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Temporary Employment, Job Satisfaction and Subjective Well-being

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Abstract

This paper is concerned with whether employees on temporary contracts in Britain report lower well-being than those on permanent contracts, and whether this relationship is mechanised by differences in certain aspects of job satisfaction. Previous research has identified a well-being gap between permanent and temporary employees but has not addressed what individual and contract specific characteristics contribute to this observed difference. Using data from the British Household Panel Survey, this paper finds that a large proportion of the difference in self-reported well-being between permanent and temporary employees appears to be explained by differences in satisfaction with job security. Other dimensions of job satisfaction are found to be less important. In fact, after controlling for differences in satisfaction with security between contract types, our results suggest that temporary employees report higher psychological well-being and life satisfaction. This leads us to believe that an employment contract characterised by a definite duration lowers individual well-being principally through a heightened feeling of job insecurity.

Keywords: Temporary employment, subjective well-being, job satisfaction
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1. Introduction

During the last two decades extensive labour market reforms have been undertaken around Europe in an effort by policy makers to enhance the flexibility and improve the performance of European labour markets. An aspect of these reforms has been the easing of the restrictions regulating the use of temporary employment contracts (OECD, 2004). So-called flexible contracts such as temporary work, fixed-term/contract work and agency work are now widespread across the European workforce. Britain has always been a relatively deregulated labour market by European standards and, thus, has been relatively unaffected by these recent labour market reforms. However, the prevalence of temporary forms of employment (according to Eurostat, some 1.5 million of UK employees are in temporary employment today) has led to a growing interest among academics and policy makers in the impact of increased flexibility on employment outcomes and, importantly, the well-being of individual employees (Booth et al., 2002). In principle, temporary employment can have both positive and negative welfare consequences for workers. Flexible scheduling arrangements and other aspects of the daily work experience related to temporary work may be valued and preferred by some employees, whereas the insecurity and poorer working conditions associated with these contract types can have a negative impact on workers' welfare (Carrieri et al., 2012; Blanchard and Landier, 2002).

This paper contributes to this literature by analysing the relationship between temporary employment status and four subjective well-being measures in Britain. Our key contribution is not only to study the effects of temporary employment on well-being but to try to understand the mechanisms behind this relationship. Previous research in this area typically establishes the link between well-being and contract type with the inclusion of temporary employment dummy variables in standard well-being equations. While this sheds some light on well-being variations between the different groups, it does not provide much information upon the origins of these differences which can be informative for public and labour market policy. Our analysis, using the British Household Panel Survey (BHPS), reveals that a large proportion of the difference in well-being of an individual on a temporary employment contract relative to a similar individual on a permanent contract can be attributed to differences in their satisfaction with job security. Other facets of job satisfaction, including satisfaction with "pay", the "hours worked" and the "work itself", are found to contribute much less to the overall difference, as are individual and other job specific factors.

The remainder of this paper is structured as follows. Section 2 presents the background to the questions at hand and reviews the related literature. Section 3 describes the longitudinal data source we use and provides some preliminary descriptive analysis. Sections 4 and 5 develop the empirical methodology and present the results of the empirical analysis, while section 6 provides a final discussion and conclusion.

2. Background

Several studies have examined the relationship between contract type and the health and well-being of employees in Britain and across Europe.[1] The typical (mainly cross-sectional) finding is that employees on temporary employment contracts report lower mental well-being and have a greater chance of psychological morbidity than comparable employees

[1] See Virtanen et al. (2005) for a description and meta-analysis of the psychological and occupational medicine literature on the subject.

on traditional, full-time permanent contracts.[2] However, studies endeavouring to identify causal relationships between subjective well-being and different contract types have in general found a weak or no negative impact of atypical employment on the health and well-being of workers.

There are some important reasons why the relationship between mental well-being and flexibility may not be unambiguously negative. On the one hand, temporary work can be desirable for employees that want to have an independent control over their working schedule, while others may consider it as a necessary stepping-stone towards a more integrated position in the labour market (Virtanen et al., 2005; Bardasi and Francesconi, 2004; Booth et al., 2002). On the other hand, temporary jobs are associated with higher job insecurity and increased unemployment risk and are more likely to be characterized by poorer working conditions and wage penalties relative to permanent jobs (Booth et al., 2002).

The relationship between temporary contracts and well-being, thus, will depend, among other things, on the voluntary or involuntary nature of such work, the specific type of the non-permanent contract, the institutional context and the overall labour market performance of the country of interest, as well as the feelings of job insecurity that are associated with each job experience (Bardasi and Francesconi, 2004; Carrieri et al., 2012; Gash et al., 2007; Silla et al., 2005; Virtanen et al., 2005). Indeed, an examination of the studies most closely related to ours and which examine and report the type-of-contract effect on well-being using the same data as we do, suggests that the evidence is quite mixed.

Rodriguez (2002) uses British data from the BHPS and German data from the German Socio-Economic Panel and finds no statistically significant relationship between atypical employment and general health status in Britain (for Germany, though, the results point to a negative association). Using the same dataset, Bardasi and Francesconi (2004) report negative effects of temporary employment only on job satisfaction, while their estimates for psychological well-being and general health status are statistically insignificant in the majority of their model specifications. In contrast, Taylor (2006) reports that holding a casual or seasonal temporary employment contract has a detrimental effect on mental well-being, whereas fixed-term contracts are found to have a positive effect. Finally, Robone et al. (2011) report some negative effects of contractual conditions on general health and psychological well-being, although these depend on the working time preferences, the family situation and the employability of the survey respondents.

Initial research on the influence of employment type and well-being focused upon the role of job insecurity (Green, 2003). Temporary contracts are associated with greater, subjective and objective, job insecurity owing to a heightened unemployment risk since contract end dates are explicitly specified, and also because employment protection is less strict for such contracts. In turn, greater job insecurity can have negative effects on psychological well-being, since the planning of current and future life activities is constrained (Burchell, 1999; Gash et al., 2007). Burchell et al. (2002) find evidence of a strong relationship between job insecurity feelings and stress, while job insecurity has also been linked with work-family conflict and a deterioration of family life that can lead to greater psychological distress (Scherer, 2009).

In line with the above, three recent studies have shown that feelings of job insecurity predominantly explain why temporary employees are observed as having lower job satisfaction than their counterparts in permanent employment (Origo and Pagani, 2009; Green and Heywood, 2011; Chadi and Hetschko, 2013). Green and Heywood (2011), also using the BHPS, find that when satisfaction with security is controlled for in a multivariate regression model, temporary contracts are actually associated with a higher utility from work measured

[2] For a recent US study on temporary employment and depressive symptoms, see Quesnel-Vallée et al. (2010).

by overall job satisfaction. It is expected that job satisfaction is in its turn related to overall well-being through a "spill-over" effect (Green and Heywood, 2011; Taylor, 2006).

