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SHIVANI TANEJA

University of Essex , United Kingdom

WORKING HOURS AND TRENDS IN JOB SATISFACTION USING A PANEL OF BRITISH WORKERS

Abstract:

Patterns of work have changed over the years in Britain and increasing flexibility in the labour market has been introduced. The implementation of the European Union directives in 2002 and the introduction of the Minimum Wage in 1999 as well as the New Deal programme have contributed to changes in the labour market. And growth in non-standard work has resulted in choices available to the workforce and workers can choose to work full-time or part-time, maximising their utility subject to their constraints. This is likely to have an impact on the trends in job satisfaction of the workers. Thus, using data from the British Household Panel Survey from 1991-2008, this paper addresses the following questions: are patterns of weekly working hours contributing to the narrowing gender gap in satisfaction from work of British workers? Are changes in employment profiles i.e. switching from full-time hours into part-time hours in two consecutive years or changes in economic activity, such as switching from unemployment into part-time hours or switching from unemployment into full-time jobs enhancing welfare of workers? Using logistic regression techniques, the results show that men's hours of work are steadily declining whereas smaller variations are seen among female workers. This decline in working hours as well its negative correlation with job satisfaction suggests that hours of work play a role in narrowing gender gap in current job satisfaction of British workers. And transitions in economic activity and employment profiles affect satisfaction from work.

Keywords:

Part-time hours, National Minimum Wage, Unemployment

JEL Classification: J28, J16, I31

1. Introduction

Patterns of work are changing and a more flexible labour market is seen in Britain, especially after the implementation of the European Union directives that came into force in 2002.¹ Labour market flexibilities have resulted in choices available to the workforce and workers can optimally choose from a variety of options and maximise their utility subject to their preferences and constraints. Aimed at improving the performance of workers, growth in such non-standard work is likely to create a healthy work-life balance. One choice available is choosing to work full-time or part-time. Some workers are likely to prefer full-time jobs with a certain flow of income, reflecting job stability and job security. However, such jobs also require full-time attachment to the labour market. On the other hand, a more flexible arrangement involves working fewer hours or part-time, requiring less attachment to the labour market but comes at a cost of less job security. Working part-time is common among students, allowing them to combine education and work in order to earn a small wage as well as gain some experience. It is also common among those individuals willing to combine household production or leisure with employment. For example, partnered individuals with family responsibilities, women with young children and individuals with eldercare responsibilities may also prefer a more flexible arrangement (Bardasi and Francesconi, 2004; Booth and Van Ours, 2008).

The aim of this paper is to understand if patterns of working hours contribute to the emerging trends in job satisfaction from 1991-2008, for both men and women in Britain. Taneja (2019) presents a graphical representation of the raw job utility data. The data illustrates a large percentage of women report higher job utility compared to their male counterparts throughout the survey period, however, there is a gradual increase in job satisfaction of male workers and therefore men are gradually catching up to women's levels. This has resulted in narrowing gender gap in subjective self-evaluations of satisfaction scores from a worker's job. This paper explores the extent to which patterns of weekly working hours contribute to the narrowing gender gap in job satisfaction. Thus, this paper seeks to address the following questions: Are patterns of weekly working hours contributing to the gender gap in current job satisfaction from 1991-2008? Are changes in employment profiles i.e. switching from full-time employment into part-time jobs in two consecutive years or changes in economic activity, such as switching

¹ According to the European Union directives on working hours, firms are required not to offer less favourable treatment to part-time workers with respect to pay and benefits as well as discrimination compared to full-time workers. Similar EU directives are for temporary workers (1997/81/EC and 1998/23/EC). For more details, see <http://webarchive.nationalarchives.gov.uk/+http://www.dti.gov.uk/er/europe/directives.htm>

from unemployment into part-time work or switching from unemployment into full-time jobs enhancing welfare of male workers? This paper is set out as follows: Section 2 briefly provides an overview of the literature review on wellbeing. Section 3 presents the data source and variables of interest and Section 4 presents the empirical results. In particular, the effect of working hours on job satisfaction is explored using logit regression techniques, controlling for a wide range of personal and work-related characteristics in subsection 4.1. Furthermore, the effect of transitions between consecutive years, such as changes in employment profiles and economic activity on overall current job satisfaction is also evaluated in subsection 4.2. Section 5 draws the conclusion.

2. Economics of hours of work and wellbeing

While the factors influencing job satisfaction are well documented in the economic literature² (see Clark, 1996; Clark and Oswald, 1996; Clark et al., 1997; Frijters et al. 2004) more recently, employers and policy-makers have witnessed a more flexible labour force in Britain in order to improve the overall quality of life. Patterns of working hours have changed and a range of flexible working arrangements, such as part-time employment and temporary jobs are available. This has encouraged economists to investigate the effects of atypical employment on job satisfaction and other measures of wellbeing. For example, Bardasi and Francesconi (2004) investigated the relationship between temporary and part-time employment schemes on individual wellbeing, as measured by subjective indicators of mental health, general health status, life satisfaction and job satisfaction. They concluded that the poor mental and physical health as well as life satisfaction are unaffected by part-time and temporary employment schemes. On the other hand, atypical employment affects job satisfaction. Seasonal and casual workers experience lower job satisfaction relative to their permanent counterparts. This holds for both men and women. And both men and women in part-time jobs are more likely to experience higher job satisfaction than full-time workers. Booth and Van Ours (2008) analysed the impact of part-time hours on wellbeing, as measured by hours-of-work satisfaction, job satisfaction and life satisfaction of British partnered couples. They found that male workers working full-time and not overtime hours report the highest hours-of-work satisfaction. And men's job satisfaction and life satisfaction scores are unaffected by the hours they work. For women, working hours affect both hours-of-work satisfaction and job satisfaction while their life satisfaction remains unaffected. In a separate

² A significant amount of work has documented the negative correlation between unemployment and welfare (Knabe and Ratzel, 2010; Clark et al., 2001; Winkelmann and Winkelmann, 1998; Clark and Oswald, 1994; Clark, 2003; Di Tella et al., 2001).

study focussing on part-time jobs and wellbeing in Netherlands, Booth and Van Ours (2013) showed that partnered women working part-time have high levels of satisfaction from the job as well as a low desire to alter hours of work and are in partnership which is highly gendered with respect to household work. Their results confirmed that most Dutch women want to be in part-time employment. Focussing on maternal employment, Berger (2013) studied the effect of non-participation and part-time employment relative to full-time jobs on life satisfaction of mothers in Germany using data from German Socio-Economic Panel Study from 1994-2009. The results showed that mothers outside the labour force (due to family-related reasons) as well as mothers in part-time jobs experience lower life satisfaction than mothers in full-time employment. This was explained by the direct and indirect effect of the forgone household income and is attributed to the institutional conditions in Germany. She advocated improving policies that can allow mothers to work as well as have a family life.

Thus, this paper contributes to the literature by analysing patterns of working hours and its impact on satisfaction from work. To the best of my knowledge, no previous studies have explored patterns of working hours on emerging job satisfaction trends, although several studies have analysed factors influencing satisfaction scores. The next section describes the data and variables of interest.

3. Data - British Household Panel Survey (BHPS)

Waves 1-18 of the BHPS are used in the empirical estimation. The dataset is a nationally representative random sample of private households in Britain and collects a broad range of information on individuals as well as their employment-related characteristics. The estimating sample includes individuals aged 18 to 60, spanning the period 1991-2008 and therefore resulting in an unbalanced panel, with 41,585 and 45,616 person-wave observations for men and women respectively.³ Table A in Appendix presents the descriptive statistics.

Response variable: high job satisfaction

Respondents were asked the following question: “All things considered, how satisfied or dissatisfied are you with your present job overall using 1-7 scale?” Therefore, the dependent variable takes the value 1 if the respondent reports a value of 5 and above and 0 otherwise. Figure A in Appendix plots the trends in overall high job utility for both men and women over

³ The unbalanced panel comprises 7,623 men and 8,240 women.

the entire survey period (Taneja, 2019)⁴. This paper aims to contribute to the existing literature by understanding if weekly working hours play a role in reducing the gender gap in wellbeing. In other words, trends in hours of work and its corresponding correlation with job satisfaction are studied in order to understand if patterns of working hours can explain the emerging trends in job satisfaction from 1991-2008, motivated by the implementation of the EU directives in 2002. As mentioned before, the directive required firms not to offer less favourable treatments to part-time workers in relation to pay and benefits compared to full-time workers as well as have rights to be protected against discrimination. This resulted in growth in non-standard work, expanding choices available to workers to choose working full-time or part-time, thereby maximising utility subject to their constraints. Therefore, this study analyses in depth the effect of working hours on the trends in job satisfaction of British workers.

