	0.03	-0.59**
Other higher degree	-0.39**	-0.64**	0.16*	0.23**	0.06	0.14+	-0.06	-0.54**
A-level or equivalent	-0.23+	-0.55**	0.15*	0.12+	0.04	0.07	-0.01	-0.62**
GCSE or equivalent	-0.18	-0.37*	0.12*	0.07	0.09	0.02	-0.06	-0.38*
Other qualification	-0.19	-0.46*	0.13+	0.12+	0.08	0.11	-0.07	-0.31
Region of residence (Ref: London)								
Rest of England	0.14	0.07	0.02	-0.02	-0.01	0	-0.05	0.21+
Wales	0.25	0.07	0.02	0.15*	0.04	0.14+	0	0.16
Scotland	0.09	0.07	0.03	-0.08	0.01	-0.06	-0.11	0.28+
Northern Ireland	0.21	0.17	-0.03	-0.14*	-0.09	-0.19**	0.01	0.24
General health status (Ref: Fair or poor health)								
Good, very good or excellent health	0.51**	0.53**	-0.26**	-0.25**	-0.29**	-0.35**	1.08**	1.09**
Suffers from long standing illness or disability? (Ref: No)								
Yes	-0.11+	-0.15*	0.12**	0.19**	0.08**	0.16**	-0.33**	-0.41**
Is there at least one child < 5 years in the HH? (Ref: No)								
Yes	0.01	0.03	0.01	0.01	0	-0.07*	-0.16*	0.09

Table A1: Estimated coefficients of subjective wellbeing models (Specification: Model 3), continued

	Job Satisfaction (Ordered logit)		Job related anxiety (OLS)		Job related depression (OLS)		Life satisfaction (Ordered Logit)	
	Women	Men	Women	Men	Women	Men	Women	Men
Owns house living in? (Ref: No)								
Yes	-0.14*	-0.12+	-0.01	-0.01	-0.05+	0.01	0.17*	0.09
Gross usual monthly wage	0	0.00**	0	0	0	-0.00**	0.00**	0.00**
Occupation (Ref: Manager and senior official)								
Professional Occupations	-0.15	-0.06	0.01	-0.06	0.03	0.01	0.01	0.04
Associate Professional and Technical Occupations	-0.18*	-0.14	-0.01	-0.04	0.04	0.05	-0.11	-0.04
Administrative and Secretarial Occupations	-0.03	-0.25*	-0.25**	-0.04	-0.10*	0.07	0	-0.03
Skilled Trades Occupations	0.24	-0.13	-0.11	-0.21**	0.05	0.07+	-0.01	-0.05
Personal Service Occupations	0.19+	0.01	-0.16**	0	-0.06	0.12	-0.05	-0.13
Sales and Customer Service Occupations	-0.31**	-0.29+	-0.19**	-0.07	0.05	0.22*	-0.26*	-0.38*
Process, Plant and Machine Operatives	-0.03	-0.03	-0.24*	-0.25**	-0.04	0.01	0.23	-0.12
Elementary Occupations	0.06	-0.41**	-0.31**	-0.22**	-0.05	0.10+	-0.03	-0.05
Hours worked (Ref: 30-40 hours)								
<30 hours (PT)	0.04	0	-0.10+	-0.1	-0.07	-0.18	0.25*	0.26
40-50 hours (FT)	-0.15	0.02	0.16*	0.11+	0.20*	0.09	-0.22	-0.03
50+ hours (FT)	-0.75*	-0.06	0.50**	0.33**	0.23	0.16+	-0.52*	-0.38*
Work Identity is fairly or very important (Ref: Not)								
Yes	0.72**	0.95**	-0.02	-0.05	-0.16**	-0.17**	0.28**	0.40**
<30 hours (PT) X Yes	0.23+	0.42	-0.06	0.05	-0.05	-0.02	-0.02	-0.3
40-50 hours (FT) X Yes	0.32*	0.07	-0.09	0	-0.15+	-0.07	0.1	-0.06
50+ hours (FT) X Yes	0.91*	0.17	-0.28+	-0.09	-0.12	-0.11	0.22	0.32+
Constant			2.55**	1.56**	1.89**	1.47**		
Number of Observations	5967	4574	5967	4574	5967	4574	5967	4574

