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Working Paper 151: Involuntary Temporary Workers: Evidence from the UK Labour Force Survey

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ABSTRACT

Specific analyses of involuntary temporary work in Britain are largely absent from the flexibility debate. This article explores socio-economic predictors of involuntary temporary employment. We analyse Labour Force Survey (LFS) data, using logistic regression modelling to identify employees working in temporary jobs involuntarily. Our analyses suggest that involuntariness for temporary jobs is affected by a range of demographic and work-related factors considered. A household with cohabiting couples and dependent children, for example, reduces the likelihood of involuntariness among women, but it has a counter effect on men. Lower occupational levels, on the other hand, heighten involuntariness across both sexes.

KEY WORDS

Involuntary temporary work, gender, recession, precarious work

Introduction

Polivka (1996) had specified that an individual employed in temporary jobs involuntarily is one who would prefer to work on a permanent contract but has been unable to obtain permanent jobs. Such a definition, however, is rather crude (Ellingson *et al.,* 1998). It fails to distinguish temporary employees who would not readily take up permanent jobs instead of their temporary works. In other words, although permanent jobs may categorically be desirable, the ones which are available may not be acceptable because of, for example, lower wages or poorer working conditions.

Further, empirical definitions may overlook potential involuntariness among those who state miscellaneous reasons for working temporarily without making an explicit reference to it being involuntary. In 2011, for example, 6% of temporary employees in Britain reported that they had worked temporarily since they had contracts including training. A smaller proportion of them (3.7%) also cited working for a probationary period. However, only one-in-five participants explicitly said that they did not want permanent jobs whilst 30% of them specified no reason for working temporarily (LFS, 2011). That is, one should keep in mind that sometimes the boundaries between 'involuntariness' and 'voluntariness' may become blurred (Ashenfelter, 1978). This is not least so among women since their work preferences may involve some compromises on domestic fronts (Woodfield, 2007) because of, for example, the cost of child-care (Forry and Hofferth, 2011). Even so, the concept of 'involuntary temporary work' is widely regarded as an operable tool by academic discussants and policy makers (OECD 2002; De Jong *et al.,* 2009).

On the basis of being unable to find permanent jobs, it is possible to say that there has been a marked increase in involuntariness for temporary jobs since the beginning of the recession, from one quarter in 2007 to 40% of all temporary workers in 2011. The number of involuntary temporary workers has risen by 240,000 in this period, reaching just below 630,000 (LFS, 2007 & 2011). Observers predict further increases amid the expected cuts in public spending and redundancies from both public and private sector companies (Hogarth *et al.,* 2009). From a pragmatist point of view, involuntary temporary work is

conventionally considered by policy makers to be a trade off with job retention (REC, 2002).

The recent surge, however, caused concerns among trade unions. The general secretary of the Trades Union Congress, Brendan Barber warned the government about the difficulties of finding permanent jobs (Barber, 2009). International studies have underlined the detrimental impacts of involuntariness among temporary workers, especially for a reduced job satisfaction (Ellingson *et al.,* 1998; Torka and Schyns, 2007). It has also been long evidenced that involuntariness undermines labour productivity (OECD, 2002). Even so, there is a dearth of systematic research specifically on involuntary temporary work in Britain, despite the expansion of academic studies in recent decades into temporary jobs in general. As discussed in what follows, specific analyses of involuntary temporary jobs essentially remain limited to a few historical works in the international literature informed by demographic and work-related issues.

Demographic Issues

Various scholars within the feminisation debates focused on the disadvantaged position of women filling short-term vacancies. It was argued that women take up temporary jobs because of their limited chance to gain access to permanent jobs (Conley, 2002; Dex and Scheibl, 2001; Pollert, 1991; Webb, 2001). Such 'quasi-coercive' take ups were also confirmed by the international literature. In Sweden (Aronsson, 1999), Spain (Amuedo-Dorantes, 2000) and Canada (Vosko, 2000), for example, women were reported to have usually worked involuntarily for temporary jobs.

Contrary accounts, however, emphasised that women prefer temporary jobs due to, among others, domestic priorities or self-fulfilment (Booth *et al.,* 2002; Golden and Appelbaum, 1992; Laird and Williams, 1996). Agency work was particularly considered to be desirable for women as a way of avoiding long-term work commitments (Russo *et al.,* 1997). There was empirical evidence in the international literature to support such approaches as well. In the United States (Morris and Vekker, 2001) and New Zealand (Casey and Alach, 2004), for example, women were reported to have chosen temporary works voluntarily.