Main explanatory variable of interest

In this paper, the empirical analysis uses the OECD definition of part-time employment, which is jobs of 1-29 hours per week and workers working 30 hours or more per week are categorised as working regular full-time hours, including paid or unpaid overtime hours.⁵ Thus, the main covariate of interest is a dummy variable taking the value 1 if the respondent works 30 hours or more in a week and 0 if he/she works between 1-29 hours per week (part-time), separately for men and women. On average 94.7 percent of men in the estimating sample have full-time jobs compared to 61.2 percent of women (see descriptive statistics in Appendix). This implies that a small percentage of men on average are employed in jobs of 1-29 hours per week whereas it is more common among female workers to be in part-time employment. This is not surprising because part-time jobs are more common among women, providing the means of combining work and household production and are therefore preferred by female workers (Booth and Van Ours 2008; Bardasi and Francesconi, 2004).

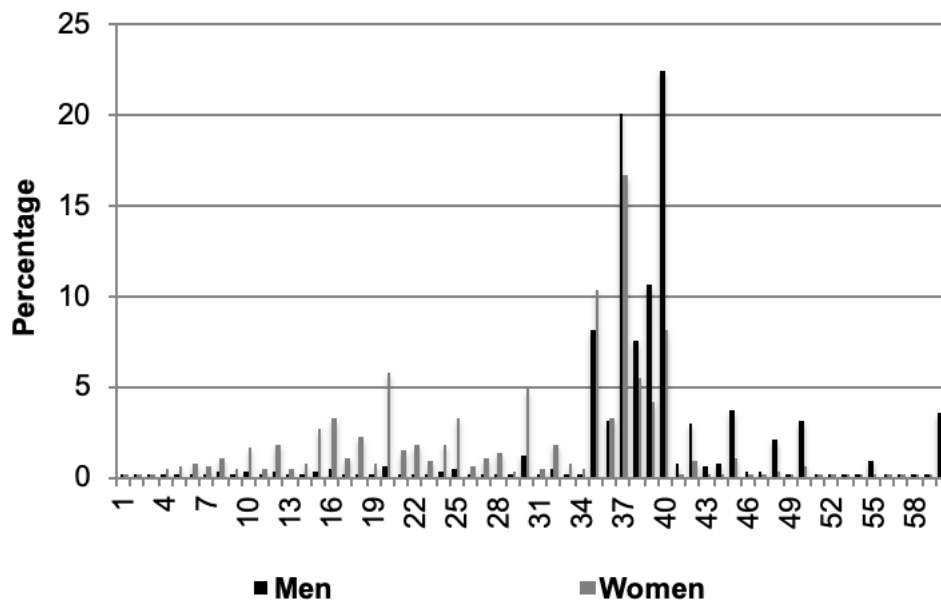
⁴ Taneja (2019) focused on exploring the emerging patterns in job utility for both men and women from 1991-2008. Analysing the gender differences was motivated by the gender gap in post-secondary educational achievements. It was conjectured that trends in education contribute to the emerging patterns in job utility. The results showed that post-secondary education is unlikely to contribute to the trend and unemployment has a small contribution. This paper contributes to the literature by analyzing patterns of working hours on satisfaction from work motivated by labour market flexibilities and growth in non-standard work.

⁵ For more details, see website <http://www.oecd.org/employment/emp/oecdemploymentoutlook2004.htm>

Figure 1 shows two histograms of normal weekly working hours in the main job for both male and female workers. Figure 1.a presents weekly working hours ranging from 1 hour to 60 plus hours, by gender and Figure 1.b merges the hours of work into three categories, 1-29 hours, 30-39 hours and 40 hours plus.⁶ As shown in Figure 1.a, there are peaks in the hours of work at 20, 30, 35, 37 and 40 for female workers. A higher percentage of women work less than 30 hours per week in their main job whereas a small proportion of male workers are in jobs of 1-29 hours per week. On the contrary, fewer women than men work 30 hours or more per week. And as shown in Figure 1.b, 38.3 percent of women are employed in part-time jobs whereas only 5.1 percent of men work part-time. A higher percentage of men than women work regular full-time hours. The histogram shows that 52.1 percent of men and 48.9 percent of women work between 30-39 hours. And finally, 12.8 percent of female workers work more than 40 hours per week compared to 42.8 percent of men in overtime hours. Thus, the data suggests that on average part-time jobs are more common among female workers whereas only a small percentage of men choose to work part-time. On the other hand, a higher proportion of men have jobs with overtime hours compared to their counterparts.

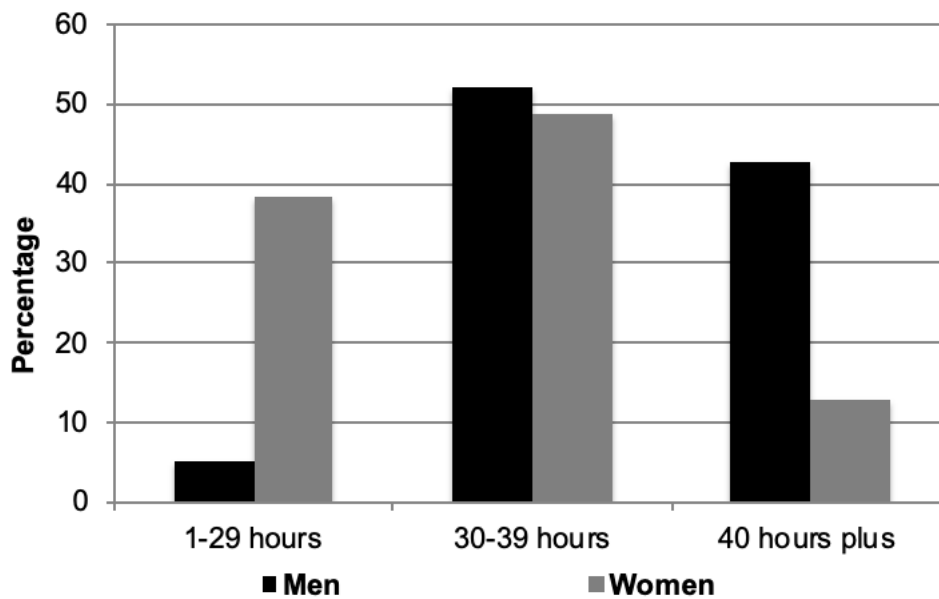
⁶ Booth and Van Ours (2008) distinguished the weekly working hours into four categories. The first category, 1-15 hours was labelled as small-part time jobs and workers belonging to this category were entitled to certain in-work benefits. The second category was 16-29 hours and was classified as large part-time jobs. Individuals working 30-39 hours per week were categorised as working regular full-time hours and those working more than 40 hours per week were labelled as working overtime, irrespective of being paid or unpaid. Figure 1.b combines small part-time and large part-time jobs into one category due to the small number of observations in each of them, when analysed separately.