Given that temporary employment contracts are associated with higher job insecurity and that previous research has established the link between insecurity and well-being, an important part of any observed well-being gap between permanent and temporary employees is likely governed by differences in subjective job security. In this paper we therefore contribute to the literature by using four overall well-being and health measures as the outcomes of interest and estimating the contribution of differences in job satisfaction with security to the well-being gap between temporary and permanent employees. We also discuss in detail the contribution of other individual and contract specific characteristics, including other aspects of job satisfaction, to the overall well-being gap.

3. Data and descriptive analysis

The data used for the empirical analysis are from the British Household Panel Survey (BHPS) and cover the years 1991-2008 (Waves 1-18). BHPS is a nationally representative survey of more than 5,000 households and approximately 10,000 individuals in Great Britain, sampled in 1991 and followed since then. The BHPS contains data at the individual and household level covering household composition, housing characteristics, education and training, health, labour market status and job characteristics, and values and opinions on social and political matters.

The BHPS asks individuals to self-report whether their current job is on either a permanent or a non-permanent contract, thus identifying temporary employment on this basis. It is also possible to partition the sample of non-permanent employees into two further groups of individuals: (1) those holding a seasonal, agency temporary or casual job, and (2) those under contract for a fixed period or for a fixed task. For the remainder of the paper those in the latter group are referred to as fixed-term workers and those in the former as casuals.[3] The sample used for the subsequent analysis is restricted to the original BHPS sample covering Great Britain and to employees that are below the state pension age (16-59 for women, 16-64 for men) and gave a valid response to being on either a permanent or non-permanent contract. The final sample consists of 60,058 person-year observations. These correspond to 57,567 person-year observations for permanent employees, 1,310 for fixed-term employees, and 1,181 for casuals.[4]

To explore the association between employment contract and well-being, information is used from four questions routinely used in analyses of this type (Bardasi and Francesconi, 2004; Taylor, 2006; Rodriguez, 2002; Robone et al., 2011; Madden, 2010). These are the following (see also Table 1):

1. *Psychological Distress*. This uses the General Health Questionnaire (GHQ, 12-point measure) asked at each wave of the BHPS. The GHQ is widely used especially in the medical literature as an indicator of minor psychiatric morbidity and psychological distress (Madden, 2010). The GHQ has 12 items which have a 4 (from 0 to 3) point scoring system that ranges from a "better/healthier than

[3] Agency work differs from the other types of temporary employment due to its "triangular" nature (Forde and Slater, 2005). Excluding this category from the "casuals" group does not cause any important changes in the results reported below.

[4] The numbers refer to our model for *Psychological Distress* (see below and Table 2). This is used as the baseline sample for our analysis. The models for the rest of the dependent variables specified below contain fewer observations.

normal" option, through a "same as usual" and a "worse/more than usual" to a "much worse/more than usual" option. Higher scores correspond to lower well-being (higher psychological distress).[5]

2. *Poor General Health*. Respondents were asked at each wave (except for 1999, when this question was substantially changed) of the BHPS "*Compared to people of your own age, would you say your health over the last 12 months on the whole has been: excellent, good, fair, poor or very poor?*" Maintaining the same range, we construct a five point scale that is increasing in poor general health.

3. *Anxiety/depression (mental health condition)*. Respondents are asked at each wave of the BHPS: "*Do you have any of the health problems or disabilities listed on this card?*" An option is "*Anxiety, depression or bad nerves, psychiatric problems*". Responses are binary and take the value 1 if an individual suffers from a health problem related to anxiety or depression and 0 if not.

4. *Life Dissatisfaction*. In waves 6–10 and 12–18 respondents were asked "*How dissatisfied or satisfied are you with your life overall?*" Responses were given on a 7-point Likert scale ranging from "not satisfied at all" to "completely satisfied". Maintaining the same range, we rescale the variable so that it is increasing in life dissatisfaction.[6]

Table 1 summarises the distribution and variation of well-being indicators amongst the sample groups described earlier in the section as well as other potential moderating influences on well-being that have been discussed in the literature. From the descriptive information provided in Table 1, it is evident that there is a large well-being differential between contract types. In particular, those on permanent contracts have almost exclusively the lowest means on all four well-being indicators. This is followed by those employees on fixed-term contracts and then by those on casual contracts. T-tests are also performed for the difference in means between contract types. Comparing casuals to those on permanent contracts, the differences are highly significant for all four well-being measures, with casuals reporting much lower well-being. For fixed-term employees the differences are smaller and not statistically significant for anxiety/depression and life dissatisfaction. Moreover, while they report significantly higher psychological distress, they also appear to have better general health status than permanent workers. The remainder of this paper seeks to identify the underlying mechanisms behind these observed raw differences in the data.

Looking at the sample means reported in Table 1 and Appendix Table A1, it is worth noting that those on casual contracts are more likely to be younger, female, single and, consequently, less likely to have an employed spouse/partner than permanent employees. They are also more likely to hold a second job, to work fewer normal or overtime hours and to be lower paid. Importantly, casuals are much less likely to have promotion prospects in their jobs, less likely to receive bonus payments or annual pay increments, and less likely to be members of an employer-provided pension scheme than permanent employees. The

[5] The BHPS provides and alternative GHQ measure which ranges between 0 and 36. We choose to use the 12-point scale measure in our analysis. However, the results presented in the subsequent sections are robust to using the 36-point scale.

[6] Correlations between the four dependent variables are generally low. The strongest correlation is between psychological distress and life dissatisfaction (0.47), with the remaining correlation coefficients being below 0.30. Consequently, we analyse these four aspects of well-being separately and we are commenting below on the differences in the results.

differences in these latter job characteristics and working conditions are especially large. On the other hand, fixed-term workers tend to be younger, female and better educated than permanent employees, while they also work shorter hours overall. There is also no significant difference in terms of the hourly wages of permanent and fixed-term contracts. Fixed-term employees also have lower promotion opportunities and are less likely to be members of employer pension schemes. Both flexible worker types are more likely to expect either a better or worse year financially, while the majority of permanent employees expects a financially similar immediate future. Moreover, from Appendix Table A1 we can see that fixed-term workers are concentrated in high-skilled occupations (professional and technical) and are more likely to work in the public or other non-profit sector and, especially, in education. On the other hand, casual employees are more likely to work in personal and protective services or as plant and machine operatives (see also Booth et al., 2002). Some of the above differences are expected to contribute to some extent to the differences in well-being mentioned earlier.