The relation of gender to involuntary temporary jobs largely remains unknown in Britain because of the lack of systematic research. An exception to this was Forde and Slater's (2005) reference to the irrelevance of gender to people's choice of agency work. Even so, the big picture is different. Men and women have been conventionally different in Britain in terms of their involuntariness for temporary jobs in general. In 2000, for example, 24% of women in temporary jobs were involuntary whereas the proportion was almost 34% for their male counterparts (LFS, 2000). Although there was no substantial change in these figures until the start of the recession, they have increased to 36% and 44% in 2011, respectively (LFS, 2011).

A paradoxical impact of the recession has added another layer to the importance of addressing the lack of systematic research in Britain to analyse the role of gender in involuntary temporary jobs. Amid the recession, women with higher occupations and educations have become more involuntary for temporary jobs than men whereas there had been no such difference previously. For example, one quarter of the degree holders and one-fifth of managers, senior officials and professionals in temporary jobs were involuntary in 2007 regardless of gender (LFS, 2007). In 2011, however, these figures increased to 33% of men and 40% of women within the former group, along with the rise to 27% for men and 33% for women within the latter category (Table 1).

International literature has also related involuntariness to some other demographic factors such as age, marital status and dependent children. It was documented, for example, that married women were more likely to prefer agency work because of their marginal attachment to the labour market, whereas married men were less keen as the 'main bread-winner' (Golden and Appelbaum, 1992). The opposite effect of marriage on men's and women's involuntariness was also shown to be reinforced by the presence of dependent children (Russo *et al.,* 1997). Age was associated with involuntariness for temporary jobs as well. It was highlighted that women were discriminated against during the recruitment of permanent staff in order to avoid maternity leaves (Vosko, 2000). Older workers, on the other hand, were suggested to be keener on filling temporary vacancies (Laird and Williams, 1996).

Work-related Issues

Public sector jobs have been widely considered to be more advantageous than those in the private sector. Research in Britain, however, raised doubts about the accuracy of such a perception. For instance, the rise of temporary employment in local governments, especially during the 1990s was associated with less favourable working conditions (Conley, 2002; Webb, 2001). This was a culmination of increasing rigidities in the employment system (Kirkpatrick and Hoque, 2006). Even so, the evidence from the international literature points to a higher likelihood of involuntary temporary work in the private sector (Amuedo-Dorantes, 2000).

Industrial differences in terms of temporary recruitments triggered questions about the impact of industries (Ward *et al.,* 2001). For example, a recent comparison between Britain and Sweden has highlighted the role of regulatory frames in a constrained use of agency workers by the construction sector (MacKenzie *et al.,* 2010). Further, female-dominated industries such as health and education (Grimshaw *et al.,* 2003; Purcell *et al.,* 2004) were singled out for higher proportions of temporary workers. So were the low-pay industries such as hotels and food industries (Dex and Scheibl, 2001; McDowell *et al.,* 2008). Notably, these industries were also referred to as the bastions of involuntary temporary employment in Spain (Amuedo-Dorantes, 2000), albeit the evidence on industrial variations is limited both in the UK and international literature.

Research in the UK documented the implications of establishment size for temporary workers in general. For this, a catalogue of disadvantages that temporary employees had encountered in small and medium-sized companies was compiled with regard to, for example, limited holiday entitlements, training opportunities and family-friendly provisions (Dex and Scheibl, 2001). Variations in employment practices on the basis of establishment size were often associated with financial constraints on smaller companies owing to their spatial dependency on local trade (Edwards and Ram, 2006). However, the relation of establishment size specifically to involuntariness for temporary jobs is not systematically analysed either in the UK or in the international literature.

During the long-term decline in union density, the impact of membership on temporary employees has been studied in Britain (Heery, 2004; Heery & Simms, 2008). Temporary employment in low-paid jobs in particular, was reported to be a component of precarious work settings associated with low unionisation, and hence, limited influence on working conditions (Batt *et al.,* 2010; Pape, 2008). In the food industry, for example, McKie *et al.,* (2009) observed that unorganised temporary employees were virtually deprived of having a say in the management of their working hours. The lack of unions in workplaces also undermines the opportunities for temporary workers to move to permanent jobs (Booth *et al.,* 2002). However, there is no systematic research into the impact of unionisation on involuntariness for temporary jobs. Investigating such an impact has become particularly important in the UK after recent calls for a revision of trade unions' interventions in work-life balance: Research evidence has begun to generate doubts about the benefits of family-friendly initiatives for employees (Gregory and Milner, 2009; Rigby and Smith, 2010).

