Subjective Employment Insecurity Around The World.

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Abstract

I consider the concept of employment insecurity and provide new evidence for 1997 and 2005 for many countries with widely differing institutional contexts and at varying stages of development. There are no grounds for accepting that workplaces were going through a sea-change in employment insecurity. Workers in transitional economies and developing economies worried the most about insecurity. Perceived insecurity tended to be greater for women, for less-educated and for older workers. However, these patterns vary across country groups, in ways that are only sometimes explicable in terms of their known institutional characteristics. In general, subjective employment insecurity tracks the unemployment rate.

JEL Classification: J6, J16.

Key words: precarious work, job insecurity, gender, job quality, unemployment

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I. Introduction.

Employment insecurity is enormously detrimental for workers' well-being and that of their families, and it affects their spending and their non-work lives in sometimes far-reaching ways (Burchell, 1994; Nolan et al., 2000; Wichert, 2002; Bartley, 2005; Benito, 2006; Golsch, 2003). In a recent meta-analysis, insecurity was found to be correlated with low job satisfaction, organisational commitment, poorer health, inferior work performance and low trust (Cheng and Chan, 2008). Hence, though no one can expect to find a capitalist society without insecurity, there is widespread concern to find ways of reducing or of alleviating the experience of insecurity. To do so, it would be helpful to understand better the pattern of employment insecurity across the world. Is employment becoming more insecure? And who is now suffering the most from insecurity and its effects? This paper aims to shed new light on these issues by examining evidence for a range of countries at varying stages of industrialisation and with very different labour market institutions.

For economists, insecurity has traditionally been seen as an adjunct of unemployment, which was either a short-term disequilibrium or voluntary in the sense that workers could choose to accept lower wages to gain employment. Following the Keynesian revolution in economic thought, however, it was held that good fiscal and monetary policies could normally minimise unemployment to frictional levels. Substantial involuntary unemployment would arise only as a result of abnormal shocks or bad policy, and reducing insecurity was thus a question of improving the techniques of macroeconomic management. Then, following the 1970s crisis of the post-war "golden age" of capitalism, attention turned, not only to practising macro-economic policy in an increasingly globally-integrated economy, but also to the disincentive effects of growing welfare states. Governments were advised to free up labour markets, and reduce employment protection, to complement macro-economic stabilisation policies (OECD, 1994). The consequence was a potential for a partial decoupling of the experience of insecurity from the unemployment rate. The call for greater flexibility meant both that workers could more frequently be redeployed, and that those without employment should be facilitated and provided incentives to seek jobs. While the 'natural rate of unemployment' would be reduced, workers would still experience more frequent flows in and out of jobs. New economic theories also held

that workers should feel a little insecure to spur their performance (Shapiro and Stiglitz, 1984). In due course a sub-literature emerged which attempted to gauge whether there had been a secular trend in employment security and stability -- see, for example, Auer and Cazes (2003), and for overviews Green (2006: 148) or Fevre (2007).

In the sociological perspective, insecurity is linked to the broader theory of precarious work. Attention is drawn to the comparative decline of standard forms of employment contract, but in addition precarious work is defined to be work of low quality and likely to be less protected by state regulation or by unions (Rodgers, 1989). Some forms of work could be quite stable and long term, but are included in the concept of precarious work because the wages are very low. A rise in precarious work is seen as an aspect of the decline of Fordism. Changing employment forms are also linked to continuing gender role divisions within families, resulting in the 'feminisation of employment norms' (Vosko, 2003) including both widespread female labour force participation and a gendering of jobs to 'resemble more precarious "women's work"' (Cranford et al., 2003: 460).

Changing employment forms and relations are also linked to the major developments in the economic environment, including growing internationalisation of trade, money, and production, the growth of competition in public as well as private sectors, and the short-termist behaviour of financial institutions (Glyn, 2006). Set alongside the new higher skill demands of the 'knowledge economy', these far-reaching changes are argued, in an influential school of thought, to have necessitated increasing flexibility in labour markets and within workplaces (e.g. Cappelli, 1997), and to have engendered among other things a secular decline in the use of standard labour contracts, strategic downsizing, and sub-contracting of non-core functions to outsiders. These changes imply that workers are required to take on greater shares of individual risk, and to expect less job security than hitherto. And this imposition has been facilitated both by deregulation and by a weakening in the powers of organised labour. Increased use of flexible labour, it is maintained, is leading to a re-commodification of labour (Frade and Darmon, 2005).

In another school of thought among management sociologists, by contrast, the way to respond to increasing global competition was to harness better the creative capacities of workers; this necessitated ensuring the commitment of employees at all levels, and

implied either strategies to ally employees' preferences and values to those of their employers, or a system of incentives that would ensure employees act largely in employers' interests (Walton, 1985). Either of these competitive strategies normally necessitate long-term relationships between employers and employees. While accepting that there may be some groups of employees whose labour could be treated more flexibly, this school of thought rationalises the existence and persistence of secure jobs and sees no cause for security to decline.

Any such projections of trends in employment security need to be modified when considering economies outside the industrialised world. In the transitional economies, for example, structural unemployment is expected to rise in the early stages of transition, reflecting structural shocks affecting the composition of industries, and adaptations within industries to new competitive forces; however, once convergence towards industrialised country norms is established, as in the current decade, unemployment would be expected to decline, and with it the perception of insecurity.

Which of these scenarios is overall best supported by the evidence?

It is known that in the 1980s and 1990s, in several industrial countries with quite different institutional frameworks, there was a rise in the use of temporary labour contracts, the most spectacular cases being Spain, Portugal, Poland and Australia (Auer and Cazes, 2003; Green, 2006: 144; Fevre, 2007). Such contracts almost inevitably impose insecurity on the job-holders, though their effect on the security of other workers in the same labour market is unclear. Nevertheless, only 11.4% of EU workers were on temporary contracts in 2000; since some fixed-term contracts are used for high-ranking jobs this hardly amounts in itself to a new world of overwhelmingly precarious labour. There have also been some small declines in average job tenure in a number of countries; this decline could be taken as an indication of falling job stability (which is related to, though not the same as, insecurity). But these observed declines are far too small to be described as an end to the proverbial 'jobs for life', are far from universal, and are in any case influenced by cyclically changing workforce composition, and by age and sex, as much as by any secular trends.

Using more direct indicators it is found that in the US, Britain and Germany insecurity generally follows the path of the unemployment rate which, in the case of the US and

Britain, was downwards after the 1980s until the current economic slowdown/recession (Green, 2006). By contrast, in South Korea employment security appears to have risen considerably and persisted at a high level following the financial crisis of late 1997 (Kim and Park, 2006). Overall, however, there is hitherto comparatively little evidence about whether employment insecurity is growing or falling around the world, apart from the associated facts about unemployment itself. One contribution of this paper is to provide some new evidence for the period 1997 to 2006 for many countries, with widely differing institutional contexts and at varying stages of development.

Besides the changes in employment insecurity over time, also important is the distribution of insecurity in society. While it is to be expected that those facing adverse local labour market conditions, or in temporary employment contracts, are less secure than those in tight labour markets and with permanent contracts (Green et al., 2000; Campbell et al., 2006), of most interest is whether the burden of insecurity is being shared between socioeconomic groups or whether insecurity is polarised. One might, given the changes under way in the knowledge economy, anticipate some significant variation in the experience of insecurity. From the perspective of the theory of precarious work, the spread of insecurity intersects with the feminisation of the labour force, so that precarious work is inherently gendered; and, in particular, it is expected that persistent social inequalities between men and women will lead to women experiencing a disproportionate burden of insecurity in part-time jobs. From the perspective of human capital theory, higher educated workers have in the knowledge economy prospered in an era of accelerated skill-biased technological change. Those educated to degree level are thought to have been well placed to meet the demand for non-routine intellectual labour (Autor et al., 2003), while others educated only to high-school level or less are more likely to have been in jobs involving routine tasks that have been under threat of displacement by automation. Better-educated workers might also be expected to possess a greater tranche of transferable skills including learning skills, able therefore to deal with job loss at a

lesser cost than those with predominantly firm or industry-specific skills, adding thereby to their overall employment security.[1]

Age is also likely to be a significant axis along which insecurity varies. Older workers will have greater work experience but in an era of rapid change may possess obsolete skills. Evidence that older workers have been slower to embrace new information technologies is consistent with this theme. One might therefore expect older workers to be less secure. Since they are generally paid more than younger workers, it would be predicted also that older workers experience a greater cost of job loss and overall a greater employment insecurity. Yet this expectation is tempered, and possibly reversed, by the mediating role of labour market institutions. In particular, where there are strong lines of demarcation between insiders and outsiders (especially where those lines are strengthened through strong employment protection legislation), young workers may be obliged to queue for places in secure jobs in temporary, unprotected jobs until vacancies occur, often also underutilising their education credentials (Golsch, 2003). Thus it is equally possible that in such regimes job insecurity would lessen with age. If so, this would leave an indeterminate prediction as to whether overall employment insecurity would decrease with age because of decreasing job insecurity, or rise with age owing to a greater cost of job loss.

