Article

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Workers, worries and welfare states: Social protection and job insecurity in 15 OECD countries

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Abstract. This article examines a model of the domestic political economy of subjective employment insecurity in advanced industrial societies. Based on data on people's attitudes toward their job as well as levels of and kinds of social protection collected in 15 OECD countries, it shows that there are distinct manifestations of job insecurity that are affected differently by distinct aspects of social protection programs. While the analysis shows that social protection measures reduce employment insecurity, it also reveals that overall levels welfare state generosity do not have any systematic effect on whether workers feel secure. The article's findings suggest the need to decompose the different components of employment insecurity as well as disaggregate national systems of social protection when examining the impact of welfare states on job insecurity.

Comparative political economists commonly assume that increased economic insecurity is one of the prime explanations for why welfare states have continued to grow, or why cutbacks have been relatively limited, despite tax fatigue and the economic pressures associated with globalization. Following Rodrik (1997) and Garrett (1998), much of the existing literature takes as axiomatic that insecurity, measured objectively, generates demand for social protection. Given the centrality that such reasoning has come to assume, the absence of any systematic analysis of the effects of social protection on individual perceptions of economic insecurity is striking. Drawing on 1997 survey data from 15 OECD countries, the following analysis focuses on whether and how cross-national differences in social protection affect the extent to which workers worry about losing their jobs.

In estimating the effects of public policy and institutional arrangements, we draw on research in psychology to distinguish between different components of job insecurity, and explore how specific types of social protection (employment protection legislation, active labor market policies and unemployment insurance) affect these components. By disaggregating both job insecurity and systems of social protection, our analysis not only demonstrates that public provision of social protection does indeed reduce the job insecurity experienced by individuals, but also specifies the distinct causal pathways whereby this effect occurs.

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We begin by reviewing general arguments about economic insecurity in the comparative political economy literature, motivating and situating our analysis in relation to this literature. We then present our model of the determinants of job insecurity and show how our survey data enable us to distinguish different components of job insecurity. We subsequently test this model in a two-step analysis, including country-level as well as individual-level variables in each step. In the first step, we develop and test hypotheses about the determinants of job insecurity and labor market insecurity and demonstrate that the determinants of these two manifestations of employment insecurity are systematically different. In the second step, we estimate the effects of unemployment compensation and overall social spending on worries about job loss while controlling for individuals' perceptions of their job insecurity (job-loss threat) and labor market insecurity. We conclude by discussing the implications of our empirical findings for the comparative political economy literature.

Economic insecurity and social protection

Economic insecurity matters greatly for people's private and public lives and, by implication, for the societies and polities in which they live. Political scientists have long been interested in economic insecurity because it affects people's views of the political system and their political behavior (Mughan & Lacy 2002). It is commonly accepted that high unemployment and economic insecurity have contributed to the downfall of democratic regimes (perhaps most famously the Weimar Republic), that economic grievances might lead to rebellion and revolution, and that governments are more likely to be voted out of office when the economy deteriorates. Finally, economic insecurity figures prominently in demand-driven explanations of the expansion of social insurance and other security-enhancing public policies, including restrictions on the ability of employers to fire workers at will.

While economic insecurity, broadly defined, thus plays a major role in theories of public policy, political action, political behavior and democratic legitimacy, its actual definition and operationalization have frequently been ambiguous and variable. 'Economic insecurity' is often used as a kind of umbrella term for different manifestations of material well-being and, depending on the research question under investigation, its meaning ranges from a general sense of material well-being to job-related anxieties or individuals' assessments of recent changes in their personal financial situation. In part, this definitional variability has been a function of available data to measure people's sense of economic insecurity.

Our analysis of job insecurity is restricted to the determinants of job insecurity, but we conceive of 'job insecurity' as a multidimensional phenomenon that involves considerations beyond the probability of losing one's current job. As a number of studies have documented, employment insecurity appears to be on the rise across the industrialized democracies (OECD 1997). In recent literature on political economy, globalization figures as the most prominent culprit to explain these changes in employment insecurity and, again, increases in insecurity are commonly said to fuel demand for social protection. In Rodrik's (1997) much-cited formulation, globalization is a two-edged sword as it generates countervailing pressures on the welfare state. On the one hand, globalization puts downward pressure on the supply of social insurance by constraining the ability of governments to engage in deficit spending or to tax mobile factors of production. On the other hand, however, globalization increases the demand for social insurance by virtue of the economic insecurity that it breeds. In Garrett's words: '[T]he most important immediate effect of globalization is to increase social dislocations and economic insecurity, as the distribution of incomes and jobs across firms and industries becomes increasingly unstable' (Garrett 1998: 7; see also Scheve & Slaughter 2004; Swank 2002; for earlier treatments of the openness/insecurity/protection nexus, see Cameron 1978; Katzenstein 1985).

In contrast, Iversen and Cusack (2000) argue that cross-national differences in economic insecurity in advanced capitalist societies are due to the transformation of labor markets produced by de-industrialization rather than globalization. More specifically, they argue that de-industrialization renders workers with asset-specific skills more insecure. Yet, Iversen and Cusack's explanation of patterns of welfare spending in OECD countries also hinges on the proposition that economic insecurity is the principal source of demand for publicly provided social welfare and protection. Consistent with this, Iversen and Soskice (2001) show that workers with asset-specific skills are particularly inclined to support the welfare state. Thus, regardless of the mechanism underlying the rise in job insecurity, such insecurity is assumed to fuel demand for social protection.

Though theoretically central to the debates outlined above, the notion that social protection actually reduces insecurity has yet to be subjected to any systematic empirical examination. This is the lacuna that we seek to address in this article by focusing on the question of whether and exactly how public welfare provisions affect individual perceptions of job insecurity.