Part-time employment is considered to have both benign and detrimental implications for workers. Disadvantages of part-time arrangements inversely correlate with job status in general (Millar *et al.,* 2006). In particular, such jobs may diminish temporary workers' chances to progress toward permanent jobs, especially in the lower ends of the labour market (Booth *et al.,* 2002). Available findings from Australia also suggest that involuntariness among women becomes more pronounced when they have part-time and temporary contracts (Walsh, 1999).

Research has long underlined the importance of making a distinction between various types of temporary jobs to understand their implications for employees (Casey, 1988). Casual works, for example, were reported to be a 'dead end' rather than 'stepping stones' to permanent jobs (Booth *et al.,* 2002). Agency works, on the other hand, were considered to be preferable in the USA, especially for the married women (Golden and Appelbaum, 1992; Laird and Williams, 1996). Even so, this was contradicted by some evidence from New Zealand where agency workers were most involuntary for such jobs (Dixon, 2009).

The implications of occupations for temporary workers have aroused academic interest in Britain. For example, Hoque and Kirkpatrick (2003) underlined that temporary managers and professionals were marginalised in terms of training and consultation. Likewise, detrimental effects of working in the lower end of the labour market were documented in relation to temporary jobs. Particular criticisms were expressed over, for example, discriminatory promotion practices, poor workplace support and work intensification (Gray, 2004; Green *et al.,* 2010). Establishing the impact of occupations on involuntariness for temporary jobs in particular could help address our limited information in the UK: In the specific case of agency works, professional workers were reported to have presented little reluctance (Forde and Slater, 2005), but concerns were also reported over intensifying work pressures in the public services (Kirkpatrick and Hoque, 2006). The international literature, on the other hand, has long associated higher-ranking occupations with a high likelihood of voluntariness for temporary jobs in general (Amuedo-Dorantes, 2000).

Education is a strong indicator of people's occupational positions at work (Brown *et al.,* 2004). It was highlighted that temporary employees with lower educational attainments were in more disadvantaged positions compared to the well-educated since they had little say on their working conditions (Purcell and Cam, 2002). Lower qualifications, in particular, lessen temporary workers' chances to move to permanent jobs (Booth *et al.,* 2002). However, there is no systematic research specifically in relation to the link between educational levels and involuntary temporary jobs in Britain. A cross-national study covering Belgium, the Netherlands, Spain and Sweden, has shown that better educated temporary workers would be less involuntary. The reason for this is because they may use such jobs, for instance, as a way of gaining experience and skills for their future careers (De Jong *et al.,* 2009). Even so, another comparative study between Italy, Spain and France pointed to a high likelihood of women being 'over educated' in temporary jobs (Ortiz, 2010).

Considering the debates on temporary jobs in general and the international studies on involuntariness for such jobs in particular, it is possible to sum up the most commonly used variables under the broad frame of five categories: demographic profiles including gender, household types and age; work-place

characteristics in terms of industries, public/private sectors and establishment size; flexible work including part-time/full-time contracts and specific types of temporary jobs; trade union membership and finally work-status indicators (occupational and educational levels). Accordingly, we will explore the relation of these socio-economic correlates to involuntariness for temporary jobs through comparative analyses between men and women in order to rectify the lack of systematic research in Britain.

Methods

We used the Labour Force Survey (LFS) data from the final quarter of 2011 the latest round asking the trade union membership question. Although available data for the other quarters were also checked, no substantial difference was found from the results reported in this paper. We analysed a subsample of 474 male and 493 female involuntary temporary employees (out of 1085 male and 1328 female temporary employees in total). We employed the individual level ungrossed-weight which corrects for non-response.

Three limitations should be borne in mind regarding the dependent variable of working in temporary jobs for being unable to find permanent jobs: It is not possible to pin down how hard people had sought permanent jobs before taking up their existing temporary jobs. Nor does LFS investigate what sort of priorities the sample had in terms of the assessment of possible permanent jobs, if at all. Finally, interviewers accept only the first reason given by the respondent, and hence it is not possible to isolate those who are doing temporary jobs solely due to inability to find permanent jobs (ONS, 2011).

Independent variables

In broader terms, the models developed in this study control the relation of involuntary temporary work to the five categories hitherto highlighted: demographic profiles, workplace characteristics, flexible work, union membership and work-status nominators.

Among the demographic variables, household type refers to the presence, or absence, of spouse/partner and dependent children (younger than 19 years

old). The second demographic variable, age is measured by recoding working age population (from 16 to 64 years old) into four brackets in line with common practices (Blanden and Machin, 2003), whilst excluding those over 64 years old due to small sample size.