[Insert Table 1 here]

The BHPS also contains a number of items concerning facets of job satisfaction which are used throughout this paper as key moderating influences on well-being. Within the BHPS responses for job satisfaction questions are given on a 7-point Likert scale ranging from "not satisfied at all" to "completely satisfied". All dimensions of job satisfaction available in the BHPS are used: (1) overall job satisfaction, (2) satisfaction with pay, (3) satisfaction with job security, (4) satisfaction with hours worked and, lastly, (5) satisfaction with the work itself.[7] Each job satisfaction aspect is correlated strongly and negatively with life dissatisfaction and, to a lesser extent, with psychological distress. In contrast, job satisfaction aspects appear weakly correlated with our other two well-being indicators.

Concerning the differences between contract types, Table 1 illustrates that casuals have lower levels of job satisfaction than those on permanent contracts. The t-tests are highly significant, confirming the differences in each case. For fixed-term workers, the differences in job satisfaction aspects from the permanent group are much less clear-cut. In fact, fixed-term workers appear to enjoy higher satisfaction both with hours and with the work itself. The key difference between the permanent and temporary groups, however, is the difference in satisfaction with security. For permanent contracts the mean level of satisfaction with job security is 5.4, while it is around 3.9 for fixed-term and casuals (there is no significant difference between the two temporary types). More specifically, permanent employees have approximately a 39% higher mean level of satisfaction with job security than casuals. For the other dimensions of job satisfaction, differences between permanent and casual employees range between 2% and 7%. A 38% difference in satisfaction with security is also observed between permanent and fixed-term workers.

The above differences are similar to those reported by Green and Heywood (2011) and Booth et al. (2002). Consequently, the next section of this paper is concerned with whether differences in the levels of satisfaction (and, especially, satisfaction with job security) between contract types are important factors in explaining why permanent and temporary workers report significantly different levels of well-being.

[7] Correlations between these five job satisfaction aspects are moderately high. The strongest are those between overall job satisfaction and the other dimensions. However, correlations between the different aspects of satisfaction are low enough to safely assume that they measure different aspects of utility derived from the job.

4. Multivariate regression results

Using our four measures of well-being as our dependent variables, this section reports the empirical results from multivariate regression analysis. All our ordered measures are treated as cardinal and the models are estimated by OLS. The same is done for the anxiety/depression (mental health condition) regression which is interpreted as a linear probability model. This modelling strategy was mainly chosen in order to be able to perform the detailed linear decomposition (see next section). Additionally, results from fixed effects OLS regressions will be presented. A fixed effects specification is not possible with non-linear models. It should be noted though that all results are qualitatively very similar to those obtained from non-linear ordered and binary response models.[8]

All regression models include the range of covariates described in Table 1 and Appendix Table A1. These are standard socio-demographic and job-related controls that are consistently used in the literature. The variables for working hours, managerial-supervisory status, promotion opportunities in current job, bonus or profit-share payments, membership in an employer provided pension scheme, annual increments, place of work and working in rotating shifts, are used to control for differences in working conditions that are likely to affect well-being (Robone et al., 2011). In addition, we also control for the variation in facets of job satisfaction as mentioned above.

Pooled OLS estimates

We begin by pooling the data across the three contract types and estimate well-being equations with dummy variables included to identify the influence of the contract type. Table 2 presents the results for this procedure. These are all linear regressions estimated by OLS, with the standard errors clustered by individual to account for intra-group correlations. In each case comparisons are made between contract types whilst controlling for heterogeneity amongst individuals using standard control variables. We also add sequentially to the right hand side of our well-being and health equations a single facet of job satisfaction. These results are reported in columns (2) to (6). Column (1) reports estimates of the effects of the employment contract on well-being without controlling for variations in aspects of job satisfaction between the groups. Our estimates in column (1) are therefore our baseline estimates. While it is recognised that the dimensions of job satisfaction are likely endogenous in equations (2) to (6), we are not interested directly in the coefficient of the job satisfaction controls but in the effect of their inclusion on the contract-type coefficients (Green and Heywood, 2011).

[Insert Table 2 here]

Looking firstly at columns (1) of Table 2, those on casual employment contracts have significantly higher psychological distress and life dissatisfaction scores than employees on permanent contracts. For fixed-term employees the coefficients are positive in both cases but not statistically significant at conventional levels. As illustrated by the descriptive evidence in the previous section, the differences in well-being and other covariates between fixed-term and permanent employees are much less pronounced than those between casuals and permanent employees. Hence, we find no evidence of a gap in well-being between fixed-term workers and permanent employees once we control for a number of socio-demographic, job

[8] These results are available from the authors on request.

and working conditions variables. Another important observation from the results in columns (1) is that there is no statistically significant relationship between flexible employment and either general health or mental health condition. This leads us to believe that the concept of mental or psychological well-being is better captured by our variables for psychological distress and life dissatisfaction. On the other hand, general health status is more closely related to health than mental well-being (as it also covers physical health), while the mental health condition variable identifies long-term and, probably, formally diagnosed psychiatric problems.[9]

The subsequent columns (2) to (6) control in turn for different facets of job satisfaction. All satisfaction coefficients are large and significantly negative, confirming the strong association between job satisfaction and well-being. In column (3) satisfaction with job security is included. This causes a dramatic change in the coefficients reported in the baseline estimates. In particular, if the differences in job satisfaction associated with security across the contract types are controlled for, fixed-terms workers and casual employees are *less* likely than permanent employees to report psychological distress, with the former relationship being statistically significant at the 1% level. In contrast, including the other dimensions of job satisfaction as controls does not change the conclusions drawn from our baseline estimates. Consequently, it can be argued that differences in psychological distress between contract types are governed by differences in satisfaction with job security and not by other aspects of job satisfaction that may be associated with the type of contract. For life dissatisfaction, the inclusion of job satisfaction covariates reveals a similar picture. That is, controlling for all dimensions of job satisfaction except for satisfaction with job security, yields similar results to the baseline model; however, controlling for differences in job security feelings suggest that both fixed-term workers and casuals have lower life dissatisfaction. Both these findings are statistically significant at the 1% and 5% level respectively. For the other two health/well-being indicators, the inclusion of the job satisfaction variables does not cause any substantial change in the baseline estimates. The exception is, again, when satisfaction with security is added. For the general health variable, both flexible employment coefficients become significantly negative, indicating a better health status for people in flexible contracts once job security considerations are taken into account. For mental health condition, the two coefficients are now negative, although still statistically insignificant.

