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Are flexible contracts bad for workers? Evidence from job satisfaction data

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Are Flexible Contracts Bad for Workers? Evidence from Job Satisfaction Data

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Abstract

If workers can choose between permanent and flexible contracts, compensating wage differentials should arise to equalize on-the-job utility in the two types of contracts. Estimating job satisfaction using the British Household Panel Survey shows that agency and casual contracts are associated with routinely lower satisfaction. This results because the low job satisfaction associated with less job security is not offset by higher compensation or other job characteristics. Job security is sufficiently important that holding constant this one facet of satisfaction eliminates the overall gap in job satisfaction between flexible and permanent contracts.

KEYWORDS: Flexible Contracts; Job Satisfaction; Job Security.

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1. INTRODUCTION

This paper estimates the influence of flexible -- more contingent -- employment contracts on the job satisfaction of British workers. Flexible employment contracts have become increasingly prevalent among OECD countries (Mangan 2000).[1] This increasing prevalence reflects changes in labour market regulation, technological change and increasing female labour force participation. While some observers may characterize flexible contracts as wholly beneficial or detrimental for employees, a balanced reading presents mixed consequences. For instance, flexible employment contracts are associated with lower levels of employer provided training (Arulampalam and Booth, 1998, Draca and Green, 2004), higher risk of social exclusion for men (Addio and Rosholm, 2005), lower wages in the UK (Booth et al, 2002) and increased job insecurity (Blanchard and Landier, 2002). At the same time, flexible employment contracts are associated with higher rates of entry into permanent employment (when compared to unemployed job search) both in general (Guell and Petrongolo, 2001), and via promotion within the firm (Green and Leeves, 2004). In addition, increased employment flexibility may lead to overall higher employment and participation rates (Lazear, 1990) and this may reflect the appeal of more contingent employment to workers who desire flexible schedules (Morris and Vekker 2001).

We examine job satisfaction to summarize these potentially conflicting outcomes. Hamermesh (2004) emphasizes that economists studying job satisfaction should attempt to test theoretical predictions about worker behaviour and/or labour market

[1] In the UK, the growth in flexible contracts has been concentrated in the rise of agency work (Forde and Slater 2005).

functioning. In taking this call seriously, we note that at its best job satisfaction approaches a measure of on-the-job utility. As Hamermesh (2001, p. 2) puts it, job satisfaction is the only measure "that might be viewed as reflecting how (workers) react to the entire panoply of job characteristics" and as such "it can be viewed as a single metric that allows the worker to compare the current job to other labour market opportunities." Thus job satisfaction measures allow a summary worker evaluation of the consequences of flexible employment contracts. [2]

Despite this strong appeal, there have been relatively few previous examinations by economists. Those that do exist suggest that flexible employment contracts are associated with dramatically lower levels of job satisfaction.[3] Yet, because these studies do not focus primarily on the relationship between flexible contracts and job satisfaction, there remains substantial scope for further study. First, flexible working contracts cover a variety of employment contracts, such as seasonal work, fixed term contracts, agency temping and casual employment. Existing evidence by economists on job satisfaction has aggregated, and so eliminated, these differences. Second, workers are likely to sort, and be sorted, across employment contract types. Existing research has not controlled for unobservable differences between workers on flexible and permanent employment contracts. Third, the separate dimensions of job satisfaction have not been explored to determine which characteristics of flexible contract jobs reduce satisfaction. It may be that the work is less interesting itself, or that it pays poorly or that there is little job security or that it involves too few or too many hours. It may be some combination of these.

[2] Satisfaction with the job has also been seen as one of the major "domains" that together with satisfaction with leisure, health and others aggregate to an overall measure of subjective well-being (van Pragg et al. 2003).

[3] See for instance Booth et al (2002) and estimates of temporary contracts effect on job satisfaction reported in Clark and Oswald (1996).

This paper provides detailed evidence on the relationship between a variety of disaggregated flexible employment contracts and job satisfaction. This is provided across a range of dimensions of job satisfaction: job security, pay, hours and the nature of the work itself. Moreover, by estimating a fixed effects ordered probit on our panel, we provide the first estimates of flexible work's influence on job satisfaction that are robust to sorting across employment contracts.

In what follows, the next section assumes flexible and traditional contracts are offered in the same labor market as a device to make predictions about the relationship between flexible contracts and job satisfaction. The third section presents our data and testing methodology. The fourth section presents the initial results followed by more detail and further estimates in the fifth section. The sixth section concludes.

2. FLEXIBILITY AND JOB SATISFACTION

The basic economics of flexibility focuses on the coordination of worker effort. Deardorff and Stafford (1976) make clear that both firms and workers have preferences over the direction of this effort. The firm prefers that workers be flexible allowing it to coordinate effort across workers in the cheapest fashion (for example having all workers show up for the same scheduled shift with on call workers to fill absences). On the other hand, workers prefer that the firm be flexible allowing them to work when it best fits their schedules (yields the most utility). Indeed, the term flexibility has actually been used to characterize both of these extremes in the contract. Thus, when the firm is being flexible it is often identified as providing a family friendly work practice such as "flextime" (Heywood et al. 2007). Yet, when

the worker is being flexible as happens with short intensive hires or on call and agency relationships it is identified as a "flexible staffing arrangement" (Gramm and Schell 2001; Houseman 2001). The probability that the firm's cost minimizing work arrangement and the workers' utility maximizing work arrangement coincide is essentially zero.[4] Thus, competition in product and labor markets should generate a wage that is higher if the agreed upon arrangement more closely mirrors that desired by the firm and that is lower if the agreed upon arrangement more closely mirrors that desired by the workers.