Workplace characteristics (as well as flexible work and work-status variables) refer to main jobs. The industry variable is based on the standard international classification of industries, SIC-2010 at two-digit level (i.e. *Industry Sectors*). Due to the small sample size, however, we excluded agriculture, forestry and fishing, whilst collapsing public administration, education and health together. The second variable within workplace characteristics is a dichotomous variable of respondents' self-report as to whether they work in the public or private sector. The third variable in this group, establishment size, refers to the number of co-workers reported by respondents, and it is collapsed into three bands: small (<50), medium (50-249) and large (≥250) companies (Forth *et al.,* 2006).

Flexible work variables refer to part-time and full-time works among temporary employees in addition to different types of temporary jobs including seasonal, fixed-term, agency and casual works. They are based on the self-definitions of participants. Therefore there is no consistency across the sample.

The wording of union membership question refers to the membership of both trade unions and associations, but interviewers actually aim to find out trade union membership (Brook, 2001).

Among work-status nominators, occupations are derived from the standard international classification of occupations, SOC-2010 at one-digit major level. Skilled trade occupations, sales and customer services, however, are excluded from the analyses for women owing to the small sample size. Personal services are also removed from the analyses for men because of the same reason.

We have used education levels as an indicator of work-status in order to shed more light into the impact of one's position at work on involuntariness for temporary jobs. Even so, because education is part of demographic characteristics, we first run our analyses taking it within demographic factors. However, the results were not significantly different from the ones presented in

this paper. The education variable is based on the highest qualification obtained, with five main categories from ‘no qualification’ to ‘degree or equivalent’.

The analysis uses logistic regression in order to predict the binary outcome of working temporarily due to not being able to obtain a permanent contract. The independent variables specified above were successively added to the model in sequential blocks. This allowed the observation of changes in the predictors’ relationship to the outcome variable and assessment of the relative importance of each predictor in the model. Neither the order of variables within the blocks nor that of blocks within the models made a significant difference to the results. However, using household types and age for Model 1 and then adding work-place characteristics in Model 2 proved better than other combinations for the goodness of fit.

Results

Descriptives

Table I presents chi-square results for the variations between male and female temporary employees’ involuntariness by demographic profiles, trade union membership, workplace characteristics, flexible work and work-status indicators.

When the household types are considered, it is possible to say that the gender gap is most pronounced among couples with dependent children since only 38% of such women in temporary jobs reported involuntariness compared to almost 55% of men. The gap, however, disappears (at circa 30%) if couples do not have dependent children. The difference is also highly noticeable within the range of ages specified in the table. Over 52% of male temporary workers aged from 35 to 49 years old, for example, work involuntarily in short-term jobs, whereas the proportion is less than 44% for women.

Table I: Involuntariness among temporary employees

	Men		Women	
	N†	%‡	N†	%‡
Demographic Profiles				
Household type				
Single without dep. child	236	46.9	214	40.4 **
Single with dep. child	71	39.5	111	34.0 *
Couple without dep. child	75	30.9	71	32.9
Couple with dep. child	91	55.6	96	38.1***
Age bands				
I6-24	146	40.9	131	32.4***
25-34	117	50.2	123	40.6***
35-49	113	52.2	153	43.3***
50-64	93	41.5	82	32.4***
Workplace Characteristics				
Sector				
Private sector	366	46.0	287	38.2 **
Public Sector	102	36.2	199	33.3
Industries				
Manufacturing, energy and construction	150	56.8	50	60.1 *
Distribution, hotels and restaurants	89	44.0	96	39.1 *
Transport and communication	43	54.5	32	51.7
Banking and finance	65	40.5	68	40.4
Public administration, education and health	87	32.3	226	33.9
Establishment Size				
Small	193	41.9	234	35.3 **
Medium	167	44.7	172	41.1
Large	85	43.7	78	36.1 **
Flexible Work				
Full/part-time Work				
Full-time Work	335	49.5	248	45.4 *
Part-time Work	136	33.8	244	31.4
Types of Temporary Jobs				
Seasonal Work	43	56.3	41	42.4***
Fixed-term Contract	149	36.6	237	38.7
Agency Employment	185	70.0	115	59.4***
Casual Work	62	29.5	62	23.9 *
Trade Union membership				
Members	32	31.0	70	34.3
Not members	362	44.2	364	38.5 *
Work-status variables				
Education				
Degree or equivalent	114	33.4	203	39.6 **
Higher education	38	40.7	47	35.9 *
GCE A Level or equiv	99	36.8	78	27.6***
GCSE grades A-C or equiv	101	52.7	90	35.1***
No qualification	41	64.3	40	51.8***
Occupations				
Managers, Senior Officials & Professional occupations	69	26.6	111	32.5 **
Associate Professional, Technical	30	28.9	52	35.4 *
Administrative & Secretarial Services	42	49.1	104	43.9 *
Skilled Trades Occupations	49	49.9	6	55.5 *
Personal Service	19	41.4	68	29.2***
Sales and Customer Service	41	40.2	60	40.1
Process, Plant & Machine Operatives	78	60.1	17	60.0
Elementary Occupations	146	55.0	75	40.4***