Modification of the argument about the gender distribution of employment insecurity arises from the concerns of production regime theorists and of employment regime theorists. According to the former the quality of work is predicted to be generally superior in all the coordinated market economies, with employers expected to be more likely to commit to long-term employment relations and hence greater job security, than in liberal market economies. However, the greater likelihood of career interruptions for women leads, in this theory, to a differentiation of job quality along gender lines with men claiming the greater share of primary jobs, where employers invest heavily in firm-specific skills, and protect that investment with stable jobs. Women are then disproportionately concentrated in occupational labour markets (Gallie, 2007a; 2007b; Estevez-Abe, 2005). Job insecurity differences according to gender are thus expected to be prevalent in the coordinated market economies but not

[1] This idea underpins the policy principle advocating flexibility and security – or "flexicurity" – that is at the heart of the EU's renewed Lisbon Strategy for Growth and Jobs (European Commission, 2007).

in the liberal market economies. Gallie (2007a) proposes yet a further modification of this prediction, in the light of employment regime theory. Distinction is made, among the coordinated market economies, between 'inclusive' regimes and 'dualist' regimes. With the former the state supports employment policies to promote good work opportunities across the population in part through an expanded public employment sector; while the dualist regime reflects the historical strength of the core workforce of skilled long-term employees with enduring gender divisions. He thus expects there to be less gender differentiation of employment security in the Nordic economies than in the other coordinated economies. These ideas are complemented by arguments from the political economy literature, which hold that insiders have a preference for strong employment protection legislation (EPL), while outsiders want good unemployment insurance benefits (UIB). In economies where insiders are strong, there are expected to be high levels of employment protection but also greater insecurity for outsiders, a prediction that appears to be confirmed (see Clarke and Postel-Vinay, 2004); while insecurity is unsurprisingly reduced in economies with high UIB. Nordic economies, typically with high EPL and relatively good UIB, coupled with their relatively large numbers of secure public-sector jobs, are expected to have the highest levels of employment security.

In addition to describing how insecurity varies across several countries with varying institutions, this paper contributes by examining differentiation along the dimensions of gender, education, age and location, and by considering whether the extent and direction of inequalities varies across countries in understandable ways given the known institutional distinctions between them.

As well as shedding further light on the salience of institutional characterisations of countries, such as those of the "production regime" and the "employment regime" schools, an analysis of the distributions of insecurity within different groups of countries can provide a basis for understanding better where effective policy interventions might be most needed. One important contribution of the sociological perspective on insecurity is to address the disjunctures that have arisen between changing employment forms and the legal and social protection against insecurity. This entails engaging not only with state regulation but also with the persistence of gender inequalities.

After clarifying the concept of employment insecurity, this paper reports several findings based on some new evidence for 31 countries around the world. In response to the questions I posed in the opening paragraph my key findings are:

- Between 1997 and 2005 the proportion of jobs that are perceived insecure fell significantly in liberal market economies and in the transitional economies. These changes are wholly accountable by declines in the unemployment rate in these countries. In the case of the transitional economies, the decline in insecurity could be seen as an aspect of the maturing transition. There are thus no grounds for accepting that, at least over this relatively short period, workplaces are going through a sea-change in the security of employment, either the onset of an 'age of insecurity' or a developing disjuncture between perceptions of insecurity and the reality of unemployment.
- There are large variations among economies as to how far workers experience insecurity with, unsurprisingly, workers in transitional economies and developing economies worrying the most about insecurity.
- While, on the whole, insecurity tends to be greater for women than for men, and for less-educated than more educated workers, this pattern varies distinctly across country groups and does not always hold. There is least differentiation between men and women in the liberal market economies and in the coordinated market economies (other than the Nordic economies). However, in some instances the pattern of variation is not explicable either by 'production regime' or by 'employment regime' institutional models; nor is the pattern entirely consistent with the theory of gendered precarious work.
- Older workers worry more than younger workers about insecurity in the transitional economies and the East Asian economies, but this pattern is reversed in one group of industrialised economies comprising mainly non-corporatist economies bordering on the Mediterranean, where older workers are substantially less likely to be in insecure jobs.

II The Concept of Employment Insecurity.

I define employment insecurity (*EI*) in its most general form as 'the loss of welfare that comes from uncertainty at work' (Green, 2006: 130). Focusing just on the extrinsic elements, rather than on uncertainty in the work itself, insecurity is derived from uncertainty over the present value, *V*, of a worker's income stream, which depends on both the current wage rate and unknown future income from work and other sources. Because that income stream is uncertain, he/she will take a view as to the probability of various outcomes. One possible outcome, V^*, would be the norm as perceived by the worker, on the assumption that employment continues and regular normal wage increases materialise. However, the worker may fear that this norm will not be realised. A loss, i.e. a downward deviation from the norm, can occur, given by $v = V^* - V$. The possible outcomes have a subjective distribution in the mind of the worker, which could be characterised by the mean, $\bar{v}$, and the variance, $\mathrm{var} v$. Expected utility theory implies that employment insecurity (*EI*) increases with $\bar{v}$ and with $\mathrm{var} v$.

The mean loss, $\bar{v}$, can be divided into one part associated with involuntary job termination and another part associated with job continuity. Most analyses focus on the former, but it should be noted that one can also be insecure about whether or not one will be promoted or, conversely, whether one's wages will be cut. Looking just at the insecurity associated with job termination, $\bar{v}$ can be decomposed as the product of the probability or risk of job loss, P_{JL}, and the expected cost of job loss, *CJL*. The insecurity associated with the variance of the loss of income is also important, but it is not so easily decomposed and separately quantified.

It is reasonable to refer to P_{JL} as 'job insecurity' and in this paper I strictly do just that. A word of caution is necessary, however, concerning this terminology. The phrase is also commonly given, if imprecisely, a broader role, making it often synonomous with 'employment insecurity' as defined above. This latitude in terminology does not matter as long as it is clear what is being discussed.

III Data and Measurement.

To examine both the changes and the distribution of employment insecurity in a wide range of countries I used data from the collaborative International Social Survey Programme (ISSP), specifically the harmonised work orientations module conducted

at 8-year intervals. The number of participating countries/regions was just 11 in 1989, expanding to 26 in 1997, then 32 in 2005, ranging over the industrialised and developed world. Only 6 countries remained in the survey for all three years.[2] In 2005 there were 43,440 respondents altogether, 24,268 of whom were employed. The sample size of employed respondents varied from as little as 282 in East Germany (the new Federal States) to 1299 in Taiwan, but the large majority were in the 500 to 1000 range.

To keep the scope of the analyses tractable I group the industrialised countries into four types, according to their key institutional features. These groups are the Liberal Market Economies (LMEs), the Nordic Economies (NEs), Other Coordinated Market Economies (OCMEs), and Other Industrialised Economies (OIEs). In the 'varieties of capitalism' approach, the coordinated market economies are taken to include the Nordic countries, but in the 'employment regimes' approach the latter are categorised separately on grounds of their inclusive labour market and welfare state institutions. I am thus here grouping under OCMEs only those countries that do not conform to these inclusive characteristics. Germany is taken as the largest, and most representative, example of this group; it is also characterised as a 'dualist' regime, because the strong rights obtained by a core unionised workforce are not extended with the same force to a substantive peripheral workforce.[3] The Nordic Economies have equally been characterised as following the 'centralised egalitarian model' or 'social corporatism'. The Other Industrialised Economies comprise countries not easily classified in terms of degrees of centralisation of bargaining structures or welfare state regimes. With the exception of Portugal, all have a border with the Mediterranean.