Given the natural heterogeneity in the cost for firms to provide flexibility to workers, a hedonic equilibrium should develop in which employers with higher costs in providing workers flexibility retain flexibility for themselves (flexible staffing arrangements) and pay higher wages (Duncan and Stafford 1980). Those employers with lower costs give up their flexible staffing arrangements, provide staffing arrangements more beneficial to workers and pay lower wages. Thus, economic theory predicts that compensating earnings differences should emerge that offset the disadvantage of a flexible staffing contracts such as seasonal work, having a fixed term or doing agency work.

This prediction receives support from a variety of empirical studies. Both Moretti (2000) and Del Bono and Weber (2008) show that otherwise equal workers earn significantly higher wages when working on seasonal jobs compared to similar permanent jobs. De Graaf-Zijl (2005) confirms a positive compensating wage differential for on-call workers in the Netherlands. Such findings fit with the detailed

[4] This results from the differences in the distribution of desires across firms and workers and by search costs that make sorting imperfect. See Duncan and Stafford (1980) for more detail.

examination of worker valuations confirming a marginal willingness to pay for a reduced risk of unemployment (Van Ommeren and Hazans 2007). They also fit with evidence from the provision of family friendly work practices. Using US data from the state of New York, Baughman et al. (2003) show that employers unable to provide scheduling freedom to employees pay significantly higher entry wages. Using representative UK data, Heywood et al. (2007) demonstrate the existence of sizable negative wage differentials both for more generous leave policies and for providing employees choice over working hours. Thus, when the firm retains flexibility in assigning work effort, wages are higher, and when workers gain favourable flexible arrangements wages are lower.

Yet, the fundamental concern that workers may face with flexible staffing arrangements is that the firm's flexibility includes greater termination rights. In short, workers enjoy far less job security and it is known that workers value job security all else equal (Theodossiou and Vasileio 2007). However, the basic insight made by Deardorff and Stafford (1976) remains. If the firm retains the flexibility to terminate more easily, the earnings required to encourage a worker into such an arrangement must be greater. This receives empirical support from Li (1986) and Heywood (1989) who each show that in representative US samples higher unemployment risk is compensated for with higher earnings.

The point of reviewing empirical evidence is not to suggest that these relationships are taken for granted. Instead, they indicate only that there exists some support for the prediction from theory that flexibility over worker effort is something that both firms and workers value and that it is reasonable to think about a hedonic market in

which this flexibility is exchanged in the labor market for an implicit price. Thus, our initial suggestion from theory is that job satisfaction should not differ greatly between otherwise equal workers in traditional and in "flexible staffing" contracts. While workers may not like such contracts, they should be compensated either by earnings or other work dimensions for taking them.

Having drawn this suggestion we are quick to emphasize that it follows from an assumption of active competition between workers and firms across different types of contracts. If workers in flexible staffing contracts are not able to find alternative contracts and are somehow crowded into a limited labour market that consists of only flexible contracts, this suggestion is unlikely to hold. Instead, it may emerge that flexible staffing contracts are associated with lower job satisfaction. Beyond informing the theory, would be of interest in its own right as consistently lower job satisfaction is associated with the intention to leave a worker's current employment situation (Antecol and Cobb-Clark 2006 and Clark 2001).

As is often the case, researchers in management have explored this issue but have not used either representative surveys of the workforce or the established set of job satisfaction determinants common in work by economists. Moreover, the conclusions from this work are mixed with flexible staffing arrangements associated with greater satisfaction in some studies and reduced satisfaction in others (Connelly and Gallagher 2004). What does emerge, and what fits with our emphasis on the role played by active competition, is the importance of worker volition. Simply put, workers express greater job satisfaction when they view their contingent work as a choice rather than resulting from a lack of alternatives (Krausz et al 1995; Ellingson et

al 1998). Thus, we hope to meet the standard suggested by Hamermesh (2004) by using representative job satisfaction data to test the general prediction that labor markets are sufficiently competitive and generate sufficient worker choices that the net employee benefits associated with flexible staffing arrangements are similar to those with more traditional contracts.

3. DATA AND METHODOLOGY

The data used in this paper is drawn from the British Household Panel Survey (BHPS). The BHPS is a nationally representative sample that each year interviews approximately 10,000 individuals from roughly 5,500 households. We use the waves of the BHPS corresponding to 1999-2004, as earlier waves do not contain detailed information on types of flexible employment contracts.[5] Within these waves, workers identify if they worked as a seasonal worker, on a fixed term contract, casual employee, as agency temporary worker or another type of non-permanent. In addition, we also identify part-time contracts as another form of flexible working arrangement.[6] Table A1 presents summary statistics for males and females separately. Briefly, women are more likely to be employed under flexible working arrangements, although the gender differences for some contract types, such as agency based work, are not large. Women are much more likely to be employed part-time than men.

In Table A2, we provide summary statistics for selected covariates split according to contract type. Across a number of dimensions workers on fixed term contracts are broadly comparable to permanent employees. All other flexible workers have

[5] Prior to 1999, flexible contracts were grouped into seasonal/temporary job and contract/fixed time contract. As we will demonstrate later, this type of grouping obscures marked variations within sub-groups of flexible contracts.