*$p < 0.05$, ** $p < 0.01$, ***$p < 0.001$

†: Number of involuntary temporary employees

‡: Involuntary temporary employees as % of all temporary employees in each category

Source: LFS Autumn 2011, weighted

As for workplace characteristics (sectors, industries and establishment size), private companies accommodate a relatively higher proportion of involuntariness among male temporary employees (46%), compared to women (just above 38%). Gender disparity, however, disappears in the public sector, along with a decrease in the proportions down to 36% for men and 33% for women. Nor do industrial variations inform the gender gap substantially since the highest difference comes in manufacturing, energy and construction as 56% for men and 60% for women. They are followed by distributions, hotels and restaurants with 44% and 39%, respectively. When companies are taken on the basis of establishment size, the figures slightly decline in smaller workplaces (down to 42% for men and 35% for women) and in the larger ones (down to 43% for men and 36% for women). That is, establishment size implies a gender disparity to certain degree.

In terms of flexible work, a comparative review of part-time and full-time temporary jobs reveals that there is a difference between full-time working men's and women's involuntariness, circa 50% and 45%, respectively. Part-time work, on the other hand, makes no gender difference as involuntariness for such temporary jobs declines down to roughly one-third regardless of sex. Variations among different types of temporary jobs, however, denote stronger disparities. Over 56% of men in seasonal works, for example, fill these sorts of jobs involuntarily whereas the proportion is less than 43% for women. Although the gender gap hardly changes among agency workers, the proportions reach the highest level, 70% and 60%, respectively.

Trade union membership hardly points to a difference between male and female temporary workers' involuntariness (31% and 34%, respectively). To a certain degree, however, gender disparity becomes noticeable among non-members, along with an increase in involuntariness, especially among male temporary workers: The proportions are circa 44% for men and 38% for women.

Finally, we can have a look at the gender differences by work-status variables, educational attainments and occupational categories. As we have noted earlier, having a degree or a high ranking post implies more involuntariness among

women compared to men. However, the gender gap reverses and widens as we go down along with educational and occupational levels. Male temporary workers' involuntariness increases to almost 60%, for instance, in the case of no qualifications, albeit the proportion for their female counterparts also rises to one in two. Likewise, involuntariness among male temporary workers turns out to be over 55% at the bottom of the occupational ranking, compared to 40% for women.

Overall, male temporary employees show a significantly higher tendency toward involuntariness compared to women with a varying degree of influence across the demographic and work-related benchmarks used in Table I. Even so, the gender gap is reversed by the highest indicators of work status.

Logistic regression models

Both separate and joint logistic regression models to examine the differential effects of demographic and work-related circumstances on men's and women's involuntariness for temporary jobs are provided in Table II. For each predictor variable, the last category in bivariate analyses is defined as the reference category.

Model 1 includes demographic profiles in terms of household types and age brackets. If female temporary employees are single without dependent children, they present a higher likelihood of involuntariness *(*OR = 1.87, $p < 0.001$), compared to coupled women with dependent children – the reference category (Table II). Male temporary employees, on the other hand, are less likely to be involuntary if they are single with dependent children (OR = 0.60, $p < 0.001$) or coupled without dependent children (OR = 0.50, $p < 0.001$).