Figure 1.a: Weekly working hours



Source: Own calculations based on the BHPS

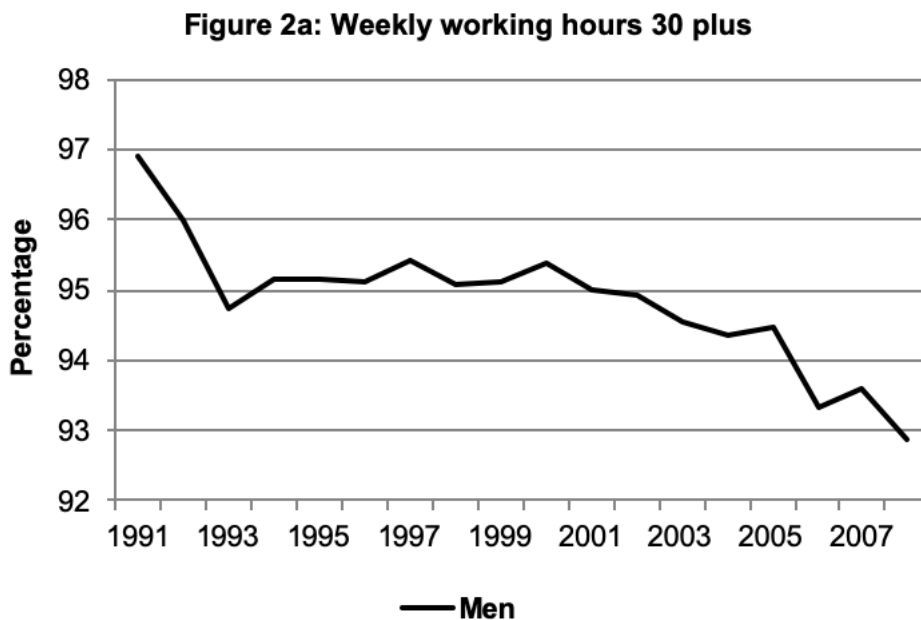
Figure 1.b: Weekly working hours



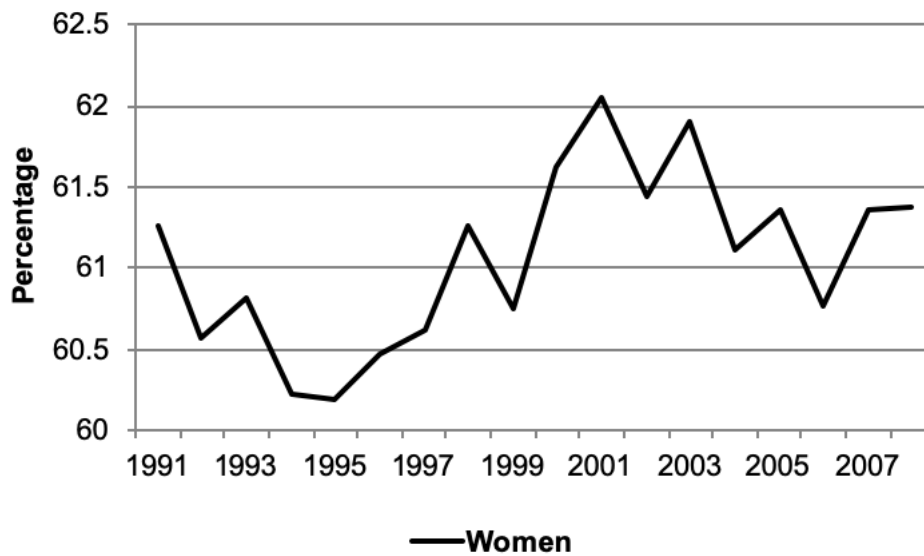
Source: Own calculations based on the BHPS

Plotting the trends in weekly working hours over the survey period, Figure 2.a presents hours of work of male workers and Figure 2.b shows hours of work per week of female workers. Note that hours of work indicate whether the respondents are in jobs of 30 hours or more per week. First analysing the trends in working hours of men, a downward trend can be observed

suggesting a gradual decline in hours of work. The figure shows that 96.9 percent of men worked 30 hours or more per week in 1991 and this dropped to 92.9 percent in 2008, suggesting that male hours of work have declined over the years. On the other hand, Figure 2.b presents weekly working hours of women and smaller variations can be seen from 1991-2008. Thus, two things can be noted. First, a smaller percentage of women are in jobs of 30 hour or more per week compared to male workers. Second and more interestingly, while smaller variations in hours of work are seen for women from 1991-2008, there is a gradual decline for men in jobs of 30 hours or more per week. Thus, more men are working fewer hours in recent years compared to 1991.



Source: Own calculations based on the BHPS

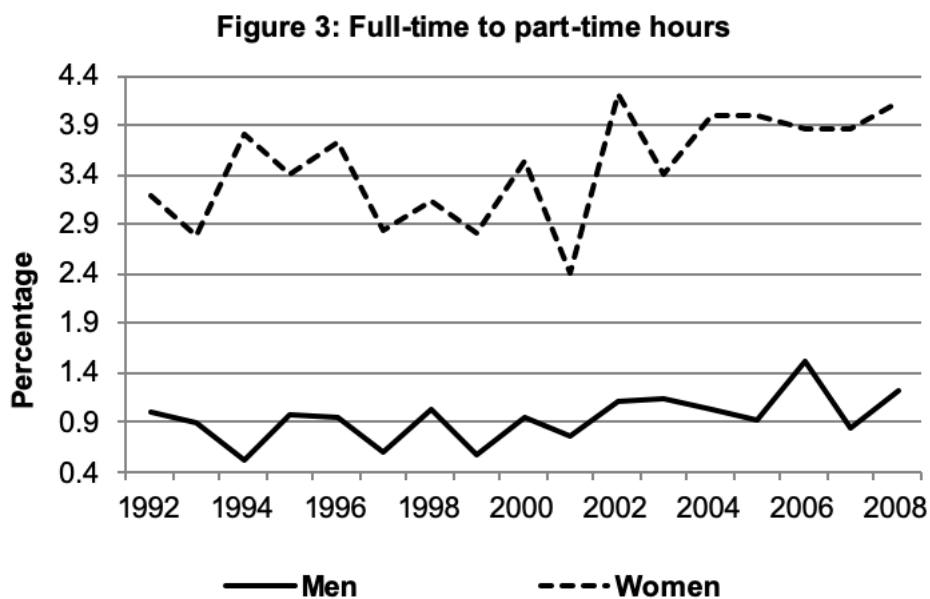
Figure 2.b: Weekly working hours 30 plus

Source: Own calculations based on the BHPS

Hence, the data confirms a decline in the percentage of men in jobs of 30 hours or more (regular full-time employment including overtime hours). In other words, a higher proportion of male workers are working 1-29 hours per week (part-time jobs) in recent years compared to the early 1990's. On the other hand, smaller variations are seen for women. Part-time work is a more flexible option, allowing individuals to earn a wage, maintain their workforce skills and social connections as well as keep up with household production and personal time including childcare (Booth and Van Ours, 2008). It is important to recognise that a number of policies and regulations have been introduced in Britain in the past few years. The European Union directives was one of them, targeting the traditionally weak groups, for example, part-time and temporary workers (Neathey and Arrowsmith, 1999; Booth et al., 2002). The Working Time Regulation Act of 1998 aimed at regulating the hours worked, applying to all workers and specified minimum rest breaks, daily and weekly rest as well as the maximum average working hour in a week. More specifically, a worker may work no more than 48 hours per week, although one has the option to opt out of this default rule. And each worker has a right to be paid annual leave as well as the right to a minimum 20-minute break in a job lasting more than 6 hours. Thus, Working Time Regulation Act, like other directives was introduced at the time of the BHPS survey and has been stated in this paper only for completeness. Also, this policy may not necessarily affect the working hours of all workers but is likely to reduce the hours of those working overtime which maybe paid or unpaid. In addition to the implementation of the New Deal Programme for young people, lone parents, disabled and

elderly have contributed to increasing labour market participation (Blundell, 2001 and Blundell et al., 2004).