In addition the Transitional Economies, East Asian Economies and Developing Economies form three further groups, categorised according to their stages of and paths to economic development.

To measure employment insecurity properly one would ideally need forward-looking objective indicators of how workers perceive the distribution of future possible job offers, which is not possible. In practice researchers must choose between objective

[2] For further information go to (http://www.issp.org/); the data are available from GESIS-ZA Central Archive for Empirical Social Research and from other national research centres.
[3] In 1989 only West German data were collected, so partly for reasons of continuity West Germany is separately grouped with the OCMEs, while East Germany is grouped with the transitional economies.

proxies, such as ex-post job-loss rates, or subjective measures that may be subject to potential psychological biases. Often the measures used conform only loosely to the elements of employment insecurity.[4] Of the five concepts that one might like to measure -- P_{JL} , *CJL*, $\bar{v}$, $\mathrm{var}\, v$ and overall insecurity *EI* -- the ISSP data furnish an indicator for P_{JL} , a partial indicator for *CJL,* and a proxy indicator for *EI* via its psychological effect. Incomplete though they are, the breadth of international coverage of the data, and at different time points, allow a significant step forward to be made in understanding insecurity around the world.

The first indicator is a commonly-used measure, derived from the responses on a 4-point agreement scale to the statement 'My job is secure'. I compute a dummy variable measuring 'Insecure Job' where respondents disagree or strongly disagree with the statement. This item, though admittedly a little imprecise, is taken to correspond to the respondents' assessment of whether his/her job is likely to be involuntarily terminated, that is, P_{JL}. One disadvantage is that the time frame is left unspecified; another is that, as phrased, it does not explicitly refer to the probability of job loss. Better measures, in the sense of having greater content validity, which explicitly tap the respondent's perception of the risk of job loss in a given period (usually one year), are now available in some modern surveys (e.g. Household Income and Labour Dynamics in Australia, the German Socioeconomic Panel, the General Social Survey in the US, and the UK Skills Surveys).

The second indicator, not available on a consistent basis before 2005, is derived from the question "How difficult or easy do you think it would be for you to find a job at least as good as your current one?", with responses on a 5-point scale ranging from 'very easy' to 'very difficult'. I computed a dummy variable measuring a 'High Difficulty of Re-Employment', for those responding either 'fairly difficult' or 'very difficult'. This indicator captures part of *CJL*, the cost of job loss, but does not pick up the extent of support from welfare benefits while unemployed.

A third relevant item, available in ISSP data for both 1997 and 2005, is the question: 'To what extent, if at all, do you worry about the possibility of losing your job?', with a 4-point response scale running from "I don't worry at all" to "I worry a great deal". I computed a dummy variable for 'High Worry', for those responding 'a great deal' or

[4] One example is when researchers focus on the proportions with short job tenure.

'to some extent'. I propose this indicator as a portmanteau measure of the overall psychological impact of employment insecurity. It captures both the combined impact of risk and the cost of job loss (including the uncertainty over these), and how the respondent is affected. Because of the latter, the indicator is affected by personalities and circumstances outside work;[5] but the indicator can nevertheless be taken as a proxy for *EI*.[6]

IV Recent Changes in Subjective Insecurity

Table 1 presents the available data on the prevalence of Insecure Jobs. In most industrialised countries between 13% and 21% of workers were in insecure jobs in 2005, a notable exception being France where nearly one in three workers (30.8%) felt their jobs were not secure. Consistent with Pargam and Zhou (2008), Denmark (at 12.2%) had the lowest recorded level of perceived insecurity in 1997. However, in 2005 it was Sweden (13.5%) who acquired this accolade. Jobs in the Nordic economies were generally the most secure. At the other end of the scale 37.3% of Bulgarian workers were in insecure jobs in 1997.[7] However, taken as a group the transitional economies in 2006 did not appear to suffer more insecurity than those in Other Industrial Economies; the latter, which include many that have high levels of employment protection, had generally greater insecurity than either the Other Coordinated Market Economies or the Liberal Market Economies.

Taking all countries that were present in both 1997 and 2005 samples, the proportions in insecure jobs fell significantly (p=0.000) from 20.1% to 18.6%. Grouping countries, subjective insecurity fell in the Transitional Economies (arguably reflecting the process of transition) and in the Liberal Market Economies over 1997-2005, but remained virtually unchanged in the other industrialised economies; in the one

[5] Two people could face the same employment insecurity but one can worry about it more than the other.

[6] None of these interpretations are ideal, and their validity could be further verified through cognitive interviews.

[7] Although the surveys were harmonised with identical questions, it must be borne in mind that cross-national cultural differences, and small differences in survey design, could affect responses on issues of subjective employment insecurity. When examining relationships between variables one can control for country-level differences by including country dummies (see notes to Tables 3 to 5) but in comparing insecurity between countries small differentials might be due to cultural differences in responding to questions.

developing economy for which there is data on both years (Philippines), insecurity grew substantially.

The fall in job insecurity reflects changes in unemployment; the correlation coefficient between the 1997-2005 country changes in unemployment rate and country changes in job insecurity is 0.556 (p=0.025). And, after conditioning on the unemployment rate there remained no significant change in the insecurity rate between 1997 and 2005.[8] There is also an approximately one-to-one relationship across countries between the proportions in insecure jobs and the unemployment rates (see Figure 1). However, the relationship is loose; those in the Nordic economies perceive low job insecurity even relative to their low rates of unemployment.

Over the longer period, 1989 to 2005, the analysis of change is restricted to 5 countries. The proportion of insecure jobs rose in West Germany (the old Federal States), the United States and Hungary, fell in Great Britain, and did not significantly change in Norway. The pattern again followed the path of the unemployment rate, and no significant change in insecurity remained once the unemployment rate was controlled for.

Table 2 looks at the remaining two indicators of employment insecurity. The difficulty of replacing a job with an equally good one (the partial indicator of *CJL*) can be high either if labour markets are loose, or if there is strong segmentation and workers had accumulated less transferable skills and high loyalty bonuses in good jobs. Remarkably, 1 in 2 workers (50.5%) of the whole ISSP sample reported that they would find it fairly or very difficult to find a job as good as their current one: for this half of the population of workers, if they were to lose their jobs the costs would be substantial. The difficulty of job replacement was highest in East Germany (79.4%) and lowest in Cyprus (30.4%).

As noted above the first two indicators can be viewed as two of the constituents of the third, the proxy indicator for *EI*. Overall, 28.9% of workers in 2005 worried 'a great deal' or 'to some extent' about losing their jobs. Worry about job loss is generally much higher in the transitional and the developing countries. Comparing the groups of countries, and after controlling for the cross-country variation in job insecurity, the

[8] The association between the job insecurity rate and a year dummy was estimated using a probit specification. The year dummy was negative and significant, but became small and insignificantly different from zero when the unemployment rate was included in the equation.

extent of worrying was high in the Transitional Economies and in Developing Economies, and relatively low in the Liberal Market Economies and the Nordic Economies – see Figure 2.

How closely are the figures on job insecurity and the partial indicator of *CJL* reflected in the figures for *EI*? A country can have a high worry if either an above-average proportion of workers has a high Difficulty of Re-Employment and an at least normal proportion is in an Insecure Job, for example East Germany (41.4%); or an average Difficulty of Re-Employment but a high proportion in an Insecure Job, as with South Africa (38.7%); or both as with Portugal (34.0%). However, some countries have a comparatively high level of worry anyway, even though neither the risk of job loss nor the difficulty of job replacement are above average, for example Spain (45.2%). Explanations of such disjunctures could be that the level of worry depends also on the history of insecurity, or on the distribution of temporary jobs; or, especially in transitional and developing countries, the poor quality of social insurance, for example the Philippines (70.9%). In 2005 the Transitional Economies had roughly the same level of job insecurity as the Other Coordinated Market Economies, and not much more than the Liberal Market Economies; but their worry levels were very much greater than these others.