To summarise, after controlling for satisfaction with security, all temporary contract dummies appear to acquire a negative coefficient which points to a positive association between temporary employment and well-being. This reflects aspects of this type of work that are beneficial for individual employees, such as greater scheduling flexibility, or a voluntary sorting in such jobs which may be considered as a stepping-stone towards a permanent contract (Carrieri et al., 2012; Green and Heywood, 2011).

The associations between well-being and other covariate coefficient estimates are now briefly discussed.[10] Psychological distress increases with age and is substantially higher for females and those with low financial expectations. Noticeably, psychological distress is also higher for employees who work more unpaid overtime hours and for the better educated, while, importantly, it is considerably lower for employees with promotion prospects and those whose pay includes annual increments. Life dissatisfaction increases with age and is higher for the better educated. The latter finding may be related to Clark and Oswald's (1996) argument who suggest that the negative relationship between higher education and job satisfaction may be due to education raising aspiration targets. Life dissatisfaction is also

[9] There is a clear indication in the BHPS question used to construct the anxiety/depression dummy that temporary health conditions should be excluded from the answers.

[10] For brevity, these coefficient estimates are not reported but are available from the authors on request.

markedly higher for individuals who work longer hours (normal or unpaid) and the lower paid. Consistent with the findings for psychological distress, employees with promotion prospects and whose pay includes annual increments report much lower life dissatisfaction. For poor general health the results suggest that a high score is less likely for males, the better educated, those with promotion prospects and the better paid. Finally, anxiety/depression is again less likely for males, employees with promotion prospects and those who hold a second job.

Fixed effects estimates

The pooled cross-sectional estimates just presented may not reflect the true impact of temporary employment on individual well-being. They may simply reveal low well-being types seek (or are only hired on) flexible employment contracts or that unobservable individual characteristics such as talent, motivation or attitudes towards work, predict both the type of employment contract and worker well-being. Consequently, a further strategy to control for these possibilities is to re-estimate the models described above using a fixed effects (or within) estimator. These estimates identify the effect of contract-type on well-being by individuals who transition into and out of temporary employment and examine the corresponding changes in well-being. Previous studies using the same data and that control for individual worker fixed effects (Bardasi and Francesconi, 2004; Green and Heywood, 2011) suggest that well-being is largely unaffected by switches into and out of temporary employment.

However, one issue not addressed by Bardasi and Francesoni (2004), and only touched upon by Green and Heywood (2011), is that changes in contract type status often occur simultaneously with employer or job changes (Chadi and Hetschko, 2013). In fact, the majority (around 60%) of contract changes in our sample are job transitions. As such there are likely to be cross-firm heterogeneities, such as differences in the working environment or employer pressures exerted on workers that may be correlated with well-being. If these factors are not controlled for because the relevant data are unavailable, fixed effects estimates will attribute these effects to the type of contract. Although in our models we control for various job characteristics and working conditions variables, the BHPS does not contain thorough indicators that would adequately capture these cross-firm differences. One important implication related to this issue is that those individuals observed as leaving their permanent jobs and entering into temporary employment may have unusually poor permanent jobs (Green and Heywood, 2011). If this is the case, the effect of contract type change on individual well-being will be downwardly biased when using fixed effects. This is because poor quality permanent employment is likely to influence both the employment transition and overall well-being. Ideally, we would like to control for this by identifying individuals who remain in the same job but change only their contract type; unfortunately, these numbers within the BHPS are sufficiently small. To investigate this issue further, we compared the job satisfaction of people in permanent employment who never become temporarily employed with those currently in permanent employment who subsequently become temporarily employed. We found very strong evidence that those permanent employees who will be in temporary employment in the future have substantially lower levels of job satisfaction than those who will not. These results lead us to conclude that previous studies on the casual influence of employment contract on well-being are likely to be downward biased.[11]

[11] Results are available from the authors on request. Another reason for biased (in the same direction) fixed effects estimates is the likely existence of a "honeymoon" effect associated with a job change (Chadi and Hetschko, 2013).

[Insert Table 3 here]

Although the above discussion highlights the potential limitations of fixed effects modelling on estimating the relationship between contract types and well-being, Table 3 presents these estimates. Firstly, what is interesting from these results is that even after controlling for unobserved individual heterogeneity, all facets of job satisfaction appear to have strong influences on all well-being measures. The coefficients are smaller than those presented in Table 2 but a similar conclusion can be drawn, i.e. that job satisfaction is positively related to individual well-being. We now turn our attention to the baseline estimates in columns (1). Casuals have higher psychological distress and life dissatisfaction scores than those in permanent contracts, with the former relationship being significant at the 5% level. For fixed-term workers the coefficients are negative but not statistically significant at the conventional levels. Again, the subsequent columns (2) to (6) control in turn for different facets of job satisfaction. Firstly, for life dissatisfaction the inclusion of satisfaction with security causes a dramatic change in the coefficients reported in the baseline estimates. Casuals and fixed-term workers are now both less likely to report life dissatisfaction, with the latter relationship being statistically significant at the 5% level. The inclusion of other facets of job satisfaction, though, does not affect our baseline estimates. The results for our psychological distress estimates are very similar with those in Table 2. Again, only the inclusion of satisfaction with security causes a substantial change to the coefficients of interest. For general health and anxiety/depression, when controlling for fixed individual effects and satisfaction with security, fixed-term workers report significantly higher (at the 10% level) well-being than permanent workers. This is not the case when other aspects of job satisfaction are controlled for. In contrast, the coefficients for casuals in the general health models are significantly negative across all fixed effects specifications, while they are insignificant in the anxiety/depression ones.

The majority of associations between the well-being measures and the rest of our covariates in the pooled OLS models are largely robust to the inclusion of fixed effects. Briefly, psychological distress is higher for employees who work more unpaid overtime hours and for those with low financial expectations. Importantly, it is considerably lower for employees with no promotion prospects and those whose pay includes annual increments. Consistent with the above, life dissatisfaction is higher for those who work more unpaid overtime hours and the lower paid, while it is also lower for those with no promotion prospects. Again, poor general health and anxiety/depression are negatively associated with promotion opportunities.

