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## **Cross-country Differences in Well-being Consequences of Unemployment in Europe**

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### **Abstract**

Unemployment is one of the most damaging personal experiences for someone participating in the labor market. In this paper we examine the factors that affect unemployed workers' well-being, distinguishing several dimensions such as satisfaction with activity, income and leisure time, using the data from ECHP. While in all EU countries unemployment incidence reduces substantially the satisfaction levels with main activity and finance, and increases substantially the satisfaction level with leisure time, there are large cross-country differences in the well-being consequences of unemployment. We show that these differences can be partially attributed to employment policies and regulations affecting the functioning of the labor market. In countries where the unemployment rate is lower, unemployment spells are shorter and unemployment protection (unemployment benefits and active labor market policies) is greater, the observed effects of unemployment on satisfaction are much smaller. A similar relationship is found with respect to job prospects expressed by unemployed workers. That is, well-being loss of unemployment is smaller in those countries where a greater proportion of unemployed workers express good job prospects during the next 12 months. In particular, Denmark and the Netherlands stand out for their reduced negative effect of unemployment on worker's well-being. We may conclude tentatively that the flexicurity model that underpins employment policies in these two countries is indeed effective at reducing the burden of unemployment on individual well-being.

Key words: Satisfaction, unemployment, labor market institutions, job prospect.

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## 1. Introduction

Among the working age population, one of the most damaging individual experiences is found to be unemployment. Many previous studies have confirmed devastating effects of unemployment on individual well-being. Economists emphasized income and consumption consequences (Browning and Crossley 1998; Bentolila and Ichino 2002), while others emphasized physical, mental and emotional damages of unemployment (for example, Argyle 1999; Darity and Goldsmith 1996; Clark and Oswald 1994 and 2002; Frey and Stutzer 2002).

Obviously, the extent that unemployment causes unhappiness depends on individual, family, social, and institutional circumstances. While unemployed workers usually suffer a reduction of income, its extent would vary depending on other income sources, savings, income-generating asset holdings, unemployment insurance and private transfers. Non-pecuniary damage such as loss of identity and self-esteem, stress and depression also depends on the individual, family and the social environment. On the other hand, unemployed workers gain time for non-market activities such as leisure, training, physical exercise and home-making activities (Ahn et al. 2005). Therefore, in evaluating the effect of unemployment on individual well-being, we should consider all these relevant factors.

Given restrictions on data availability, most studies on the effect of unemployment on subjective well-being have used overall life satisfaction or happiness as dependent variable. In this paper we examine the effects of unemployment on the satisfaction in three domains of life (work or main activity, financial situation, and leisure time) using the European Community Household Panel Survey (hereafter ECHP). These domains are without a doubt among the most important aspects that determine the quality of life and, ultimately, human well-being. We focus on three main questions: i) What individual and family factors affect the satisfaction levels of unemployed workers and in which domains of life? ii) How large are the differences across country in the effects of unemployment on individual well-being? iii) To what extent public policies cause these differences? We find significant cross-country differences in the well-being consequences of unemployment and show that, at least partially, they can be attributed to social policies regarding employment and unemployment protection.

The paper is structured in five more sections. We briefly review related literature on the potential effects of unemployment on individual well-being. Section 3 presents the data and shows that “subjective” cardinal indicators of satisfaction, as those reported in EHCP, can be meaningfully compared across countries. Section 4 discusses the estimation of the cross-country differences in the impact of unemployment on satisfaction, both with cross-section and panel data. Section 5 argues that there is some connection between these estimates and the typical indicators measuring labor regulations that have been used in studies about cross country differences in medium term unemployment. Finally, Section 6 contains some concluding remarks.

## **2. Sources of utility costs of unemployment**

The most obvious consequences of unemployment are a loss in earnings and a rise in non-market time, such as leisure time. Consequently, unemployment ought to lower the satisfaction level with respect to income and to raise that with respect to leisure time. The consequences of the loss of earnings would be mostly observed in the declared satisfaction level regarding the financial situation, and will depend upon the existence of alternative income source, such as income-yielding assets, savings and unemployment benefits. As for the rise in leisure time, it would conceivably lead to an increase in the declared level of satisfaction with regards to the amount of leisure time.