[6] Identified as employees who have usual work hours of less than 32 a week.

markedly lower average weekly wages (particularly casual employees) and are less likely to be unionised, work in the public sector, hold a position with a managerial or supervisory role or work in a large firm when compared to permanent employees. Finally, we report worker separation rates by contract type. It is clear that all forms of flexible employment contracts are associated with higher separation rates than permanent contracts.

All job satisfaction questions in the BHPS are reported on a 7 value Likert scale, 1 being the least satisfied, 7 the most satisfied. At different times a variety of job satisfaction questions have been included in the BHPS but for the period in which the more detailed flexible contract type information is available, five job satisfaction questions are available. These include overall job satisfaction, satisfaction with pay, satisfaction with hours worked, satisfaction with job security, and satisfaction with the work itself. We further restrict our sample to those individuals aged 20 to 65 and exclude the self-employed. This yields an unbalanced panel of 10,001 individuals.

Table 1 presents the mean satisfaction level for overall satisfaction and each of the dimensions. It does so for workers on permanent contracts and each of the five alternative contracts. As the averages make clear, the workers on permanent contracts do not routinely report the greatest satisfaction. Indeed, they rank third in overall satisfaction, fifth in satisfaction with hours and fifth in satisfaction with the work itself. Workers on permanent contract do rank first in satisfaction with job security and their advantage in satisfaction in this dimension is enormous.

Following past research, the values of job satisfaction are fitted to the cumulative normal distribution through ordered probit estimates (see Clark and Oswald 1996 and Clark 1997 among many others). The ordered probit estimation follows appropriately when the dependent variable has a natural ordering, such as from least to most satisfied (see McKelvey and Zavonia 1975 for details) and can be used to predict the probability of reporting each value for job satisfaction for variation in the values of the independent variables.

4. INITIAL EVIDENCE: ARE FLEXIBLE WORKERS LESS SATISFIED?

This section presents the initial estimations of the relationships between contract type and job satisfaction. Throughout the paper estimates are presented separately for males and females. Separating the estimates follows from both the routine finding of separate job satisfaction regimes for men and women (Clark 1997) and from tests within our own sample rejecting the hypothesis of a common set of coefficients.

INSERT TABLE 2

Table 2 presents pooled ordered probit estimates of the impact of flexible employment contracts on job satisfaction split by gender. Standard controls for personal and work characteristics are included and reported. Agency and casual work are associated with lower job satisfaction for both men and women, as are fixed term contracts although this effect is only statistically significant for women. The category of other flexible working contracts is associated with a marginally significantly lower job satisfaction for women. There is no indication of a statistically significant relationship between

seasonal work and job satisfaction, whilst part-time work actually appears to increases job satisfaction for men. Other personal and workplace characteristics conform to the signs and significance reported in numerous other studies that estimate job satisfaction models using the BHPS (see for instance Clark and Oswald, 1996; Green and Heywood, 2007).

The estimates in Table 2 hold constant earnings that according to theory may vary to compensate for undesirable contract characteristics. Thus, we re-estimated the specifications omitting wages as a control. Yet, allowing earnings to vary, the estimates of flexible employment contracts on job satisfaction remain unchanged in terms of sign and significance. This suggests that workers on casual and agency contracts do not receive sufficient financial compensation to offset the undesirable characteristics of these employment contracts.

The estimates in Table 2 may still not be reliable if that they rest upon unrealistic comparisons. Flexible employment contracts are much less common in certain employment settings, such as the public sector or unionised workplaces. Furthermore, when they are used in such settings, the lower levels of job security may be mitigated by the higher overall levels of job security associated with these forms of employment. Thus, estimating the true effects of flexible employment contracts on job satisfaction may require more standardization of the workplaces being examined.

INSERT TABLE 3.

To investigate this we re-estimate the models in Table 2 excluding workers in the public sector and those who are union members. These are reported in the first panel of Table 3. The key change is that females in non-unionised, private sector work are significantly less satisfied with fixed term contract work, an effect that was not apparent in the full sample. This effect is of a similar magnitude to the effect of agency work on job satisfaction for females. There are, however, no marked changes for males. We further limit the estimations to only those workers in lower skilled occupations as they may be a more homogenous group of workers facing more similar choices between contract types. As reported in panel 2 of table 3, this restriction does not materially affect the pattern of sign and significance of flexible working contracts on male job satisfaction. The negative impacts of agency and casual work are, however, no longer statistically significant for women.

INSERT TABLE 4

Another issue is that flexible working contracts are likely to be associated with other workplace and contract characteristics. For instance, they may involve a higher likelihood of non-standard working hours, and may differ in access to other alternative working arrangements such as flexitime. We include a range of additional controls for different working conditions into the base models reported in Table 2. These controls include, whether the individual receives annual incremental wage increases, whether there are promotion opportunities in the current job, and whether they work non-standard hours (shift work, night work and other non-standard hours). We also include controls for a variety of alternative working arrangements such as the provision of flexitime, annualised hours, term time working and job sharing. All of

these working conditions are likely to be correlated with flexible working contracts, and may affect job satisfaction. These estimates are provided in Table 4. While a number of these controls have markedly significant effects on worker job satisfaction, there inclusion does not change the pattern of sign and significance of flexible working contracts on job satisfaction.