Our model of job insecurity

Our conceptual framework draws on psychological research on job insecurity. Psychologists define 'job insecurity' in somewhat different ways, but their

definitions invariably involve a perceived threat to continuity in one's job situation and typically also some sense of powerlessness in the face of this threat (e.g., see Greenhalgh & Rosenblatt 1984: 438; Sverke & Hellgren 2002: 25–26). In contrast to 'job loss', which is an objective state of affairs, 'job insecurity' is a product of people's interpretations of signals in the environment (Jacobson 1991; Sverke et al. 2002; Hartley et al. 1991). While the early literature on job insecurity as a psychological phenomenon conceptualized it in purely cognitive terms (Ashford et al. 1989; Greenhalgh & Rosenblatt 1984), more recent work argues that job insecurity involves affect as well as cognition (cf. Sverke & Hellgren 2002; see also Borg 1992; Borg & Elizur 1992). In what follows, 'cognitive job insecurity' is an individual's estimate of the probability that he or she will lose their job in the near future, while 'affective job insecurity' refers to worry or anxiety about losing one's job. Thus conceived, cognitive job insecurity is a determinant of affective job insecurity, but affective job insecurity involves more than a perceived threat to one's current job status.

Our approach to explaining job insecurity posits that 'affective job insecurity' (i.e., the extent to which an individual worries about losing their job) is fundamentally a function of two variables: the individual's estimate of the probability that he or she will lose her job ('cognitive job insecurity', in the language of psychology) and the individual's perception of the consequences of losing their job.[1] Our model in turn decomposes the expected consequences of losing one's job into two discrete variables: the prospects of finding another (more or less equivalent) job and access to sources of income (livelihood) that do not depend on finding another job.[2]

Prior research clearly demonstrates that cognitive job insecurity is a major determinant of affective job insecurity (Borg 1992; Borg & Elizur 1992). What, then, drives cognitive job insecurity? Moving down the causal chain, it seems reasonable to suppose that individuals take into account a number of objective factors in estimating the probability that they might lose their job. We group these factors under three headings: labor market conditions, individual employability attributes and institutions providing for employment protection. For one, workers look to the labor market for cues in seeking to assess how secure they are in their current employment (cf. Green et al. 2000). The second set of factors has to do with employability attributes or, in other words, the individual characteristics that make workers more or less valuable to their employers.[3] The key issue here is 'human capital'. The standard Hecksher-Ohlin-Samuelson model of factor endowments implies that unskilled labor is most likely to suffer economic insecurity in advanced industrialized economies. Our empirical analysis also considers the effects of age and gender on cognitive job insecurity. To the extent that employers formally

or informally take seniority into account in workforce reductions, older workers can be expected to feel more secure in their current jobs than younger workers.

We can distinguish two kinds of institutions – or institutional practices – that provide for employment protection. One has to do with labor relations in individual firms or workplaces, while the other has to do with government regulation of employment conditions. As indicated at the outset, one of our primary concerns here is to determine whether public policies affect job insecurity. When it comes to people's sense of whether their current job is secure, the relevant policy should relate to restrictions on employers to fire workers. Regarding institutional arrangements at the workplace, our empirical analysis tests two rather obvious hypotheses: first, workers who are employed in the public sector should feel more secure in their jobs than workers who are employed in the private sector; and second, workers who belong to unions or work in unionized firms should also feel more secure in their jobs (Bender & Sloane 1999).

Our model posits further that worry about losing one's job entails more than some expectation that this might happen. The other dimension of affective job insecurity boils down to the question 'What happens to me (and my family) if I do lose my job?' Simplifying a great deal, the expected consequences of losing one's job can in turn be treated as a function of both replacement job prospects *and* access to sources of income (livelihood) that do not depend on finding another job. We use the term 'labor market insecurity' to designate a low probability of finding another job with more or less equivalent characteristics and the term 'income insecurity' to refer to the absence of other sources of income.[4] Like cognitive job insecurity (the estimated probability of losing one's job), labor market insecurity can be expected to depend on labor market conditions and individual employability attributes. Higher unemployment reduces the prospects of finding another job at the same time as it increases the prospects of losing one's current job. Similarly, skilled workers are not only less likely to be laid off than unskilled workers; they are also more likely to find other jobs, especially equivalent jobs. With respect to age, however, our expectations for its effects on job insecurity and labor market insecurity diverge: older workers can be expected to feel more secure in their current jobs, but less secure in the labor market (cf. Näswall et al. 2002). There is no obvious reason to expect that institutions that provide for employment protection should affect workers' assessments of their prospects in the labor market. Instead, the mechanism whereby public policy should affect such assessments consists of the effects of active labor market policies.[5] For the most part, such policies seek to increase the employability of unemployed workers. We expect that greater commitment of societal resources to

active labor market policies reduces labor market insecurity (i.e., beliefs about replacement job prospects).

Finally, the issue of sources of income or consumption that are not dependent on employment brings us to the welfare- or security-enhancing functions of social programs emphasized by the welfare-state literature. In our model, the level of income replacement provided by unemployment insurance and the duration of unemployment benefits should affect workers' job insecurity to the extent that job insecurity is a function of worries about income loss while they are unemployed, or, in other words, what we refer to as 'income insecurity'. Because of 'decommodification' (the loosening of the link between income/consumption and employment), we expect the size of the welfare state to be associated with a general sense of economic security and, as a result, less anxiety about losing one's job (i.e., reduced affective job insecurity). Income pooling within households (families) represents another source of economic support in case of job loss (Esping-Anderson 1999). Though increasing marital instability may have weakened the security-enhancing role of the family, someone who is part of a household that includes other income-earners should worry less about the possibility of losing his or her job than a person who is the sole 'breadwinner'. By the same logic, anxiety about losing one's job can be expected to decline as the income of other household members increases. Figure 1 graphically depicts the model of job insecurity sketched above.

Measuring insecurity with survey data

To test the hypotheses generated by our model of job insecurity requires information about individual-level attitudes and attributes as well as system-level information about labor market conditions and social-protection arrangements. The individual-level data that we use are drawn from surveys conducted in 1997 under the auspices of the *International Social Survey Program* (ISSP), as part of a study called *Work Orientations II*. Our analysis includes the following 15 OECD countries: Canada, Denmark, France, Germany, Great Britain, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and the United States. As these countries differ widely with regard to public provisions of social protection as well as economic and cultural characteristics, they would seem to constitute a most appropriate sample of countries with which to conduct our analyses. In particular, we note that each of Esping-Andersen's 'three worlds of welfare capitalism' (Esping-Andersen 1990) is represented by at least three or four countries (depending on the coding of particular countries).