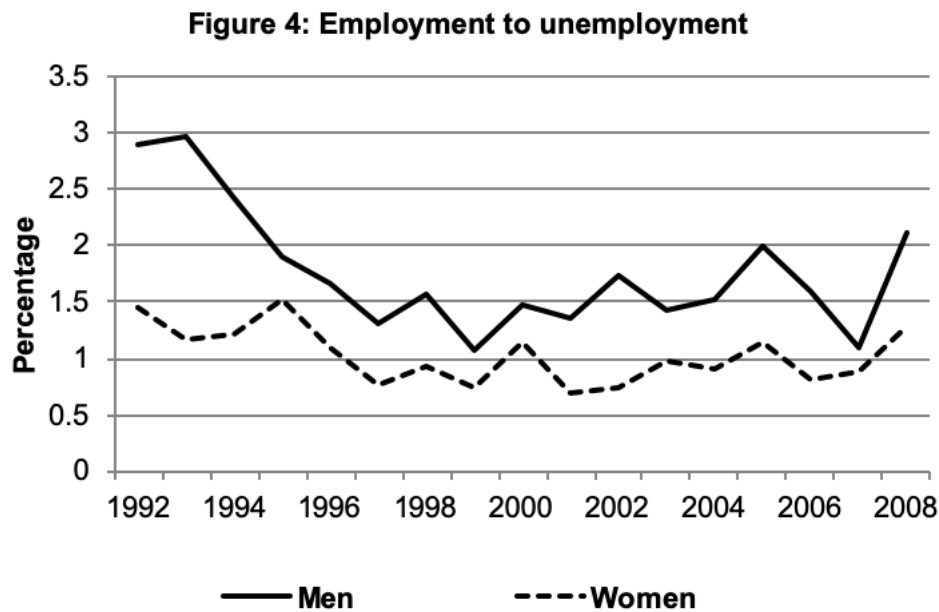
At this stage, it is interesting to explore changes in workforce status in consecutive years over the period 1991-2008 by gender, as it is likely to convey valuable information on the changing patterns of work in Britain. In particular, workers switching from full-time employment in year $t-1$ into part-time jobs in year t is explored, for both men and women, to check if more men are switching into part-time employment in year t from full-time jobs in year $t-1$. Figure 3 plots the trends in changes in weekly working hours in consecutive periods, more specifically, switching from jobs of 30 hours or more in period $t-1$ into working fewer hours, i.e. between 1-29 hours per week in year t . While it is not surprising to witness a higher proportion of women switching to fewer hours than their counterparts over the entire survey, it is interesting to see that there is a slight increase in the proportion of male workers switching to fewer hours of work in recent years. As shown, 1.0 percent of men switched into part-time jobs from working 30 hours or more in 1992, slightly increasing to 1.2 percent in 2008. Thus, conditional on having a job in two periods, both men and women are reducing their hours of work per week.



Source: Own calculations based on the BHPS

An obvious next step is to check that while men are reducing their working hours, are more men getting unemployed in recent years? Figure 4 plots the trends in changes from employment in year $t-1$ into unemployment in year t . To do this, information on the current

economic activity of the respondents is used to generate a dummy variable that takes the value 1 if workers switched from self-employment or employment in the previous period into unemployment in the current year.⁷ From the figure, it can be observed that for men, switching from positive working hours in year t-1 into unemployment in year t is declining from 1991-2008. The proportion of men switching from positive working hours into having no job in consecutive periods is 2.9 percent in 1992 and this declined to 2.1 percent in 2008. Similarly, 1.4 percent of women experienced a job loss in 1992 and this reduced to 1.3 percent in 2008.



Source: Own calculations based on the BHPS

Overall, the raw data shows that male workers are reducing their hours of work in recent years. At the same time, unemployment is also declining over the years. This is not surprising because according to World Bank data, total unemployment recorded in 1991 was 8.4 percent, increasing to 10.3 percent in 1993 and gradually declining thereafter to 5.3 percent in 2008.⁸ Hence, weekly working hours have fallen considerably for men and fewer workers experienced job losses in year t after employment in the previous year.

⁷ The respondents were asked the following question: "Which of the following best describes your current situation. Are you (1) self-employed (2) in paid employment (full-time or part-time) (3) unemployed (4) retired from paid work (5) maternity leave (6) looking after family in home (7) full-time student (8) long-term sick (9) on government training scheme (10) something else.

⁸ Unemployment was defined as "the share of the labour force that is without work but available and seeking employment" For more details, see <http://data.worldbank.org/data-catalog/world-development-indicators>

Remaining covariates

The empirical analysis also controls for a wide range of employment-related and personal characteristics. For example, past unemployment spells take the value 1 if a worker reported a job loss (or multiple job-losses) in the year to September 1. A dummy variable takes value 1 if the individual is employed in a small firm of less than 50 co-workers; promotion opportunities and year of tenure as well as if an individual has a second job is also controlled for. The one-digit Standard Occupational Classification categorises occupations into managers, professionals, technical, clerical, craft, personal and protective services, sales, plant and machinery operatives and other unskilled occupations. The employing sector is classified into private sector, civil service, local government and other public or non-profit organisation. Controlling for personal characteristics, the educational qualification is categorised into 1) MSc and PhD. 2) University first degree. 3) Vocational qualification. 4) School qualification. 5) No qualification. The age range is 18 to 60 and age squared is also included. Marital status is classified into three categories 1) Married or living as a couple. 2) Separated individuals include widowed and divorced and 3) Single. Other personal characteristics include the number of children in the household, a dummy variable taking the value 1 if the respondent has no health problem; respondent gross monthly income greater than £100 and finally, region of residence is also controlled for. Time invariant variables, such as individual's year of birth and its square are also included. A dummy variable indicating if the individual is born in Britain is also controlled for. In order to trace the effect of business cycles, annual GDP growth rate and real interest rate data are drawn from the World Bank database and are also controlled for in the empirical analysis.⁹

4. Empirical results

The following empirical wellbeing function is estimated

$$J_{it} = \theta_i + \beta(H)_{it} + \gamma' X_{it} + \delta_t + \tau_t + \varepsilon_{it}$$

J_{it} is overall high job satisfaction (current job) reported by individual i at time t , H takes the value 1 if the individual works 30 hours or more per week and 0 otherwise. Vector X includes

⁹ GDP growth rate is defined as the "annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars." And the real interest rate is defined as "the lending interest rate adjusted for inflation as measured by the GDP deflator" (World Bank, 2013). For more information, see <http://data.worldbank.org/data-catalog/world-development-indicators>

all the personal and work-related characteristics and δ_t represents aggregate macroeconomic variables. The time dummies are represented by τ_t and ε_{it} is the random error term.

Table 1 presents the parameter estimates for overall high satisfaction from work using logit regressions. Two specifications are presented, each for men and women. Specification 1 only shows the effect of working hours on high job satisfaction (no controls) and specification 2 adds the employment-related and personal characteristics of the individual as well as the macroeconomic variables. As observed from the table, working hours are strongly correlated with job utility, for both men and women. Workers in jobs of 30 hours or more exhibit a negative coefficient, which is statistically significant at 1 percent, after controlling for personal and work-related characteristics as well as aggregate GDP growth and the real interest rate. These results are consistent with previous studies (Clark, 1996; Bardasi and Francesconi, 2004). Notice that the estimated coefficient on working hours is higher for female workers than their male counterparts, implying that women are more dissatisfied with increasing hours of work. Thus, men and women in jobs of 30 hours or more are more likely to experience lower job satisfaction than those working 1-29 hours per week¹⁰. In other words, workers in regular full-time jobs including overtime hours are more dissatisfied with their jobs than those in part-time employment.¹¹

Table 1: Estimated Parameters from logit Regression				
High job satisfaction	Men (1)	Men (2)	Women (1)	Women (2)
Weekly hours-30 hrs & more	-0.132** (0.059)	-0.230*** (0.073)	-0.358*** (0.035)	-0.264*** (0.045)
MSc and PhDs		-0.072 (0.130)		-0.362** (0.144)
University first degree		-0.298*** (0.087)		-0.296*** (0.087)
Vocational		-0.223** (0.094)		-0.161* (0.094)
School qualification		-0.157** (0.063)		-0.009 (0.066)

¹⁰ In order to account for the presence of fixed effects, conditional fixed effect logit regression technique was used, and the results are similar to the logit regression.

¹¹ The marginal effects calculated at the mean reported for men and women are -0.036 and -0.033 respectively, implying that workers working greater than 30 hours per week tend to experience lower job satisfaction.