Critically, workers are likely to sort into working arrangements in a non-random manner. Hence, the relationship observed between job satisfaction and flexible working arrangements may be biased by unobservable characteristics that influence both the propensity to be in flexible working contracts and the level of job satisfaction. At an extreme, inherently unsatisfied workers may sort into flexible contracts rather than permanent contracts lowering the apparent job satisfaction. Alternatively, unmeasured worker characteristics such as lower initiative or ability may be correlated both with lower job satisfaction and with working in flexible contracts. We investigate these possibilities by re-estimating individual fixed effects ordered probit versions of the models reported in Table 4.[7]

INSERT TABLE 5.

These estimates are reported in Table 5 and depend only on the variance within worker across years. In other words, they follow from observing a given worker changing status into and out of flexible contracts. For males, these estimates suggest that the negative effects of agency and casual work contracts on job satisfaction reported in Table 4 are robust to worker sorting between contract types. For females,

[7] These estimations were performed in Limdep 8.0 and the full results are available from the authors upon request.

worker sorting appears to play a more marked role. While casual work and "other" flexible contracts continue to be significantly associated with lower job satisfaction, agency work is no longer associated with significantly lower levels of job satisfaction, and the negative effect of fixed term contracts just misses statistical significance at the 10 percent level. Part-time work is no longer significantly associated with higher job satisfaction for males, but there is now evidence of a positive influence of part-time work for females. Finally, once individual fixed effects are included seasonal work is associated with significantly higher levels of job satisfaction for females, an effect that was not apparent in the cross-sectional estimates. On balance, accounting for fixed effects tends to suggest that flexible staffing has more modest and even some contradictory effects for women. This is important given that a large majority of workers on flexible contracts are women (see Table A2).

The sum of the evidence provided in this section suggests that seasonal work, part time work and other flexible contracts do not have a consistent influence on job satisfaction. The coefficients can take either sign and can occasionally emerge as both positive and significant. Fixed term contracts appear to be associated with decreased satisfaction for women but not for men. Agency work and casual work routinely take large negative coefficients that are usually statistical different from zero. These patterns emerge when (a) allowing wages to vary; (b) estimating on narrower and more comparable subsamples; (d) accounting for variations in other aspects of workplace characteristics and the work contract; and (d) accounting for unobserved worker fixed effects. In the next section we focus on why some flexible working contracts have such a marked negative effect on job satisfaction.

5. WHY DO FLEXIBLE CONTRACTS REDUCE JOB SATISFACTION?

To examine how flexible working contracts influence job satisfaction we focus on four different dimensions of job satisfaction, satisfaction with pay, satisfaction with hours, satisfaction with job security and satisfaction with work itself. Each can be thought of as revealing satisfaction with a different aspect of the job and can be used to examine the impact of flexible contracts. The first two, reveal whether flexible contracts lead to different (and more or less desirable) pay and hours outcomes. There is a critical distinction, in the first case, the impact of flexible contracts on satisfaction with pay *conditional* on actual pay levels and its overall effect not conditioned on pay. Similarly there is a distinction between the impact of flexible work on satisfaction with hours worked both conditioned and not conditioned on actual hours. In both cases, the conditional estimate reveals flexible work contracts effect worker satisfaction with how the pay level (number of contracted hours) is determined holding pay (hours) constant. The unconditional estimate is a combination of this effect along with the overall impact of flexible work on pay and hours. Satisfaction with security reveals employee reaction to the lower job security that is likely to be associated with flexible contracts. We will estimate the determinants of satisfaction with security both with and without a control for earnings to again examine the possibility of compensating differentials. Finally, examining satisfaction with the work itself provides some indication of any link between flexible working contracts and poorer quality jobs.

INSERT TABLE 6

INSERT TABLE 6B

Estimates of these models are presented in Table 6 and the unconditional estimates of satisfaction with pay, hours and job security are reported in Table 6b. For males, four of the six flexible contracts are associated with greater satisfaction with pay. Fixed term contract work and part-time work even take significant positive coefficients. These significant effects remain once controls for pay are omitted. For females, five of the six flexible contracts take positive coefficients with fixed term contracts and "other" flexible contracts being significant. While the unconditional estimates generate more negative coefficients, there are no significant negative coefficients for either males or females in either the conditional or unconditional estimates. In short, there is no evidence that the diminished overall job satisfaction associated with flexible contracts (especially casual and agency contracts) results because of lower satisfaction with pay.

Satisfaction with hours presents a somewhat more mixed pattern. Men seem less satisfied with the hours associated with agency work but the satisfaction of women does not seem influenced by agency work. Casual work diminishes the satisfaction with hours for women but not for men. Men report greater satisfaction with the hours associated with "other" flexible contracts. The reaction to part time work seems to vary by gender. In the unconditional estimates both genders express greater satisfaction with hours when working part time. Even given the mixed pattern, we

conclude there is no compelling evidence that dissatisfaction with hours pay drives the lower overall job satisfaction.

While there is evidence in Table 6 that agency work may be associated with reduced satisfaction with the work itself, it stands alone in this regard. By far the most dramatic evidence emerges in the estimated satisfaction with job security. Every flexible contract type except part time employment is associated with large and statistically significant reductions in the satisfaction with job security. This is true for both women and for men. This emerges as the strongest and most consistent result from examining the facets of job satisfaction. This does not appear to be affected in sign and significance by removing a control for wages (Table 6b). Furthermore, it is evidence that is largely repeated in the fixed effect estimates, as shown in Table 7, and so is unlikely to emerge from sorting. These estimates suggest that virtually all types of flexible contracts are associated with lower satisfaction with job security. Moreover, it appears that it is the dissatisfaction with job security that drives the overall dissatisfaction associated with casual and agency contracts.