To sum up, after controlling for differences in satisfaction with job security, becoming a casual and (mainly) a fixed-term employee has in general a positive influence on subjective psychological well-being. This is broadly in line with the conclusions drawn from the pooled OLS results.

5. Decomposing the well-being gap between temporary and permanent employees

In the previous sections we provided evidence that satisfaction with job security is a strong predictor of the difference in well-being between employees in permanent and temporary contracts and that this result is more clear-cut for the two variables more closely related to psychological well-being, namely psychological distress and life dissatisfaction. However, we have said nothing about its total contribution to the temporary-permanent well-being gap relative to the contribution of the other explanatory variables in the models. To

enable a further understanding of the differences between permanent and temporary employees in the strength of the various factors entered in the regression models, a linear decomposition analysis is undertaken in this section.

When the outcome of interest is continuous and modelled using a linear regression, the Blinder-Oaxaca (Blinder, 1973; Oaxaca, 1973) decomposition technique is widely used. The standard Blinder-Oaxaca decomposition of the permanent/temporary gap in the average value of the outcome variable *Y* can be expressed as:

$$\bar{Y}^P - \bar{Y}^T = (\bar{X}^P - \bar{X}^T)\hat{\beta}^* + \bar{X}^P(\hat{\beta}^P - \hat{\beta}^*) + \bar{X}^T(\hat{\beta}^* - \hat{\beta}^T) \quad (1)$$

where $\bar{Y}^P - \bar{Y}^T$ is the difference between the average outcomes of the permanent and the temporary sample. Let $\bar{X}^j$ be a row vector of the average values of the independent variables for the group *J = (P,T)* and $\hat{\beta}^k$ a vector of coefficient estimates. The asterisk refers to the coefficients estimated from a model where the samples are pooled together, while the *P* and *T* superscripts over β denote coefficients from separate regressions for each sample. The difference in the outcome due to the difference in the characteristics of the two groups (the "explained" part) is captured by the first term on the right hand side of equation (1), while the second and third terms shows the differential that is due to differences in the estimated coefficients (the "unexplained" part). This specific formulation of the decomposition analysis uses the coefficients from a pooled model for the estimation of the explained part. However, equation (1) can be formulated accordingly based on the specific model coefficients (pooled, permanent or temporary) that are used for calculating the explained part of the gap.[12]

Table 4 provides the results of this decomposition analysis for the explained part of the well-being gap between temporary and permanent employees. For brevity, we only report results of the model which includes the facet of job satisfaction associated with job security as a control and we briefly comment in the end on the results from the other specifications. This is because satisfaction with job security represents the largest raw differential between the contract types, as shown in Table 1.

[Insert Table 4 here]

Panel A of Table 4 reports the well-being decompositions between fixed-term and permanent workers, while Panel B reports the decompositions for casuals compared to those in permanent employment. The upper part of each panel shows the mean well-being score for the employment contract subsamples. The differences in these average well-being scores are then shown, followed by the difference explained by all the explanatory variables of the model. The lower panel then provides individual contributions to the well-being gap from selected differences in covariates along with indicators of their statistical significance. Cluster-robust standard errors (not reported) used for the significance tests are calculated via the delta method (see Jann, 2008).

Starting our analysis with Panel A of Table 4, we notice that the differences in the group means of the well-being indicators between permanent and fixed-term workers tend to be relatively small compared with the mean differences observed in Panel B, something that we have already noted in the previous sections. Consequently, most of our discussion below

[12] See Jann (2008) for the different formulas in each case and the details on the Stata routine we use to estimate the decomposition. Note here that the appropriate method for decomposing ordered or binary response outcomes would be to use non-linear decomposition techniques in the spirit of Bauer and Sinning (2008) or Fairlie (2005). However, the detailed decomposition (which estimates the separate contribution of each independent variable) is only available in the case of binary responses (Fairlie, 2005).

is concentrated on the difference between permanent employees and casuals. As a brief comment on the results in Panel A, the small observable differences between the two groups can largely be explained by differences in satisfaction with job security. In fact, the size of the contributions of the job security variable are so large, that it appears that those on fixed-term contracts would have markedly higher well-being than permanent employees once we controlled for heterogeneity amongst individuals and differences in job security. Another observation is that differences in socio-demographic characteristics and financial expectations appear to be much more important than the differences in job characteristics in explaining the gaps between permanent and fixed-term employees. The only difference in job characteristics that appears to be a consistently significant determinant of the well-being gap is the difference in promotion opportunities between the two contract types.

In Panel B, the differences in the group means on the well-being indicators are relatively large. For psychological distress the employment contract gap in well-being is 0.419, a 25% difference in percentage terms. Of this gap, 123% can be explained by differences in the covariates' distribution, with the remaining small offsetting difference of 23% (-0.096) being due to the differences between the coefficients. A large proportion of the raw difference can be explained by the difference in job satisfaction with security distributions between contract types, as well as the different gender, household characteristics, annual increments and promotion prospects distributions. In particular, the higher average permanent employee satisfaction with job security in the sample explains 89% of the gap. For gender, annual increments in pay and promotion opportunities the percentages are 16%, 8% and 7%, respectively. For anxiety/depression the well-being gap between contract types is 0.018 (a 41% difference in percentage terms). Of this observed difference, 94% can be explained by the whole model, 42% can be explained by differences in satisfaction with security between the contract types, and 18% by the difference in the hourly wage. Other large and statistically significant contributions to this particular health gap are those of gender (18%), age (-35%) and differences in promotion opportunities (9%). The negative contribution of age to the anxiety/depression gap is due to the fact that permanent employees are older on average than casuals and age has a positive effect on the probability of reporting a mental health condition, reducing thus this particular well-being gap.

For life dissatisfaction the raw gap is 0.165 and the model used explains approximately 177% of the gap. Again, of the observed raw difference between the groups, 137% can be explained by satisfaction with job security, 38% by marital status and -48% by the higher mean age for permanent workers. Since permanent employees work more hours and working hours are positively related with life dissatisfaction, this set of variables has a negative contribution (-22%) to the well-being gap as well. For our last indicator of well-being, poor general health, the observed difference is relatively small, but the results are consistent with the other measures. Satisfaction with security explains a large proportion of the well-being gap. In fact, for all well-being measures the unexplained part suggests that if those on casual contracts had identical socio-demographic, job and workplace characteristics to those in permanent employment, those on casual contracts would have no worse well-being.

