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Bridge or Trap? To what extent do Temporary Workers make more transitions to Unemployment than to the Standard Employment Contract. A Comparative analysis of Denmark, France and the United Kingdom

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Abstract

This paper concerns itself with the transitions of temporary workers to the standard employment contract and to unemployment. Adopting an institutionalist framework, arguing that labour market institutions will parameterise outcome, three countries with different forms of market structuration are presented: Denmark, France and the UK. The primary expectation of the analysis is that temporary workers will have different labour market transitions as a result of the different institutional configurations they find themselves in. Using seven waves of the European Community Household Panel survey (ECHP), spanning a period from 1995 to 2001, the transitions to and from flexibilised labour are investigated using event history analysis techniques (Allison 1984; Blossfeld and Rowher 1995). We find French temporary contract workers to be significantly less likely to obtain a permanent job than either Danish or UK temporary workers, though found the majority of temporary workers to enter a permanent contract within the observation period. The between country differences in temporary workers unemployment risks were less conclusive, though we found temporary workers to be more exposed to unemployment than permanent workers in each country.

1 Introduction

There are broadly speaking two contradictory hypotheses concerning the relative ability of temporary contract employment to integrate workers to the standard employment contract. One considers the bridging function of temporary work, suggesting that temporary employment contracts can serve as an entry route to the standard employment contract. The second suggests that temporary employment leads to the marginalisation of atypical workers, with temporary workers the unfortunate inhabitants of a segmented and peripheral market. This paper presents an analysis of the transitions of temporary workers to both unemployment and the standard employment contract in an effort to test the relative merits of the bridging or marginalisation theses. In addition to these analyses the 'fit' of the bridging or marginalisation thesis to divergent national contexts is investigated through comparative analyses. Here we establish whether different labour market and welfare institutions constrain temporary worker outcome differentially and thereby establish whether nationally specific debates offer adequate accounts of temporary employment which are generalisable to divergent national contexts.

Such an analysis has only recently been made possible through the collection of cross-national comparative data in the European Community Household Panel survey (ECHP). This paper uses the full panel sequence, spanning a period from 1995 through to 2001, and through careful data construction observes and measures the transitions of temporary contract workers through time.

The structure of the paper is the following. Theoretical accounts of temporary contract employment are offered and categorised according to predictions of bridging versus marginalisation. The institutional context of the three countries analysed are reviewed as are the nation specific hypothesis of temporary worker outcome. In section 3 we present the data, the method of data construction and the methods of estimation. Section 4 presents non-parametric analyses of temporary workers labour market transitions while section 5 presents a series of multivariate models. These models allow us reveal the covariates which account for the transitions temporary workers make, and allow us identify whether temporary workers in different labour markets experience different labour market outcomes.

1.1 Theories Predicting a Bridging Function

One view is that temporary workers are probationary contract workers (Booth et al 2002; Henguelle 1994), that is workers who are employed on short-term contracts so that employers

can scan their skills and abilities before giving them entry to the standard employment contract[1]. Such a perspective would predict a reasonable flow of workers from temporary contracts to permanent contracts and would, moreover, predict greater recourse to this form of contract in markets where employers' information concerning skills and capabilities is bounded by poor skills development and co-ordination (Hall and Soskice 2001; Soskice 1999) such as the UK. While probationary contract theory accounts for temporary contracts in terms of employers uses of them, it makes no references to employers' differential utility of probationary contracts for different types of worker. It is argued here that probationary contracts are more likely to be used for highly skilled workers attempting to gain entry to primary labour market segments, rather than for lower grades of worker where the scanning function associated with probation will be too costly for the position under consideration. Empirical research suggesting temporary employment may provide a bridging function includes that of McGinnity, Mertens and Gundert (2004) who find convergence between West German temporary and permanent workers in their labour market outcomes five years after an initial period of temporary contract employment. Zijl, van den Berg and Heyma (2004) also find a bridging function in the Netherlands, with temporary work found to shorten the duration of unemployment.

1.2 Theories Predicting Marginalisation

The competing hypothesis presents temporary contract employment as marginalised employment with employers offering temporary contracts to lower grades of worker who they can consequentially hire or fire with considerable ease. The association of temporary employment with marginalised employment has its origins in dual labour market (Doeringer and Piore 1971; Doeringer and Piore 1985; Piore and Sabel 1984) and segmentation theories (Edwards 1979; Gordon et al. 1982) which predict little mobility from one labour market segment to another. Dual labour market theories predict stark skills differences between workers in the 'core' and 'peripheral' segments as a result of the different technological requirements of each sector. In the core market, production and employment are stable, though their stability requires both economies of scale and consistency in product demand to offset the costs of technological advancements required in this sector. In the peripheral market, production is based in low skill, low cost labour that is hired and fired in accordance to the considerable fluctuations in product

[1] There is a tendency in the literature to refer to the screening function of temporary contract employment in a manner which is similar to that deployed here to refer to probation. The term screening is not used here to distinguish from earlier uses of the term screening (Weiss 1995) which refer to employers' vetting future employees on the basis of their qualifications and not on the basis of a trial period used to uncover information not previously held by the employer.

demand. From this perspective the numerical flexibility required of workers in the secondary sector is likely to be obtained through the generation of temporary contract workers, who by definition are hired and fired with greater ease. Previous research which suggests that temporary employment leads to marginalisation includes that of Giesecke and Groß (2003, 2004) and Scherer (2004). In their 2003 paper, based on West German data, Giesecke and Groß find temporary workers are more likely than permanent workers to become unemployed and to obtain further temporary contracts. In 2004, the same authors extend this analysis to the United Kingdom, they find that temporary workers in both countries are more likely than permanent workers to enter unemployment and to obtain further temporary contracts. Scherer (2004) looks at workers mobility to a series of different labour force and occupational statuses. The author establishes temporary workers in Italy to be more exposed to unemployment and labour market drop out than permanent contract workers[2].

Probationary contract theory and theories of dual and segmented markets offer us competing hypothesis concerning temporary workers' propensity for mobility to permanent contracts. From the perspective of probationary contract theory we would expect temporary workers to be quite likely to make transitions to permanent contract employment (corresponding with the 'bridging thesis'), while dual and segmented labour market theory lead us to expect temporary workers to be peripheral market occupants with reduced access to permanent contracts (corresponding to the 'marginalisation thesis'). Both theories also offer us competing expectations of temporary workers unemployment risks. Probationary contract theory leads us to expect a portion of temps, those who after probation failed their employers' expectations, to be at risk of unemployment. Crucially this theory also leads us to expect unemployment risk to be associated with unobserved criteria, such as motivation or collegiality, attributes which can only be determined on probation. Probationary contract theory, therefore, leads us to expect little observed difference between temporary workers who make transitions to unemployment and those who do not. Conversely, market segmentation theories; lead us to expect a strong tendency for temporary employment to be exposed to unemployment. Segmentation theories

[2] The author also investigates West German temporary employment these results are, however, unconvincing. The author finds temporary contract workers in Germany to be *less likely* to become unemployed than permanent contract workers, and, moreover, maintains this finding throughout a series of models (p. 380). She also finds that temporary workers are less likely, than permanent workers, to make a transition to labour market inactivity, again a finding which appears robust to the dataset generated for the analysis. Neither finding is explained to the degree required of a finding which is counter to all previous research on temporary workers labour market transitions, both within Germany (Giesecke and Groß 2003; McGinnity et al. 2004) and in other European countries (Polavieja 2001; Gash 2003; DiPrete et al. 2004) to name a few.

also led us to expect stark differences between the attributes of workers exposed to unemployment.