Table A2.1: Coefficients of a model of job satisfaction estimated by Ordered Logit

Panel A: Additional sample restriction: Responded in Wave 3 self-completion questionnaire

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.13+	0.37*	0.18*	0.27+	-0.02	-0.04
Ref: 30-40 hours						
40-50 hours (FT)	0.1	0.14+	0.02	0.03	-0.17	0.08
50+ hours (FT)	0.05	0.16+	-0.08	-0.02	-1.12**	-0.13
Work identity						
Don't know/Doesn't apply			0.02	-0.28		
Not at all important			-1.15**	-1.32**		
Not very important			-0.64**	-0.82**		
Ref: Fairly important						
Very important			0.66**	0.60**		
Strong work identity						
Very or fairly important					0.68**	0.99**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0.24+	0.58+
40-50 hours (FT) X strong work identity					0.31+	-0.01
50+ hours (FT) X strong work identity					1.29**	0.22
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.1: Coefficients of a model of job satisfaction estimated by Ordered Logit

Panel B: Additional sample restriction: Responded in Wave 3 self-completion questionnaire. Additional controls: Big 5 personality traits

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.1	0.33*	0.16*	0.24	-0.02	-0.03
Ref: 30-40 hours						
40-50 hours (FT)	0.08	0.12+	0.01	0.02	-0.14	0.08
50+ hours (FT)	0.01	0.1	-0.1	-0.06	-1.18**	-0.2
Work identity						
Don't know/Doesn't apply			0.11	-0.29		
Not at all important			-1.10**	-1.28**		
Not very important			-0.62**	-0.77**		
Ref: Fairly important						
Very important			0.66**	0.59**		
Strong work identity						
Very or fairly important					0.66**	0.95**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0.19	0.51
40-50 hours (FT) X strong work identity					0.25	-0.02
50+ hours (FT) X strong work identity					1.32**	0.25
Personality traits (Big Five)						
Openness to Experience	-0.04+	-0.01	-0.05*	-0.01	-0.05+	-0.01
Conscientiousness	0.12**	0.13**	0.05+	0.08*	0.08*	0.11**
Extraversion	0.05*	0.05+	0.03	0.03	0.04+	0.04
Agreeableness	0.13**	0.12**	0.12**	0.11**	0.12**	0.10**
Neuroticism	-0.16**	-0.23**	-0.18**	-0.24**	-0.17**	-0.23**
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.2: Coefficients of a model of job related anxiety estimated by OLS

Panel A: Additional sample restriction: Responded in Wave 3 self-completion questionnaire

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.14**	-0.11	-0.14**	-0.11	-0.13*	-0.18
Ref: 30-40 hours						
40-50 hours (FT)	0.11**	0.12**	0.11**	0.12**	0.17+	0.12+
50+ hours (FT)	0.26**	0.26**	0.27**	0.27**	0.61**	0.40**
Work identity						
Don't know/Doesn't apply			0.07	-0.14		
Not at all important			0.08	0.12+		
Not very important			0.01	0.07+		
Ref: Fairly important			-0.07*	0.03		
Very important						
Strong work identity						
Very or fairly important					-0.02	-0.04
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0	0.11
40-50 hours (FT) X strong work identity					-0.07	0
50+ hours (FT) X strong work identity					-0.39*	-0.17
No. of Observations	4779	3569	4779	3569	4779	3569

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Table A2.2: Coefficients of a model of job related anxiety estimated by OLS

Panel B: Additional sample restriction: Responded in Wave 3 self-completion questionnaire. Additional controls: Big 5 personality traits