We make use of responses to three survey questions to measure different components of job insecurity. We measure cognitive job insecurity (i.e., a more or less dispassionate assessment of the probability that one might lose one's job in the near future) with the help of a question that asks respondents how much they agree or disagree with the statement that 'my job is secure' on a scale from 1 to 5. To gauge individuals' labor market insecurity, respondents were asked 'How easy or difficult do you think it would be for you to find an acceptable job?' Again, respondents were presented with five possible answers, ranging from 'very easy' to 'very difficult'. Finally, to measure affective job insecurity, respondents were asked 'Do you worry about the possibilities of losing your job?' Respondents were given four possible answers (coded 1–4): 'I don't worry at all', 'I worry a little', 'I worry to some extent' and 'I worry a great deal' (see Appendix A for variable coding). Our empirical analysis thus proceeds in two steps. First, we test models of cognitive job insecurity and labor market insecurity using answers to the first and second survey questions as the dependent variables. Second, we test models of affective job insecurity that include answers to the first and second survey questions as independent variables.[6]

Because our general model of employment pertains to job insecurity among employed workers, we restrict our analysis to individuals who declare

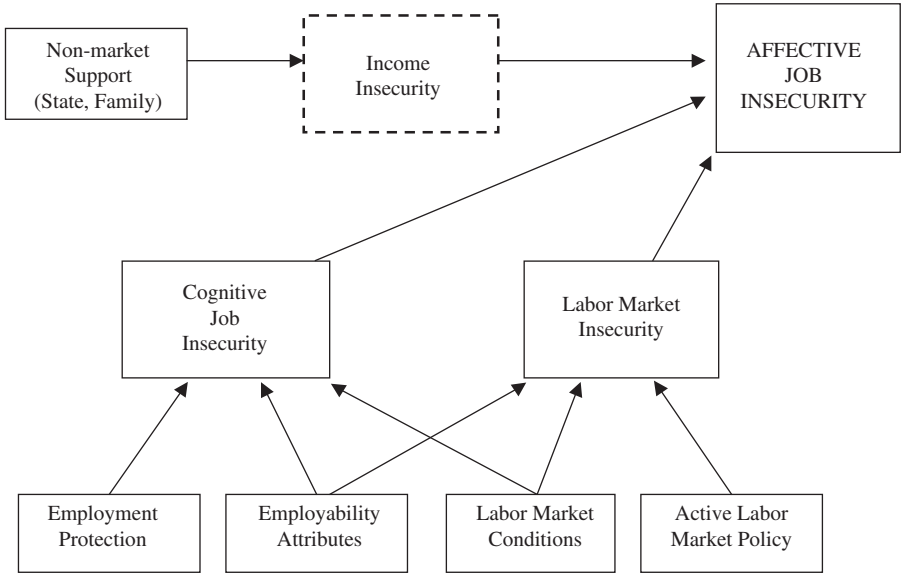

Figure 1. Our model of job insecurity.
Note: Individual perceptions of job-loss threat and replacement prospects are measured directly. Perceived income insecurity is measured indirectly (dashed line).

that they are gainfully employed at the time of the survey. Figure 2 shows the combined percentages of employed respondents who said that they worry 'a great deal' or 'to some extent' about losing their job (the third survey question) across the 15 countries. As the graph shows, there is a remarkable degree of cross-national variation in worries about potential job loss, ranging from over 50 per cent in Spain to only slightly more than 10 per cent in countries such as Denmark, the Netherlands and Norway.

Figure 3 plots the survey data in Figure 2 against total social spending as a percentage of GDP. Contrary to what some of the existing literature would seem to imply, there appears to be no association whatsoever between affective job insecurity and the size of the welfare state on a cross-national basis. This remains true if we control for rates of unemployment, which do correlate rather closely with levels of affective as well as cognitive job insecurity. In a simple cross-national OLS regression model with affective job insecurity as the dependent variable and total social spending and rates of unemployment as the independent variables, the coefficient for social spending is indeed negative, but the standard error is considerably larger than the coefficient.

Cognitive job insecurity and labor market insecurity

Because we combine information at the (micro) level of respondents and the (macro) level of countries, our data have a multilevel structure where one unit of analysis is nested within the other (Bryk & Raudenbush 1992). Tables 1 and 2 (below) therefore present the results of iterative generalized least squares

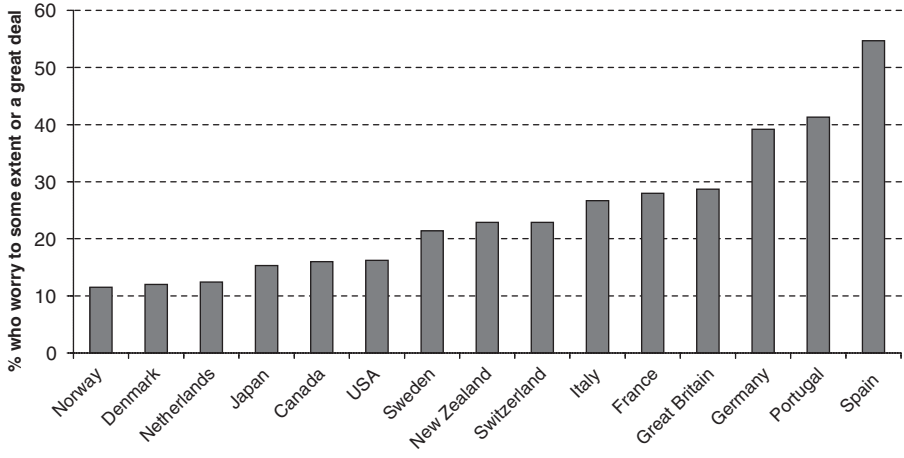

Figure 2. Worry about losing job.