The improved labour market conditions in the transitional countries shows up in a significant decline in worry in three transitional countries: E. Germany, Slovenia, and Russia. Worry also declined in Portugal and Spain, reflecting the improved economic conditions there. Taken overall, however, there was no significant change in the extent of worry about insecurity between 1997 and 2005.

TABLES 1 AND 2 ABOUT HERE

FIGURES 1 AND 2 ABOUT HERE

V Gender, Age, Education, Location and Employment Insecurity

In this section, I consider whether and in what way the experience of employment insecurity varies according to gender, education, age and within-country location, and

how the variation differs across groups of countries with quite different institutional structures.

Previous empirical evidence on these forms of insecurity differentiation is relatively scarce (Green et al., 2000; Campbell et al., 2006; Naswall and De Witte, 2003; Clarke and F. Postel-Vinay, 2004; Erlinghagen, 2008; Charles and James, 2003; Kim and Park (2006)). There is not much support, in the cases of Britain and Denmark, for the prediction of precarous work theory that women experience more employment insecurity than men; but female workers are less secure in France, Spain, and South Korea. There is some support for the prediction that higher education reduces insecurity across a number of countries, though this finding is not universal, South Korea being a notable exception. And age is generally found to be positively correlated with insecurity. These studies are too thin on the ground to construct a systematic picture of how the pattern of security varies across economies with different institutional structures; none examine how the pattern of correlation varies across countries with quite different institutional structures which would be expected to affect security perceptions; moreover the studies typically deploy only one security indicator, failing to capture the concept's different dimensions. Here, I am able to examine variation in the three separate insecurity indicators described above, for a large number of countries in several groupings.

To include the maximum number of country samples, this analysis is based on the 2005 surveys. Table A1 (Appendix) records the distribution of the 2005 samples across gender, age education and location. Tables 3, 4 and 5 show, respectively, the conditional associations of gender, age, education and location with the three outcomes: Insecure Job, High Difficulty of Re-Employment and High Worry. In each case the estimates are derived from a multivariate probit analysis, where the coefficients shown in the tables give the marginal association of each variable with the respective outcome. Thus, for example, in Table 3 it is shown that in Nordic economies female full-time workers are 4.7 percentage points more likely than male full-timers to be in an insecure job, after controlling for age, education and location.

It is worth stating here that the form of employment contract – in particular, whether permanent or in some way temporary – is excluded from this analysis. Whether or not a person is found with a temporary contract is arguably an outcome, or a channel through which people experience insecurity, but not necessarily an independent cause

of insecurity. And, if it is found that those in temporary contracts feel less secure than those with permanent contracts, such a finding is unsurprising.[9] A further reason for excluding this variable is that internationally comparable indicators on categories of employment contract are less reliable, given their dependence on nationally-specific legislation and institutional norms; and, no doubt for this reason, no indicator was collected in the 2005 surveys.

Gender is central to the analysis of the distribution of insecurity, as suggested in the theory of precarious work. In general it is thought that women in many societies have traditionally had less access than men to career jobs or jobs in protected sectors. Set against that expectation, however, the increased participation of women has been concentrated in the service economy while in many richer countries the male-dominated manufacturing industries have been in decline. In fact, female part-time workers are more likely that male full-timers to be in insecure jobs in 5 out of the 7 groups, the exceptions being the LMEs and OCMEs (see Table 3). The gender gap in insecurity for the case of the East Asia countries is substantial: a difference of 18 percentage points. Among the industrialised economies differentiation is greatest in the 'Other Industrialised Economies' group. It may be conjectured that this finding reflects the greater protection offered to male core sector workers in a number of Mediterranean economies (Algan and Cahuc, 2006). One exception to the general rule about more insecure jobs for women is that in the Developing Economies women working full-time were 4 percentage points less likely than men to be in insecure jobs. The other exception is that in the LMEs and OCMEs neither women full-timers nor women part-timers have significantly greater (or smaller) chances of being in insecure jobs than male full-timers.

Those who are in lower-quality jobs, and who have proportionately more transferable skills, might expect to find less difficulty in gaining equivalent re-employment in the event of job loss, especially where labour markets are more flexible. This observation appears consistent with the finding, given in Table 4, that women in the LMEs (both full-timers and part-timers) and in the East Asian economies (part-timers only) report significantly lower re-employment difficulty than male full-timers.

[9] It remains true that policies to regulate contracts can restrict the domain of flexibility open to employers.

By contrast, domestic constraints and labour market segmentation might also have the opposite effect; this appears to hold for female full-time workers in the Nordic economies, the OIEs, and most strongly in the Transitional Economies where the differential above full-time workers is 10 percentage points.

According to 'employment regimes' theory one should expect to find gender differences in overall insecurity in 'dualist' regimes such as Germany, while in the 'inclusive' employment regimes found in Nordic economies one would expect to find little or no polarisation, since there should be equal access to skills acquisition, to protected jobs, and support in the event of job loss (Gallie, 2007a). Yet, in most groups of countries there is no significant difference between females and males as regards their worry about job loss, as can be seen in Table 5. To some extent this reflects a cancelling out of opposing forces: for example, female part-timers in East Asia are more likely to be in insecure jobs but would find it easier to regain equivalent employment; this could explain why they worry neither more nor less than male full-timers. One exception is female full-timers in the Transitional Economies who worry more than their male counterparts: there are proportionately many more of these than in other country groups (see Table A1) and it is possible that there are therefore more families that depend on females as main breadwinners in the Transitional Economies. The other exception is female part-timers in the Nordic economies, who are 5 percentage points more likely than males to worry 'a great deal' or 'to some extent' about job insecurity. Thus, against the expectation of dualist theory there is no polarisation in the OCMEs, whereas there is some differentiation in the Nordic economies.

Theory presents an ambiguous prediction about the relationship between age and job insecurity. In societies with strong insider/outsider labour markets and more traditional cultural values younger workers may have to queue for many years before gaining access to good jobs. Yet in all societies and especially in fast-growing economies older workers may lack some of the newly-demanded skills being acquired by younger workers and hence be more insecure. The result, shown in Table 3, is a mixed picture. Older workers are less likely to be in insecure jobs in OIEs and Developing Economies, but more likely in LMEs, Transitional Economies and the fast-growing East Asian economies. For example, in the East Asian economies a 20

year age gap, other things equal, increases the chances of being in an insecure job by 5 percentage points.

By contrast, since older workers tend to gravitate towards better jobs, and since a higher proportion of their pay is from acquired non-transferable skills and other seniority premiums, older workers are expected to find it more difficult to find equivalent jobs if they became unemployed. As predicted, the age coefficient is positive in all country groups (Table 4). It is greatest in the East Asian countries where skills obsolescence may be a special problem for older workers who had been educated when the countries were in earlier stages of development. Moreover, as Table 5 shows, there is an especially strong positive relation between age and worry about insecurity in the East Asian countries.

More educated workers are expected to have access to better jobs, which will normally (but not in all cases) entail better job security. This expectation is borne out in three of the country groups – the LMEs, OIEs and, most strongly, the Developing Economies where those with higher secondary education are 10 percentage points less likely to be in an insecure job than those with the lowest or no formal qualifications (Table 3). In the OCMEs, OIEs and the Developing Economies it is also the more educated workers who perceive less difficulty in gaining re-employment in an equivalent job, despite the fact that their jobs will be of better quality (Table 4). The most likely explanation for this relationship is that education is thought to give more transferable skills.

In the majority of cases it is also true that more educated workers are less likely to have high worry about job insecurity (Table 5). The main exception to this finding is the East Asian group, where education appears to be uncorrelated with worry about job insecurity. The failure of university education in East Asia to form a shield against insecurity may be related to internationallly very high participation rates in higher education. Low differentiation is also to be found in the case of the Nordic economies: consistent with the 'employment regimes' expectation, the inclusiveness of the regulation and welfare regimes in these economies minimises the extent of differentiation between groups.