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.12**	-0.07	-0.12**	-0.07	-0.14*	-0.19+
Ref: 30-40 hours						
40-50 hours (FT)	0.12**	0.11**	0.13**	0.11**	0.13+	0.12+
50+ hours (FT)	0.27**	0.28**	0.28**	0.29**	0.63**	0.44**
Work identity						
Don't know/Doesn't apply			0	-0.1		
Not at all important			0.06	0.1		
Not very important			-0.01	0.03		
Ref: Fairly important			-0.07*	0.02		
Very important						
Strong work identity						
Very or fairly important					-0.02	-0.01
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0.03	0.18
40-50 hours (FT) X strong work identity					-0.02	-0.01
50+ hours (FT) X strong work identity					-0.40**	-0.19+
Personality traits (Big Five)						
Openness to Experience	0.02+	0	0.02+	0	0.02+	0
Conscientiousness	-0.02	0	-0.02	0	-0.02	0
Extraversion	0	0.02*	0	0.02*	0	0.02*
Agreeableness	-0.01	0.01	-0.01	0.01	-0.01	0.01
Neuroticism	0.17**	0.23**	0.17**	0.23**	0.17**	0.23**
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.3: Coefficients of a model of job related depression estimated by OLS

Panel A: Additional sample restriction: Responded in Wave 3 self-completion questionnaire

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.08*	-0.20**	-0.09**	-0.19**	-0.06	-0.18
Ref: 30-40 hours						
40-50 hours (FT)	0.09*	0.02	0.10**	0.04	0.23*	0.06
50+ hours (FT)	0.14**	0.06	0.16**	0.09*	0.33*	0.22*
Work identity						
Don't know/Doesn't apply			0.09	-0.01		
Not at all important			0.34**	0.35**		
Not very important			0.13**	0.15**		
Ref: Fairly important			-0.12**	-0.06+		
Very important						
Strong work identity						
Very or fairly important					-0.16**	-0.15**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.03	-0.03
40-50 hours (FT) X strong work identity					-0.16	-0.05
50+ hours (FT) X strong work identity					-0.22	-0.17
No. of Observations	4779	3569	4779	3569	4779	3569

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Table A2.3: Coefficients of a model of job related depression estimated by OLS

Panel B: Additional sample restriction: Responded in Wave 3 self-completion questionnaire. Additional controls: Big 5 personality traits

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.07*	-0.17**	-0.08**	-0.16**	-0.07	-0.19
Ref: 30-40 hours						
40-50 hours (FT)	0.10**	0.02	0.12**	0.04	0.20*	0.06
50+ hours (FT)	0.15**	0.08*	0.17**	0.11**	0.35*	0.25**
Work identity						
Don't know/Doesn't apply			0.03	0		
Not at all important			0.32**	0.31**		
Not very important			0.11**	0.11**		
Ref: Fairly important			-0.12**	-0.06*		
Very important						
Strong work identity						
Very or fairly important					-0.15**	-0.12*
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0	0.03
40-50 hours (FT) X strong work identity					-0.11	-0.05
50+ hours (FT) X strong work identity					-0.22	-0.19+
Personality traits (Big Five)						
Openness to Experience	0.01	0	0.01	0	0.01	0
Conscientiousness	-0.04**	-0.02	-0.03*	-0.01	-0.04*	-0.01
Extraversion	0.01	0	0.01	0.01	0.01	0.01
Agreeableness	-0.03+	-0.04**	-0.02	-0.04**	-0.03+	-0.04**
Neuroticism	0.15**	0.17**	0.15**	0.17**	0.15**	0.17**
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.4: Coefficients of a model of (overall) life satisfaction estimated by Ordered Logit

Panel A: Additional sample restriction: Responded in Wave 3 self-completion questionnaire

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.24**	0.2	0.26**	0.16	0.35**	0.35
Ref: 30-40 hours						
40-50 hours (FT)	-0.14+	-0.06	-0.17*	-0.11	-0.29+	0.01
50+ hours (FT)	-0.24*	-0.06	-0.29*	-0.14	-0.52+	-0.43*
Work identity						
Don't know/Doesn't apply			-0.17	0.52		
Not at all important			-0.14	-0.42**		
Not very important			-0.34**	-0.25**		
Ref: Fairly important						
Very important			0.25**	0.42**		
Strong work identity						
Very or fairly important					0.39**	0.38**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.15	-0.25
40-50 hours (FT) X strong work identity					0.17	-0.12
50+ hours (FT) X strong work identity					0.29	0.40+
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.4: Coefficients of a model of (overall) life satisfaction estimated by Ordered Logit