(IGLS) multilevel regression models designed to explain cognitive job insecurity (Table 1) and labor market insecurity (Table 2) using data both at the macro- (country) and micro- (individual) level. We estimate the same basic statistical model for both dependent variables in order to establish how their determinants differ:

$$\begin{aligned}\text{Job/Labor Market Insecurity} = {} & \beta_1 \cdot \text{Intercept} + \beta_2 \cdot \text{Public Policies} + \\ & \beta_3 \cdot \text{Workplace Institutions} + \\ & \beta_4 \cdot \text{Labor Market Conditions} + \\ & \beta_5 \cdot \text{Individual Attributes} + \varepsilon\end{aligned}$$

We are primarily interested in the effects of political-economic arrangements associated with the welfare state or, in other words, public provision of social protection. In this first step, two such arrangements are particularly pertinent: employment protection laws and active labor market policies. To measure the stringency of legally mandated employment protection, we rely on a composite index developed by the OECD (1999). Active labor market policies essentially have to do with retraining unemployed workers and otherwise helping them find new jobs. We measure the scope of active labor market programs and the

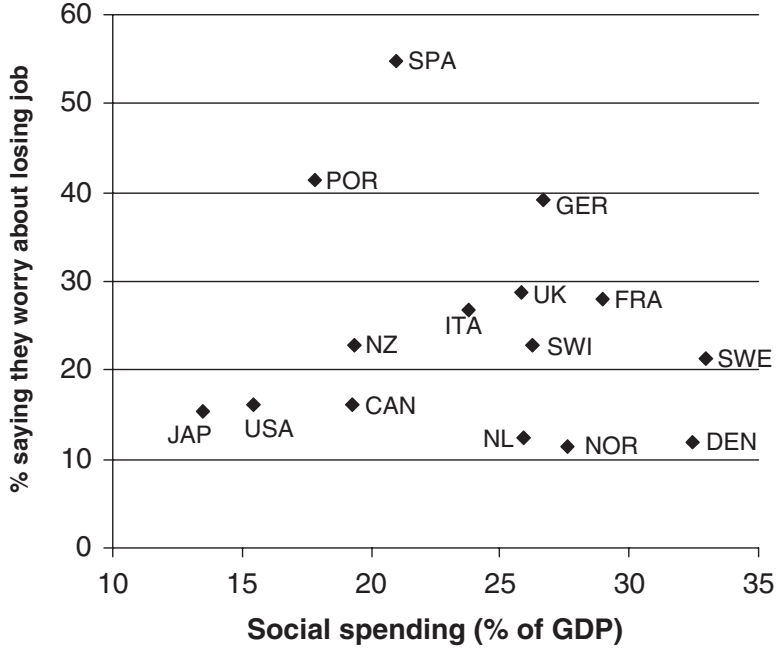

Figure 3. Scatterplot of job worry and social spending.

Table 1. Models of cognitive job insecurity in 15 OECD countries, 1997

Explanatory variables	Model 1	Model 2	Model 3
Public policies			
Employment protection legislation (high = more protection)	–0.199* (0.101)	–0.220* (0.102)	–0.219* (0.106)
Active labor market policy (spending per unemployed)	0.006 (0.017)	0.006 (0.017)	0.006 (0.017)
Workplace institutions			
Union member (1 – union member; 0 = else)	–0.145** (0.025)	–0.113** (0.027)	–0.114** (0.030)
Public sector employment (1 = public sector employee; 0 = else)	– –	–0.314** (0.031)	–0.321** (0.032)
Labor market conditions			
1992–1997 unemployment rate (%)	0.034* (0.017)	0.035* (0.016)	0.036* (0.017)
1996–1997 change in employment rate	0.093* (0.041)	0.096** (0.040)	0.095** (0.042)
Individual attributes			
Education (high = high education)	–0.017** (0.003)	–0.009** (0.003)	–0.005 (0.004)
Manual worker (1 = yes; 0 = else)	– –	– –	0.092** (0.031)
Gender (1 = female; 0 = male)	–0.036 (0.022)	0.002 (0.023)	–0.015 (0.025)
Age (actual age)	–0.005** (0.001)	–0.005 (0.001)	–0.005** (0.001)
Constant	3.057** (0.222)	3.075** (0.246)	2.975** (0.254)
Variance components			
Country-level	0.046** (0.017)	0.042** (0.016)	0.044** (0.018)
Individual-level	1.306** (0.017)	1.305** (0.018)	1.328** (0.20)
N	11,461	10,273	8,846
–2 log likelihood	35,635.07	31,936.44	27,657.44

Notes: Estimates are maximum likelihood estimates (IGLS) using MLwiN 1.10.0006 (2000); standard errors in parentheses. The dependent variable for job loss probability contains five response categories ranging from 'strongly agree' (1) to 'strongly disagree' (5) when asked about the statement 'my current job is secure'. Model 2 does not include the United States; Model 3 does not include the United States and the Netherlands. * $p < 0.05$; ** $p < 0.01$; one-tailed tests of significance.

Table 2. Models of labor market insecurity in 15 OECD countries, 1997

Explanatory variables	Model 1	Model 2	Model 3
Public policies			
Employment protection legislation (high = more protection)	0.134 (0.130)	0.018 (0.102)	0.029 (0.102)
Active labor market policy (% of GDP per capita unemployed)	–0.042* (0.022)	–0.057** (0.017)	–0.059** (0.017)
Workplace institutions			
Union member (1 – union member; 0 = else)	0.071** (0.024)	0.062** (0.025)	0.072** (0.028)
Public sector employment (1 = public sector employee; 0 = else)	– –	0.053* (0.029)	0.038 (0.030)
Labor market conditions			
1992–1997 unemployment rate (%)	0.006 (0.021)	0.001 (0.016)	0.006 (0.016)
1996–1997 change in employment rate	0.129** (0.053)	0.139** (0.040)	0.136** (0.040)
Individual attributes			
Education (high = high education)	–0.035** (0.003)	–0.035** (0.003)	–0.027** (0.004)
Manual worker (1 = yes; 0 = else)	– –	– –	0.179** (0.029)
Gender (1 = female; 0 = male)	0.182** (0.021)	0.189** (0.022)	0.168** (0.024)
Age (actual age)	0.022** (0.001)	0.022** (0.001)	0.021** (0.001)
Constant	2.836** (0.222)	3.287** (0.243)	3.238** (0.244)
Variance components			
Country-level	0.077** (0.028)	0.042** (0.016)	0.041** (0.016)
Individual-level	1.200** (0.016)	1.179** (0.016)	1.169** (0.18)
N	11,513	10,289	8,834
–2 log likelihood	34,834.49	30,944.04	26,493.08