Table 7 does suggest that some of the cross section results do not persist. The negative effects of flexible working contracts on satisfaction with job security remain as stressed but the negative effect of agency work on satisfaction with work itself is no longer apparent. This, combined with a lack of statistically significant negative effects for other contract types on satisfaction with work itself, leads us to conclude that there is no evidence that flexible working contracts are associated with intrinsically lower quality jobs again pointing us back to the role of job security. The positive effect on pay satisfaction of part-time work (for males) and other flexible

contracts (for females) reported in table 6 are not robust to the inclusion of individual level fixed effects.

INSERT TABLE 7

We have emphasized a substantial role for job security as a determinant of the negative effect of flexible employment contracts on overall job security revealed in Section 4. The strength of this finding causes one to wonder if any forms of flexible contracts would be associated with lower job satisfaction if job security were held constant. Put differently, it could be the case that differences in job security between permanent and flexible contracts fully explain the lower satisfaction reported in agency and casual contracts. To explore this we re-estimate the models of overall job satisfaction reported originally in Table 5, controlling for the individual's satisfaction with job security. Results from this exercise are reported in Table 8.

INSERT TABLE 8

All of the coefficients on the different types of flexible contracts are positive for both genders. The results strongly suggest that conditional on satisfaction with job security, males are more satisfied with most types of flexible work and indifferent to casual contracts. For females seasonal and casual work have no statistically significant effect on job satisfaction. As a consequence, we have greater belief in our conclusion that it is dissatisfaction with job security that drives the overall result that workers dislike some types of flexible staffing arrangements such as agency and casual contracts.

Thus, if one holds constant satisfaction with the job security, most of the other flexible contracts (seasonal, fixed, other) look desirable. Overall satisfaction in these contracts is greater. When combined with the tenor of the earlier cross-sectional and fixed effect estimates, this provides partial support for the hypothesis from Section 2. The lack of job security lowers overall satisfaction but is offset by other characteristics such that there was little or no difference in on-the-job utility between permanent contracts and these flexible contracts. This suggestion is repeated when holding satisfaction with job security constant makes these types of contracts desirable.

While this provides an initial indication that the critical issue is job security between flexible and non-flexible employment contracts, it may over control. If all types of satisfaction are simply highly correlated we may have controlled away the relevant variance. To check this we successively use the other dimension of satisfaction in the place of satisfaction with job security. The results from this are presented in appendix table A3. It is noticeable that the inclusion of controls for other dimensions of job satisfaction does not alter the point estimates of the negative impact of agency or casual work on overall job satisfaction. This provides further support that dissatisfaction with job security drives the reduction in overall satisfaction associated with these two types of contracts.

V. CONCLUSION

We began with a suggestion that if most workers have a choice between permanent and flexible contracts, wage differentials will develop to create roughly similar on-the-job utility between the two types of contracts. We tested this hypothesis using

data from the BHPS and found rather mixed results. First, some types of flexible contracts do seem to be associated with similar levels of job satisfaction. We could not confirm a routine and sizeable difference between permanent contracts and those that are seasonal, of fixed duration or are part time. Thus, on balance, it would appear that examining these types of contracts supports the suggestion. On the other hand, we found routine and large reductions in job satisfaction associated with agency contracts and casual contracts. The reductions associated with these types of contracts persisted across attempts to refine our comparison sample, vary our specification and control for worker fixed effects.

By examining different facets of satisfaction, it was revealed that all types of flexible contracts were associated with reduced satisfaction with job security. This was perhaps not surprising given the markedly higher separation rates, when compared to permanent contracts, associated with all types of flexible contracts. Controlling for the lower level of satisfaction with job security caused the overall satisfaction results to change dramatically. Those types of contracts that previously had little effect on overall satisfaction (fixed, seasonal and part time) all emerged as associated with greater job satisfaction. This supports the notion that although flexible contracts provide less satisfaction with job security, other aspects of the job compensate so that overall satisfaction appears similar. Those types of contract that previously reduced overall satisfaction (agency and casual) emerged with mixed and even insignificant coefficients once controlling for satisfaction with security. These results suggest that, in essence, the lower overall job satisfaction associated with agency and casual work is due to employees on these contracts experiencing lower satisfaction with job security that is not offset by other job characteristics.

The persistence of lower satisfaction for these two types of contracts could suggest that the basic building block of the notion of compensating differences may not apply. The majority of workers accepting agency and casual work may not have choices of permanent contracts. They may be crowded into these types of flexible contracts. A remaining intriguing puzzle for future research is why this appears to be the case for some types of flexible contracts but clearly not others.

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TABLE 1– Job Satisfaction and Temporary Contracts Type, 1999 BHPS.

	Overall	Pay	hours	work	security
Permanent (6610)	5.304	4.863	5.158	5.420	5.455
Seasonal Work (17)	5.765	4.941	5.765	5.824	4.647
Fixed Term Contract (187)	5.198	4.769	5.226	5.489	3.385
Agency Temp (66)	4.537	4.545	5.194	4.716	3.045
Casual Employee (37)	5.027	4.568	5.054	5.676	3.595
Other Flexible Contract (53)	5.453	4.596	5.698	5.698	3.538
Observations	6970				

TABLE 2– Job Satisfaction and Flexible Working Arrangements, Ordered Probit Estimates Males versus Females, 1999-2004 BHPS.