1.3 National Context

While temporary workers' propensities for transitions to either permanent contract employment or to unemployment is expected to reflect employer's utility for temporary employment the national context within which temporary workers find themselves is also a vital component to the labour market opportunities available to them. To test the assumption that national context will differentially determine the transitions of temporary contract workers, a comparative analysis of three different labour markets is conducted. The labour markets chosen for the analysis differ according to two axes considered vital to labour market dynamics. These axes are (1) the relative openness or flexibility of markets as well as (2) their levels of inclusion and/or integration. Broadly these axes reflect policies which support or impede demand-side (flexibility axis) and supply-side (inclusion/integration axis) market dynamics. The vital break with traditional economic portrayals of market dynamics is in the conceptualisation of policies of inclusion, which in this case are those alleviating the structural constraints placed on workers that can impede supply.

Markets were classified as flexible in accordance to their systems of employment protection legislation as well as the structure of their non-wage labour costs. Countries which allow employers to hire or fire workers with ease, and had low non-wage labour costs, were classified as flexible, those that did not were classified as rigid. Denmark and the UK are identified as flexible regimes while France was described as rigid[3]. The expectation here is that flexible regimes will allow greater job mobility and consequentially will support temporary workers transitions to permanent contract employment. We also expect more flexible regimes to distribute unemployment risk more equally across both forms of contract given the greater ease with which employers can fire permanent workers in flexible regimes.

The degree to which markets were classified as integrative was determined with reference to systems of (a) trade unionism as well as systems of (b) education and training.

[3] Employment protection legislation in both Denmark and the UK are highly flexible allowing employers hire and fire workers with few impediments. France has comparatively greater bureaucratic impediments both in terms of hiring and firing workers as well as in the ability to hire a worker on a fixed-term contract (OECD 1999; Grubb and Wells 1993). Non-wage labour costs are also very low in Denmark, in the order of 0.6%, while non-wage labour costs reach 14% in the UK and 39% in France, these are average rates for the time period 1989-1994, sourced from Nickell (1997).

Consensual and centralised trade unionism is expected to police employment law and ensure that employers do not misuse temporary contract employment as a source of low cost labour. Coordination between the state and employers in education and training is expected to reduce the need for probation amongst temporary workers, increasing the speed of transition to permanent contracts. Such coordination between the state and employers is also expected to smooth the transition from school to work, with a considerable proportion of temporary workers young people in their first job[4]. Denmark is presented as an integrative market on the basis of its extensive and centralised trade unionism and its coordinated skill formation. The French market is regarded as semi-integrative with its low and segmented trade union density preventing it from gaining a fully integrative status. The UK is described as a non-integrative market with weak trade unionism and little co-ordination in its education and training system (Heath and Cheung 1998).

In sum, the countries chosen for the analysis vary in their combination of *flexibility* and in their policies of market *integration*. These combined dimensions lead to the development of the typology and nationally specific hypotheses described below[5].

2 Hypotheses for Temporary Workers by Country

The Danish labour market is presented as a *flexibly integrative market* on the basis of its flexible/open market and its coordinated trade union and education systems. It is predicted that the Danish regime will be the most conducive to temporary workers' transitions to permanent contract employment. This is attributed to the flexibility of the Danish market, facilitating job-to-job transitions, as well as its policies of integration, protecting workers from market failure: with its trade unionism enforcing equality legislation for temporary contract workers, and its coordinated education smoothing the transition from school to work and providing employees with qualifications required and understood by industry. While we do not expect the Danish regime to remove the greater risk associated with unemployment for temporary contract workers, we do expect there to be considerably less evidence of an iniquitous distribution of this

[4] The proportion of temporary workers who were in their first job, that is those who claimed to have never worked before are the following for the dataset used: 10.4% of Danish temps, 33.2% of French temps and 33.2% of UK temps.

[5] A diagram of the institutional features of Danish, French and UK markets according to their relative tendencies for flexibility and/or integration is presented in the appendix (Figure A1).

risk amongst disadvantaged sub-groups within the market, such as women and the less educated.

The UK labour market is presented as a *flexibly non-integrative market* on the basis of its flexible/open market, its uncoordinated education system and its weak trade unionism. We expect the flexibility of the UK market to facilitate temporary workers' transitions to permanent contract employment. While we might expect the low rates of coordination to lead to market failure for temporary workers, decreasing their transitions to permanent contract work and increasing their transitions to unemployment, the lack of coordination in the British educational and training system is also likely to benefit the UK temporary worker market in the following manner. By failing to provide employers with adequate information concerning the skill content of qualifications UK employers' are expected to disproportionately use temporary contracts as a form of probationary contract[6]. This leads us to expect considerable transitions from temporary contract work in the UK, to both permanent contract work, for temps who were successful in convincing their employers of their abilities on the job, and to unemployment, for those who were less successful.

The French labour market is presented as a *rigidly semi-integrative market* on the basis of its rigid/closed market, its coordinated and centralised education and training system and its un-equal concentration of trade unionism is certain industrial sectors, notably the public sector. We expect rigid employment law to hinder temporary workers' transitions to permanent contracts and expect France to be the least supportive of temporary workers transitions to permanent contract work relative to either Denmark or the UK. While we might have expected the French education and training system to mediate the rigidity of the market[7] ongoing failures to remedy the employment deficit have seen a more arduous transition from school to work (Goux and Maurin 1998). Moreover, recent attempts to shift unemployment have sought to generate temporary and reduced hour contracts through the exoneration of social security payments are also likely to contribute to an insider/outsider dynamic for temporary workers, relative to permanent workers, in France.

These institutional factors are also likely to disproportionately expose temporary workers to unemployment risk, with temporary workers used as the principle means of obtaining numerical flexibility in a rigid market.

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[6] This assumption is certainly supported in the descriptive statistics, where we find a higher proportion of highly educated temps in the UK relative to temps in France and Denmark, 39% of UK temporary workers have higher educational qualifications relative to 25% of Danish temps and 21% of French temps (Table A2 in the appendix).

[7] The French education system is described as highly centralised (Goux and Maurin 1998), with considerable inter-action between the state and employers (Hancké 1996; Lefévre et al. 2002) facilitating agreed outcomes in the skill requirements of business.

3 The Data (1995-2001)

This study is based on analyses of seven waves of the European Community Household Panel Survey (ECHP). The ECHP is a standardised comparative cross-national survey conducted in the Member States of the European Union under the auspices of the Statistical Office of the European Communities (EUROSTAT). The samples were drawn by each member state as simple random samples, with information collected from respondents in face-to-face interviews in each panel year (1994-2001). The data set contains information both at the individual and household levels relating to human capital acquisition, occupation and industrial location as well as variables relating to individual well-being. The statistical technique applied, event history analysis (Allison 1984; Blossfeld and Rohwer 1995), allows us to examine the relative rates of transition of temporary workers to the standard employment contract and to unemployment.