Notes: Estimates are maximum likelihood estimates (IGLS) using MLwiN 1.10.0006 (2000); standard errors in parentheses. The dependent variable for job loss probability contains five response categories ranging from 'very easy' (1) to 'very difficult' (5) when asked about 'How easy or difficult do you think it would be for you to find an acceptable job?' Model 2 does not include the United States; Model 3 does not include the United States and the Netherlands. * $p < 0.05$; ** $p < 0.01$; one-tailed tests of significance.

level of support that they provide by dividing the amount of money that governments spend on these programs, expressed in thousands of US dollars at purchasing power parities, by the number of unemployed.[7]

Consistent with the analytical model articulated above, we expect employment protection to be associated with cognitive job insecurity, but not with labor market insecurity, and we expect the association with cognitive job insecurity to be negative. Conversely, we expect government spending on active labor market programs to be negatively associated with labor market insecurity, but we do not expect active labor market policies to be associated, one way or the other, with cognitive job insecurity. For obvious reasons, it is important to control for other variables that might affect job insecurity and labor market insecurity in estimating these effects. At the individual level, we therefore control for public sector employment (1 = yes; 0 = no) and union membership (1 = union member, 0 = otherwise). While measured at the level of individuals, public-sector employment and union membership are first and foremost characteristics of workplaces that workers do not take with them when they leave an employer and re-enter the labor market. While there are strong reasons to expect that public-sector employment and union members are associated with lower levels of cognitive job insecurity, we cannot think of any obvious reason why these variables should affect labor market insecurity.

Macro-economic conditions are likely to influence individuals' perceptions of the security of their current job, as well as their estimates of how difficult it would be to find another one. The most relevant macro-economic variable is surely the rate of unemployment. Persistently high levels of unemployment should be positively associated with both forms of employment security, but it also seems plausible to suppose that individuals are particularly affected by recent changes in the rate of unemployment as they assess their prospect of keeping their current job or finding another job. Thus the regression models reported in Tables 1 and 2 include the change in national unemployment rates over the year prior to the ISSP surveys (i.e., the change from 1996 to 1997) as well as the average rate of unemployment for the 1992–1997 period.

We also control for characteristics that make individuals more or less attractive to employers. Again, the key issue here is human capital or skills. Drawing on the ISSP surveys, we construct two individual-level variables that address this issue: education and manual labor (see Appendix A). We expect years of education to be negatively associated with insecurity in one's current job as well as insecurity about alternative employment opportunities, and we expect manual labor to be positively associated with both components of job insecurity.

Our regression models also include the age of the respondent (a continuous variable) and a dummy for gender (1 = female, 0 = male). We expect age to be

negatively associated with job insecurity on account of firms using more or less formalized seniority rules in decisions about lay-offs. At the same time, and partly for this very reason, we expect older workers to be more worried than younger workers about their ability to find another equivalent or acceptable job (Näswall & De Witte 2003). Our expectations concerning the effects of sex are equivocal. While women tend to occupy more marginal or precarious positions in the labor market than men, we also know that demand for female workers has increased in many OECD countries over the last several decades. Also, most of the countries covered by our analysis have laws against sex discrimination in employment practices, including lay-offs and other forms of termination. To the extent that informal sex discrimination persists, it should primarily affect women's estimates of their replacement job prospects rather than their estimates of the security of their current job.

Three different models are reported for each dependent variable (cognitive job insecurity and labor market insecurity) in Tables 1 and 2 because of missing observations in the ISSP surveys on two important variables. The American survey does not distinguish between public and private-sector employees and the Dutch survey does not report occupational status. To check their robustness, we report results with and without these variables.

For the most part, the results presented in Tables 1 and 2 confirm our expectations. We find that respondents in countries with higher levels of unemployment and those that experienced recent increases in unemployment rates are significantly more likely to state that their current job is insecure. When we switch from cognitive job insecurity to labor market insecurity as the dependent variable, the coefficient for unemployment levels becomes very small and no longer statistically significant, but the size of coefficient for recent changes in unemployment increases appreciably. When assessing their prospects of finding alternative employment, workers are apparently most sensitive to recent changes in unemployment and do not consider long-term unemployment rates to be a very meaningful cue.

In the first two models reported in Table 1, education has a significant negative association with cognitive job insecurity, but the size of the coefficient is nearly halved when we control for public-sector employment. The size of the coefficient diminishes further and loses statistical significance once we also introduce the dummy variable for manual labor. Education turns out to be more strongly and consistently associated with positive assessments of alternative job prospects. Relative to other workers, unskilled manual workers feel significantly more insecure in both their current jobs and in the labor market. The results concerning age are also statistically significant, and confirm our expectations: cognitive job insecurity declines with age, but labor market insecurity increases with age. With cognitive job insecurity as the dependent

variable, the sign of the coefficient for sex changes depending on the model specification, but none of these coefficients are statistically significant. This indicates that women feel neither more nor less secure in their current jobs than men. However, we do find women have more negative assessments of their alternative employment prospects than men.

Again consistent with our expectations, public-sector employees and union members feel significantly more secure in their current jobs than private-sector employees and unorganized workers. Though the effects are considerably smaller, these dummy variables also turn out to be significantly associated with labor market insecurity. In general, public-sector employees and union members have more negative assessments of their prospects in the labor market. Quite possibly, this result, which is not predicted by our analytical model, has to do with public-sector employment and union membership generating different (higher) standards for what constitutes an 'acceptable job'.

Finally, and most importantly, the results of these regression models confirm our expectations concerning the effects of public policies. Stronger legal provisions for employment protection are indeed associated with less cognitive job insecurity, but have no effect on individuals' assessments of alternative employment prospects. Estimating the substantive impact of employment protection, our results indicate that increasing the OECD employment protection index by one standard deviation (while holding all other variables at their mean) decreases job insecurity by 0.21. Starting from mean levels of employment protection, job insecurity would drop from 2.44 to 2.23. Government spending on active labor programs thus generates more positive assessments of alternative employment prospects, but has no effect on cognitive job insecurity. With a one standard deviation increase of government spending, such programs labor market insecurity decreases by 0.23 according to our results. Starting from mean levels of active labor market policy, labor market insecurity would drop from 3.43 to 3.20. More generally, the results reported in Tables 1 and 2 clearly indicate that cognitive job insecurity and labor market insecurity are distinct phenomena with different underlying determinants.