It should be noted, finally, that decompositions using the other job satisfaction variables were also estimated. The conclusions are the same as those reported in the previous section: the security aspect of job satisfaction has the largest contribution to the permanent-temporary well-being gap. For example, overall job satisfaction explains 37% of the permanent-casuals gap in psychological distress (relative to 89% for the satisfaction with security aspect reported above) and 55% of the gap in life dissatisfaction (relative to 137% for the security aspect). Lower contributions are also estimated when using the other satisfaction aspects in our regression models.

6. Discussion and conclusions

This paper has been concerned with the extent to which the difference between temporary and permanent employees in Britain in their self-reported levels of well-being can be explained by differences in observable characteristics and certain aspects of job satisfaction. Previous research has established the link between temporary employment contracts and below average well-being in some detail (Bardasi and Francesconi, 2004; Virtanen et al., 2005). However, the important question of whether certain job characteristics and, in particular, certain dimensions of job satisfaction are likely to influence the well-being differentials between different contract types, has not been addressed. This is particularly surprising given that a parallel literature has also examined the proposition that temporary employees tend to report lower job satisfaction, especially in domains associated with job security (Green and Heywood, 2011; Chadi and Hetschko, 2013).

By analysing data from the BHPS, this paper finds evidence that individuals on temporary employment contracts, especially casuals, report lower well-being than their counterparts in permanent employment. Consistent with this finding, temporary employees are found to have generally lower job satisfaction, with the difference between the contract types being especially large for satisfaction with job security. This latter finding, in turn, appears to explain a very large proportion of the difference in well-being between temporary and permanent employees. More specifically, we find that, if differences in job security between contract types are controlled for, fixed-term workers exhibit significantly higher levels of well-being and casuals no worse than those workers in permanent employment. An important further finding is that controlling for any other aspects of job satisfaction (satisfaction with pay, hours, or the work itself) does not alter our conclusion drawn from Table 1. That is, temporary employees are still found to be more likely to report lower well-being. Other variables, including some socio-demographics and working conditions like household income, promotion prospects in current job and existence of annual increments in pay, appear to explain a part of the well-being gap between contract types, although they are far less important than satisfaction with job security.

Labour market policies undertaken throughout Europe in the last decades have as their aim to reduce unemployment and increase the employment security of individuals (Origo and Pagani, 2009; Chadi and Hetschko, 2013). However, the results presented here show that although increased flexibility associated with temporary contracts may offer reimbursements that are beneficial for individual well-being at the micro level, workers on these types of contract in Britain suffer from a well-being penalty, at least in the short-run. This means that the gains from flexibility cannot outweigh the costs in terms of psychological well-being that are mainly the result of greater job insecurity for temporary workers. This in turn may have serious implications for the welfare state and the macro-economy (Burgoon and Dekker, 2010), through a greater political pressure for a more generous welfare state as the number of temporary workers increases, and an accompanying increase in health care or other welfare state costs.

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TABLE 1: Description and sample means for selected variables

	Description	All	Permanent	Fixed-term	Casual-Seasonal-Agency
Dependent Variables					
GHQ (Psychological Distress)	GHQ 12-point measure (0-12: 0 = no distress)	1.688	1.676	1.841**	2.102***
Poor General Health Status	5-point Likert-type scale of subjective health status (1 = excellent health, 5 = very poor health)	1.981	1.980	1.947*	2.026**
Anxiety/depression (Mental Health Condition)	Binary variable (0-1: 1 = existence of mental health condition)	0.044	0.044	0.051	0.061***
Life Dissatisfaction	7-point Likert-type scale of overall satisfaction with life (1 = completely satisfied, 7 = not satisfied at all)	2.774	2.771	2.808	2.943***
Job Satisfaction Aspects					
Overall Job Satisfaction	7-point Likert-type scale (1 = not satisfied at all, 7 = completely satisfied)	5.356	5.362	5.316*	5.063***
Satisfaction with Security	As above	5.343	5.401	3.918***	3.892***
Satisfaction with Total Pay	As above	4.827	4.833	4.778	4.566***
Satisfaction with Hours	As above	5.194	5.194	5.294***	5.105**
Satisfaction with Actual Work Itself	As above	5.446	5.452	5.505*	5.122***
Other covariates					
(1) Socio-demographics					
Age (in years)		38.1	38.3	35.8***	32.9***
Female		0.50	0.50	0.56***	0.62***
First or higher university degree		0.172	0.167	0.371***	0.186**

Further education (teaching, nursing or other)	0.308	0.310	0.263***	0.220***
A-levels	0.131	0.131	0.131	0.169***
O-levels or equivalent	0.204	0.206	0.135***	0.194
Other qualifications	0.077	0.077	0.056**	0.099***
No qualifications	0.108	0.109	0.044***	0.132***
Number of own children in household	0.63	0.63	0.61	0.61
Household size (persons)	3.01	3.01	3.09***	3.31***
Log of monthly household income (in 2005 £)	7.975	7.977	8.016***	7.817***
Whether spouse/partner employed	0.634	0.640	0.566***	0.450***
(2) Financial expectations for year ahead				
Better than now	0.346	0.342	0.400***	0.483***
Worse than now	0.100	0.100	0.124***	0.099
About the same	0.553	0.558	0.476***	0.418***
(3) Job characteristics				
Log of hourly wage (in 2005 £)	2.090	2.098	2.109	1.671***
Usual weekly normal hours (excluding overtime)	34.9	35.1	31.5***	28.8***
Usual weekly paid overtime	1.88	1.90	1.25***	1.66**
Usual weekly unpaid overtime	1.92	1.95	1.79*	0.60***
Whether promotion opportunities in current job	0.513	0.523	0.340***	0.247***
Whether pay includes bonus, profit-related pay etc.	0.327	0.366	0.099***	0.128***
Whether pay includes annual increments	0.474	0.479	0.477	0.224***
Whether member of employer provided pension	0.550	0.563	0.364***	0.085***
Whether working in rotating shifts	0.081	0.082	0.056***	0.048***
Observations	60,058	57,567	1,310	1,181

Notes: Observations refer to the final model for GHQ (see Table 2); asterisks refer to results from two-tailed t-tests of the null hypothesis that the difference between the temporary and the permanent mean is equal to zero (* rejected at 0.10, ** at 0.05, *** at 0.01).