Panel B: Additional sample restriction: Responded in Wave 3 self-completion questionnaire. Additional controls: Big 5 personality traits

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.22**	0.15	0.24**	0.11	0.37**	0.38
Ref: 30-40 hours						
40-50 hours (FT)	-0.18*	-0.08	-0.21**	-0.12	-0.27+	-0.03
50+ hours (FT)	-0.31**	-0.15	-0.35**	-0.21*	-0.64*	-0.53**
Work identity						
Don't know/Doesn't apply			0.07	0.52		
Not at all important			-0.07	-0.31*		
Not very important			-0.27**	-0.17*		
Ref: Fairly important						
Very important			0.23**	0.41**		
Strong work identity						
Very or fairly important					0.33**	0.28*
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.19	-0.38
40-50 hours (FT) X strong work identity					0.09	-0.09
50+ hours (FT) X strong work identity					0.36	0.44*
Personality traits (Big Five)						
Openness to Experience	0	-0.02	0	-0.02	0	-0.02
Conscientiousness	0.16**	0.10*	0.14**	0.07+	0.15**	0.09*
Extraversion	0.04	0.13**	0.03	0.12**	0.03	0.12**
Agreeableness	0.13**	0.11**	0.12**	0.11**	0.12**	0.11**
Neuroticism	-0.32**	-0.32**	-0.33**	-0.33**	-0.32**	-0.32**
No. of Observations	4779	3569	4779	3569	4779	3569

Table A2.5: Coefficients of a linear FE model of job satisfaction

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.09	0.20	0.11	0.20	0.03	0.58*
Ref: 30-40 hours						
40-50 hours (FT)	0.05	0.20**	0.04	0.19**	-0.01	0.23*
50+ hours (FT)	-0.10	0.03	-0.11	0.01	-0.45	0.07
Work identity						
Don't know/Doesn't apply			-0.31	0.07		
Not at all important			-0.76**	-0.34**		
Not very important			-0.25**	-0.32**		
Ref: Fairly important						
Very important			0.26**	0.25**		
Strong work identity						
Very or fairly important					0.28**	0.43**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					0.10	-0.53*
40-50 hours (FT) X strong work identity					0.08	-0.05
50+ hours (FT) X strong work identity					0.38	-0.08
No. of Observations	8817	6623	8817	6623	8817	6623

Sample is individuals included in wave 2 analysis (Table 5.1) who also reported valid observations in wave 5. Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table A2.6: Coefficients of a linear FE model of job related anxiety

	Model1		Model2	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	-0.23**	-0.12	-0.28**	-0.20
Ref: 30-40 hours				
40-50 hours (FT)	0.09*	0.07+	0.07	0.03
50+ hours (FT)	0.25**	0.15**	0.40*	0.17
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity			0.08	0.11
40-50 hours (FT) X strong work identity			0.02	0.04
50+ hours (FT) X strong work identity			-0.17	-0.03
No. of Observations	9091	6834	9091	6834

Sample is individuals included in wave 2 analysis (Table 5.2) who also reported valid observations in wave 4. Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table A2.7: Coefficients of a linear FE model of job related depression

	Model1		Model2	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	-0.16**	-0.15+	-0.21*	-0.32+
Ref: 30-40 hours				
40-50 hours (FT)	0.02	0.02	0.05	0.11
50+ hours (FT)	0.09	0.05	0.42*	0.15
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity			0.07	0.23
40-50 hours (FT) X strong work identity			-0.04	-0.13
50+ hours (FT) X strong work identity			-0.38*	-0.13
No. of Observations	9091	6834	9091	6834