On top of these obvious effects, there could be other channels through which unemployment may have an impact on satisfaction levels. First, unemployment is expected to have a negative psychological effect, due to the loss of identity and self-esteem. Akerlof and Kranton (2000) argue that postulating utility functions that depend on “identity” or “self-image” can account for many phenomena that standard economics cannot explain. Furthermore, they stress that “because identity is fundamental to behavior, choice of identity may be the most important ‘economic’ decision people make... Limits to this choice may also be the most important determinant of an individual’s economic well-being”. Insofar as unemployment changes “own identity”, it would have a negative impact on satisfaction, besides the negative consequences derived from the loss of monetary resources. This negative “identity” impact is likely to

be related to the social context which may determine the “stigma” effects upon the unemployed, and, hence, may yield differences across countries in this regard.

Secondly, there could be negative psychological effects of unemployment caused by the increased stress and anxiety from family and social pressure, and from the higher uncertainty with respect to future labor market status. Those who have a working spouse are likely to feel less pressured, therefore enjoy greater satisfaction in main activity, income and leisure. Family and social relation also alleviate the stress and anxiety of job loss (Berkman and Glass 2000). Hence, individual and family characteristics are likely to be related to the impact of unemployment on individual well-being. Recently, however, some studies have challenged the conventional findings. For instance, using an extensive Danish longitudinal data, Browning et al. (2003) find no significant effects of unemployment (job displacement) on stress-related health outcomes. This finding is important in the literature because they use a large representative Danish sample with detailed longitudinal information on individuals’ socio-demographic and economic situations. However, there is a possibility that the Danish results are not applicable for other countries.

Finally, the duration unemployed is one important variable which affects the satisfaction level among the unemployed. The theory of adaptation and habituation, proposed mostly by psychologists, suggests a recuperation of satisfaction over unemployment spells as one adapts to the situation (Diener and Lucas 1999). Easterlin (2003) distinguishes some life events such as income changes in which adaptation operates and others such as marriage, divorce and health where there is little or no adaptation. Lack of adaptation or habituation is also found with respect to unemployment in some studies using panel data (Winkelmann and Winkelmann 1998; Clark and Oswald 2002; Clark et al. 2003). Most likely the degree of adaptation would depend on the social context, on unemployment protection policies, and on employment policies targeted to get unemployed back to work.

Thus, besides individual and family characteristics, labor market institutions, such as unemployment benefit system and other determinants of job finding probabilities, and the “social context” are conceivably important factors behind the consequences of unemployment for individual well-being. Therefore, it is not surprising that there could

be significant cross-country differences in this regard. Cross-country differences in well-being are discussed mostly among sociologists, anthropologists and psychologists (see Diener and Suh, 2000), but there is no study to our knowledge which explore cross-country differences in the consequences of unemployment on individual well-being.

### 3. Data

The data used in this study come from the European Community Household Panel, which was conducted annually from 1994 until 2001 across many western European countries. It started with 12 then member countries and was joined by Austria in 1995 and by Finland in 1996. Sampling and survey questions are carefully prepared to insure maximum comparability across countries.<sup>1</sup> A further advantage of the ECHP is that surveyed countries share more or less similar culture and development levels as well as geographical proximity.

At the outset, it is important that one understands well the survey questions we analyze. The respondents in the ECHP were asked “How satisfied are you with your present situation in (1) your work or main activity, (2) your financial situation, and (3) the amount of leisure time you have?” with 6 possible response categories ranging from ‘very dissatisfied’ (=1) to ‘fully satisfied’ (=6). There is no question regarding “overall satisfaction, nor weights that could be applied to each of the dimensions above to construct a “global index” of satisfaction.

These questions are based entirely on individuals’ own perception. They are not concrete in terms of comparison groups or in the description of each category of satisfaction level<sup>2</sup>, and, therefore, they leave large rooms for interpretation by interviewees. Second, the possible responses are ordered qualitatively.<sup>3</sup> Hence, the comparison of the responses between groups of people would be meaningful if

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<sup>1</sup> See Peracchi (2002) for a general description of the survey and some discussion on the problems of attrition, non-response and weighting procedures in the survey.

<sup>2</sup> For the satisfaction questions, the categories (2, 3, 4 and 5) between the worst (‘very dissatisfied’=1) and the best (‘fully satisfied’=6) have no words attached to them. It is also interesting to note that there is no single category exactly in the middle as there are 6 categories in total. People who consider their satisfaction level about the middle (there are usually many of them) have to choose between 3 and 4.