The dependent variable measures the duration of the individual in a temporary or part-time contract, established through analyses of job start and end dates collected at each year of the survey. The unit of measurement is continuous as exact job start and end dates were asked of respondents rather than being approximated as equal to the panel year in which a change in status was measured. Given that our population of interest is a minority group within the labour market, considerable effort was made to retain cases for the multivariate analysis. One means by which our sample size was maintained was through the generation of a sliding scale of job starts. This allowed us to set our starting time for each individual as the first year in which they record information concerning their job-start date. So if individual X did not offer a job start date in the first wave of the panel, as they were unemployed for instance, their job start date was taken from subsequent years of the sample. This alternative way of establishing the start date yielded additional cases that were vital, increasing our sample of 1286 temporary workers to 2797. The generation of a sliding scale of job starts is of particular importance for our sample because the variable measuring contract type, whether someone was employed on a permanent or temporary contract, was not asked until the second wave of the ECHP (1995). There is good reason to expect, given the short-term nature of the contract, that workers who were on temporary contracts in 1994 may have already left them by 1995. Those that remained in temporary contracts up until 1995 are likely, therefore, to have disproportionately long durations in temporary jobs, thereby biasing our sample. The second problem associated with our temporary worker sample is one of attrition. By 1995, the structure of the sample of the ECHP already changed in so far as some people who answered questionnaires in 1994 had

refused to remain sample members in 1995[8]. While we could assume a random distribution of non-response, the inclusion of panel inflow was considered to be a more robust strategy[9].

The transitions of temporary workers to permanent contract employment was measured in two forms. The first measures the timing of a transition to a permanent contract for those temporary workers who had more than one job recorded in the panel. The second type of upward transition records changes in contract type from temporary to permanent within the one job, occurring when individuals gave different contract types over-time within the one job. The combined analysis of both within job and between job transitions was conducted to maximise on cell size. It should also be noted that this strategy is an enforced one for all analyses using calendar data (O'Reilly and Bothfeld 2002).

Transitions to unemployment were measured in the following manner. The first means of identifying transitions to unemployment looked at the existence of a period of unemployment prior to the start of a second job, with the information provided allowing one to determine both the timing and the duration of the unemployment spell. The second means of identifying transitions to unemployment involved an assessment of variations in labour force status over-time, if we knew that the individual was in employment at time x, through their job start date, we would denote job end date as the interview date of the panel when their labour force status changed to unemployment[10].

The sample for the analyses excludes the self-employed, and is restricted to workers who are between 18 and 65 years of age. It should also be noted that for those whose jobs commenced on or before 1980, the job start date was bottom coded, meaning that the actual job start date is unknown. Given the problems associated with left-hand censoring in event history analysis (Blossfeld and Rohwer 1995) such cases have been excluded.

[8] The attrition for the ECHP sample after the first wave was 10 percent for France, 23 percent for the UK and 11.5 percent for Denmark (Gallie and Jacobs 2000). The attrition rate for the UK is more difficult to interpret however, as the ECHP sample contains a sub-sample of the British Household Panel survey which was already in its 5th year before it was added to the ECHP sample.

[9] It should be noted that statistical tests of difference between the original 1995 sample and sample inflow were insignificant.

[10] It should be noted that the data construction is such that there is a slight bias in the possibility of recording a transition to permanent contract employment, rather than recording a transition to unemployment. Checks were made, involving different recodes of the data, and the proportions making transitions to different labour force statuses were found to vary somewhat. Nonetheless, the variations in observed transitions did not fluctuate sufficiently for one to have reservations about the validity of the data.

4 Non-parametric Distributions

4.1 Transitions to the Standard Employment Contract

Figure 1 shows the proportions of temporary workers who do not make a transition to a permanent employment contract by country. The first observation of note is that a majority of temporary workers make integrative transitions to permanent employment within the observation period. Danish and French temporary workers share a similar trajectory in the timing and the occurrence of their integrative transitions whilst UK temps appear to be the outliers with more rapid entry to permanent employment contracts. As Table 1.1 indicates, the between country difference in temporary workers' survival functions is significant and our hypothesis of national divergence is supported.

Figure 1: Kaplan-Meier Survival Estimates. Temporary Workers' Transitions to Permanent Contracts

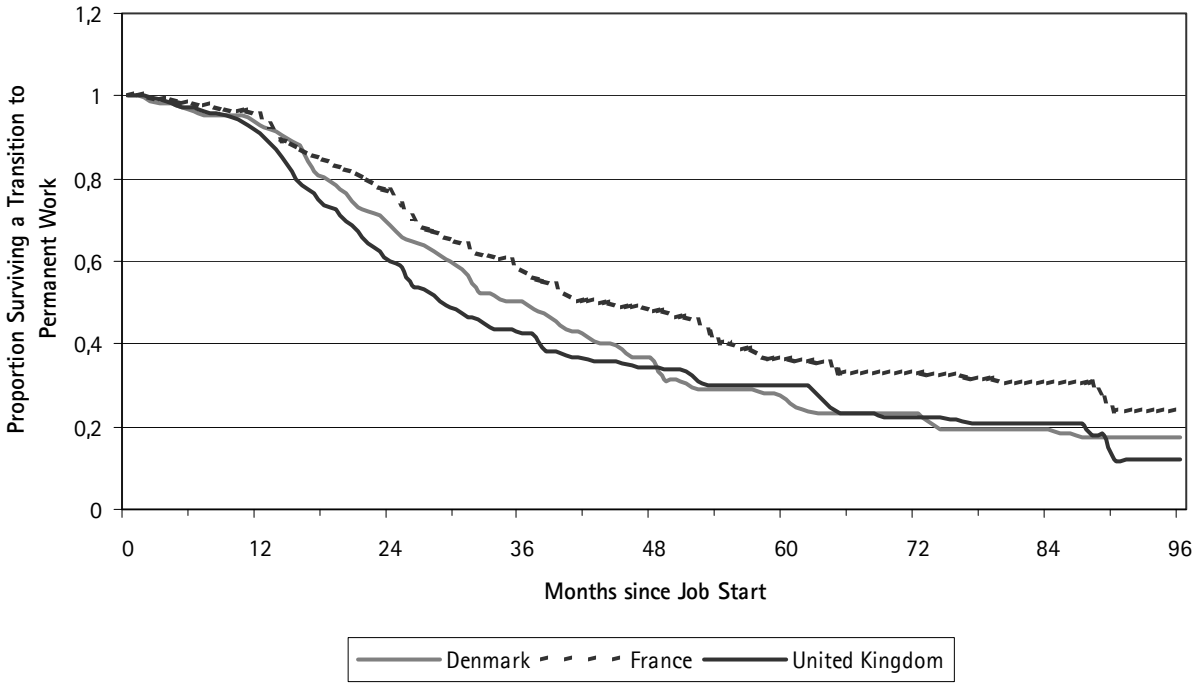

Table 1.1: Cox Regression based Test for the Equality of Survival Curves, weighted data

	Events Observed	Events Expected	Relative Hazard
DANISH Temporary Workers	160.19	139.77	1.170
FRENCH Temporary Workers	310.99	382.13	0.829
UK Temporary Workers	245.63	194.91	1.289
Total	716.81	716.81	1.000
	Wald chi2(2)		27.37
	Pr>chi2		0.000

4.2 Transitions to Unemployment

Figure 2 shows the proportions of temporary workers who do not make a transition to unemployment by country, for the same time period as that reviewed in Figure 1: 96 months. We find that UK temps appear to have the lowest transition rates of the three, but find the Danish transition rates to be sufficiently similar for there to be no statistically significant difference in this survival function. French temporary contract workers, however, are very clearly the most exposed to unemployment. Table 2.1 presents the tests of the between country differences in temporary workers' survival functions to unemployment.