Table II: Involuntariness among temporary employees

	Odds Ratios for All				Odds Ratios for Men				Odds Ratios for Women			
	Model I	*Model II*	*Model III*	*Model IV*	*Model I*	*Model II*	*Model III*	*Model IV*	*Model I*	*Model II*	*Model III*	*Model IV*
Demographic profile												
Household Type	***	***	***	***	***	***	***	***	***	***	***	***
Single without dep. child	1.40***	1.36***	1.32***	1.21	0.92	0.86	0.70	0.59***	1.87***	1.86***	1.82 ***	1.80***
Single with dep. child	0.95	1.03	1.04	0.96	0.60***	0.62 **	0.42***	0.32***	1.35	1.41 **	1.55 ***	1.45
Couple without dep. child	0.80	0.74 **	0.72 **	0.63***	0.50***	0.52 ***	0.40***	0.35***	1.09	0.92	0.92	0.85
Couple with dep. child	I	I	I	I	I	I	I	I	I	I	I	I
Age bands	***	***	***	***	***	***			***	***	***	***
I6-24	0.88	0.76 **	0.70***	0.69 **	0.83	0.85			0.91	0.72	0.59 ***	0.56***
25-34	1.66***	1.63***	1.35 **	1.28	1.34	1.49 **			2.06***	1.86***	1.46 **	1.56 **
35-49	1.58***	1.53***	1.45***	1.32	1.27	1.20			1.97***	1.87***	1.71 ***	1.68***
50-64	I	I	I	I	I	I			I	I	I	I
Industries		***	***	**		***	***			***	***	
Manufacturing, energy and construction		2.84***	1.97***	1.47 **		2.81 ***	1.95 ***			2.65***	1.87 ***	
Distribution, hotels and restaurants		1.53***	1.52***	0.86		1.60 ***	1.10			1.47***	1.79 ***	
Transport and communication		2.07***	1.50 **	0.95		1.97 ***	1.20			2.24***	2.04 ***	
Banking and finance		1.24	0.94	0.75		1.17	0.85			1.25	1.03	
Public administration, education and health		I	I	I		I	I			I	I	
Flexible Work												
Part-time Work			1.48***	1.66***			1.72***	1.73***			1.58***	1.66***
Types of temporary Work			***	***			***	***			***	***
Seasonal work			2.29***	2.46***			3.40***	3.73***			1.89***	1.85***
Fixed-term contract			1.31 **	1.67***			1.29	1.79***			1.50 **	1.56 **
Agency work			3.25***	3.10***			4.38***	3.44***			3.18***	2.84***
Casual work			I	I			I	I			I	I
Work-status variables												
Education				***				***				
Degree or equivalent				0.59 **				0.43***				
Higher education				0.68 *				0.70				
GCE A Level or equiv				0.42***				0.38***				
GCSE grades A-C or equiv				0.56 **				0.68				
No qualification				I				I				
Occupations				***				***				***
Managers, Senior Officials & Professional occ.				0.38***				0.33***				0.51***
Associate Professional, Technical				0.49***				0.42***				0.57 **
Administrative & Secretarial Services				0.81				1.12				0.85
Skilled Trades Occupations				0.81				0.75				0.63
Personal Service				0.55***				0.69				0.62
Sales and Customer Service				0.96				0.62				1.39
Process, Plant & Machine Operatives				1.23				1.10				1.04
Elementary Occupations				I				I				I
Δ df	7	8	8	8	6	8	8	8	7	7	8	8
−2 LLR	3050.3	2577.0	2173.4	1952.9	1370.5	1126.4	932.9	785.0	1653.5	1479.7	1226.8	1047.6
Δ -2 LRR		473.3	403.6	220.5		244.1	193.5	147.9		173.8	252.9	179.2
Significance of Δ −2 LRR		**	*	***		**	***	***		**	***	***

Source: LFS Autumn 2011, weighted

Significance of difference from reference category *$p < 0.05$, ** $p < 0.01$, ***$p < 0.001$

Model 1 also evidences a significant age effect, but only among female temporary employees ($p < 0.001$). Those who are younger than the reference category of 50-64 years old are more likely to become involuntary with the exception of the youngest group specified in Table II, aged from 16 to 24 years old. The irrelevance of age to male involuntariness helps explain the gender gap in general.

Model 2 originally brought in the three aspects of workplace characteristics, public/private sectors, establishment size and industries. However, the former two did not fit into the model. We then exhausted various combinations but to no avail. Therefore, we excluded them from the final analyses. Even so, workplace characteristics measured by industrial variations have significant implications for involuntariness for temporary jobs among both male and female respondents ($p < 0.001$). Manufacturing, energy and construction sectors, for example, almost triple the involuntariness of men (OR = 2.81) and women (OR = 2.65), compared to pubic administration, education and health. The analyses suggest a similar case in distribution, hotels, restaurants, transport and communication as well.

It is worth mentioning that the inclusion of industrial variations in Model 2 has significantly consolidated the impact of demographic factors. In other words, one needs to take on board the industries in which people are employed in order to assess demographic influences more accurately (see the change in log-likelihood ratio in Table II).

Model 3 incorporates flexible work into the analysis through part-time/full-time employment and different types of temporary jobs including seasonal, fixed-term, agency and casual works. The model evidences that part-time jobs predict a higher likelihood of involuntariness ($p < 0.001$) for both male (OR = 1.72) and female (OR = 1.58) temporary workers. Variations within different types of temporary jobs also help explain the involuntariness of men and women for such jobs ($p < 0.001$). Agency works, for example, generate a very

high likelihood of involuntariness for men (OR = 4.38) and women (OR = 3.18). Likewise, both men's (OR = 3.40) and women's (OR = 1.89) involuntariness is boosted by seasonal works.