Sample is individuals included in wave 2 analysis (Table 5.3) who also reported valid observations in wave 4. Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table A2.8: Coefficients of a linear FE model of (overall) life satisfaction

	Model1		Model2		Model3	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.00	0.01	0.01	0.01	0.12	-0.03
Ref: 30-40 hours						
40-50 hours (FT)	-0.05	0.01	-0.06	0.01	0.01	-0.05
50+ hours (FT)	-0.06	-0.08	-0.06	-0.07	-0.13	-0.11
Work identity						
Don't know/Doesn't apply			0.34	0.74*		
Not at all important			-0.01	-0.10		
Not very important			-0.07	0.00		
Ref: Fairly important						
Very important			0.07	0.07		
Strong work identity						
Very or fairly important					0.14+	-0.03
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity					-0.16	0.06
40-50 hours (FT) X strong work identity					-0.08	0.07
50+ hours (FT) X strong work identity					0.06	0.05
No. of Observations	8817	6623	8817	6623	8817	6623

Sample is individuals included in wave 2 analysis (Table 5.4) who also reported valid observations in wave 5. Standard error estimates adjusted for survey design. Significance levels: + 10%, * 5%, ** 1%

Table A3.1 Estimated coefficients of job satisfaction (Model 3, Ordered Logit)

	Combined sample		In professional or managerial occupations?			
			No		Yes	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.04	0	-0.16	-0.03	0.46*	0.1
Ref: 30-40 hours						
40-50 hours (FT)	-0.15	0.02	-0.21	0.14	0	-0.17
50+ hours (FT)	-0.75*	-0.06	-0.87+	-0.09	-0.42	-0.04
Strong work identity						
Very or fairly important	0.72**	0.95**	0.66**	0.88**	0.85**	0.99**
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity	0.23+	0.42	0.36*	0.44	-0.21	0.47
40-50 hours (FT) X strong work identity	0.32*	0.07	0.33	-0.02	0.19	0.24
50+ hours (FT) X strong work identity	0.91*	0.17	1.06*	0.32	0.55	0.08

Table A3.2 Estimated coefficients of job related anxiety (Model 3, OLS)

	Combined sample		In professional or managerial occupations?			
			No		Yes	
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.10+	-0.1	0	0.98	-0.30*	-0.15
Ref: 30-40 hours						
40-50 hours (FT)	0.16*	0.11+	0.25*	0.01	0.03	0.22*
50+ hours (FT)	0.50**	0.33**	0.70**	0	0.26	0.49**
Strong work identity						
Very or fairly important	-0.02	-0.05	0.01	-0.09	-0.06	0.04
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity	-0.06	0.05	-0.15*	0.01	0.2	0.15
40-50 hours (FT) X strong work identity	-0.09	0	-0.25*	0.06	0.09	-0.12
50+ hours (FT) X strong work identity	-0.28+	-0.09	-0.57*	-0.11	0.02	-0.17

Table A3.3 Estimated coefficients of job related depression (Model 3, OLS)

| | Combined sample | | In professional or managerial occupations? | | | |
| | | | No | | Yes | |
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	-0.07	-0.18	0.03	0.68	-0.25*	-0.47**
Ref: 30-40 hours						
40-50 hours (FT)	0.20*	0.09	0.29**	0.01	0.05	0.08
50+ hours (FT)	0.23	0.16+	0.37	0.14	-0.02	0.14
Strong work identity						
Very or fairly important	-0.16**	-0.17**	-0.12*	-0.16*	-0.25**	-0.16*
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity	-0.05	-0.02	-0.13+	-0.12	0.13	0.26+
40-50 hours (FT) X strong work identity	-0.15+	-0.07	-0.26*	-0.06	0.02	-0.09
50+ hours (FT) X strong work identity	-0.12	-0.11	-0.44	-0.2	0.19	-0.04