Figure 2: Kaplan-Meier Survival Estimates. Temporary Workers' Transitions to Unemployment

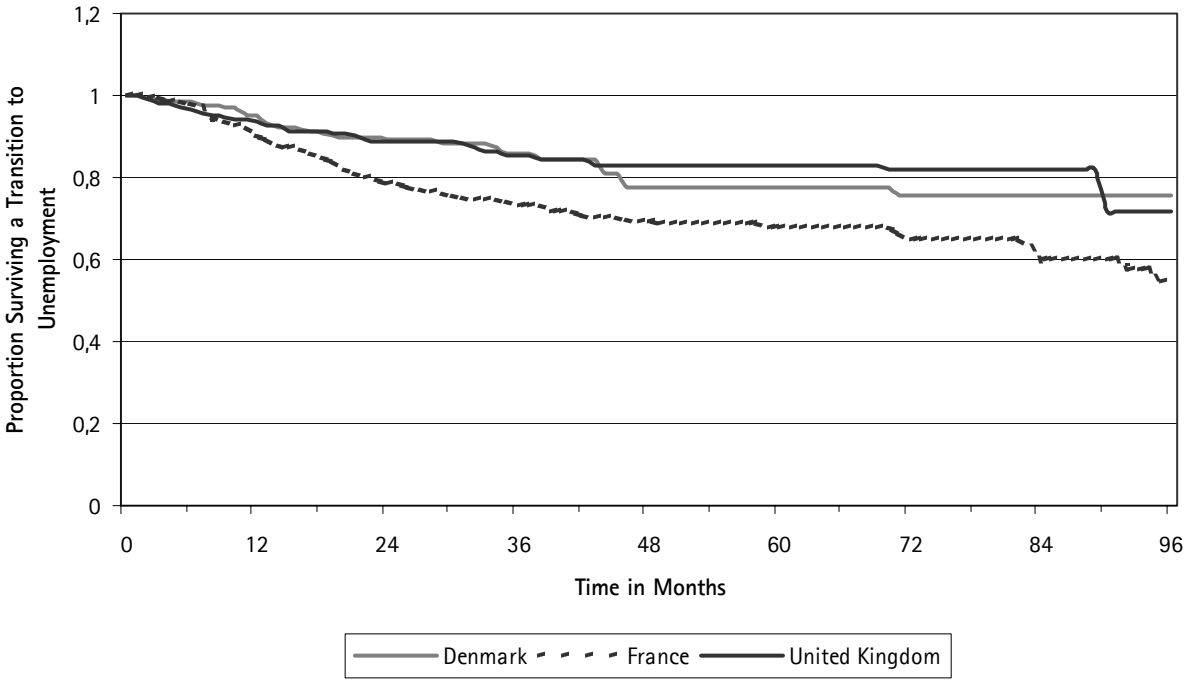

Table 2.1: Cox Regression based Test for the Equality of Survival Curves[11], weighted data

	Events Observed	Events Expected	Relative Hazard
DANISH Temporary Workers	33.5	49.03	0.721
FRENCH Temporary Workers	171.69	132.41	1.368
UK Temporary Workers	46.9	70.17	0.697
Total	252.17	252.17	1.00
	Wald chi2(2)		20.63
	Pr>chi2		0.000

Table 2.2 provides a similar analysis to those presented in figures 1 and 2 in tabular form, though specifies the survivor functions at distinct cut offs on the time axis. After a three-year period we find 58 percent of UK temps have made a transition to permanent employment, while this is true of 50 percent of Danish temps and 33 percent of French temps. After a period of five years the difference between Danish and UK temps is minimal and while we find French temps to be the clear losers in the proportions who have gone on to permanent contract employment, the proportion who have made the transition is sizeable nonetheless: 63 percent.

Table 2.2 Survivor Functions of Temporary Workers transitions to the Standard Employment Contract and to Unemployment, by Country, weighted data, ECHP waves 2-8.

	DENMARK	FRANCE	UNITED-KINGDOM
	Transition to Permanent Contract Employment		
Time(months)	S(f)	S(f)	S(f)
0	1.000	1.000	1.000
12	0.943	0.952	0.886
36	0.498	0.766	0.418
60	0.284	0.369	0.263
	Transition to Unemployment		
Time(months)	S(f)	S(f)	S(f)
0	1.000	1.000	1.000
12	0.944	0.851	0.933
36	0.783	0.662	0.799
60	0.723	0.606	0.774

[11]While the test for the equality of the survival curves establishes that there is a significant difference between the three countries analysed, further tests, not shown here, establish no statistical significance between Danish temporary workers and UK temporary workers in their transitions to unemployment.

The proportions of workers who go on to make a transition to unemployment at similar cut-offs is much smaller. We find that after a 3 year period, 22 percent of Danish temps and 20 percent of UK temps have made a transition to unemployment, whereas the corresponding figure for France is 34 percent. The difference in the survivor function between transitions to unemployment relative to those to the standard employment contract is such that the difference between the 3 year and the 5 year cut-off is less stark than in the previous table. Here we find that five years after starting a temporary job, 28 percent of Danish temporary workers, 40 percent of French temporary workers and 23 percent of UK temps have made a transition to unemployment.

This section presented a series of non-parametric analyses of temporary workers' labour market transitions. Temporary workers were found to make considerable transitions to permanent contract employment, with UK temporary contract workers the most likely to make such transitions. Temporary workers were also found to make fewer transitions to unemployment than to permanent contract employment, with transitions to unemployment tailing off in a manner which transitions to permanent employment did not. French temporary workers were found to be the most likely to make transitions to unemployment[12]. This section suggests that temporary employment is more likely to be a bridge than a trap and that French temporary workers experience the most punitive labour market.

5 Multivariate Analysis

The following section presents piecewise constant exponential models of the transitions of temporary workers by country in an effort to identify the variables that account for the transitions of temporary workers. The variables are briefly reviewed here.

Human Capital Variables:

Education level was included as a categorical variable, with third level education excluded as the reference category. These categories correspond to ISCED codes: 5-7 (third level education) 3-4 (upper secondary education) 0-2 (lower secondary education), the final category identifies those whose education is ongoing. A second human capital variable was introduced to the

model testing whether the respondent had any formal skills training[13] and it was possible to introduce this as a time varying variable. The introduction of variables measuring human capital should allow us to establish whether more educated/skilled workers are more likely to make integrative transitions, and also whether workers' skills protect them from transitions to unemployment.

Demographic variables:

Age and its square are introduced to the model, with age squared introduced to capture any non-liniarities in workers transitions, such as older workers' higher risks of unemployment at the outer ends of the distribution. Gender is also added to the model in an effort to determine whether women are more likely than men to make certain types of transition.