Income insecurity and affective job insecurity

We now consider the question of whether non-market sources of income support influence affective job insecurity by estimating the following model:

$$\begin{aligned}\text{Job Loss Worry} = {} & \beta_1 \cdot \text{Intercept} + \beta_2 \cdot \text{Cognitive Job Insecurity} + \\ & \beta_3 \cdot \text{Labor Market Insecurity} + \beta_4 \cdot \text{Nonmarket Support} + \\ & \beta_5 \cdot \text{Welfare Spending} + \varepsilon\end{aligned}$$

We use two measures of public income support: a broad one and a narrow one. The broad measure is also the most commonly used measure of the size of the welfare state and consists simply of total social spending in percentage of GDP (from the OECD's *Social Expenditure Database*). Our narrow measure of public income support pertains to the generosity of unemployment compensation. Recent literature uses the net income replacement provided by unemployment insurance as a measure of welfare-state generosity vis-à-vis the unemployed (Korpi & Palme 2003). For our purposes, this measure is problematic because it ignores cross-national variation in the coverage of unemployment insurance (the percentage of the labor force that is eligible for unemployment insurance) as well as the duration of unemployment benefits. Our preferred measure of the generosity of unemployment compensation is constructed in the same manner as our measure of societal commitment to active labor market policy programs – that is, as government spending on income support for the unemployed per unemployed person in thousands of US dollars (at purchasing power parities).

As indicated earlier, income pooling within households can be seen as another (private) source of non-market support in case of employment loss. Worries about losing one's job can be expected to decline as the income of other household members increases. While the survey data do not include any information on total household income, they do indicate whether the respondent has an employed spouse/partner. We therefore include a dummy variable for 'employed spouse/partner', which we expect to be associated with less worry about job loss (cf. Lim 1996).[8]

As the results presented in Table 3 show, the individual-level variables included in our model are highly significant determinants of affective job insecurity. Not surprisingly, individuals who consider their jobs to be less insecure worry more about losing their job. Though the effects of cognitive job insecurity are considerably greater, the results also show that individuals with more negative assessments of replacement job prospects worry more about losing their job. Controlling for these effects, having an employed spouse or partner does not have any statistically significant effect on job-loss worries, though the sign of coefficient is consistent with our expectations. The overall size of the welfare does not affect job insecurity, but the generosity of unemployment compensation does have a significant security-enhancing effect. Substantively speaking, our results suggest that increasing the generosity of unemployment compensation by one standard deviation decreases the level of worries about job loss by 0.15. Starting with unemployment compensation levels at their mean, job-loss worry drops from 1.56 to 1.41.

The results presented in Table 3 should not be taken to mean that the unemployment compensation is the only feature of national systems of social

protection that matter to worries about losing one's job (affective job insecurity). As we saw earlier, employment protection and government spending on active labor market programs are important determinants of job insecurity and labor market insecurity. Not surprisingly, cognitive job insecurity and labor market insecurity are in turn powerful predictors of affective job insecurity. For illustrative purposes, the estimates of the effects of employment protection and active labor market programs on cognitive job insecurity and labor market insecurity produced by our first-step regressions can be plugged into our second-step regressions to obtain estimates of the effects of these variables on affective job insecurity. Taking these 'pass-through effects' into account,

Table 3. Models of affective job insecurity in 15 OECD countries, 1997

Explanatory variables	Model 1	Model 2	Model 3	Model 4
Assessments of current and future employment				
Job insecurity (high = insecure)	0.314** (0.007)	0.314*** (0.007)	0.314*** (0.007)	0.319** (0.008)
Labor market insecurity (high = difficult)	0.107** (0.007)	0.107*** (0.007)	0.107*** (0.007)	0.102*** (0.008)
Nonmarket support				
Total social spending (% of GDP)	–0.004 (0.012)		0.014 (0.014)	0.013 (0.014)
Spending on unemployment compensation per unemployed		–0.017* (0.010)	–0.024* (0.012)	–0.023* (0.013)
Employed spouse (1 = yes; 0 = no)				–0.025 (0.019)
Constant	0.868** (0.299)	0.925** (0.111)	0.668* (0.288)	0.669* (0.292)
Variance components				
Country-level	0.071** (0.026)	0.061** (0.022)	0.057** (0.020)	0.058** (0.021)
Individual-level	0.670** (0.009)	0.670** (0.009)	0.670** (0.009)	0.662** (0.010)
N	12,391	12,391	12,391	9,261
–2 log likelihood	30,270.22	30,267.73	30,266.83	22,519.55

Notes: Estimates are maximum likelihood estimates (IGLS) using MLwiN 1.10.0006 (2000); standard errors in parentheses. The dependent variable contains four categories ranging from 'I don't worry at all' to 'I worry a great deal' in response to the question on whether the individual worried about the possibilities of losing their job. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; one-tailed tests of significance.

Table 4 summarizes the substantive effects of different social protection measures suggested by our analysis. Rather than simulating the effect of one-standard-deviation changes, the counterfactual exercise presented in Table 4 asks 'What would happen to various components of job insecurity if the United States were to adopt Swedish levels of employment protection, active labor market programs and unemployment compensation?' While adopting the Swedish level of unemployment compensation alone would reduce the job-loss anxiety of the average American from 1.64 to 1.45, the combined effect of all three changes would be to reduce the job-loss anxiety of the average American from 1.64 to 1.26.[9]

The point of the counterfactual exercise presented in Table 4 is simply to illustrate the size of the substantive effects yielded by our analysis. As a benchmark in thinking about the substantive significance of the effects shown in Table 4, it might be useful to keep in mind that average job-loss anxiety for American survey respondents with less than twelve years of education ('high-school dropouts') was 1.74, while the corresponding figure for American respondents with more than 15 years of education ('college graduates') was 1.62. From this perspective, the substantive effects of security-enhancing public policies uncovered by our analysis would appear to be quite significant indeed.