The inclusion of flexible work eradicated the significant role of industries on the involuntariness of male temporary workers in distribution, hotels, restaurants, transport and communication. That is to say, the impacts of these industries specified in Model 2 for men were a reflection of flexible work by and large. Thus, the limited relevance of industries to men's involuntariness also contributes to overall gender gap.

Model 4 was originally run for trade union membership, but it did not fit into the model. We then again exhausted various combinations with no success. This also applies to the presence of a recognised trade union in the company (The only exception came from taking the membership exclusively with our demographic variables: the result was a reduced male involuntariness for temporary jobs – OR = 0.58, $p < 0.001$). Therefore, we had to exclude the unionisation issue from the final analyses.

Model 4 presented in Table II includes work-status indicators to examine how the constraints stemmed from educational attainments and occupations impinge upon the chances of temporary employees to find permanent jobs. Putting our independent variables all together into the analysis, the model shows that education is highly explanatory for men ($p < 0.001$). Male temporary workers who have GCE grades A-C or above are less likely to become involuntary compared to those who have no qualifications. To put it differently, lower educational qualifications heighten the likelihood of involuntariness among male temporary employees. Women's model, on the other hand, failed to produce similar evidences with regard to the impact of educational levels on involuntariness for temporary jobs.

As for the occupational influences, when temporary employees gain access to highly-ranking occupations, the likelihood of becoming involuntary becomes

smaller for both men and women, compared to those in lower occupations ($p < 0.001$). Men (OR = 0.33) and women (OR = 0.51) in managerial, senior official and professional groups, for example, are less likely to be involuntary for temporary jobs than the ones in elementary occupations.

Finally, the inclusion of work-status variables eradicated the significant role of industries on involuntariness in each model for male and female respondents. The only exception to this was the combined effect of manufacturing, energy and construction on the joint model for men and women.

Conclusions

To rectify the lack of systematic research in Britain, we explored socio-economic predictors of involuntariness for temporary jobs, along with references to international studies specifically on this issue as well as broader debates on temporary jobs. Involuntariness is significantly affected by a range of socio-economic correlates we considered. In general, the British case presents a contrary gender gap and an inverse relation to work-status, but these upshots have been modified by a glass-ceiling process since the beginning of the recession.

The contrary gender gap, to start with, indicates women's lower propensity toward involuntariness for temporary jobs than men. This fails to back those who focused on the disadvantages of women in flexible jobs (Aronsson, 1999; Vosko, 2000; Webb, 2001). Our findings, on the other hand, lend some support to the approaches which suggested more preparedness among women for temporary jobs due to, among others, family commitments and self-fulfilment (Casey and Alach, 2004; Golden and Appelbaum, 1992; Morris and Vekker, 2001). Demographic circumstances have an important influence on the gender gap. Being coupled together with dependent children, for example, increases involuntariness among men whereas it has the opposite effect on women. This may be attributed to the gendered division of domestic labour (Booth *et al.,* 2002; Purcell *et al.,* 2004).

Even so, the gender gap specifically in the higher ranks of occupational and educational levels is in contrast with the overall gender gap. Holding a degree or managerial post means a significantly less likelihood of involuntariness among men, compared to women. This further substantiates concerns regarding the issue of 'over education' among female temporary workers (Ortiz, 2010). Such a result also consolidates the conventional idea of glass-ceiling over the constrained access of well educated women to secure and permanent jobs, compared to men (Dieckhoff and Steiber, 2011; Felstead *et al.,* 2007). Nevertheless, our findings suggest that the involuntariness of well educated or senior official women for temporary jobs has become higher than that of men only since the beginning of the recession, whereas there had been no difference previously.

Despite gender differences, both men's and women's involuntariness for temporary jobs is affected by common dynamics from within their working lives (Green *et al.,* 2010). Notably, one's involuntariness is influenced by his or her status at work, but such a relationship does not necessarily materialise in a straightforward way. Our logistic analyses, for example, failed to find a strong relationship between involuntariness and some commonly used variables to understand the implications of temporary jobs for employees. These variables include certain workplace characteristics such as public/private sectors (Grimshaw *et al.,* 2003) and establishment size (Dex and Scheibl, 2001; Edwards and Ram, 2006). The irrelevance of public/private sectors may confirm a long-term shift toward 'a state of insecurity' in Britain (Conley, 2002; Webb, 2001). That of establishment size also proves that only industrial differences among workplace characteristics specifically capture the detrimental implications of low-pay jobs in, for example, hotels and restaurants (MacKenzie *et al.,* 2010; McDowell *et al.,* 2008; Purcell *et al.,* 2004). Such a result in particular, appears to be in line with the evidence from Spain (Amuedo-Dorantes, 2000).