Labour Market Variables:

Occupational status is included in the models to control for variations in the transitions of different grades of worker and thereby test whether integrative transitions are more common amongst higher skilled temporary workers. The occupational classification used is based on the ISCO occupational categorisation. Industrial sector was introduced to the models but was eventually dropped as the coefficients were insignificant and when tested had no effect on the model over all.

A dichotomous variable measuring whether the worker is in the public or private sector is introduced to the models, in an effort to determine whether there is a difference between employers in different sectors in their use of temporary employment.

Working-time is also introduced to the models as a dichotomous variable with those whose working hours in their main job are less than 30 hours a week coded as 1. This should reveal whether temporary workers on part-time contracts are more constrained in their transitions than full-time temporary workers.

Workplace size is presented in the models in a slightly doctored form as it was not asked of public sector employees in the first wave of the ECHP and was not subsequently asked of any public sector employees who did not start a new job in later waves. Missing information on this variable, which for the sample generated is in the order of 23 percent, was imputed separately for each country. An additional problem with this variable is that it is not directly comparable

[13] The precise question asked was: Have you had formal training or education that has contributed to your present work? Y/N/NA

across all three countries. In the British sub-sample of the ECHP the size of the organisation, rather than the size of the local unit, is given[14].

A dichotomous variable measuring respondents' exposure to unemployment prior to current job start was also included to assess the implications of a spell of unemployment for temporary workers future transitions.

Finally, in the pooled analysis of the relative between country transitions variations in the macro-economic context were controlled for through the introduction of a variable measuring time-varying unemployment rates. The unemployment rates measure aggregate male/female unemployment rates for each year of the panel and were sourced from OECD data. Tables with the covariate means for our temporary worker sample are presented in the appendixes (Table A1). The models presented are piecewise constant exponential models with robust standard errors, and are weighted with the longitudinal weight provided by Eurostat in the ECHP.

5.1 Temporary Workers Transitions to Permanent Contracts

The model estimation for temporary contract workers transitions to permanent contract employment presents 4 models, one for each country and the fourth a pooled model of all three countries (Table 3). The models are the same for each individual country analysis and the pooled analysis. The models exclude permanent contract workers as the dynamics that govern temporary workers transitions to a permanent contract are expected to vary from those that govern the transitions of permanent contract workers to subsequent permanent contracts.

[14] The precise wording of the question asked was: How many regular paid employees are there in the business or organisation you work in? Please give an estimate. 0-500+, categorically coded on the questionnaire.

Table 3: Piecewise Constant Exponential Model with Continuous Data: Temporary Contract Workers Transitions to PERMANENT EMPLOYMENT by Country, weighted data with Robust Standard Errors, waves 2-8 of the ECHP

	Denmark			France			United Kingdom			Multi-country Model		
	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z
Danish Temporary Workers (Reference UK Temporary Workers)										-0.11	0.13	0.387
French Temporary Workers										-0.34	0.12	0.006
Human Capital Variables												
Second Level Education (Reference Third level Education)	-0.21	0.26		-0.02	0.20		-0.26	0.20		-0.21	0.12	0.086
Primary Level Education	-0.03	0.29		-0.20	0.24		-0.07	0.19		-0.15	0.13	
Education Ongoing	-0.29	0.63		-0.21	0.23		-1.55	1.26		-0.07	0.19	
Formal Training (TV)	0.31	0.31		-0.12	0.17		2.26	1.03	0.028	0.13	0.14	
Demographic Variables												
age	-0.08	0.06		-0.10	0.06		0.11	0.04	0.004	0.02	0.03	
age2	0.00	0.00		0.00	0.00		0.00	0.00	0.009	0.00	0.00	
women	0.22	0.21		-0.15	0.15		-0.02	0.16		0.00	0.10	
Labour Market Variables												
Occupational Status												
Higher Professional (Ref Manual Worker)	0.676	0.373	0.070	0.891	0.420	0.034	-0.663	0.296	0.025	0.006	0.195	
Lower Professional	0.797	0.370	0.031	1.121	0.372	0.003	-0.150	0.287		0.407	0.181	0.024
Clerical	0.273	0.352		0.914	0.351	0.009	0.128	0.214		0.351	0.156	0.024
Skilled Manual	0.881	0.369	0.017	0.673	0.368	0.068	-0.345	0.307		0.277	0.176	
Sector												
Private Sector (Ref Public Sector)	0.09	0.23		0.50	0.18	0.006	0.12	0.17		0.25	0.10	0.017
Part-time	-0.38	0.29		-0.32	0.19	0.096	-0.38	0.17	0.031	-0.39	0.12	0.001
Workplace Size												
20-99 pple (Ref 1-19 pple)	0.58	0.21	0.006	0.09	0.17		0.15	0.20		0.26	0.11	0.017
100-499 pple	0.54	0.26	0.042	0.05	0.20		0.19	0.24		0.24	0.13	0.073
500+ pple	0.45	0.27	0.097	-0.10	0.28		-0.21	0.21		-0.05	0.15	
Unemployment Experience												
Spell of Unemployment Prior to current Job Start	-0.061	0.177		-0.423	0.153	0.006	0.075	0.189		-0.15	0.10	

Table 3 continued

	Denmark			France			United Kingdom			Multi-country Model		
	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z
Baseline Hazards												
Duration 6-12 months	-0.01	0.64		0.37	0.49		0.65	0.43		0.42	0.29	
Duration 12-24	1.52	0.50	0.003	1.44	0.43	0.001	1.79	0.38	0.000	1.59	0.25	0.000
Duration 24-36	1.58	0.53	0.003	1.90	0.43	0.000	1.76	0.40	0.000	1.71	0.26	0.000
Duration 36-48 months	1.44	0.62	0.020	1.49	0.46	0.001	1.28	0.46	0.005	1.36	0.28	0.000
Duration 48-60 months	1.37	0.78	0.079	1.92	0.47	0.000	0.89	0.52	0.085	1.41	0.32	0.000
Duration 60-72 months	0.96	0.74		0.88	0.62		1.78	0.49	0.000	1.20	0.34	0.000
Duration 72-84 months	1.04	0.85		0.14	0.75		0.62	0.72		0.54	0.45	
Duration 84-96 months	1.68	0.54	0.002	1.41	0.48	0.003	1.46	0.47	0.002	1.57	0.27	0.000
Constant	-4.272	1.449	0.003	-3.495	1.165	0.003	-9.793	1.232	0.000	-5.97	0.58	0.000
Model Summary												
Log Likelihood (Constant Only)		-219.323			-363.230			-411.215			-997.47	
Log Likelihood (with X var)		-179.948			-311.710			-354.643			-895.67	
Wald		80.930			95.320			86.740			147.96	
Pr of Model		0.000			0.000			0.000			0.00	
Observations/Failures		1995 / 149			3314 / 212			3155 / 239			8464/601	

Model Findings:

Human capital variables were added to the models to determine whether skills or education would facilitate temporary workers transitions to permanent contract employment. We also use these variables to establish whether temps are probationary contract workers, that is, highly skilled workers whose abilities are tested by employers during their short-term contract prior entry to permanent contract employment. We find the human capital variables to be weak predictors of temporary workers' transitions with the sole exception of the UK were temporary workers with formal training show considerably higher transition rates to permanent contract employment[15].

The variables measuring the demographic characteristics of temporary workers are again not very predictive, though in the UK age increases the probability of making an integrative transition, though its square suggests that the trend is not linear.