Conclusion

The analytical model developed in this article incorporates insights from the existing welfare-state literature as well as the literature on job insecurity in

Table 4. Counterfactual estimates of the United States adopting Swedish levels of social protection

	Cognitive job Insecurity (actual level: 2.24)	Labor market insecurity (actual level: 2.53)	Affective job insecurity (actual level: 1.64)
Employment protection	–0.42		–0.13
Active labor market programs		–0.60	–0.06
Unemployment compensation			–0.19

Note: Entries denote changes in individual insecurity levels. Job-loss worry is measured on a 1–4 scale, while job insecurity and labor market insecurity are measured on 1–5 scales. EPL values are 0.7 for the United States and 2.6 for Sweden; ALMP value 1.98 for the United States and 12.20 for Sweden; and unemployment compensation value 3.41 for the United States and 11.72 for Sweden.

psychology. Our model decomposes the determinants of affective job insecurity or worry about losing one's job into three separate components: estimates of the probability of losing one's current job (cognitive job insecurity), estimates of one's ability to find another job (labor market insecurity) and availability of income during an extended unemployment spell (income insecurity). Our empirical analysis does not exactly prove that this is the right way to think about job insecurity and its determinants, but the model yields a number of specific hypotheses that are indeed supported by the our empirical analysis.

Our results confirm that more educated workers, and especially workers in non-manual occupations, tend to feel more secure in their current job while at the same time being more sanguine about their prospects of finding another job. Age, union membership and public-sector employment are associated with less cognitive job insecurity, but more insecurity about alternative employment prospects. Controlling for other individual attributes, women are significantly more worried about alternative job prospects than men. Turning to macro-level determinants, our analysis also confirms that labor market conditions powerfully shape employment-related worries of individuals. Not surprisingly, rising and persistent high national unemployment rates are associated with higher cognitive job insecurity, while rising unemployment is associated with more pessimistic assessments of alternative employment prospects.

As for the security-enhancing effects of public policy provisions associated with the welfare state (the question of primary interest to political scientists), our empirical analysis yields strong support for the idea that there are three distinct pathways whereby public policy provisions influence workers' employment-related worries. First, government legislation restricting the ability of employers to fire workers and/or imposing costs on employers who do fire workers appears to have a quite significant impact on individuals' assessment of how secure their jobs are (cognitive job insecurity). Second, government spending on labor market programs designed to improve the employability of unemployed workers and to help them find new jobs reduces labor market insecurity. Third, generous unemployment compensation reduces worries about the income loss associated with unemployment. Again, the data at hand do not allow us to estimating the latter effect directly, but the circumstantial evidence obtained by estimating the effect of unemployment compensation on affective job insecurity while controlling for cognitive job insecurity and labor market insecurity is consistent with this inference.

Somewhat surprisingly, our analysis fails to confirm the hypothesis that income pooling within households reduces affective job insecurity. One possible explanation for is that our measure of income pooling within households (a dummy for employed spouse) is too crude to capture the expected effect. Alternatively, our null finding on this score might be interpreted as support

for the thesis that the salience of households for individual perceptions of economic prospects has declined as a result of rising marital instability in advanced industrial societies over the last 20–30 years (cf. Iversen & Rosenbluth 2003).

Our conclusions about the effects of public policies must be tempered by recognizing that our analysis does not take into account institutional legacies, nor does it explore the effects of institutional change. In our analysis, incremental changes in spending on existing active labor market programs or unemployment compensation are assumed to have the same 'per-unit effects' as the introduction of new programs, or the dismantling of existing programs. For the United States to adopt active labor market policy on a Swedish scale would obviously involve a major political struggle, and the effects of such a reform on workers' subjective sense of labor market insecurity could well be much greater than the simulation results reported in Table 4 suggest. Put differently, it may well be the case that public policy provisions come to be taken for granted and that their insecurity-reducing effects diminish over time. Much of the recent literature on welfare-state retrenchment emphasizes the incremental nature of the changes that have taken place in OECD countries, but public policy provision pertaining to employment protection and unemployment compensation certainly became politically contested in many of these countries in the 1990s. The story of this political contestation varies across countries and the implications of such variation for perceptions of job insecurity deserve further attention.

Keeping the limitations of our analysis in mind, we do not wish to imply that governments should necessarily increase employment protection while boosting spending on active labor market programs and unemployment compensation if they seek to reduce affective job insecurity. For one, the rate of unemployment represents another important lever whereby government policies might workers' sense of insecurity. Moreover, conventional wisdom among economists suggests that employment protection and the payroll taxes associated with generous unemployment compensation might in fact reduce demand for labor and thereby expose workers to greater risk of losing their jobs. While the cross-national evidence on the growth-depressing effects of social protection is not as clear-cut as conventional wisdom among economists would lead us to expect, it is certainly plausible that employment protection and unemployment compensation might have negative consequences for cognitive and affective job insecurity via labor market effects that are not captured by our analytical model. To pursue this issue further would require an entirely different mode of empirical analysis. Similarly, we must leave aside the question of the extent to which governments have the ability to boost employment growth by means of demand stimulation or industrial policy.

In a somewhat different vein, employment protection, active labor market policy and unemployment compensation might be seen as alternative means to achieve a certain, desired level of employment security. Arguably, parties across the political spectrum are distinguished by what they consider to be acceptable levels of job insecurity. Rather than pursuing further reductions in insecurity *ad infinitum*, even the most security-oriented parties have a security 'target' that they seek to reach. As our analytical model and empirical analysis illustrate, any given target might be achieved by different combinations of security-enhancing measures. Again, the question of why governments might choose different combinations of employment protection, active labor market programs and unemployment compensation lies beyond the confines of this article. Suffice it to note that in the 1950s and 1960s Scandinavian Social Democrats eschewed employment protection, arguing that the proper role of government was to provide workers with greater security in the labor market through unemployment compensation and measures to enhance employability. In the 1990s, the politics of the Third Way again shifted the emphasis of labor-affiliated parties in Western Europe from employment protection to employability. Judging by our empirical results, relying exclusively on active labor market programs as the solution to job insecurity would not appear to be a politically viable formula for Social Democratic parties, but it may well be viable for these parties to trade employment protection for employment growth so long as they also maintain existing levels of unemployment compensation.