TABLE 2: The effect of different aspects of job satisfaction on mental well-being (Pooled OLS)

	GHQ (Psychological Distress)						Poor General Health					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Fixed-term	0.042	0.012	-0.324***	0.044	0.041	0.048	-0.015	-0.020	-0.083***	-0.015	-0.015	-0.013
	(0.095)	(0.090)	(0.094)	(0.093)	(0.093)	(0.091)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
Casual/Seasonal/Agency	0.299***	0.140	-0.089	0.306***	0.212**	0.183**	-0.021	-0.043	-0.093***	-0.021	-0.038	-0.037
	(0.093)	(0.091)	(0.094)	(0.092)	(0.092)	(0.092)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
Satisfaction Aspects												
Overall		-0.520***						-0.075***				
		(0.014)						(0.004)				
Security			-0.248***						-0.046***			
			(0.011)						(0.003)			
Pay				-0.223***						-0.033***		
				(0.010)						(0.003)		
Hours					-0.313***						-0.061***	
					(0.011)						(0.004)	
Work itself						-0.408***						-0.063***
						(0.013)						(0.004)
Observations	60,058	60,031	60,058	60,013	60,045	60,029	56,398	56,371	56,398	56,353	56,385	56,370

	Anxiety/depression (Mental Health Condition)						Life Dissatisfaction					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Fixed-term	0.004	0.003	-0.003	0.004	0.004	0.004	0.031	0.023	-0.186***	0.042	0.032	0.036
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.047)	(0.043)	(0.046)	(0.046)	(0.045)	(0.044)
Casual/Seasonal/Agency	0.007	0.003	-0.001	0.007	0.005	0.004	0.109**	0.025	-0.122**	0.117**	0.056	0.050
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.053)	(0.051)	(0.053)	(0.052)	(0.051)	(0.051)
Satisfaction Aspects												
Overall		-0.014***						-0.281***				
		(0.001)						(0.006)				
Security			-0.005***						-0.150***			
			(0.001)						(0.006)			
Pay				-0.004***						-0.157***		
				(0.001)						(0.006)		

Hours					-0.007***						-0.212***	
					(0.001)						(0.006)	
Work itself						-0.010***						-0.238***
						(0.001)						(0.006)
Observations	60,002	59,975	60,002	59,957	59,989	59,973	39,248	39,236	39,248	39,221	39,238	39,233

Notes: All models include controls for gender, age, age squared, number of cigarettes smoked per day, marital status, number of children, household size, log of household income, whether spouse/partner employed, education, housing tenure, financial expectations for year ahead, union coverage and membership, usual normal hours worked per week and its square, usual paid overtime hours, usual unpaid overtime hours, managerial-supervisory status, holding a second job, promotion opportunities in current job, pay includes bonus or profit-share, member of employer provided pension, pay includes annual increments, place of work, working in rotating shifts, occupation, industry, sector, firm size, job tenure and its square, log of hourly wage, region and survey year. Cluster-robust standard errors in parentheses. * Coefficient significant at 0.10, ** at 0.05, *** at 0.01.

TABLE 3: The effect of different aspects of job satisfaction on mental well-being (Fixed-effects OLS)

	GHQ (Psychological Distress)						Poor General Health					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Fixed-term	-0.109	-0.101	-0.302***	-0.098	-0.093	-0.090	-0.025	-0.024	-0.044*	-0.025	-0.024	-0.021
	(0.096)	(0.085)	(0.096)	(0.095)	(0.094)	(0.093)	(0.024)	(0.024)	(0.025)	(0.024)	(0.024)	(0.025)
Casual/Seasonal/Agency	0.265**	0.181*	0.036	0.277***	0.234**	0.210**	-0.078***	-0.085***	-0.100***	-0.075***	-0.082***	-0.082***
	(0.104)	(0.101)	(0.105)	(0.104)	(0.103)	(0.103)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Satisfaction Aspects												
Overall		-0.427***						-0.034***				
		(0.013)						(0.003)				
Security			-0.154***						-0.015***			
			(0.010)						(0.003)			
Pay				-0.120***						-0.008***		
				(0.010)						(0.003)		
Hours					-0.234***						-0.025***	
					(0.011)						(0.003)	
Work itself						-0.340***						-0.034***
						(0.012)						(0.003)
Observations	60,058	60,031	60,058	60,013	60,045	60,029	56,398	56,371	56,398	56,353	56,385	56,370

	Anxiety/depression (Mental Health Condition)						Life Dissatisfaction					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Fixed-term	-0.011	-0.011	-0.012*	-0.011*	-0.011	-0.011	-0.024	-0.027	-0.101**	-0.019	-0.019	-0.024
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.043)	(0.041)	(0.043)	(0.042)	(0.042)	(0.041)
Casual/Seasonal/Agency	0.002	0.0003	0.001	0.002	0.002	0.001	0.020	-0.010	-0.068	0.027	0.005	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.048)	(0.047)	(0.049)	(0.048)	(0.048)	(0.047)
Satisfaction Aspects												
Overall		-0.007***						-0.153***				
		(0.001)						(0.006)				
Security			-0.001						-0.060***			
			(0.001)						(0.005)			
Pay				-0.001						-0.069***		
				(0.001)						(0.005)		

Hours					-0.003***						-0.107***	
					(0.001)						(0.005)	
Work itself						-0.005***						-0.125***
						(0.001)						(0.005)
Observations	60,002	59,975	60,002	59,957	59,989	59,973	39,248	39,236	39,248	39,221	39,238	39,233

Notes: See notes in Table 2. Robust standard errors in parentheses. * Coefficient significant at 0.10, ** at 0.05, *** at 0.01.

Table 4: Oaxaca decomposition of mean differences in well-being between permanent and temporary employees - Contributions of selected variables

Panel A: Permanent Vs. Fixed-term	GHQ (Psychological Distress)	Poor General Health	Anxiety/Depression (Mental Health Condition)	Life Dissatisfaction
Mean score – Fixed-term	1.841	1.950	0.054	2.811
Mean score – Permanent	1.674	1.980	0.044	2.771
Difference	0.167	-0.031	0.010	0.040
Total explained	0.498	0.051	0.010	0.225
Total unexplained	-0.332	-0.082	0	-0.184
Contribution from mean differences in selected characteristics:				
Satisfaction with security	0.373***	0.070***	0.007***	0.222***
(Standard error)	(0.023)	(0.058)	(0.001)	(0.014)
% of difference explained	224%	226%	73%	549%
Gender	22% (**)	13% (**)	18% (***)	2%
Education	28% (***)	-36% (**)	12%	58% (***)
Age	5%	-10%	-20% (***)	-63% (***)
Marital status	-7%	-15% (*)	4%	53% (***)
Household income	-4% (*)	-12%	-6% (*)	-10%
Spouse/partner employed	7% (**)	2%	0%	3%
Housing tenure	9% (***)	13% (**)	4%	19% (**)
Financial expectations	15% (***)	5% (*)	10% (***)	10% (**)
Working hours	-3%	1%	13%	-38% (***)
Promotion opportunities	10% (***)	18% (***)	10% (**)	3%
Bonus payments	-2%	7%	3%	-5%
Employer pension	-3%	5%	1%	2%
Annual increments	0%	0%	0%	2%
Place of work	-3%	-1%	0%	-4%
Shift work	0%	6% (**)	3% (**)	-1%
Occupation	5%	10%	-7%	-3%
Sector	25% (**)	1%	-3%	7%
Industry	2%	-23%	6%	24%
Hourly wage	0%	-2%	-1%	-3%