<sup>3</sup> To the extent that respondents consider the response numbers (1 to 6) as cardinal measure of their happiness (for example, the response 4 means twice happier than the response 2) the reported values may be used as a cardinal measure of satisfaction.

individuals use the same thresholds when answering the satisfaction questions. Although this is an important question, we refer to other papers (see, for example Ng, 1997) which provide some evidence supporting interpersonal comparability.

#### **4. Estimating the impact of unemployment on individual well-being**

People choose or do things in order to be happier. Those who value money relatively more tend to do things to be richer than those who do not. Those who enjoy working are more likely to be employed than those who do not. Therefore, there could be some unobserved variables that affect simultaneously well-being and employment status. When explaining individual well-being, only those characteristics that cannot be chosen by individuals, such as age and, to some extent, gender, or those which are predetermined, such as educational levels, could be considered as exogenous.

Our main focus is on the impact of unemployment. To the extent that unemployment cannot be safely regarded as “exogenous”, its estimated coefficient by a standard regression is likely to be biased. A typical remedy is to use instrumental variables, but given the limitations of the EHCP survey, we have no variables satisfying the criteria to be a valid instrument. Thus, we provide the results from standard regressions, but also from fixed-effect models using longitudinal data, which alleviates the problem of endogeneity of the unemployment variable.

##### *Cross-section estimates*

First, we examine the association between employment status on one hand and satisfaction on the other hand using pooled cross-section samples of all waves (1994-2001) of the ECHP. We restricted the employed to the paid employees with more than 15 hours of work per week. Employment status is based on the respondent’s self-reported information. Furthermore, in order not to confound possible correlated effect of schooling and early retirement, we restricted the sample to those in ages from 25 to 54.

(Table 1 around here)

As seen in Table 1, the largest difference between the employed and the unemployed is observed regarding the satisfaction with main activity. Paid-employees enjoy 1.76 points higher satisfaction levels than the unemployed, which is a large magnitude considering that satisfaction is measured in a scale ranging from 1 to 6. A similar quantitative difference is observed with regard to the satisfaction with financial situation (3.81 for employees vs. 2.42 for the unemployed). For leisure time satisfaction, the unemployed declare substantially higher satisfaction than the employees.

Although the sign of the difference by employment status is the same across country, its magnitude varies substantially. With respect to the satisfaction with main activity, the employee-unemployed difference is much smaller in Denmark and the Netherlands than in other countries mainly due to high satisfaction level declared by the unemployed in these two countries. With respect to the satisfaction with financial situation, Denmark and the Netherlands again stand out for their relatively small difference between employees and the unemployed. However, the cross-country differences are much smaller than in the case of the satisfaction with main activity. With respect to the satisfaction with the amount of leisure time, the unemployed declare about 0.5 point higher satisfaction level in most countries except for Ireland where there is almost no difference.

#### *Panel data estimates*

As discussed above, cross-sectional differences in satisfaction levels confound the effects of unobserved heterogeneity. The magnitude of the bias in the estimated coefficient of unemployment will depend on the extent that the included variables are correlated with uncontrolled variables which affect satisfaction. By examining the satisfaction levels of the same individuals before and after unemployment and along the unemployment spell, we control unobserved time-invariant individual heterogeneity.

Most previous studies which use longitudinal data have found substantial and lasting negative effects of unemployment on individual well-being: Clark and Oswald (2002) on psychological health in the UK, Clark et al. (2003) and Winkelmann and Winkelmann (1998) on life satisfaction in Germany, and Clark (2002) on life satisfaction in Europe.

First, we report the results of a simple bivariate analysis where we contrast the changes in satisfaction level to the changes in employment status. Over two consecutive years we compare four possible employment statuses, both years employed, transition from employment to unemployment, transition from unemployment to employment and unemployed both years<sup>4</sup>. While the transition from employment to unemployment will provide us the effect of unemployment incidence, unemployment in both years will provide us the effect of lengthening (by approximately one year) unemployment duration.

(Table 2 around here)

The results shown in Table 2 confirm the results of cross-sectional analysis. Incidence of unemployment reduces substantially the satisfaction with main activity and finance while they increase substantially the satisfaction level with leisure time. Reemployment, on the other hand, increases (decreases) the satisfaction levels with main activity and finance (leisure time) by a similar magnitude.