Table A3.4 Estimated coefficients of (overall) life satisfaction (Model 3, Ordered Logit)

| | Combined sample | | In professional or managerial occupations? | | | |
| | | | No | | Yes | |
	Women	Men	Women	Men	Women	Men
Hours worked per week						
<30 hours (PT)	0.25*	0.26	0.18	0.22	0.42+	0.46
Ref: 30-40 hours						
40-50 hours (FT)	-0.22	-0.03	-0.33+	-0.05	-0.01	0.01
50+ hours (FT)	-0.52*	-0.38*	-0.64+	-0.13	-0.31	-0.85**
Strong work identity						
Very or fairly important	0.28**	0.40**	0.21+	0.48**	0.42**	0.23
Ref: Not very or not at all important or don't know/does not apply						
Hours worked per week & Strong work identity interactions						
<30 hours (PT) X strong work identity	-0.02	-0.3	0.05	-0.36	-0.16	-0.31
40-50 hours (FT) X strong work identity	0.1	-0.06	0.21	-0.13	-0.12	0
50+ hours (FT) X strong work identity	0.22	0.32+	0.46	0.17	-0.07	0.75**

Table A4.1 Estimated coefficients of job satisfaction (Model 3, Ordered Logit)

	Combined sample		Not in partnerships	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	0.04	0	-0.21	0.33
Ref: 30-40 hours				
40-50 hours (FT)	-0.15	0.02	0.09	0.15
50+ hours (FT)	-0.75*	-0.06	-0.45	-0.25
Strong work identity				
Very or fairly important	0.72**	0.95**	0.72**	1.21**
Ref: Not very or not at all important or don't know/does not apply				
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity	0.23+	0.42	0.66*	0.08
40-50 hours (FT) X strong work identity	0.32*	0.07	0.06	-0.17
50+ hours (FT) X strong work identity	0.91*	0.17	0.65	0.16

Table A4.2 Estimated coefficients of job related anxiety (Model 3, OLS)

	Combined sample		Not in partnerships	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	-0.10+	-0.1	0	-0.11
Ref: 30-40 hours				
40-50 hours (FT)	0.16*	0.11+	0.25*	0.04
50+ hours (FT)	0.50**	0.33**	0.70**	0.25*
Strong work identity				
Very or fairly important	-0.02	-0.05	0.01	-0.09
Ref: Not very or not at all important or don't know/does not apply				
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity	-0.06	0.05	-0.15*	0.01
40-50 hours (FT) X strong work identity	-0.09	0	-0.25*	0.06
50+ hours (FT) X strong work identity	-0.28+	-0.09	-0.57*	-0.11

Table A4.3 Estimated coefficients of job related depression (Model 3, OLS)

	Combined sample		Not in partnerships	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	-0.07	-0.18	0.02	-0.28
Ref: 30-40 hours				
40-50 hours (FT)	0.20*	0.09	0.18	0.30*
50+ hours (FT)	0.23	0.16+	0.58*	0.25
Strong work identity				
Very or fairly important	-0.16**	-0.17**	-0.11	-0.15
Ref: Not very or not at all important or don't know/does not apply				
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity	-0.05	-0.02	-0.22	-0.03
40-50 hours (FT) X strong work identity	-0.15+	-0.07	-0.09	-0.24
50+ hours (FT) X strong work identity	-0.12	-0.11	-0.49+	-0.21

Table A4.4 Estimated coefficients of (overall) life satisfaction (Model 3, Ordered logit)

	Combined sample		Not in partnerships	
	Women	Men	Women	Men
Hours worked per week				
<30 hours (PT)	0.25*	0.26	0.05	0.43
Ref: 30-40 hours				
40-50 hours (FT)	-0.22	-0.03	-0.27	-0.48*
50+ hours (FT)	-0.52*	-0.38*	-0.85+	-1.03**
Strong work identity				
Very or fairly important	0.28**	0.40**	0.25	0.21
Ref: Not very or not at all important or don't know/does not apply				
Hours worked per week & Strong work identity interactions				
<30 hours (PT) X strong work identity	-0.02	-0.3	0.12	-0.5
40-50 hours (FT) X strong work identity	0.1	-0.06	0.15	0.4
50+ hours (FT) X strong work identity	0.22	0.32+	0.72	0.87*