Unemployment spells		-0.198*** (0.052)		-0.187*** (0.063)
Year 1991	-0.344*** (0.061)	-1.269 (1.505)	-0.225*** (0.067)	-1.350 (1.438)
Year 1992	-0.162** (0.063)	-1.161 (1.485)	0.215*** (0.075)	-0.857 (1.418)
Year 1993	-0.233*** (0.064)	-0.627 (0.699)	0.071 (0.072)	-0.286 (0.668)
Year 1994	-0.275*** (0.062)	-0.419 (0.638)	-0.066 (0.070)	-0.575 (0.614)
Year 1995	-0.184*** (0.063)	-0.584 (0.733)	-0.083 (0.069)	-0.536 (0.700)
Year 1996	-0.164*** (0.062)	-0.217 (0.350)	-0.043 (0.070)	-0.186 (0.334)
Year 1997	0.074 (0.061)	-0.124 (0.422)	-0.006 (0.066)	-0.248 (0.404)
Year 1998	-0.127** (0.059)	-0.759 (0.827)	-0.032 (0.065)	-0.628 (0.792)
Year 1999	-0.191*** (0.053)	-0.416 (0.392)	-0.183*** (0.057)	-0.424 (0.376)
Year 2000	-0.057 (0.051)	-0.635 (0.726)	-0.075 (0.057)	-0.626 (0.698)
Year 2001	-0.039 (0.047)	-0.338 (0.373)	0.093* (0.053)	-0.128 (0.361)
Year 2003	-0.040 (0.048)	0.117 (0.296)	0.027 (0.052)	0.253 (0.286)
Year 2004	0.040 (0.051)	0.037 (0.126)	0.049 (0.057)	0.096 (0.126)
Year 2005	0.098* (0.053)	0.023 (0.080)	0.077 (0.059)	0.087 (0.083)
Year 2006	0.080 (0.055)	0.060 (0.202)	0.024 (0.061)	0.158 (0.197)
Year 2007	0.239*** (0.057)		0.088 (0.062)	
Year 2008	0.195*** (0.059)		0.090 (0.063)	
Year of birth		-0.008 (0.043)		-0.023 (0.041)
Year of birth squared		-0.017 (0.108)		-0.290** (0.116)
UK born		0.420*** (0.138)		-0.019 (0.142)
Small Firm size		0.247*** (0.038)		0.261*** (0.038)
Manager		0.580*** (0.083)		0.324*** (0.089)

Professional		0.496*** (0.099)		0.189* (0.099)
Technical		0.546*** (0.089)		0.329*** (0.091)
Clerical		-0.113 (0.084)		0.119 (0.077)
Craft		0.323*** (0.079)		0.190 (0.122)
Personal		0.232** (0.098)		0.366*** (0.079)
Sales		0.142 (0.094)		-0.020 (0.084)
Plant and machinery		0.029 (0.078)		-0.172 (0.105)
Promotion opportunities in the job		0.649*** (0.035)		0.510*** (0.035)
Job tenure		-0.011*** (0.003)		-0.014*** (0.004)
Has a second job		-0.079 (0.059)		-0.035 (0.054)
Civil service		-0.101 (0.097)		-0.151 (0.101)
Local government		0.206*** (0.078)		0.208*** (0.059)
Other public		0.198** (0.096)		0.277*** (0.070)
Non profit		0.461*** (0.163)		0.243*** (0.086)
No health problems		0.283*** (0.034)		0.342*** (0.034)
Age		-0.075* (0.045)		-0.064 (0.043)
Age squared		0.001*** (0.000)		0.001*** (0.000)
Married		0.117** (0.054)		0.240*** (0.055)
Separated		0.162* (0.098)		-0.004 (0.081)
Number of children in household		0.051** (0.021)		0.089*** (0.024)
South		0.087 (0.084)		0.234*** (0.082)

Centre		0.185** (0.088)		0.256*** (0.088)
North West		0.134 (0.101)		0.027 (0.100)
North East		0.091 (0.093)		0.226** (0.095)
Wales		0.275*** (0.095)		0.129 (0.088)
Scotland/N.Ireland		0.044 (0.087)		0.111 (0.083)
Gross monthly income greater than £100		0.272 (0.247)		0.009 (0.124)
GDP growth (annual %)		-0.058 (0.093)		-0.068 (0.089)
Real interest rate (%)		0.204 (0.224)		0.195 (0.216)
Constant	1.452*** (0.067)	1.599 (4.270)	1.930*** (0.049)	3.856 (4.052)
Observations	52226	41585	57881	45616

Source: Taneja (2019) and own calculations based on the BHPS¹²

Note: Standard errors in parenthesis. Significance level denoted by: *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.1$.

Both male and female workers with high educational qualification experience lower job satisfaction. This is because, although investments in human capital increase hourly wages and contribute to better employability prospects, they also raise expectations and consequently reduces worker's welfare (Clark, 1996). Past unemployment spells continue to influence worker's wellbeing and lowers current job satisfaction scores.¹³

The goal of this chapter is not to understand the impact of working hours on individual wellbeing but to analyse job satisfaction trends from 1991-2008 of British workers and explore the factors responsible for the emerging patterns. It is conjectured that patterns of working hours are likely to contribute to the emerging trends in utility from work. As mentioned before, trends in subjective self-evaluation of satisfaction from workers separately for men and

¹² As some of the construction of the variables are similar to the variables seen in Taneja (2019), some of the coefficients are similar too. However, the strength of this paper lies in understanding patterns of work motivated by growth in non-standard work such as part-time hours and its impact on satisfaction scores.

¹³ As mentioned earlier, previous studies document the strong correlation between unemployment and individual wellbeing. For more details, see Knabe and Ratzel (2011); Clark et al (2010); Clark, (2003); and Clark et al (2001).

women shows a considerably large gender gap in the early 1990's and with time, this gap has gradually narrowed. While female workers report high job satisfaction scores throughout the survey period, men are catching up to women's level (Taneja, 2019). The results show that hours of work exhibit a strong negative effect on overall high job satisfaction and are consistent with previous studies. Workers in jobs of 30 hours or more per week are likely to report lower job satisfaction compared to workers in jobs of 1-29 hours per week. In other words, workers in part-time jobs are more satisfied with their jobs than their full-time counterparts. And as noted in Section 3, a graphical representation of working hours for both men and women is shown in Figure 2.a and 2.b respectively and the data confirms that working 30 hours or more is declining gradually for male workers in Britain whereas smaller variations are seen among female workers. As mentioned before 96.9 percent of men were working full-time hours or overtime including paid or unpaid in 1991 and this gradually declined to 92.9 percent in 2008. Thus, *ceteris paribus*, the steady decline in working hours of male workers and its corresponding negative association with current overall job satisfaction indicates that a higher proportion of men are working part-time, consequently enhancing wellbeing of British men.¹⁴ While part-time employment was mostly common among women, it is gaining popularity among male workers in recent years. Working fewer hours in a week allows workers to combine work and household production. Such flexible working arrangements also results in less attachment to the labour market (Bardasi and Francesconi, 2004). Part-time employment can be voluntary or involuntary. The former consists of workers choosing to work fewer hours per week because of childcare, eldercare or maybe the individual is financially well off to take up part-time employment. However, involuntary part-timers comprise individuals who are unable to find a full-time job. Voluntary or involuntary, British men are gradually reducing their weekly working hours over the years and its corresponding negative correlation with overall high job satisfaction suggests that the rise in welfare in recent years can be explained by the declining working hours.

The aim behind the EU directives was to improve the condition of the traditionally weak groups of the labour force, such as part-time workers (Neathey and Arrowsmith, 1999) as well as low paid and those in temporary employment. Aimed at equal pay and conditions for different types of atypical employment, these effective regulations are likely to have had an impact (Booth et al., 2002). Furthermore, the Labour Party introduced the National Minimum Wage legislation in Britain in 1999, ensuring all workers are paid the basic hourly wage. Prior to 1999, there was no national minimum wage in Britain and the rate when it was first

¹⁴ Taneja (2019) also confirms that past unemployment spells is a factor contributing to the trends in current job utility of British workers.

introduced was £3.60 per hour for workers aged 21 and above. A lower rate of £3 per hour applied to those aged 18 to 20. These rates gradually increased by 2008 to £5.37 per hour for workers aged 21 and above and £4.77 per hour for those between 18-20 years of age. With the gradual increase in the minimum wage rate each year, such pay-rise boosts the income of all workers. According to the neoclassical theory of labour supply, there exists a labour-leisure trade off. Workers work for a given hourly wage and an increase in hours of work results in a rise in their total income. However, this comes at a cost of leisure enjoyed by the workers. And a rise in the wage rate implies that workers earn a higher income for given number of hours worked or earn the same wage for fewer hours. Time and leisure are normal goods, therefore a rise in income due to an increase in the wage rate results in increasing demand for leisure. Therefore, workers are likely to reduce their labour supply and spend their higher wage on leisure. By the same argument, the implementation of the minimum wage and its gradual rise each year makes workers earn a higher wage for the given number of hours or earn the same wage for fewer hours. Thus, the reduction in the hours of work for men is not surprising because of the introduction of the minimum wage and its rise each year. And it is common for female labour force participation rates to be much lower than that of men. Women may also opt out of the workforce if they are dissatisfied with their jobs and occupy some other status (Clark, 1997). Thus, it is not surprising to see smaller variations in working hours for women whereas more men are reducing their hours of work.