The final set of variables included in this analysis captured the location where workers lived. Here, the question was whether those in smaller or more rural communities

might perceive greater job insecurity, and more difficulties for re-employment, in view of widespread processes of urbanisation and threats to agricultural industries. The counterbalancing hypothesis is that smaller communities might offer more support in the event of job loss. In practice, there are only a few cases where location makes a significant difference to insecurity. One example where it does make a difference is in the Transitional Economies, where living in a small town or rural community conveys a disadvantage, in respect of re-employment chances. Also those living in rural communities appear to worry somewhat less than big city dwellers within the Nordic Economies and LMEs. On the whole, however, location turns out to be only a minor factor in the determination of employment insecurity.

TABLES 3, 4 AND 5 ABOUT HERE

VI Conclusion.

The discourse of employment insecurity and job insecurity has over the last decade been subject to considerable confusion, both conceptual and empirical. Rarely is either concept clearly defined, with proper distinction being made between the risks of job loss, uncertainty within jobs, the potential costs of job loss and the uncertainty surrounding such costs. All too frequently, the indicators used for empirical investigations do not correspond very closely to these distinct aspects of employment insecurity, and researchers rely on proxy measures such as the formal designation of employment contracts.

A significant factor behind the confusion is the scarcity of data, which in turn is associated with the rather poorly developed state of the art for the design of insecurity indicators. Sporadic data availability can make it difficult to tell secular trends from cyclical changes in insecurity. Insufficiently detailed and representative data make it hard to distinguish secular changes from redistributions of insecurity: for example, a change which sees manufacturing industry workers becoming more secure while financial services workers experience insecurity that they had not previously encountered can easily be seen, falsely, as an overall rise in insecurity rather than a redistribution, if attention is focused only on a newly-insecure group (Green et al., 2000). Data availability has also necessitated a focus on certain countries, but with institutional specificities and macroeconomic policy being so influential in

determining the path and pattern of insecurity it is important not to extrapolate the trend found in one country to those of other countries with dissimilar labour market institutions.

In wider debate, insecurity and instability have also become part of a discourse in which workers are encouraged to accept an 'end to jobs for life' in the rise of the knowledge society, and to seek to acquire the necessary skills rather than rely on union or government protection of their jobs. Such invocations bear scant relation to the facts about job tenure, but have their ideological role in promoting skills acquisition and employability over the search for job protection. There are also the visionaries who think they see in current trends a radical alteration in industrial capitalism and foresee a future of rising precariousness and declining work - a much-cited example is the thesis of the "Brazilianisation" of labour markets in the industrialised north (Beck, 2000). Such writers add to the confusion by setting the general trends in insecurity in grandiose terms which, when properly examined with decent and reproducible evidence in a range of representative settings, bear little relation to empirical reality. In my view, turning away from a complex pattern of evidence has no place in a productive discourse on present trends, let alone in projecting the future. Fevre (2007), in setting out a detailed critique of Beck (2000) and of other like-minded authors, is similarly exasperated, seeing the confusion about insecurity as "the latest in a series of social-theoretic enterprises founded on what were supposed to be major turning points in the history of capitalism but for which the evidence evaporated on closer scrutiny" (op. cit: 530).

There is little support in previous empirical studies for the claim that there has been a radical secular increase in the experience of employment insecurity in modern capitalism. This paper contributes new evidence concerning which groups of workers experience employment security in a large number and variety of modern capitalist economies. It also shows the changes in employment insecurity that have taken place over the 1997 to 2005 period and, for a smaller group of countries, between 1989 and 2005. While the recent interval is not long enough to establish any secular trend, the findings should be of value to authors seeking to characterise the larger forces of social and economic change in the current era.

The evidence is unequivocal that there is no overall trend towards greater employment insecurity over the 1997 to 2005. The same proportion of workers was worrying about

job insecurity in 2005 as was worrying in 1997. There was a fall in worry about insecurity in a number of Transitional Economies and in Spain. There was also a fall in the proportion of workers who perceived that they were in insecure jobs in the LMEs and in the Transitional Economies. These changes in perceived job insecurity in individual countries can be accounted for by changes in the aggregate unemployment rate. For this relatively brief period, there is no decoupling of perceived insecurity from unemployment itself. This finding serves to reinforce the conclusion that from a policy perspective a reduction in the unemployment rate is hugely beneficial, not only from the obvious perspective of those unemployed workers who regain employment, but also from the increased well-being afforded to those in employment who can thereby feel less insecure. From this point of view, the best policy for better job quality – a micro-economic concept – may ironically be an improved macroeconomic management that can lower unemployment rates.

There is, however, a very considerable variation in employment insecurity among countries. The Nordic economies score particularly well in not only having low employment insecurity but their job insecurity is relatively low even given their low unemployment rates, and their workers are less likely to worry about insecurity, even allowing for their low job insecurity. At the other end of the scale, job insecurity was especially high in Transitional Economies in 1997, and there were above-average worries about insecurity in both the Transitional Economies and Developing Economies. These differences in perceptions seem likely to have as much to do with history as with unspecified cross-cultural peculiarities.

As expected insecurity is differentiated in many countries along lines of gender, age and education, but the lines of differentiation are not as straightforward as is sometimes claimed. One is led to expect, from the literature on forms of precarious work, that women will experience greater employment insecurity than men; and, from the human capital literature, that more educated workers will gain access to jobs that afford higher security than their less-educated counterparts. In more cases than not these broad expectations are borne out across this data set of 32 countries or regions. However, there are variations in this pattern of association, some of which appear understandable in view of the differing institutional and economic environments between groups of countries. For example, it is unsurprising to find that there is more male-female polarisation in the Other Industrialised Economies, which contains many

Mediterranean economies. One intriguing variation in the pattern of insecurity is the association with age, which is distinctly negative in some groups – for example in the Other Industrialised Economies, older workers are less likely to be in insecure jobs and less likely to worry about insecurity – and positive in other groups, for example in East Asia. The variation, which may be traced to the varying prevalence of insider-outsider markets and to the extent of skills obsolescence, suggests that there is a need to avoid advocating a common or universal policy response across countries to the inequality of insecurity.

Some other variations are not so easy to understand – for example, the finding that among industrialised countries it is only in the Nordic economies where females worry more than males about insecurity. The explanation for this and other puzzling aspects of the pattern of insecurity could be subjects for future research. Further refinements of the indicators used to capture the constituent elements of employment insecurity is also called for, while recognising that continuity is important in existing survey series like the ISSP work orientation modules in order to be able to trace future changes over time.

References

Algan, Y. and P. Cahuc (2006). "Job protection: The macho hypothesis." *Oxford Review of Economic Policy* 22 (3): 390-410.

Auer, P. and S. Cazes, Eds. (2003). *Employment stability in an age of flexibility*. Geneva, International Labour Office.

Autor, D. H., F. Levy and R. J. Murnane (2003). Computer-Based Technological Change and Skill. *Low-Wage America*. E. Appelbaum, A. Bernhardt and R. J. Murnane. New York, Russell Sage Foundation.

Bartley, M. (2005). "Job insecurity and its effect on health." *Journal of Epidemiology and Community Health* 59 (9): 718-719.

Beck, U. (2000). *The Brave New World of Work.* Cambridge, Polity Press.

Benito, A. (2006). "Does job insecurity affect household consumption?" *Oxford Economic Papers-New Series* 58 (1): 157-181.

Burchell, B. (1994). "The effects of labour market position, job insecurity and unemployment on psychological health." In *Social Change and the Experience of Unemployment*, edited by D. Gallie, C. Marsh, and C. Vogler. Oxford: Oxford University Press.

Cappelli, P., L. Bassi, H. Katz, D. Knoke, P. Osterman, et al. (1997). *Change at Work*. Oxford & New York, Oxford University Press.

Campbell, D., A. Carruth, A. Dickerson and F. Green (2007). "Job Insecurity and Wages." *Economic Journal* 117 (March): 544-566.

Charles, N. and E. James (2003). "The gender dimensions of job insecurity in a local labour market." *Work Employment and Society* 17 (3): 531-552.

Cheng, G. H. L. and D. K. S. Chan (2008). "Who suffers more from job insecurity? A meta-analytic review." *Applied Psychology-an International Review-Psychologie Appliquee-Revue Internationale* 57 (2): 272-303.