Although the general pattern is similar across country, there are large differences between countries in the magnitude of effect. As in the cross-section analysis, the negative (or positive) effects of unemployment incidence (or reemployment) on the satisfaction with main activity are much smaller in Denmark and the Netherlands than in other countries. With respect to the satisfaction with leisure time, the effect of unemployment or reemployment is much smaller in Ireland and Portugal than in other countries. On the other hand, the increase in unemployment duration by one year does not affect much satisfaction level. This suggests that the effects of unemployment are persistent over the unemployment spells.

In Table 3, we present the effect of unemployment and other covariates on the satisfaction levels in the three domains using fixed-effect OLS regressions<sup>5</sup>. Those

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<sup>4</sup> The employment status in each year refers to the moment of survey. Therefore, we do not know any other transitions occurred during the period.

<sup>5</sup> One important disadvantage of OLS is its assumption of cardinality of the dependent variable. However, ordered probit results were similar to those of OLS. Furthermore, the control of fixed effects is more complicated in ordered probit models. A recent study by Ferrer-i-Carbonell y Frijters (2004) provides



variables which do not vary over time or vary only for very few people during the sample period are excluded, among which are gender, marital status and education level. The covariates included in the regressions are employment status, the interaction between unemployment and country, health status, social interaction variables, household income and local (NUT 1 level) unemployment rate.

(Table 3 around here)

First, the effect of unemployment is large and significant in all countries. Given that the effect of unemployment is measured by two variables, one general and the other country specific (with Germany as the reference), the effect of unemployment in each country is the sum of the two coefficients<sup>6</sup>. The magnitude of the effect in each country is in general similar to the one found in the earlier bivariate analysis. The effect in Denmark and the Netherlands in the satisfaction with main activity is less than the half that found in other countries. The effect on the satisfaction with finance is also substantially smaller in these two countries. With respect to the satisfaction with the amount of leisure time, substantially smaller effects are observed in Ireland, the Netherlands, Portugal and the UK.

Before we examine further the cross-country differences in the effects of unemployment on workers' well-being, it is worthwhile to discuss the results of other covariates. Although they are not the variables of our main interest, they are interesting in themselves and useful to evaluate the reliability of the data. If the results are not in line with previous studies, we should suspect the quality of our data.

First, *non-participants* are much better-off than the unemployed in the satisfaction with main activity and finance while they are worse-off in terms of the amount of leisure time. In general, non-participants appear to be situated much closer to the employed than to the unemployed in terms of the examined well-being indices.

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evidence for the similarity between the two models and the importance of the control of fixed effect. For interpretation and methodological convenience we report OLS results.

<sup>6</sup> The effect of unemployment obtained from a separate regression for each country was very similar to the ones reported in Table 3. The results of country-specific regressions are available from the authors.

Second, *health* stands out as an extremely important determinant in all three well-being indices, consistent with the results found in numerous previous studies. An improvement in health status by one level (in a scale of 1 to 5) increases the satisfaction level with main activity by 0.2 points (in a scale of 1 to 6), that with financial situation by 0.10 to 0.15 points, and that with leisure time by 0.10 points. This result manifests clearly that health is an important base for the enjoyment in many aspects of life.

*Social interactions* are also important. Those who have more frequent contacts with friends and relatives report higher satisfaction levels in all three domains. As expected, the effect of social interaction is particularly strong in the satisfaction with leisure. Belonging to a sport or social club also improves slightly the satisfaction levels in main activity and leisure. This result confirms the results in previous studies.

As expected, *household income* affects most strongly the satisfaction level with financial situation: doubling of household income raises it by almost a half points. It also affects positively the satisfaction level with main activity. However, no effect is shown in the satisfaction with leisure time.

*Local unemployment rate* has substantial negative effects on the satisfaction with financial situation but no or small effect on other domains. That is, those who are living in a region or time of high unemployment are less satisfied with their financial situation than those in other regions. This seems to suggest that there operates the effect of expectation owing to their perception of worse prospects in their income in the future.

Finally, we performed the Hausman test to contrast the random-effect models to the fixed-effect models. The random effect models are rejected resoundingly in all three domains of satisfaction.