Flexible work has turned out to be an underlying factor behind the varying impacts of industries in the case of men as it advocates more involuntariness among them compared to women. Even so, part-time jobs and certain types of temporary employment raise involuntariness to a statistically significant level among not only male but also female temporary workers. This corresponds with the concerns over the detrimental impacts of part-time jobs on the British workers in general (Millar *et al.,* 2006) and the involuntariness of Australian women for temporary jobs in particular (Walsh, 1999). In terms of the specific types of temporary jobs, it is possible to say that agency work generates the highest level of involuntariness. Such a result fails to support optimistic accounts of agency work in the US (Golden and Appelbaum, 1992; Laird and Williams, 1996; Morris and Vekker, 2001) and Belgium (Russo *et al.,* 1997). It, however, backs more critical studies in Canada (Vosko, 2000) and New Zealand (Dixon, 2009). The British case is arguably affected by the degradation of agency work in recent years, especially through the use of migrant workers in exploitative ways (McDowell *et al.,* 2008).

More evidence over the link between one's position at work and involuntariness for temporary jobs comes from the work-status indicators. High level occupations reduce involuntariness among female temporary workers, compared to lower ranking ones, although higher education has no effect. This inconsistency further mirrors the glass-ceiling against women's access to permanent jobs in the higher end of the labour market –compared to the lower end (Dieckhoff and Steiber, 2011; Felstead *et al.,* 2007). Our findings prove that such a situation informs women's involuntariness in low-pay industries as well. We have, on the other hand, failed to find a similar inconsistency among male temporary workers as their involuntariness is diminished by higher occupational and educational levels alike.

Pertinently, an inverse relation between occupations and involuntariness for temporary jobs emerges as a structural, rather than a cyclical, effect. In 2007, for example, involuntariness was circa 14% among temporary professionals

and senior officials, whereas the proportion was twice as much as that for process, plant and machine operatives as well as elementary jobs (LFS, 2007). In general, these results ratify the international research findings (Amuedo-Dorantes, 2000; De Jong *et al.,* 2009), despite the limited attractiveness of agency work for the UK professionals (Forde and Slater, 2005; Kirkpatrick and Hoque, 2006).

Even though temporary work undermines employees' sense of job security (Batt *et al.,* 2010; Mitlacher, 2007), our analyses failed to prove a strong relationship between involuntariness and unionisation. Neither membership nor the presence of a recognised union in the workplace helps a lot to alleviate involuntariness for temporary jobs, especially among women. In part, this may echo regulatory constraints against the effectiveness of unions in the case of unfair dismissals (Heery, 2004; Heery & Simms, 2008). Since the beginning of the recession, however, there was also an increase particularly in the proportion of female members whose pay and working conditions are not affected by union agreements with companies (Author A).

Recent government initiatives to curtail the state support available for childcare through the tax credit system may lead to a further rise in temporary work, especially among women (Forry and Hofferth, 2011). This should be taken with an increasing share of men in temporary service sector jobs amid the accelerated erosion of traditionally female-dominated occupations because of the recession (Hogarth *et al.,* 2009). If flexible work is to be deployed sustainably in combating the current economic downturn, the government should try to promote labour productivity, and hence, voluntariness among temporary workers (OECD, 2002). For this purpose, a fuller adoption of the EU directives against unfair dismissals should be considered (Forde and Slater, 2005). It would also be useful to address managerial reservations on becoming involved in dialogues with trade unions (Butler, 2009). Unions need to boost organising effectiveness (Taylor and

Bain 2003), responsiveness (Heery and Simms, 2008) and dividends (TUC, 2003) for temporary workers.

The negative relation of work status to involuntariness for temporary jobs in general renders it an explorable area for the students of precarious employment both empirically and conceptually (Kalleberg, 2009; Pape, 2008). There is also a need for specific analyses to examine the relationship between involuntariness for temporary jobs and some potentially important issues which are not covered in this study such as working hours, earnings and migrant workers. Further, it would be useful to conduct qualitative research in order to develop an in-depth insight into, for example, the ways in which variations in household types, demographic profiles and educational attainments culturally inform different degrees of involuntariness among temporary employees.

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