Clarke, A. E. and F. Postel-Vinay (2004). *Job Security and Job Protection*, DELTA, Working Paper No. 2004-16., Paris.

Cranford, C. J., L. F. Vosko and N. Zukewich (2003). "The gender of precarious employment in Canada." *Relations Industrielles-Industrial Relations* 58 (3): 454-482.

Erlinghagen, M. (2008). "Self-perceived job insecurity and social context: A multi-level analysis of 17 European countries." *European Sociological Review* 24 (2): 183-197.

Estevez-Abe, G. (2005). "Gender bias in skills and social policies: the varieties of capitalism perspective on sex segregation." *Social Politics* 12 (2): 180-215.

European Commission (2007). *Toward Common Principles of Flexicurity: More and better jobs through flexibility and security*. Luxembourg: Office for Official Publications of the European Communities.

Fevre, R. (2007). "Employment insecurity and social theory: the power of nightmares." *Work Employment and Society* 21: 517-535.

Frade, C. and I. Darmon (2005). "New modes of business organization and precarious employment: towards the recommodification of labour?" *Journal of European Social Policy* 15 (2): 107-121.

Gallie, D. (2007a). Production Regimes, Employment Regimes, and the Quality of Work. In D. Gallie *Employment Regimes and the Quality of Work*. Oxford, Oxford University Press: 1-34.

Gallie, D. (2007b). "Production regimes and the quality of employment in Europe." *Annual Review of Sociology* 33: 85-104.

Glyn, A. (2006). *Capitalism Unleashed: Finance, Globalization, and Welfare*. Oxford, Oxford University Press.

Golsch, K. (2003). "Employment flexibility in Spain and its impact on transitions to adulthood." *Work Employment and Society* 17 (4): 691-718.

Green, F. (2006). *Demanding Work. The Paradox of Job Quality in the Affluent Economy*. Woodstock, Princeton University Press.

Green, F., A. Felstead and B. Burchell (2000). "Job insecurity and the difficulty of regaining employment: An empirical study of unemployment expectations." *Oxford Bulletin of Economics and Statistics* 62: 855-+.

Kim, A. E. and I. Park (2006). "Changing trends of work in South Korea - The rapid growth of underemployment and job insecurity." *Asian Survey* 46 (3): 437-456.

Naswall, K. and H. De Witte (2003). "Who feels insecure in Europe? Predicting job insecurity from background variables." *Economic and Industrial Democracy* 24 (2): 189-215.

Nolan, J. P., I. C. Wichert and B. J. Burchell (2000). Job insecurity, psychological well-being and family life. *The Insecure Workforce*. In E. Heery and J. Salmon. London, Routledge.

OECD (1994). *The OECD jobs study : evidence and explanations. Part 2, Adjustment potential of the labour market.* Paris, OECD.

Paugam, S. and Y. Zhou (2007). Job Insecurity. In D. Gallie *Employment Regimes and the Quality of Work*. Oxford, Oxford University Press: 179-204.

Rodgers, G. (1989) 'Precarious Work in Western Europe: the State of the Debate', in G. Rodgers and J. Rodgers (eds) *Precarious Jobs in Labour Market Regulation: the Growth of Atypical Employment in Western Europe*, pp.1–16. Brussels: International Institute for Labour Studies and Free University of Brussels.

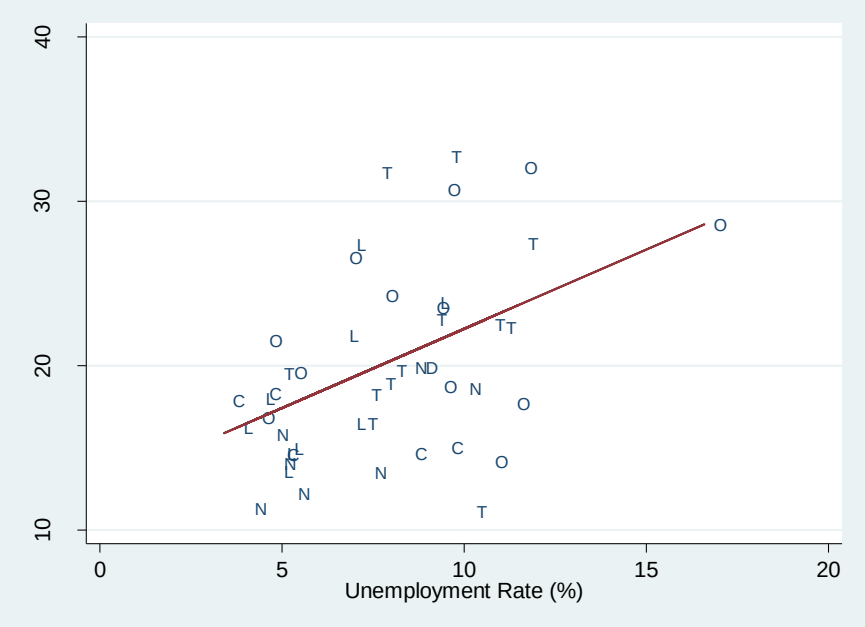
Shapiro, C. and J. E. Stiglitz (1984). "Equilibrium unemployment as a worker discipline device." *American Economic Review* 74 (3): 433-444.

Vosko, L. F. 2003. "Gender Differentiation and the Standard/Non-Standard Employment Distinction in Canada, 1945 to the Present." *Social Differentiation in Canada*. J. Danielle, ed. Toronto and Montreal: University of Toronto Press/University of Montreal Press, 25.

Walton, R. E. (1985) 'From control to commitment in the workplace', *Harvard Business Review*, 85, 2: 77-84.

Wichert, I. (2002). Job insecurity and work intensification: the effects on health and well-being. In B. Burchell, D. Lapido and F. Wilkinson *Job Insecurity and Work Intensification*. London, Routledge: 92-111.

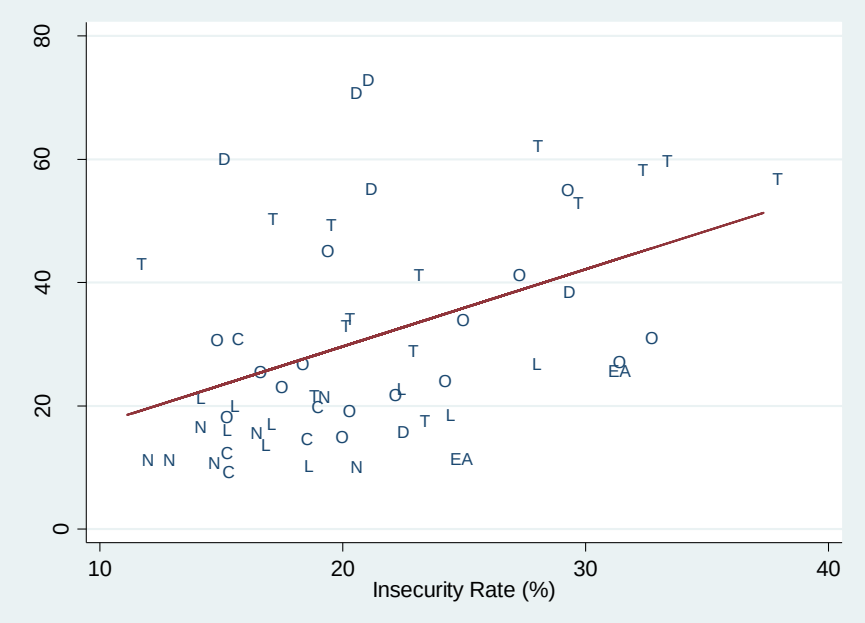
Figure 1 Insecure Jobs and the Unemployment Rate across Countries



Slope coefficient of fitted line: 0.96 (s.e. = 0.27). Pooled 1997/2005 data.

N=Nordic, L=Liberal Market Economy, C=Other Coordinated Market Economy, O=Other Industrialised Economy, T=Transitional.

Figure 2 High Worry and Insecure Jobs across Countries



Slope coefficient of fitted line: 1.25 (s.e. = 0.34). Pooled 1997/2005 data.

N=Nordic, L=Liberal Market Economy, C=Other Coordinated Market Economy, O=Other Industrialised Economy, T=Transitional, D=Developing, EA=East Asian.