	Male		Female	
	Coeff	*Std.Err*	*Coeff*	*Std.Err*
Seasonal Work	0.085	0.355	-0.150	0.192
Fixed Term Contract	-0.055	0.066	-0.151*	0.052
Agency Work	-0.409*	0.095	-0.343*	0.091
Casual Contract	-0.448*	0.172	-0.339*	0.116
Other Flexible Contract	-0.110	0.113	-0.175***	0.101
Part Time	0.243*	0.070	0.061	0.041
Bonus/Profit Share	0.077*	0.023	0.052**	0.026
Performance Pay	0.077**	0.035	-0.051	0.037
Bonus/Profit Share & Performance Pay	0.043	0.033	-0.010	0.040
Age	-0.037*	0.008	-0.019*	0.007
Age^2	0.0001*	0.000	0.0001*	0.000
Tenure	-0.001***	0.001	-0.002*	0.001
Married	0.037	0.027	0.133*	0.024
A Level	-0.147*	0.030	-0.100*	0.029
Diploma	-0.118*	0.042	-0.171*	0.043
Degree	-0.170*	0.039	-0.189*	0.036
Higher Degree	-0.140**	0.056	-0.289*	0.062
Log Wage	0.064*	0.014	0.018	0.015
Usual Hours	0.000	0.002	-0.007*	0.002
Usual Overtime	0.004*	0.001	-0.003	0.002
Union Member	-0.131*	0.028	-0.139*	0.026
Public Sector	0.118*	0.036	0.114*	0.031
Manager/Supervisor	0.044***	0.025	0.021	0.024
Pension	0.033	0.027	-0.011	0.026
Employer Training	0.066*	0.022	0.104*	0.021
Firm Size				
50-99 employees	-0.096*	0.028	-0.077*	0.025
100-499 employees	-0.148*	0.029	-0.127*	0.029
500 employees	-0.127*	0.033	-0.147*	0.030
Log Likelihood	-28403.332		-27719.711	
Observations	19048		19782	

Controls included but not reported; industry, occupation, region and year dummies. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

TABLE 3 Job Satisfaction, Flexible Work and Non-Union, Non-Managerial, Private Sector Jobs, 1999-2004

	(I) Private Sector, Non-Union, Non-Managerial Workers			
	MALES		FEMALES	
	Coeff	*Std.Err*	*Coeff*	*Std.Err*
Seasonal Work	-0.181	0.418	-0.277	0.234
Fixed Term Contract	0.081	0.102	-0.349*	0.099
Agency Work	-0.416*	0.116	-0.337*	0.107
Casual Contract	-0.402**	0.190	-0.564*	0.154
Other Flexible Contract	-0.131	0.175	-0.270	0.175
Part Time	0.209	0.101	0.098	0.073
Log Likelihood	-9870.2041		-8824.2735	
Observations	6434		5999	
	(II) I + Low Skill Workers Only			
	MALES		FEMALES	
	Coeff	*Std.Err*	*Coeff*	*Std.Err*
Seasonal Work	-0.395	0.487	-0.369	0.274
Fixed Term Contract	0.073	0.189	-0.461**	0.215
Agency Work	-0.507*	0.155	-0.250	0.296
Casual Contract	-0.632*	0.225	-0.411	0.277
Other Flexible Contract	-0.108	0.317	0.076	0.283
Part Time	0.143	0.139	0.077	0.120
Log Likelihood	-3450.0632		-2641.0393	
Observations	2214		1763	

All controls as in table 2. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

Table 4- The Role of Job Conditions on Flexible Work and Job Satisfaction

	Males		Females	
	Coeff	Std Err	Coeff	Std Err
Seasonal Work	0.133	0.354	-0.131	0.194
Fixed Term Contract	-0.049	0.066	-0.143*	0.053
Agency Work	-0.365*	0.095	-0.314*	0.091
Casual Contract	-0.411**	0.178	-0.319*	0.116
Other Flexible Contract	-0.088	0.115	-0.168***	0.101
Part Time	0.245*	0.061	0.021	0.038
Annual Increment	0.174*	0.021	0.144*	0.020
Night Shift	-0.124	0.079	-0.066	0.078
Shift Work	-0.069**	0.033	0.043	0.039
Other Non Standard Hours	-0.049	0.035	-0.064***	0.034
Flexitime	0.062**	0.028	0.004	0.025
Annualised Hours	-0.089***	0.048	-0.055	0.051
Term Time Work Only	0.102	0.151	0.078	0.056
Job Sharing	-0.229	0.254	-0.183**	0.094
Log Likelihood	-28335.820		-27682.061	
Observations	19048		19782	

All other controls as in table 2. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

Table 5- Fixed Effects Ordered Probit Estimates, Employees Aged 20-65

	Male		Female	
	Coeff	Std Err	Coeff	Std Err
Seasonal Work	0.055	0.396	0.699*	0.330
Fixed Term Contract	0.017	0.098	-0.132	0.081
Agency Work	-0.352*	0.141	-0.169	0.139
Casual Contract	-0.794*	0.235	-0.481*	0.192
Other Flexible Contract	0.078	0.162	-0.306**	0.134
Part Time	0.041	0.084	0.115**	0.058
Log Likelihood	-19800.230		-18980.100	
Observations	19,007		19,761	

All controls as in table 4. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively

TABLE 6 Dimensions of Job Satisfaction and Temporary Contract Type, Ordered Probit Estimates, Employees Aged 20-65, 1999-2004