The strongest predictors of temporary workers' future transitions to permanent employment relate to the type and grade of temporary employment within which temporary workers finds themselves. These variables also show the strongest between country variation. In Denmark and France temporary workers in manual occupations, the reference category, are less likely to make a transition to permanent contract employment than other occupational groups. This fits with our expectation of a dichotomy in the temporary labour market between temps used by employers as a means of gaining access to numerical flexibility in a low skill secondary market, and temporary contracts used by employers to screen highly skilled temporary workers. This suggests that temporary contract employment for skilled workers provides more direct routs into permanent contract employment, than is the case for manual contract workers. In the UK, however, we find temporary workers in the highest occupational positions to be *less likely* to make transitions to permanent employment than the reference group. Previous research on UK temporary workers' transitions has also found some higher grades of worker to be less likely to make transitions to permanent contract employment (Booth et al., 2002: 203-204) though the authors do not discuss these. It is suggested here that this result may be driven by higher professionals on temporary contracts of considerable duration such as consultancy, or research contracts. The existence of higher professional temps on temporary contracts of longer duration would result in lower observed transition rates for this grade of temporary contract worker and

[15] One of the reasons behind the reduced impact of educational level on labour market transitions in the ECHP is the failure of the UDB version of the dataset to update the information on educational level between the first and the fifth panel of the survey. Given that the observation window for our temporary worker sample begins in the second wave of the ECHP we already expect the educational level variable to be less precise.

might explain the counter-intuitive finding established. We must also conclude that such contracts are not used to the same extent in either Denmark or France.

In France we find temporary contract workers in the private sector to be considerably more likely to make a transition to a permanent contract than public sector temps. No similar effect is found for the other two countries. This is attributed to the considerable investment of the French state in active labour market programmes a large portion of which involve the generation of short-term contracts in the public sector, such as *Contrat Emploi Solidarité* and *Contrat Emploi Solidarité.* Both of these forms of contract have comparatively low training requirements relative to other active labour market programmes targeted at private sector employers (Gash 2003).

Working-time was introduced to the models to establish whether temporary contract workers on reduced hour contracts were less likely to make integrative transitions, and we found this to be the case in the UK and to a certain extent France, though the coefficient is only significant at the .10 level. It is difficult to establish whether the lower rates of transition from part-time temporary employment is a function of choice or constraint. It may be that temporary part-time contract workers find it more difficult to find a second permanent part-time job. However, the cross-national variation also suggests institutional factors at work in that it is Denmark, the country with the greatest investment in public childcare, which is the only country where part-timers are no different to full-timers in their transitions to permanent contract work[16].

Workplace size was a particularly strong predictor of Danish temporary workers transitions to permanent contract employment, with temporary workers in small workplaces less likely to make transitions to permanent contract employment. This is likely to be a function of a small firm's greater dependency on temporary contracts, to offset their greater exposure to fluctuations in product demand. It is also likely that small workplaces have reduced opportunities for job mobility[17].

Finally, French temporary workers who had a spell of unemployment prior to their current job start were found to be less likely to make transitions to permanent contract employment. We found no similar dynamic in either Denmark or the UK.

[16] The public provision of childcare in Denmark represents an investment of 1.96 percent of its gross domestic product (GDP) in 1996, while France invested 1.5 percent of its GDP in the same year. The UK, on the other hand, has a comperatively low investment in public childcare representing 0.31 percent of its GDP (Rostgaard and Fridberg 1998).

[17] Denmark has a disproportionately large SME sector, 69%, relative to 63% in France and 56% in the UK - OECD (2003), OECD *Small and Medium Enterprise Outlook*, Paris.

Pooled Multi-Country Analysis

The pooled multi-country model allows us to investigate which country is the most supportive of temporary contract workers transitions to permanent contract employment. We find French temporary workers to be significantly less likely to obtain permanent contract employment relative to either UK temporary workers, or Danish temporary workers. A variable measuring time variance in unemployment rates[18] was also introduced to the model, and whilst significant, was found to have no effect on the model overall so is not included in the final multi-country model shown.

This section reviewed the different factors which increase or decrease temporary workers' chances of getting a permanent job. The variables which were found to be predictive in one country were not necessarily predictive in others, underling the caution required of country specific analyses when generalised to the cross-national context. The multivariate analysis confirmed our previous non-parametric finding: French temporary workers are the least likely to make transitions to permanent contract employment.

5.2 Temporary Workers Transitions to Unemployment

This section seeks to confirm our expectation that temporary workers are more likely than permanent workers to make a transition to unemployment, even after we control for a series of demographic, human capital and labour market variables. We also aim to uncover the country within which temporary workers are most exposed to unemployment risk.

The model estimation was carried out in three stages. The first presents a simple test of the impact of contract on exit to unemployment. The second introduces a series of human capital, demographic and labour market variables in an attempt to test whether the increased unemployment risk associated with temporary employment can be explained by the demographic, human capital and/or labour market characteristics of atypical workers. The third presents a pooled multi-country analysis testing variation in unemployment risk by country.

The first model estimated (EQ.1) presents a simple test of the temporary/permanent contract worker differential in unemployment risk (Table 4). We find that temporary workers are more likely to make transitions to unemployment than workers on a permanent contract in each

[18] The variable introduced here sought to control for the different unemployment rates in each country which might impact on workers transition rates. A high unemployment rate might discourage employers from converting a temporary job to a permanent job, or might influence a worker's decision to search for another job that was permanent.

country analysed. Turning our attention to the coefficient from the model with controls, (EQ.2), we establish that even when we control for demographic, human capital and labour market characteristics temporary workers are still more likely than permanent workers to make a transition to unemployment. We also note that the strength of the coefficients vary by country, with unemployment a greater risk for French temporary workers and find Danish temporary workers, relative to permanent contract workers, to have the lowest risk.

Control Variables

While the model strategy in this section was to identify whether temporary workers increased unemployment risk is maintained once we control for a series of possible intervening factors, it is also interesting to analyse the impact of the covariates themselves.

The variables measuring human capital are consistent with expectation with the less educated experiencing higher risks of unemployment. Age and its square are also found to be predictive with older workers generally less likely to be exposed to unemployment, though this is less true for workers at the outer ends of the distribution. Occupational level and sector were found to structure labour market transitions in each country. We found higher occupational grades to be less exposed to unemployment risk in Denmark and in the UK. In France, however, we found clerical workers to be more likely to enter unemployment than manual workers. An interaction term of temporary contract work with clerical work did not prove significant, so we can not attribute this finding to the high proportion of temporary contract workers in the clerical services.

Workplace size is found to influence workers unemployment risk in all three countries, with workers in larger firms less likely than those in smaller firms to be exposed to unemployment. This is likely to reflect smaller firms disproportionate exposure to fluctuations in product demand and therefore their greater use of layoffs as a means of responding to decreased demand. Finally, workers who had been unemployed before the start of their current job were all considerably more likely to re-enter unemployment.

Table 4: Piecewise Constant Exponential Model with Continuous Data: Temporary Contract Workers Transitions to UNEMPLOYMENT by Country, weighted data with Robust Standard Errors, waves 2-8 of the ECHP.