Table 1. Prevalence of Insecure Jobs

Percentage Disagreeing or Strongly Disagreeing that "My job is secure".

Country	1989	1997	2005	Change 1997 to 2005 in:		Change 1989 to 2005 in:	
				Insecurity	Unemp Rate	Insecurity	Unemp Rate
Nordic							
Denmark		12.2	14.1	1.9	-0.4		
Finland			19.9				
Norway	17.6	11.4	15.8	4.5	0.6	-1.8	-0.8
Sweden		18.6	13.5	-5.1	-2.6		
Nordic 3		13.7	14.5	0.8			
Liberal Market							
Australia			19.6				
Canada		23.9	16.5	-7.4	-2.3		
Great Britain	19.6	27.4	13.6	-13.9	-2	-6	-2.3
N. Ireland	23.2						
Ireland	19		18			-0.9	-10.4
New Zealand		21.8	16.3	-5.6	-2.9		
United States	10.8	14.7	15	0.3	0.2	4.2	-0.2
LME 4		21.3	15.4	-5.9			
Other Coordinated Market							
Austria	5.8						
Flanders			14.7				
Germany-West	5.5	15.1	14.2	-0.9	1.2	8.7	
Japan		17.9	21.5	3.6	1.0		
Netherlands	10.1	14.6					
Switzerland		16.9	18.3	1.5	0.2		
CME3		16.7	18.0	1.3			

Other Industrial						
Cyprus		19.3	14.6	-4.7		
France		32.1	30.8	-1.3	-2.1	
Israel	18.3	16.0	23.6	7.6		5.3
Italy	17.3	17.7				
Portugal		26.6	24.3	-2.3	1	
Spain		28.6	18.8	-9.9	-7.4	
OIE 5		23.5	23.3	-0.2		
Transitional						
Bulgaria		37.3	27.5	-9.9		
Czech Republic		19.5	19.7	0.2	3.1	
Germany-East		32.8	22.6	-10.2	1.2	
Hungary	9.2	22.8	18.3	-4.5	-1.8	9.1
Latvia			31.8			
Poland		22.3				
Russia		29.1	18.9	-10.2		
Slovenia		16.5	11.1	-5.4		
Transitional 6		25.6	19.5	-6.0		
Developing						
Bangladesh		21.9				
Dominican Republic			20.6			
Mexico			20.4			
Philippines		14.5	19.9	5.4		
South Africa			28.7			
East Asian						
South Korea			30.6			
Taiwan			24.0			
TOTAL (all 32 countries/regions)			20.1			
TOTAL (all in both 1997 & 2005 surveys).		20.1	18.6	-1.5		

Sources: OECD.stat 2008, standardised unemployment rates; ISSP, authors' analysis.

Nordic 3, *LME 4*, *OIE 8*, and *Transitional 6* each refers to the group of countries for which there is data for both 1997 and 2005, and hence for which the changes can be computed. For historical reasons, the German sample was separated between East and West in 1989, and to show continuity these regions are classified separately in later years.

Table 2 Difficulty of Job Replacement and Worry about Job Loss.

	High Difficulty of Job Replacement [a]	High Worry about Job Loss [b]		
	2005	1997	2005	Change 97-05
Nordic Economies				
Denmark	38.4	11.3	10.9	-0.4
Finland	51.6		10.2	
Norway	48.4	11.4	15.7	4.3
Sweden	53.5	21.5	16.6	-4.9
Nordic 3		14.4	14.1	-0.3
Liberal Market Economies				
Australia	48.8		19.3	
Canada	40.1	18.7	17.2	-1.5
Great Britain	41.8	27.0	21.4	-5.6
Ireland	43.7		10.4	
New Zealand	45.8	22.9	13.7	-9.2
United States	37.5	16.1	20.1	4.0
LME 4		20.9	17.9	-3.0
Other Coordinated Market Economies				
Flanders	59.1		9.4	
Germany-West	71.1	30.9	30.9	0.0
Japan	62.6	14.8	22	7.2
Netherlands		12.5		
Switzerland	60.7	23.1	19.9	-3.2
CME3		23.1	23.9	0.8
Other Industrial Economies				
Cyprus	30.4	15.0	18.4	3.4
France	47.8	31.1	27.3	-3.8
Israel	51.8	25.7	24.1	-1.6
Italy		26.9		
Portugal	54.1	41.3	34.0	-7.3
Spain	34.8	55.1	45.2	-9.9
OIE 5		32.3	29.9	-2.4

Transitional Economies				
Bulgaria	74.6	56.9	62.3	5.4
Czech Republic	58.2	33.1	34.1	1.0
Germany-East	79.4	59.8	41.4	-18.4
Hungary	60.4	17.7	21.7	4.0
Latvia	50.5		58.5	
Poland		29.0		
Russia	65.3	53.1	49.5	-3.6
Slovenia	53.1	50.4	43.2	-7.2
Transitional 6		43.4	43.1	-0.3
Developing Economies				
Bangladesh		15.8		
Dominican Republic	31.6		55.4	
Mexico	55.1		73.1	
Philippines	45.1	60.1	70.9	10.8
South Africa	49.1		38.7	
East Asian Economies				
South Korea	57.4		25.7	
Taiwan	51.6		11.5	
TOTAL (all 32 countries/regions)	50.5		28.9	
TOTAL (all in both 1997 & 2005 surveys).	52.4	28.5	28.3	-0.2

Source ISSP, authors' analysis.

a. Percentage 'very difficult' or 'fairly difficult' to find a job as good as current one.

b. Percentage worrying 'a great deal' or 'to some extent' about the possibilities of losing job.

Nordic 3, *LME 4*, *OIE 6*, and *Transitional 6* each refers to the group of countries for which there is data for both 1997 and 2005, and hence for which the changes can be computed. For historical reasons, the German sample was separated between East and West in 1989, and to show continuity these regions are classified separately in later years.

Table 3 Determinants of the Probability of Being in an Insecure Job

	(1)	(2)		(3)	(4)	(5)	(6)
	NE	LME	OCMEs	OIE	Trans-itional	Dev. Econ.	E. Asian
Gender/ status [a]							
Female, F-T	-0.000	-0.008	0.008	0.001	0.008	-0.043	0.021
	(0.03)	(0.57)	(0.40)	(0.05)	(0.58)	(2.16)*	(0.92)
Female, P-T	0.047	-0.000	0.005	0.094	0.107	0.098	0.178
	(2.05)*	(0.01)	(0.25)	(3.82)**	(3.00)**	(3.80)**	(4.10)**
Male, P-T	0.038	0.108	0.047	0.059	0.056	0.100	0.166
	(0.94)	(3.82)**	(1.10)	(1.37)	(1.20)	(4.12)**	(3.83)**
Age	-0.00083	0.00166	0.00034	-0.00184	0.00190	-0.00309	0.00278
	(1.44)	(3.40)**	(0.50)	(2.86)**	(3.09)**	(4.17)**	(2.59)**
Education/Qualification Level [a]							
Above lowest	0.059	-0.018	-0.047	-0.019	0.084	-0.018	0.093
	(1.82)	(0.70)	(1.83)	(0.86)	(2.24)*	(0.80)	(2.03)*
Higher secondary	0.029	-0.011	-0.034	-0.006	0.071	-0.024	0.020
	(0.92)	(0.53)	(1.25)	(0.23)	(1.89)	(1.10)	(0.48)
> Higher secondary	0.030	-0.030	-0.037	-0.048	0.043	-0.104	-0.039
	(0.95)	(1.58)	(1.34)	(1.82)	(1.05)	(4.13)**	(0.88)
University degree	0.022	-0.044	-0.050	-0.054	0.068	-0.127	-0.052
	(0.74)	(2.27)*	(1.75)	(2.26)*	(1.65)	(5.27)**	(1.21)
Location[a]							
Suburb of Big City	-0.031	-0.002	-0.019	0.028	-0.006	-0.006	-0.004
	(1.57)	(0.15)	(0.57)	(0.67)	(0.13)	(0.18)	(0.14)
Small Town	-0.013	0.004	-0.029	-0.004	0.009	0.032	-0.016
	(0.71)	(0.23)	(0.97)	(0.20)	(0.49)	(1.41)	(0.61)
Rural	-0.057	0.015	-0.038	-0.000	-0.026	-0.014	0.061
	(3.17)**	(0.76)	(1.27)	(0.02)	(1.54)	(0.67)	(1.84)
Cases	3120	4245	2257	3551	3635	2852	1956

a. Omitted categories are: male full-time; no formal qualification; big city.
Dependent variable: the probability of being in an insecure job, predicted using probit estimation.
Absolute value of z statistics in parentheses; * significant at 5%; ** significant at 1%. All estimates include a set of country dummy variables.