	PAY				HOURS			
	Male		Female		Male		Female	
	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std Er
Seasonal Work	0.067	0.427	0.153	0.242	-0.142	0.311	-0.126	
Fixed Term Contract	0.205*	0.068	0.191*	0.057	0.051	0.063	0.030	
Agency Work	0.022	0.107	0.043	0.094	-0.200***	0.108	0.008	
Casual Contract	0.073	0.205	-0.069	0.118	-0.207	0.186	-0.377*	
Other Flexible Contract	-0.017	0.119	0.204**	0.096	0.184***	0.113	-0.048	
Part Time	0.356*	0.061	0.026	0.039	-0.249*	0.065	0.115*	
Log Likelihood	-30774.795		-31719.738		-30292.578		-29732.688	
Observations	19045		19780		19045		19780	
	JOB SECURITY				WORK ITSELF			
	Male		Female		Male		Female	
	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std E
Seasonal Work	-1.271*	0.330	-0.615*	0.220	0.467	0.311	-0.234	
Fixed Term Contract	-1.114*	0.071	-1.332*	0.060	0.028	0.065	0.079	
Agency Work	-1.323*	0.096	-1.262*	0.093	-0.234**	0.108	-0.241*	
Casual Contract	-0.789*	0.194	-1.051*	0.128	-0.188	0.175	-0.065	
Other Flexible Contract	-1.129*	0.135	-1.313*	0.116	0.066	0.112	0.049	
Part Time	0.228*	0.059	0.055	0.040	0.210*	0.062	0.009	
Log Likelihood	-29883.658		-29082.781		-28625.444		-28705.53	
Observations	19045		19780		19045		19780	

All controls as in table 4. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

TABLE 6B Satisfaction with Pay and Hours, Unconditional Estimates Ordered Probit Estimates, Employees Aged 20-65, 1999-2004

	Pay (w/o wages)			
	Male		Female	
	Coeff	Std Err	Coeff	Std Err
Seasonal Work	-0.045	0.413	0.080	0.245
Fixed Term Contract	0.199*	0.068	0.184*	0.057
Agency Work	-0.108	0.107	-0.049	0.093
Casual Contract	-0.066	0.202	-0.128	0.116
Other Flexible Contract	-0.070	0.121	0.204**	0.095
Part Time	0.302*	0.061	-0.035	0.039
Log Likelihood	-30937.098		-31771.385	
Observations	19045		19780	
	Hours (w/o hours)			
	Coeff	Std Err	Coeff	Std Err
Seasonal Work	-0.220	0.314	-0.097	0.181
Fixed Term Contract	0.042	0.062	0.084	0.057
Agency Work	-0.183***	0.109	-0.037	0.094
Casual Contract	-0.105	0.184	-0.314**	0.137
Other Flexible Contract	0.245**	0.117	0.032	0.105
Part Time	0.219*	0.054	0.420*	0.026
Log Likelihood	-30749.882		-30216.24	
Observations	19045		19780	
	Job Security (w/o wages)			
	Coeff	Std Err	Coeff	Std Err
Seasonal Work	-1.330*	0.326	-0.670*	0.219
Fixed Term Contract	-1.138*	0.071	-1.345*	0.060
Agency Work	-1.378*	0.095	-1.307*	0.092
Casual Contract	-0.848*	0.093	-1.094*	0.128
Other Flexible Contract	-1.320*	0.135	-1.322*	0.117
Part Time	0.216*	0.059	0.056	0.040
Log Likelihood	-29984.958		-29129.039	
Observations	19045		19780	

All controls as in table 4. Robust standard errors clustered at the individual level. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

TABLE 7 Dimensions of Job Satisfaction and Temporary Contract Type, Ordered Probit Estimates, Fixed Effect Estimates, 1999-2004

	PAY				HOURS			
	MALES		FEMALES		MALE		FEMALES	
	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err
Seasonal Work	-0.367	0.380	-0.127	0.323	-0.408	0.375	0.567***	0.322
Fixed Term Contract	0.301*	0.095	0.260*	0.078	0.293*	0.096	0.128***	0.077
Agency Work	-0.021	0.139	-0.064	0.138	0.281*	0.141	0.162	0.139
Casual Contract	-0.359	0.231	0.007	0.188	0.012	0.245	-0.438**	0.189
Other Flexible Contract	0.078	0.153	0.052	0.128	0.410*	0.157	-0.304**	0.130
Part Time	0.118	0.082	-0.049	0.054	-0.405*	0.082	-0.421	0.082
Log Likelihood	-22059.00		-22067.30		-21729.73		-21275.01	
	SECURITY				WORK ITSELF			
	MALES		FEMALES		MALES		FEMALES	
	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err	Coeff	Std Err
Seasonal Work	-1.817*	0.373	-0.972*	0.373	0.661	0.435	0.152	0.328
Fixed Term Contract	-1.372*	0.093	-1.433*	0.093	0.201**	0.099	0.105	0.080
Agency Work	-1.702*	0.138	-1.824*	0.138	0.045	0.143	-0.205	0.141
Casual Contract	-1.654*	0.234	-1.080*	0.238	-0.078	0.237	0.147	0.196
Other Flexible Contract	-1.680*	0.151	-1.569*	0.121	0.541*	0.160	-0.019	0.135
Part Time	0.133	0.084	0.021	0.057	0.066	0.083	0.040	0.057
Log Likelihood	-21204.81		-20351.84		-20003.15		-19830.24	
Observations	19045		19780					