As noted throughout our discussion, job insecurity is a subjective phenomenon. Our empirical results suggests that average individuals have a fairly clear idea of the objective variables that affect their job insecurity and that they are quite discriminating as they respond to survey questions about job insecurity. Consistent with ongoing related research in organizational psychology (cf. Sverke et al. 2002), job insecurity appears to have rather hard and precise connotations. Our findings that employment protection reduces cognitive job insecurity while government spending on active labor market programs reduces labor market insecurity suggest that individual respondents discern the distinctive purposes of these government policies. Also, it seems significant from this point of view that the public provision of unemployment compensation reduces affective job insecurity, but public provision of social welfare more generally does not have any impact on worries about losing one's job. These results would appear to be inconsistent with the idea that insecurity is a state of mind that can be affected simply through more generous social welfare provisions.

The absence of any discernable effects of total social spending levels on individual perceptions of job insecurity casts some doubt on the importance

assigned to insurance motives in much of the comparative welfare state literature. Our analysis suggests that rising job insecurity might well be invoked to explain public support for specific welfare-state programs, but the link between job insecurity and the overall size of the welfare state appears is tenuous, at best. In this sense, our results might be interpreted as supporting the idea that redistributive motives (or interests) deserve a more prominent place in general theorizing about the politics of the welfare state.

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Appendix A: Variables and question wording

Worry About Job. 'Do you worry about the possibilities of losing your job?' I don't worry at all (0); I worry a little (1); I worry to some extent (2); I worry a great deal (3).

Possible Job Loss. 'How much do you agree or disagree that these statements apply to your job?' My job is secure: Strongly disagree (0); Disagree (1); Neither agree nor disagree (2); Agree (3); Strongly agree (4).

Job Replacement. 'How easy or difficult to you think it would be for you to find an acceptable job?' Very easy (0); Fairly easy (1); Neither easy or difficult (2); Fairly difficult (3); Very difficult (4).

Employed. 'Are you currently working for pay?' yes = 1; no = 0.

Spousal Employment. 'What is the employment status of your spouse/partner?' Employed full- or part-time = 1; otherwise = 0.

Sex. Female = 1; male = 0.

Age. Actual age.

Manual Laborer. Recoded from variable categorizing respondent's occupation. Unskilled professions = 1; otherwise = 0.

Education. Age when respondent left school.

Union Membership. 'Are you a member in a trade union at the present time?' yes = 1; no = 0.

Public Sector Employment. 'Do you work for the public sector?' yes = 1; no = 0.

Spending. Social expenditures (including mandatory private benefits) as percentage of GDP, 1995 (source: OECD 2001).

EPL. Composite employment protection index (source: OECD 1999).

Active labor market policies. Government expenditures on active labor market programs per unemployed in thousands of US dollars at purchasing power parities, 1995 (source: OECD 2001).

Unemployment compensation. Government expenditures on income support for the unemployed per unemployed in thousands of US dollars at purchasing power parities, 1995 (source: OECD 2001).

Unemployment rate. Average unemployment rate, 1992–1997.

Change in unemployment rate. Percentage change in unemployment rate, 1996–1997.

Appendix B: Descriptive statistics

Variables	Mean	Standard deviation	Minimum	Maximum
Worry about job	1.824	0.964	1	4
Security of current job	2.372	1.171	1	5
Difficulty of find new job	3.330	1.231	1	5
Education	12.304	3.642	1	35
Unskilled manual labor	0.236	0.423	0	1
Union member	0.381	0.486	0	1
Public sector employee	0.214	0.410	0	1
Sex	0.476	0.499	0	1
Age	40.478	12.519	16	99
Spouse work status	0.529	0.499	0	1
Employment protection legislation	2.127	0.967	0.7	3.7
Active labor market policies	5.620	3.846	1.338	12.734
Unemployment compensation	8.923	6.715	3.164	26.925
Welfare state spending	23.769	5.881	13.47	32.95
Change in unemployment rate	–0.9	2.033	–4.6	2.0
Average unemployment rate	8.533	4.605	3.1	22.5

Notes

1. These uncertainty perceptions are likely to vary across individuals for a number of reasons, including differences in personality. Our model sidesteps the influence of per-

sonality traits and assumes that individuals are reasonably well informed about the objective conditions in which they find themselves.

2. This model builds on OECD (1997). Note that we have data on individual perceptions of job-loss threat and replacement prospects, but exclusively objective measures of income insecurity.
3. While psychologists focus on individual perceptions of employability (Sverke & Hellgren 2002), we use the term 'employability' to denote objective characteristics such as age and education.
4. The concept of 'equivalent job' is by no means straightforward. Workers who lose their job commonly have to settle for replacement jobs that pay less, and the value of one's current job relative to alternative jobs find depends on considerations other than pay (benefits, job security, etc.). Given the data available, we must abstract from these ambiguities and sidestep the concerns over maintaining desirable job features versus having a job in the first place (see Greenhalgh & Rosenblatt 1984).
5. The effects of macro-economic demand management can be expected to operate through the rate of unemployment, which is included in our model.
6. Our two-step approach to explaining job insecurity does not involve a hierarchical set-up in the statistical sense of the word since our model of general job insecurity is independent of our models of job insecurity and labor market insecurity. This helps to avoid difficulties in estimating standard errors. As importantly, the second step of our analysis is designed to ascertain the effects of non-market sources of income support on affective job insecurity while controlling for cognitive job insecurity and labor market insecurity. Thus, it is not directly relevant how well our first-step models predict job and labor market insecurity.
7. Our data on government spending on active labor market programs in percentage of GDP come from the *OECD Social Expenditure Database* (OECD 2001). The OECD defines active labor market policies as including spending on public employment services and administration, labor market training, programs for youth when in transition from school to work, programs to provide or promote employment for unemployed and other persons (excluding young and disabled persons), and programs for the disabled.
8. While the number of dependents should also be associated with more worry about job loss, the survey data do not allow us to test this proposition. Including the 'employed spouse/partner' variable means that we lose the Netherlands because of missing data.
9. Americans were less worried about losing their jobs than Swedes in 1997 (average Swedish job-loss worry was 1.81). Labor market conditions provide the most obvious explanation for this. The counterfactual estimates presented in Table 4 were estimated while holding all other variables constant. These estimates are based on Model 3 for job and labor market insecurity (Tables 1 and 2) and Model 4 for overall employment insecurity (see Table 3).

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