	DENMARK			FRANCE			UNITED KINGDOM		
	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z	Coef.	Robust Std. Err.	P>z
EQ 1 Temporary Contract (without controls)	0.723	0.265	0.006	1.221	0.173	0.000	1.157	0.235	0.000
EQ 2 Temporary Contract (with controls)	0.502	0.257	0.051	1.114	0.189	0.000	0.952	0.234	0.000
Human Capital Variables									
Second Level Education (Reference Third level Education)	-0.390	0.330		0.613	0.250	0.014	0.161	0.257	
Primary Level Education	-0.097	0.309		0.753	0.267	0.005	0.272	0.209	
Education Ongoing	-0.371	0.823		0.483	0.338		-1.283	1.058	
Formal Training (TV)	-0.115	0.261		-0.123	0.151		-0.413	0.170	0.015
Demographic Variables									
age	-0.138	0.069	0.045	-0.085	0.049	0.082	-0.121	0.045	0.007
age2	0.002	0.001	0.015	0.001	0.001	0.020	0.002	0.001	0.010
women	0.354	0.274		-0.072	0.160		-0.163	0.193	
Labour Market Variables									
Occupational Status									
Higher Professional (reference Manual Worker)	-1.021	0.551	0.064	0.312	0.348		-0.452	0.332	
Lower Professional	-0.678	0.527		0.291	0.304		-1.286	0.447	0.004
Clerical	-0.211	0.385		0.544	0.237	0.022	-0.360	0.273	
Skilled Manual	0.076	0.479		-0.087	0.292		-0.240	0.292	
Sector									
Private Sector (Ref Public Sector)	0.303	0.263		0.572	0.174	0.001	0.424	0.272	
Part-time	0.279	0.315		0.756	0.157	0.000	-0.507	0.247	0.040
Workplace Size									
20-99 pple (Ref 1-19 pple)	-0.500	0.279	0.073	-0.210	0.160	0.189	-0.354	0.214	0.097
100-499 pple	-0.456	0.315		0.003	0.238		0.047	0.247	
500+ pple	-0.958	0.438	0.029	-1.067	0.416	0.010	-0.660	0.249	0.008
Unemployment Experience									
Spell of Unemployment Prior to current Job Start	0.770	0.221	0.001	0.478	0.154	0.002	1.014	0.185	0.000

Table 4 continued

	DENMARK			FRANCE			UNITED KINGDOM		
	Coef.	**Robust Std. Err.**	**P>z**	**Coef.**	**Robust Std. Err.**	**P>z**	**Coef.**	**Robust Std. Err.**	**P>z**
Baseline Hazards									
Duration 6-12 months	0.923	0.557	0.098	0.350	0.344		-0.299	0.340	
Duration 12-24	1.093	0.532	0.040	0.039	0.333		-0.426	0.313	
Duration 24-36	0.708	0.589		-0.425	0.353		-1.002	0.404	0.013
Duration 36-48 months	0.295	0.672		-1.040	0.421	0.014	-0.390	0.361	
Duration 48-60 months	0.812	0.589		-0.903	0.426	0.034	-0.623	0.411	
Duration 60-72 months	-0.466	0.789		-1.207	0.474	0.011	-0.973	0.478	0.042
Duration 72-84 months	-0.517	0.770		-0.651	0.441		-0.763	0.454	0.093
Duration 84-96 months	-0.331	0.543		-1.463	0.376	0.000	-1.032	0.372	0.006
Constant	-5.874	1.418	0.000	-5.975	0.993	0.000	-4.194	0.829	0.000
Model Summary									
Eq 1									
Log Likelihood (Constant Only)		-420.208			-874.220			-777.430	
Log Likelihood (with X var)		-389.632			-740.260			-732.240	
Wald		65.660			304.660			103.140	
Pr of Model		0.000			0.000			0.000	
Eq 2									
Log Likelihood (Constant Only)		-420.208			-874.220			-777.430	
Log Likelihood (with X var)		-351.330			-679.030			-673.150	
Wald		186.620			5506.430			207.660	
Pr of Model		0.000			0.000			0.000	
Observations/Failures		14031 / 103			25256 /215			31386 /174	

Pooled Multi-Country Analysis

What table 4 does not reveal is whether temporary workers in one regime fare better than temporary workers in another, as the reference category in these analyses has been permanent contract workers within the same country. Table 5, which presents a piecewise constant exponential model pooled for all three countries, provides this information. As in the previous multi-country model the variables used as controls are the same as those found in the country specific models. Table 5 differs, however, in its provision of interaction terms of country by contract type. We find that Danish temporary contract workers are significantly less likely, at the point .10 level, to become unemployment relative to temporary contract workers in the UK. We also find no significant difference between French temporary contract workers and UK temporary contract workers in their unemployment risks. As with all significant interaction terms, the lower order variables, the variables from which the interaction terms were created, should not be interpreted for hypothesis testing (Braumoeller 2003). It should nonetheless be noted that the lower order variables for the model without interaction terms revealed there to be no statistical difference between countries in the transition to unemployment.

Table 5: Piecewise Constant Exponential Model with Continuous Data: Pooled Multi-country Model of Temporary Contract Workers Transitions to UNEMPLOYMENT by Country, weighted data with Robust Standard Errors, waves 2-8 of the ECHP.

	Coef.	Robust Std. Err.	P>z
Danish Temporary Worker (Reference UK temporary Worker)	-0.559	0.299	0.062
French Temporary Worker	0.305	0.241	
Temporary Worker	0.947	0.205	0.000
Denmark (Reference United Kingdom)	0.279	0.177	
France	0.069	0.157	
Second Level Education (Reference Third level Education)	0.158	0.149	
Primary Level Education	0.343	0.144	0.017
Education Ongoing	0.121	0.279	
Formal Training (TV)	-0.239	0.107	0.026
Demographic Variables			
age	-0.105	0.030	0.000
age2	0.002	0.000	0.000
women	-0.041	0.110	
Labour Market Variables			
Occupational Status			
Lower Professional	-0.108	0.199	
Clerical	0.303	0.180	0.092
Skilled Manual	0.117	0.191	
Manual	0.286	0.229	
Sector			
Private Sector (Ref Public Sector)	0.416	0.126	0.001

Table 5 continued

Part-time	0.194	0.123	
Workplace Size			
20-99 pple (Ref 1-19 pple)	-0.318	0.116	0.006
100-499 pple	-0.132	0.152	
500+ pple	-0.771	0.185	0.000
Unemployment Experience			
Spell of Unemployment Prior to current Job Start	0.804	0.110	0.000
Baseline Hazards			
Duration 6-12 months	0.099	0.217	
Duration 12-24	-0.059	0.206	
Duration 24-36	-0.515	0.234	0.028
Duration 36-48 months	-0.633	0.256	0.013
Duration 48-60 months	-0.547	0.260	0.036
Duration 60-72 months	-1.075	0.305	0.000
Duration 72-84 months	-0.707	0.287	0.014
Duration 84-96 months	-1.187	0.235	0.000
Constant	-5.260	0.594	0.000
Model Summary			
Log Likelihood (Constant Only)		-2074.475	
Log Likelihood (with X var)		-1764.3486	
Wald		654.88	
Pr of Model		0.000	
Observations/Failures		70673/494	

6 Discussion

This paper sought to determine whether temporary contract workers are more exposed to transitions to unemployment rather than transitions to the permanent contract. Two competing theoretical viewpoints were presented: The first, probationary contract theory, leads us to expect temporary workers to be more likely to obtain a permanent contract; the second, dual market and segmentation theories, leads us to expect reduced transitions to permanent contract employment and considerable transitions to unemployment. This paper also sought to establish whether different labour market institutions constrain temporary worker outcome differentially and thereby sought to establish whether the current debate offers an adequate account of temporary employment and labour market dynamics which is generalisable to divergent national contexts. The three countries analysed; Denmark, France and the United-Kingdom, diverged on key features of market structuration.