4.2 Transitions in economic activity and employment profiles on satisfaction scores

This section investigates changes in economic activity and employment profiles in two consecutive years from 1991-2008, with the aim to understand any positive transitional effects on satisfaction from work. In particular, individuals switching from unemployment in period $t-1$ into part-time work in year t is estimated on job satisfaction measured at time t . Also, transitioning from being jobless in period $t-1$ into a full-time job in year t is estimated. And changes in employment profiles in two consecutive years are analysed, in particular, workers switching from full-time work into part-time employment. Table 2 presents the effect of the transitional variables on overall high job satisfaction, using logit regressions, for both men and women. As observed, workers switching from unemployment in the previous year into part-time jobs are likely to be more satisfied with their current job. For men, the coefficient is positive and statistically significant at 5 percent. The coefficient for women is also positive but much smaller and statistically insignificant. Thus, the effect of switching into a part-time job after having experienced a job loss in the previous year is much stronger for men than women

and male workers are likely to report higher satisfaction with their current job than their counterparts.

Table 2: Estimated parameters from Logit regression						
High Job satisfaction	Men	Men	Men	Women	Women	Women
Unemployed into part-time hours	0.428** (0.207)			0.045 (0.161)		
Unemployed into full-time hours		-0.090 (0.088)			0.177 (0.143)	
Full-time into part-time hours			-0.201* (0.120)			-0.121* (0.070)
Unemployment spells	-0.210*** (0.053)	-0.167*** (0.058)	-0.190*** (0.052)	-0.193*** (0.065)	-0.214*** (0.066)	-0.186*** (0.063)
MSc and PhDs	-0.070 (0.130)	-0.072 (0.130)	-0.070 (0.130)	-0.385*** (0.144)	-0.384*** (0.144)	-0.385*** (0.144)
University first degree	-0.297*** (0.087)	-0.300*** (0.087)	-0.298*** (0.087)	-0.310*** (0.087)	-0.310*** (0.087)	-0.309*** (0.087)
Vocational	-0.221** (0.094)	-0.223** (0.094)	-0.221** (0.094)	-0.175* (0.094)	-0.175* (0.094)	-0.174* (0.094)
Schooling qualification	-0.154** (0.063)	-0.156** (0.063)	-0.155** (0.063)	-0.022 (0.066)	-0.022 (0.066)	-0.022 (0.066)
Small Firm size	0.249*** (0.038)	0.249*** (0.038)	0.251*** (0.038)	0.279*** (0.038)	0.279*** (0.038)	0.280*** (0.038)
Manager	0.565*** (0.083)	0.561*** (0.083)	0.559*** (0.083)	0.219** (0.088)	0.217** (0.088)	0.216** (0.087)
Professional	0.490*** (0.098)	0.487*** (0.099)	0.486*** (0.099)	0.106 (0.098)	0.105 (0.098)	0.106 (0.098)
Technical	0.536*** (0.089)	0.533*** (0.089)	0.531*** (0.089)	0.251*** (0.090)	0.249*** (0.090)	0.250*** (0.090)
Clerical	-0.122 (0.084)	-0.124 (0.084)	-0.126 (0.084)	0.050 (0.077)	0.049 (0.077)	0.049 (0.077)
Craft	0.310*** (0.079)	0.307*** (0.079)	0.303*** (0.079)	0.084 (0.120)	0.083 (0.120)	0.082 (0.120)
Personal	0.234** (0.098)	0.233** (0.098)	0.234** (0.098)	0.326*** (0.080)	0.325*** (0.079)	0.327*** (0.079)
Sales	0.156* (0.094)	0.153 (0.094)	0.154* (0.094)	-0.011 (0.084)	-0.011 (0.084)	-0.011 (0.084)

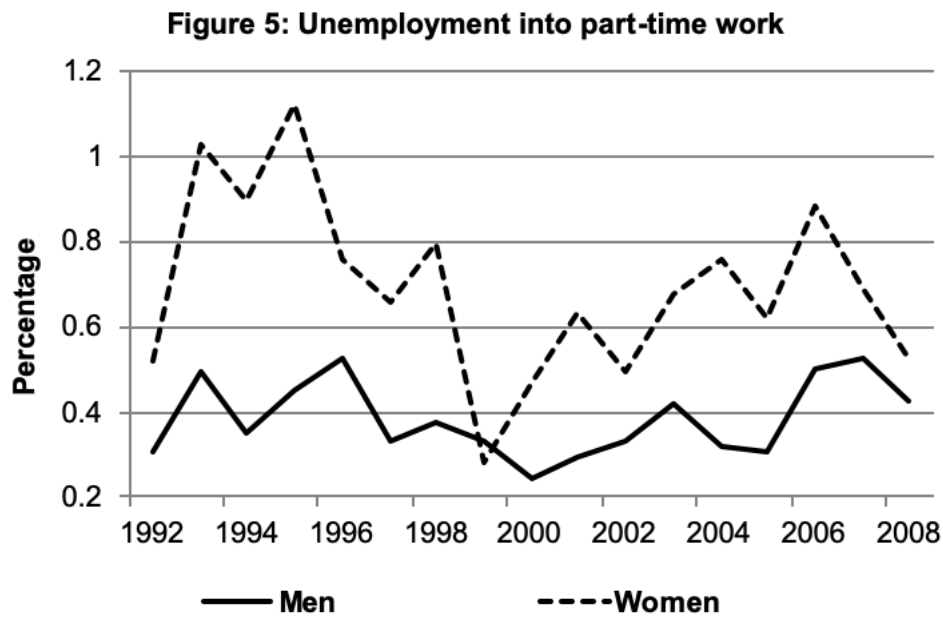
Plant and machinery	0.015 (0.078)	0.011 (0.078)	0.009 (0.078)	-0.266** (0.104)	-0.268*** (0.103)	-0.267*** (0.103)
Promotion opportunities	0.643*** (0.035)	0.641*** (0.035)	0.641*** (0.035)	0.491*** (0.035)	0.491*** (0.035)	0.490*** (0.035)
Job tenure	-0.011*** (0.003)	-0.012*** (0.003)	-0.012*** (0.003)	-0.013*** (0.004)	-0.013*** (0.004)	-0.013*** (0.004)
Has a second job	-0.067 (0.059)	-0.067 (0.059)	-0.065 (0.059)	-0.006 (0.054)	-0.006 (0.054)	-0.005 (0.054)
Civil service	-0.103 (0.097)	-0.103 (0.097)	-0.103 (0.097)	-0.161 (0.101)	-0.161 (0.101)	-0.161 (0.101)
Local government	0.212*** (0.078)	0.213*** (0.078)	0.213*** (0.078)	0.209*** (0.059)	0.209*** (0.059)	0.209*** (0.059)
Other public	0.198** (0.095)	0.198** (0.095)	0.200** (0.095)	0.282*** (0.070)	0.282*** (0.070)	0.281*** (0.070)
Non profit	0.465*** (0.164)	0.466*** (0.164)	0.468*** (0.164)	0.260*** (0.085)	0.259*** (0.085)	0.259*** (0.085)
No health problems	0.279*** (0.034)	0.279*** (0.034)	0.279*** (0.034)	0.336*** (0.034)	0.336*** (0.034)	0.336*** (0.034)
Age	-0.073*** (0.013)	-0.073*** (0.013)	-0.073*** (0.013)	-0.057*** (0.013)	-0.057*** (0.013)	-0.057*** (0.013)
Age squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Married	0.107** (0.054)	0.105* (0.054)	0.105* (0.054)	0.254*** (0.055)	0.256*** (0.055)	0.256*** (0.055)
Separated	0.153 (0.098)	0.154 (0.098)	0.155 (0.098)	-0.013 (0.081)	-0.012 (0.081)	-0.013 (0.081)
Children in household	0.053*** (0.021)	0.054*** (0.020)	0.054*** (0.020)	0.136*** (0.023)	0.136*** (0.023)	0.136*** (0.023)
South	0.090 (0.083)	0.088 (0.083)	0.088 (0.083)	0.235*** (0.082)	0.236*** (0.082)	0.235*** (0.082)
Centre	0.189** (0.088)	0.188** (0.088)	0.187** (0.088)	0.258*** (0.088)	0.258*** (0.088)	0.258*** (0.088)
North West	0.139 (0.101)	0.138 (0.101)	0.139 (0.101)	0.024 (0.100)	0.025 (0.100)	0.024 (0.100)
North East	0.100 (0.093)	0.099 (0.093)	0.099 (0.093)	0.230** (0.095)	0.231** (0.095)	0.231** (0.095)
Wales	0.282*** (0.094)	0.281*** (0.094)	0.281*** (0.094)	0.130 (0.088)	0.130 (0.088)	0.131 (0.088)
Scotland/ N.Ireland	0.049 (0.087)	0.048 (0.087)	0.047 (0.087)	0.110 (0.083)	0.111 (0.083)	0.110 (0.083)
Monthly income more than £100	0.186 (0.238)	0.156 (0.239)	0.150 (0.239)	-0.096 (0.124)	-0.098 (0.124)	-0.093 (0.124)
GDP growth (annual %)	-0.043* (0.022)	-0.043* (0.022)	-0.043* (0.022)	-0.017 (0.024)	-0.017 (0.024)	-0.018 (0.024)
Real interest rate (%)	0.168*** (0.056)	0.168*** (0.056)	0.168*** (0.056)	0.071 (0.060)	0.070 (0.060)	0.071 (0.060)
Year 1991	-1.043***	-1.050***	-1.049***	-0.468**	-0.466*	-0.475**