Panel B: Permanent Vs. Casual/Seasonal/Agency	GHQ (Psychological Distress)	Poor General Health	Anxiety/Depression (Mental Health Condition)	Life Dissatisfaction
Mean score – Casuals	2.093	2.022	0.062	2.936
Mean score – Permanent	1.674	1.980	0.044	2.771
Difference	0.419	0.042	0.018	0.165
Total explained	0.515	0.138	0.017	0.293
Total unexplained	-0.096	-0.096	0.0001	-0.128
Contribution from differences in selected characteristics:				
Satisfaction with security	0.374***	0.070***	0.007***	0.227***
Standard error	(0.024)	(0.006)	(0.001)	(0.015)
% of difference explained	89%	166%	42%	137%
Gender	16% (***)	18% (***)	18% (***)	0%
Education	-2%	2%	-2%	-3%
Age	1%	-17%	-35% (***)	-48% (***)
Marital status	-2%	-22% (*)	8%	38% (***)
Household income	7% (***)	40% (***)	14% (***)	19% (***)
Spouse/partner employed	7% (**)	3%	2%	2%

Housing tenure	3% (*)	18% (***)	0%	7% (***)
Financial expectations	5% (***)	1%	8% (***)	1%
Working hours	-8% (**)	-6%	13%	-22% (***)
Promotion opportunities	7% (***)	21% (***)	9% (**)	2%
Bonus payments	-1%	4%	1%	-1%
Employer pension	-3%	8%	0%	-1%
Annual increments	8% (***)	2%	3%	12% (***)
Place of work	-1%	-1%	-1%	-2%
Shift work	0%	5% (**)	2% (**)	0%
Occupation	-2%	24% (***)	7%	5%
Sector	-1%	0%	0%	0%
Industry	2%	-4%	-1%	8% (**)
Hourly wage	5%	54% (***)	18% (*)	19% (***)

Notes: Asterisks indicate whether the contribution of each variable to the mean difference in well-being is statistically significant at the 0.01 (***), 0.05 (**) or 0.10 (*) level respectively.

APPENDIX

APPENDIX TABLE A1: Descriptive statistics for other control variables

	All	Permanent	Fixed-term	Casual-Seasonal-Agency
Age squared	15.792	15.901	14.157	12.314
	(8.772)	(8.746)	(8.795)	(9.132)
Number of Cigarettes Per Day	3.914	3.889	3.276	5.811
	(7.771)	(7.766)	(6.898)	(8.627)
Married or Cohabiting	0.744	0.750	0.651	0.551
Widowed, Divorced or Separated	0.074	0.074	0.064	0.078
Never Married	0.182	0.176	0.285	0.371
Outright House Owner	0.132	0.131	0.124	0.154
House Owner with Mortgage	0.688	0.692	0.623	0.530
Rented House	0.086	0.083	0.165	0.159
Social Housing	0.095	0.094	0.089	0.157
Union Covered, Not Member	0.188	0.182	0.374	0.262
Union Covered, Member	0.324	0.330	0.266	0.108
Not Union Covered	0.488	0.488	0.360	0.631
Manager/Foreman/Supervisor	0.393	0.402	0.215	0.114
Holding Second Job	0.092	0.089	0.168	0.148
Work Location - Home	0.011	0.011	0.016	0.009
Work Location - Other	0.073	0.070	0.131	0.117
Work Location - Driving/Travel	0.082	0.082	0.052	0.070
Work Location - Employer	0.835	0.837	0.802	0.804
Managers & Administrators	0.159	0.164	0.066	0.033
Professionals	0.110	0.106	0.312	0.083
Associate Professional & Technical	0.123	0.123	0.164	0.070
Clerical & Secretarial	0.190	0.189	0.170	0.253
Craft & related	0.102	0.103	0.073	0.058
Personal & Protective Services	0.100	0.099	0.102	0.172
Sales	0.068	0.068	0.025	0.082
Plant & Machine Operatives	0.085	0.085	0.037	0.136
Other Occupations	0.064	0.063	0.051	0.114
Civil Service	0.047	0.048	0.034	0.022
Local Government	0.147	0.143	0.293	0.179
Other Public	0.085	0.083	0.188	0.053
Non-profit	0.031	0.031	0.068	0.020
Private Firm	0.690	0.695	0.417	0.727
Workplace Size 1-50	0.467	0.464	0.454	0.582
Workplace Size 50-499	0.355	0.358	0.309	0.283
Workplace Size >=500	0.178	0.178	0.237	0.136
Tenure in Years	4.538	4.679	1.434	1.105
	(5.785)	(5.836)	(2.920)	(3.024)
Tenure squared	0.541	0.560	0.106	0.104

	(1.388)	(1.408)	(0.584)	(0.686)
Agriculture & Fishing	0.008	0.008	0.005	0.016
Mining & Quarrying	0.003	0.004	0.002	0.003
Manufacturing	0.204	0.208	0.118	0.135
Electricity, Gas & Water	0.011	0.011	0.010	0.009
Construction	0.038	0.038	0.040	0.029
Wholesale & Retail Trade	0.135	0.138	0.031	0.114
Hotels & Restaurants	0.037	0.036	0.013	0.110
Transport, Storage & Communication	0.064	0.065	0.040	0.065
Financial Intermediation	0.055	0.056	0.038	0.035
Real Estate & Business Activities	0.101	0.099	0.104	0.151
Public Administration & Defence	0.081	0.082	0.070	0.045
Education	0.095	0.090	0.282	0.121
Health & Social Work	0.114	0.113	0.170	0.086
Social & Personal Services	0.035	0.034	0.047	0.053
Private Households & Extra-Territorial Organizations	0.006	0.005	0.003	0.011
Observations	60,058	57,567	1,310	1,181

Notes: Standard deviations for continuous variables in parentheses. Models also include controls for region and survey year.

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