Denmark, which was presented as a *flexibly integrative market* on the basis of its flexible/open market and its coordinated trade union and education systems, was expected to be the most supportive of temporary workers' transitions to permanent contract employment, and was

expected to mediate a portion of the greater risk associated with unemployment for temporary contract workers.

The UK, which was presented as a *flexibly non-integrative market* on the basis of its flexible/open market, its uncoordinated education system and its weak trade unionism, was expected to support temporary contract workers' transitions to permanent contract employment. This was attributed to the flexibility of its EPL and, counter-intuitively, to the lack of coordination in its educational and training system rendering UK employers disproportionately dependent on probationary contracts to scan the skills of new recruits. We also expected UK temps to have high rates of transition to unemployment, with transitions to unemployment experienced by a portion of probationary contract temps, who were unsuccessful at convincing their employers of their abilities on the job, as well as temps who are used by UK employers as a source of low cost unprotected labour.

France was presented as a *rigidly semi-integrative market* on the basis of its rigid EPL, its coordinated and centralised education and training system and its weak trade unionism. We expected French employment law to hinder temporary workers' transitions to permanent contracts and while we might have expected the French education and training system to support temporary workers transitions to permanent contract work, recent attempts to shift unemployment through the generation of low cost temporary contract work were expected to contribute to a disadvantaged and segmented market for French temporary workers.

Despite the popularity of marginalization theories concerning temporary contract work (Scherer 2004; Giesecke and Gross 2003), we found considerable proportions of temporary contract workers making transitions to permanent contract employment. Moreover, our hypothesis of national divergence was supported, and in the direction anticipated, with the French system the least supportive of temporary workers transitions to permanent contract work. We also established that temporary contract workers make *more* transitions to permanent contract employment than to unemployment in each country, suggesting that temporary employment is more likely to be a bridge than a trap.

The multivariate analyses revealed the following. Variables relating to temporary workers characteristics, their educational level, age, and gender, were considerably less predictive of integrative transitions than variables relating to the type and grade of temporary employment, these variables also showed the strongest between country variation. We found a dichotomy in the temporary labour market with temps in higher order professions making more transitions to permanent employment, than was the case for manual contract workers. In the UK, however, we

found temporary workers in the highest occupational positions to be *less likely* to make transitions to permanent employment than the reference group, this was attributed to higher professionals on temporary contracts of considerable duration such as consultancy, or research contracts.

In France temporary contract workers in the private sector were more likely to make a transition to a permanent contract than public sector temps, a finding attributed to the considerable investment of the French state in active labour market programs a large portion of which involve the generation of short-term contracts in the public sector, such as *Contrat Emploi Solidarité* and *Contrat Emploi Jeunes.* Both of these forms of contract have comparatively low training requirements relative to other ALMPs targeted at private sector employers (Gash 2003). We also found French temporary workers who had a spell of unemployment prior to their current job start to be less likely to make transitions to permanent contract employment, and found no similar dynamic in either Denmark or the UK. This underlines the greater disadvantage associated with the temporary labour market in France and suggests cycles of non-integrative transitions for French temps.

While temporary workers were found to make considerable transitions to permanent employment, they remained, in all three countries, disproportionately exposed to unemployment relative to permanent contract workers. This finding remained the case even when a series of controls were added to the country specific models. We also ran a multi-country model to establish whether there were between country differences in temporary workers' exposure to unemployment. We found Danish temporary contract workers to be significantly less likely, at the point .10 level, to become unemployed relative to temporary contract workers in the UK. We also find no significant difference between French temporary contract workers and UK temporary contract workers in their unemployment risks. That French temps were found to be statistically similar to UK temps in their transitions to unemployment in a model with controls reveals the extent to which national variations in the composition of temporary contract employment determines observed outcomes.

In sum, this paper establishes that temporary employment is more likely to be a bridge than a trap in three different European labour markets. We also establish that the French labour market, termed a rigidly semi-integrative market, was the least supportive of temporary workers transitions to permanent employment relative to other countries. This paper also underlines the role of nation specific market structuration on market outcome underlining the caution required when generalising from nation specific analyses to divergent national contexts.

7 References

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8 Appendices

Figure A1. Diagram of Axes of Market Structuration

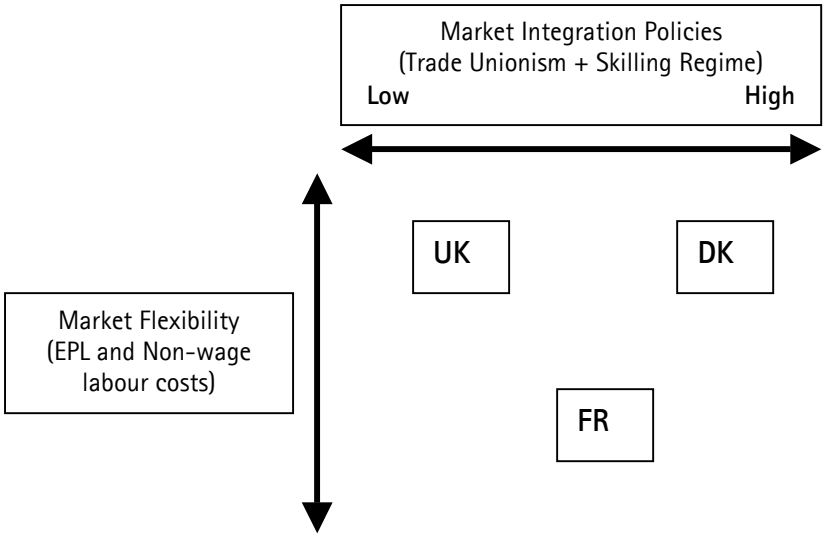

Table A2: Covariate Proportions and Means for the Temporary Worker Sample by Country

		Denmark	France	United-Kingdom
Age (mean)		32.35	28.52	31.69
Women		52.04	48.63	54.48
Educational Level	Third level	24.95	20.97	38.97
	Upper Secondary	47.57	28.23	23.61
	Lower Secondary	27.47	50.81	37.42
Job related Training		48.28	49.25	56.70
Part-time		19.14	29.05	30.93
Occupation	higher professional	17.58	8.98	21.33
	lower professional	11.61	13.64	9.89
	clerical and service	37.04	38.52	43.28
	skilled manual	14.84	25.36	12.86
	manual	18.93	13.50	12.64
Firm Size	Firm size 1-19	41.24	29.11	32.57
	Firm size 20-99	31.61	44.63	30.13
	Firm size 100-499	14.61	15.87	10.17
	Firm size 500+	12.54	10.39	27.13
Industrial Sector	Public Sector	47.01	37.04	31.37
Unemployment Spell Prior to Job Start		43.65	54.75	18.63