	(0.223)	(0.223)	(0.223)	(0.239)	(0.239)	(0.238)
Year 1992	-0.915*** (0.250)	-0.919*** (0.250)	-0.916*** (0.250)	-0.020 (0.267)	-0.021 (0.267)	-0.021 (0.267)
Year 1993	-0.507*** (0.108)	-0.505*** (0.108)	-0.506*** (0.108)	0.118 (0.126)	0.121 (0.127)	0.119 (0.126)
Year 1994	-0.312*** (0.116)	-0.310*** (0.117)	-0.313*** (0.116)	-0.209* (0.124)	-0.209* (0.124)	-0.209* (0.124)
Year 1995	-0.457*** (0.104)	-0.458*** (0.104)	-0.460*** (0.104)	-0.104 (0.112)	-0.103 (0.112)	-0.105 (0.112)
Year 1996	-0.158** (0.062)	-0.158** (0.062)	-0.159** (0.062)	0.024 (0.068)	0.024 (0.068)	0.024 (0.068)
Year 1997	-0.052 (0.068)	-0.053 (0.068)	-0.055 (0.068)	-0.000 (0.071)	0.001 (0.071)	-0.001 (0.071)
Year 1998	-0.621*** (0.155)	-0.622*** (0.155)	-0.621*** (0.155)	-0.158 (0.163)	-0.158 (0.163)	-0.159 (0.163)
Year 1999	-0.353*** (0.067)	-0.354*** (0.067)	-0.354*** (0.067)	-0.195*** (0.071)	-0.195*** (0.071)	-0.197*** (0.071)
Year 2000	-0.515*** (0.153)	-0.517*** (0.153)	-0.516*** (0.153)	-0.217 (0.163)	-0.217 (0.163)	-0.218 (0.163)
Year 2001	-0.275*** (0.077)	-0.276*** (0.077)	-0.275*** (0.077)	0.082 (0.085)	0.083 (0.085)	0.081 (0.085)
Year 2003	0.070 (0.096)	0.071 (0.096)	0.071 (0.096)	0.091 (0.102)	0.092 (0.102)	0.092 (0.102)
Year 2004	0.017 (0.061)	0.018 (0.061)	0.017 (0.061)	0.030 (0.068)	0.030 (0.068)	0.030 (0.068)
Year 2005	0.011 (0.054)	0.011 (0.054)	0.010 (0.054)	0.048 (0.059)	0.048 (0.059)	0.047 (0.059)
Year 2006	0.028 (0.064)	0.029 (0.064)	0.030 (0.064)	0.047 (0.071)	0.047 (0.071)	0.047 (0.071)
Constant	1.236*** (0.339)	1.275*** (0.340)	1.291*** (0.340)	1.465*** (0.284)	1.463*** (0.284)	1.470*** (0.284)
Observations	41599	41599	41604	45629	45629	45634

Source: Own calculation based on the BHPS

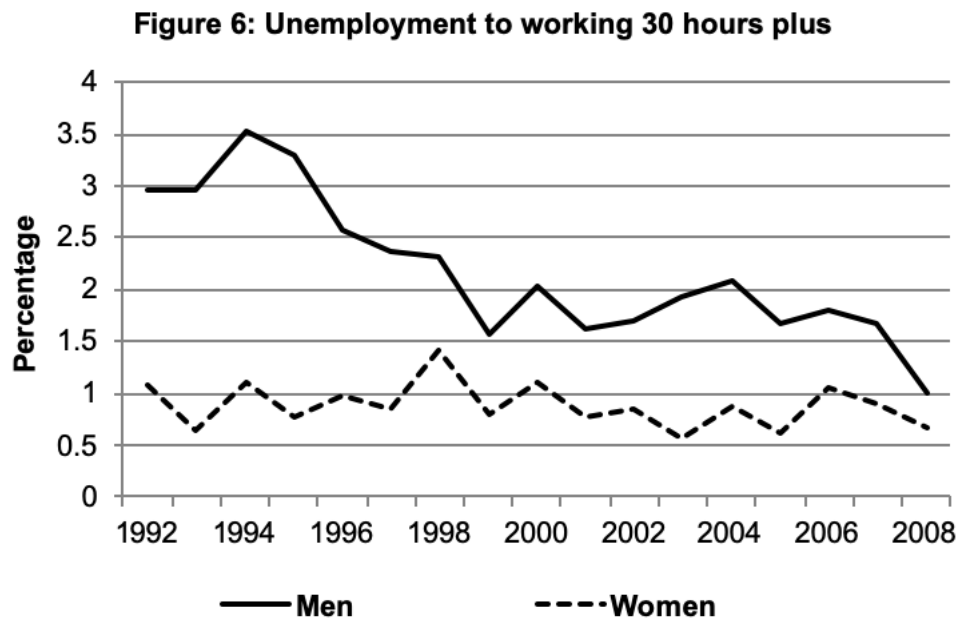
Note: Standard errors in parenthesis. Significance level denoted by: *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.1$.

Plotting the trend in transition from unemployment into part-time work for men and women, Figure 5 shows that a higher percentage of women than men make this switch. But notice that the proportion of men switching into part-time work after having experienced unemployment is also increasing in recent years. Although a very small percentage change, 0.30 percent of men made such a switch in 1992 compared to 0.42 percent in 2008.



Source: Own calculations based on the BHPS

Table 2 also presents the effect of switching from unemployment in year $t-1$ into full-time hours on current job satisfaction measured at time t . Although statistically insignificant, men experience lower job satisfaction after making such a switch whereas women are likely to experience higher wellbeing. Analysing the trends for workers switching from unemployment in year $t-1$ into full-time jobs in year t , Figure 6 shows that fewer women than men switch from unemployment to full-time hours over the entire survey period. More importantly, there is a gradual decline in the proportion of male workers switching from unemployment in the previous year into working 30 hours or more.



Source: Own calculations based on the BHPS

And finally, Table 2 shows the effect of switching from full-time employment in t-1 into part-time jobs is analysed on current job satisfaction. Thus, conditional on having a job, the effect of changing jobs of 30 hours or more in the previous year to a job of 1-29 hours is also analysed. As shown, both men and women exhibit a negative coefficient on high job satisfaction; suggesting that both men and women switching from full-time hours into part-time are more dissatisfied from their current jobs.