Table 4 Determinants of the Probability of Experiencing High Difficulty of Re-employment

	(1)	(2)		(3)	(4)	(5)	(6)
	NE	LME	OCMEs	OIE	Trans-itional	Dev. Econ.	E. Asian
Gender/ status [a]							
Female, F-T	0.047 (2.34)*	-0.038 (2.12)*	0.035 (1.38)	0.073 (3.90)**	0.104 (6.08)**	0.026 (1.09)	-0.012 (0.45)
Female, P-T	-0.015 (0.46)	-0.045 (2.11)*	0.021 (0.78)	0.034 (1.15)	0.043 (1.06)	0.040 (1.32)	-0.167 (3.46)**
Male, P-T	0.107 (1.91)	-0.038 (1.04)	0.009 (0.18)	-0.119 (2.30)*	0.046 (0.85)	0.030 (1.03)	-0.027 (0.55)
Age	0.00896 (10.77)**	0.00672 (10.18)**	0.00742 (8.20)**	0.00859 (10.87)**	0.00910 (12.00)**	0.00397 (4.49)**	0.01144 (9.09)**
Education/Qualification Level [a]							
Above lowest	0.009 (0.22)	-0.034 (0.94)	0.001 (0.03)	-0.055 (1.98)*	-0.050 (1.24)	0.047 (1.61)	-0.021 (0.39)
Higher secondary	-0.018 (0.45)	0.006 (0.22)	-0.007 (0.18)	-0.039 (1.22)	0.021 (0.53)	-0.021 (0.74)	-0.017 (0.33)
> Higher secondary	-0.020 (0.48)	-0.004 (0.14)	-0.022 (0.59)	-0.015 (0.43)	-0.058 (1.28)	-0.108 (3.27)**	-0.007 (0.13)
University degree	-0.028 (0.70)	-0.007 (0.26)	-0.082 (1.97)*	-0.040 (1.34)	-0.102 (2.26)*	-0.006 (0.20)	-0.000 (0.01)
Location[a]							
Suburb of Big City	-0.044 (1.49)	0.032 (1.57)	0.042 (0.94)	0.037 (0.73)	0.018 (0.30)	-0.014 (0.33)	0.037 (1.18)
Small Town	0.050 (1.81)	0.063 (2.85)**	0.031 (0.78)	0.002 (0.08)	0.065 (2.99)**	-0.049 (1.83)	0.052 (1.69)
Rural	-0.016 (0.59)	0.035 (1.30)	0.040 (1.03)	0.027 (1.21)	0.075 (3.73)**	0.002 (0.09)	-0.016 (0.43)
Cases	3120	4245	2257	3551	3635	2852	1956

a. Omitted categories are: male full-time; no or lowest formal qualification; big city. Dependent variable: the probability of experiencing High Difficulty (see Table 2), predicted using probit estimation. Absolute value of z statistics in parentheses; * significant at 5%; ** significant at 1%. All estimates include a set of country dummy variables.

Table 5 Determinants of the Probability of High Worry About Job Loss

	(1)	(2)		(3)	(4)	(5)	(6)
	NE	LME	OCMEs	OIE	Trans-itional	Dev. Econ.	E. Asian
Gender/ status [a]							
Female, F-T	0.013 (1.00)	-0.018 (1.37)	0.007 (0.33)	0.022 (1.30)	0.058 (3.25)**	-0.034 (1.43)	0.006 (0.32)
Female, P-T	0.047 (2.19)*	-0.009 (0.57)	-0.026 (1.21)	0.023 (0.86)	0.070 (1.66)	0.022 (0.73)	0.007 (0.19)
Male, P-T	-0.004 (0.11)	0.001 (0.04)	0.065 (1.43)	-0.092 (1.99)*	-0.055 (0.97)	0.004 (0.15)	0.005 (0.15)
Age	0.00007 (0.14)	0.00030 (0.61)	0.00031 (0.44)	-0.00170 (2.40)*	0.00257 (3.34)**	-0.00061 (0.68)	0.00500 (5.51)**
Education/Qualification Level [a]							
Above lowest	0.013 (0.48)	-0.019 (0.73)	-0.061 (2.53)*	-0.056 (2.32)*	-0.044 (1.11)	0.018 (0.63)	-0.020 (0.58)
Higher secondary	-0.026 (1.02)	-0.051 (2.64)**	-0.096 (3.69)**	-0.051 (1.85)	-0.099 (2.46)*	-0.060 (2.12)*	0.032 (0.96)
> Higher secondary	-0.031 (1.23)	-0.068 (3.75)**	-0.106 (4.13)**	-0.064 (2.20)*	-0.160 (3.65)**	-0.168 (4.92)**	-0.028 (0.77)
University degree	-0.048 (1.97)*	-0.109 (6.05)**	-0.147 (5.86)**	-0.080 (3.13)**	-0.148 (3.43)**	-0.132 (4.12)**	-0.051 (1.50)
Location[a]							
Suburb of Big City	-0.020 (1.08)	0.018 (1.18)	-0.041 (1.21)	-0.065 (1.40)	-0.014 (0.24)	0.044 (1.08)	0.028 (1.26)
Small Town	-0.020 (1.15)	-0.014 (0.87)	-0.052 (1.72)	0.001 (0.06)	-0.011 (0.47)	0.023 (0.86)	-0.011 (0.48)
Rural	-0.039 (2.32)*	-0.021 (1.07)	-0.062 (2.03)*	-0.015 (0.75)	-0.012 (0.56)	0.033 (1.34)	-0.043 (1.62)
Cases	3120	4245	2257	3551	3635	2852	1956

a. Omitted categories are: male full-time; no or lowest formal qualification; big city. Dependent variable: the probability of experiencing High Worry (see Table 2), predicted using probit estimation. Absolute value of z statistics in parentheses; * significant at 5%; ** significant at 1%.

Appendix Table A1: Data Description, ISSP 2005

	Nordic Economies	Liberal Market Economies	CMEs	Other Industrial Economies	Trans-itional Economies	Developing Economies	East Asian Economies
Mean Age (yrs)	43.5	41.3	39.4	41.2	40.2	37.4	39.2
Gender/Work Status		%	%	%	%	%	%
Female, full-time	38.2	31.4	36.3	23.6	43.6	23.6	32.9
Female, part-time	11.2	17.7	11.1	20.5	4.5	13.3	8
Male, full-time	47.5	45.7	49.6	52.1	49	48.3	50.9
Male, part-time	3.1	5.3	3.1	3.9	2.8	14.7	8.3
Education Level	%	%	%	%	%	%	%
No or lowest formal qualification	7.4	12.6	43.4	15.1	21.6	33.9	9.5
Above lowest formal qualification	19.3	7.5	18.7	28.4	23.8	18.4	13.4
Higher secondary completed	25	20.7	11.7	24.3	25.3	22	29.4
Above higher secondary level	24.2	31.5	10.6	19.2	16.2	11.7	20.8
University degree completed	24.1	27.7	15.6	13	13.2	14	26.9
Location	%	%	%	%	%	%	%
Big City	19.6	29.8	40.0	18.9	41.6	40.2	28.3
Suburb	20.6	29.4	3.6	14.1	2.3	6.6	26.6
Small Town	25.9	25.5	26.4	29	23.5	20.1	28.4
Rural	33.9	15.2	30	48.1	32.6	33.1	16.7

Note: the sample for Tables 3 to 5 and A1 was restricted to those aged 16 to 65, and to those for whom there was a complete set of non-missing values for all included variables.