* Controls included but not reported, industry, occupation and region and all in table 4. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

TABLE 8 Job Satisfaction Controlling for Satisfaction with Job Security, Ordered Probit Estimates, 1999-2004

	MALE		FEMALE	
	Coeff	Std,err	Coeff	Std,err
Satisfaction with Job Security	0.365*	0.008	0.321*	0.008
Seasonal Work	0.865*	0.357	0.132	0.223
Fixed Term Contract	0.573*	0.066	0.514*	0.057
Agency Work	0.394	0.109	0.312*	0.093
Casual Contract	0.011	0.181	0.131	0.122
Other Flexible Contract	0.650*	0.131	0.490*	0.108
Part Time	0.165*	0.061	0.012	0.038
Log Likelihood	-26239.743		-26146.139	
Observations	19045		19780	

All other controls as per table 4. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.

TABLE A1 – Summary Statistics, BHPS, 1999-2004.

Variable	Male	Female
Seasonal Work	0.001	0.002
Fixed Term Contract	0.019	0.027
Agency Work	0.007	0.009
Casual Contract	0.004	0.008
Other Flexible Contract	0.005	0.008
Part Time	0.046	0.418
Age (yrs)	39.196	39.443
Tenure (yrs)	10.200	10.382
Married	0.596	0.577
Dependant Child	0.005	0.317
A Level	0.220	0.191
Diploma	0.092	0.076
Degree	0.134	0.142
Higher Degree	0.042	0.032
Log Pay	6.667	6.371
Normal Hours	39.646	30.173
Overtime Hours	3.990	2.164
Union Member	0.285	0.321
Public Sector	0.232	0.450
Manager/Supervisor	0.415	0.320
Pension	0.527	0.501
Employer Training	0.174	0.184
Firm Size		
50-99	0.256	0.269
100-499	0.249	0.186
500+	0.175	0.158
Observations	19344	20027

TABLE A2 – Selected Summary Statistics by Contract Type, BHPS, 1999-2004.

	Permanent		Seasonal		Fixed Term Contract		Agency Work		Casual		Other Flexible	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Age	38.845	39.189	38.706	34.194	36.976	37.069	35.431	35.783	37.289	37.868	40.250	40.078
Tenure	10.743	10.722	3.706	7.500	7.346	8.211	5.723	6.075	9.311	9.209	10.364	8.539
Log Weekly Pay	6.674	6.385	5.145	4.728	6.484	6.295	5.473	5.434	5.103	4.949	6.048	5.984
Usual Hours	39.542	31.182	36.941	22.444	36.788	27.917	38.810	32.491	28.933	19.000	36.227	25.255
Union Member	0.317	0.363	0.000	0.000	0.185	0.299	0.080	0.161	0.044	0.099	0.250	0.326
Public Sector	0.232	0.452	0.059	0.250	0.424	0.764	0.153	0.255	0.333	0.418	0.273	0.695
Manager/Supervisor	0.426	0.349	0.176	0.194	0.224	0.175	0.058	0.075	0.067	0.066	0.341	0.156
Firm Size												
0-49 Workers	0.295	0.355	0.706	0.556	0.296	0.330	0.190	0.248	0.644	0.527	0.432	0.418
50 to 100 Workers	0.260	0.276	0.000	0.278	0.203	0.294	0.372	0.286	0.222	0.242	0.182	0.397
100 to 499 Workers	0.261	0.200	0.235	0.139	0.257	0.146	0.277	0.211	0.089	0.154	0.261	0.128
500+ Workers	0.184	0.170	0.059	0.028	0.245	0.230	0.161	0.255	0.044	0.077	0.125	0.057
Separation Rate	0.152	0.131	0.333	0.355	0.379	0.310	0.475	0.371	0.417	0.256	0408	0.298
Observations	18568	18998	17	36	335	521	137	161	45	91	88	141

TABLE A3 – Overall Job Satisfaction Controlling for Other Dimensions of Job Satisfaction

	Controlling for Pay Satisfaction			
	Male		Female	
	Coeff	Std Err	Coeff	Std Err
seasonal	0.231	0.211	-0.175	0.165
ftc	-0.111	0.069	-0.221*	0.055
agency	-0.408*	0.092	-0.391*	0.093
casual	-0.458*	0.163	-0.326*	0.118
part_time	0.128**	0.057	-0.003	0.037
other_flex	-0.066	0.125	-0.276*	0.101
	Controlling for Hours Satisfaction			
	Male		Female	
	Coeff	Std Err	Coeff	Std Err
seasonal	0.246	0.259	-0.086	0.188
ftc	-0.052	0.071	-0.156*	0.055
agency	-0.282*	0.103	-0.389*	0.094
casual	-0.363***	0.192	-0.177	0.123
part_time	0.519*	0.063	-0.019	0.038
other_flex	-0.198	0.120	-0.149	0.105
	Controlling for Satisfaction with Work Itself			
	Male		Female	
	Coeff	Std Err	Coeff	Std Err
seasonal	-0.138	0.351	0.085	0.173
ftc	-0.059	0.064	-0.234*	0.054
agency	-0.208**	0.098	-0.229*	0.085
casual	-0.442**	0.189	-0.377*	0.118
part_time	0.213*	0.056	-0.004	0.035
other_flex	-0.179	0.122	-0.267*	0.103

All other controls as per table 4. *,**, *** indicate statistical significance at 1%, 5% and 10% level, respectively.