In summary, analysing changes in labour market status cannot be ignored and provide additional confidence in the results of this paper. The recession in the early 1990's resulted in a slow-down of the economy and unemployment rates surged. Job losses were more concentrated among men who accounted for 81 job losses in that period (Bell and Blanchflower, 2010). The economy gradually picked up over the years and unemployment started to decline. Overall, the results show that switching from unemployment into part-time jobs in two consecutive periods enhances men's welfare whereas men are more dissatisfied switching into full-time jobs after having experienced unemployment in the previous period. Thus, men are happier working fewer hours even after unemployment than working full-time hours. Although part-time employment is more common among women, facilitating both household production and work, satisfaction scores are higher for male workers than women in part-time jobs after unemployment in the previous period.

5. Conclusion

Previous studies by economists on individual utility have explored the determinants of job satisfaction. This paper adds to the economic literature by analysing trends in current job satisfaction of British workers from 1991-2008 and tests the conjecture that patterns of working hours contribute to the emerging wellbeing trends. This is because of increasing flexibility in the labour market and growth in non-standard work motivates the evaluation of patterns of working hours and its corresponding effects on job satisfaction trends. There is evidence of a considerably large gender gap in work utility in the early years of 1990s and this gap has gradually narrowed (Taneja, 2019). A heterogeneous definition of working time and flexibility in the labour market is likely to increase wellbeing of workers as more choices are available and workers optimally choose from the set of choices to maximise their utility or wellbeing. Consistent with previous studies, the results of this paper show a negative correlation of working hours with utility from work. Workers in jobs of 30 hours or more per week are likely to report lower job satisfaction compared to workers in jobs of 1-29 hours per week. In other words, workers in part-time employment are more satisfied with their current jobs than their full-time counterparts. The data confirmed that the proportion of men in full-time employment is declining in recent years compared to the early 1990s whereas smaller variations in working hours of 30 plus are seen for women. This reduction in men's hours of work can be attributed to government policies including the EU directives on part-time employment as well as technological innovations, thereby making it possible to work from locations other than the standard workplace. Furthermore, legislation, such as the National Minimum Wage ensures all workers are paid the basic hourly wage rate and there has been a gradual rise each year since its introduction in 1999. This rise in the wage rate each year boosts income of all workers, resulting in either higher wages for given number of hours or pays the same wage for fewer hours. And since time and leisure are both normal goods, this is likely to explain why hours of work are declining, especially for male workers. Smaller variations in working hours are seen for women and this is not surprising because it is common for female labour force participation to be lower than men and a high probability of sample selection among women is persistent. Dissatisfied women are likely to opt out of employment and occupy some other status (Clark, 1997). Also, previous studies have documented that part-time work is more common among female workers, advocating the option of work and leisure as well as household production (Booth and Ours, 2008). Furthermore, exploiting the panel nature of the dataset, this paper studies the effect of changes in labour market status in consecutive years on satisfaction scores. This provides additional confidence in the results. In particular, individuals switching from unemployment in

period $t-1$ into part-time work in year t is estimated on job satisfaction measured at time t . Also, transitioning from being jobless in period $t-1$ into full-time job in year t is estimated. And changes in employment profiles in two consecutive years in analysed, for example, workers switching from full-time work into part-time employment. It was concluded that switching from unemployment into part-time jobs enhances male wellbeing whereas switching from unemployment into full-time hours exhibit a negative and statistically insignificant effect. Thus, working fewer hours in a week after unemployment results in greater satisfaction from work than switching into full-time jobs for men.

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Appendix

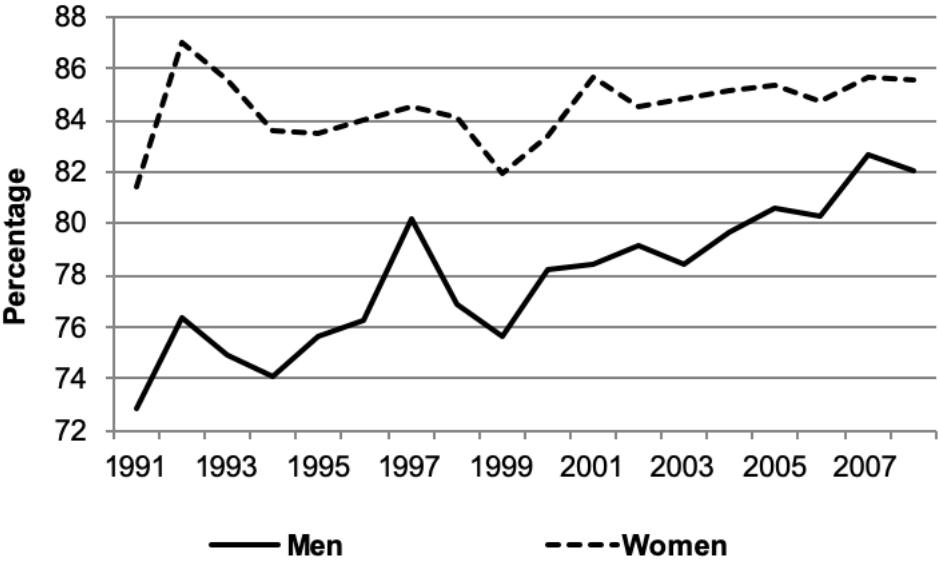
Table A: Descriptive statistics				
Variables	Men	Men	Women	Women
	Mean	Standard Deviation	Mean	Standard Deviation
High job satisfaction	0.7801	0.41	0.8407	0.37
MSc/PhDs	0.0382	0.19	0.0269	0.16
University first degree	0.1416	0.35	0.1405	0.35
Vocational	0.0899	0.29	0.0756	0.26
School qualification	0.5782	0.49	0.5921	0.49
No qualification	0.1522	0.36	0.1649	0.37
Unemployment spell	0.0605	0.24	0.0415	0.20

Year of birth	63.1946	11.75	62.9976	11.82
Year of birth squared	0.9409	0.24	0.9440	0.23
UK born	0.9934	0.08	0.9927	0.09
Small Firm	0.4236	0.49	0.5165	0.50
Working hours	0.9472	0.22	0.6125	0.49
Manager	0.1818	0.39	0.1106	0.31
Professional	0.1000	0.30	0.1028	0.30
Technical	0.1082	0.31	0.1339	0.34
Clerical	0.0975	0.30	0.2567	0.44
Craft	0.1777	0.38	0.0189	0.14
Personal	0.0691	0.25	0.1636	0.37
Sales	0.0523	0.22	0.1073	0.31
Plant and machinery	0.1402	0.35	0.0334	0.18
Unskilled	0.0732	0.26	0.0728	0.26
No health problems	0.5546	0.50	0.4608	0.50
Promotion	0.5457	0.50	0.4775	0.50
Job tenure	4.5061	6.18	3.9621	5.27
Second job	0.0808	0.27	0.0967	0.30
Private firm	0.7924	0.41	0.5903	0.49
Civil service	0.0445	0.21	0.0408	0.20
Local government	0.0963	0.29	0.2005	0.40

Other public	0.0470	0.21	0.1219	0.33
Non profit	0.0198	0.14	0.0465	0.21
Age	37.2	127.2	37.5	127.5
Age-Squared	1512.0078	868.70	1533.6727	868.70
Married	0.7131	0.45	0.7069	0.46
Separated	0.0504	0.22	0.1033	0.30
Single	0.2365	0.42	0.1897	0.39
Children	0.6937	0.99	0.6847	0.94
London	0.0695	0.25	0.0728	0.26
South	0.2311	0.42	0.2274	0.42
Centre	0.1757	0.38	0.1652	0.37
NorthWest	0.0854	0.28	0.0853	0.28
NorthEast	0.1255	0.33	0.1214	0.33
Wales	0.1366	0.34	0.1381	0.34
Scotland/N.Ireland	0.1763	0.38	0.1899	0.39
Income	0.9975	0.05	0.9852	0.12
GDP	2.6533	1.49	2.6548	1.48
Interest rate	3.0134	1.32	2.9945	1.32
Observations	41585		45616	

Source: Taneja (2019), BHPS

Figure A: High job satisfaction



Source: Taneja (2019), BHPS