## **5. Labor market institutions, unemployment, and individual well-being**

In our regressions, despite controlling for variables related to the hardship of unemployment, such as household income, health status, social contacts, and other unobserved individual fixed effects, there are significant cross-country differences regarding the impact of unemployment on individual satisfaction. Conceivably, by the

reasons discussed in Section 2, these differences reflect individual perceptions based on the aggregate state of the labor market and, in particular, on the labor market institutions designed to protect the unemployed<sup>7</sup>.

There is a wide literature on the effects of labor market institutions on unemployment. From this literature, there are available some indicators of several elements of labor market institutions that are typically used to characterize the “generosity” and “strictness” of cross-country labor legislation. In what follows we relate several indicators of labor market institutions with the country fixed effects of unemployment that we have found in the regression on the satisfaction with main activity (Table 3). The indicators of labor market institutions are taken from Nickell et al. (2001), which are the 1995-1999 averages of long-term (more than one year) unemployment rate, replacement rate and duration of unemployment benefits, and the expenditure on active labor market policies as % of GDP. We have also looked at the job prospects (expectation on the probability of finding a job) during the next 12 months expressed by unemployed workers in the ECHP. We contrast the country fixed effects of unemployment to the proportion of unemployed workers in each country who reported good job prospects (other response categories are regular, bad and very bad).

As seen in Figure 1, there is some correlation between the effect of unemployment on satisfaction and the aggregate nature of the labor market. First, in countries where long-term unemployment rate is higher, the satisfaction penalty of unemployment is greater. Also, in countries where unemployment benefits are less generous, as indicated by replacement rates and duration, the satisfaction penalty of unemployment is higher. Similarly, there is a negative correlation across countries between expenditure on active labor market policies and the satisfaction penalty of unemployment. Hence, there seems to be an indication that cross-country differences in the satisfaction of the unemployed are related to the labor market functioning and institutions, in particular those regarding the unemployment protection system. A similar relationship is found with job prospects. That is, well-being loss of unemployment is smaller in countries where a greater

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<sup>7</sup> However, it is also likely that these institutions are designed to be more generous in those countries where the costs of unemployment are perceived to be larger. In this case, the causation will run the other way around.

proportion of unemployed workers expressed good job prospects during the next 12 months.

(Figure 1 around here)

It is worthwhile to examine the case of Denmark and the Netherlands in a greater detail. These two countries stand out as the ones with the lowest impact of unemployment on individual well-being. It is conceivable that it is not a particular labor market institution but the combination of employment policies what determines the well-being consequences of unemployment. Denmark, and to a lesser extent, the Netherlands are well-known for their particular approach at employment policies, known as “flexisecurity” that basically follows the *motto* “protect workers, not jobs” and that combines high unemployment benefits with low job protection and high participation rate.<sup>8</sup> It seems that these labor market policies help the workers in these two countries maintain their satisfaction levels even when they become unemployed.

## 6. Conclusions

Many previous studies have confirmed devastating effects of unemployment on individual well-being. Using the data from the European Community Household Panel survey we have examined the effect of unemployment on workers’ well-being (satisfaction) with respect to their situations in activity, income, and leisure time in Europe.

Unemployment incidence reduces substantially the satisfaction levels with main activity and finance, while it increases substantially the satisfaction level with leisure time. Unemployment duration, on the other hand, shows a small negative or no effect on individual well-being, suggesting that unemployment has lasting negative effects contradicting the theory of adaptation.

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<sup>8</sup> This model seems to be currently regarded as the panacea to solve European unemployment problems and the European Commission advised European countries to adopt the main features of the flexicurity model in order to increase labour market efficiency. Another issue is to what extent other countries can adopt it (see Algan and Cahuc, 2005).

Most interestingly, there are large cross-country differences in the well-being consequences of unemployment. Much smaller effects of unemployment are observed in Denmark and the Netherlands than in other countries. This difference seems to be due to the differences in functioning and regulations in the labor market. In Denmark and the Netherlands, unemployment rate is lower, whose spells are shorter, unemployment protection (unemployment benefits and active labor market policies) is greater, and job prospects perceived by unemployed workers in these two countries are better. We may conclude tentatively that the flexicurity model that underpins employment policies in these countries is indeed effective at reducing the burden of unemployment on individual well-being.

It is also worthwhile to mention the results of other covariates, which are in most cases consistent with the results found in previous studies. First, health is extremely important in determining the satisfaction levels in most aspects of life. Social interaction also helps to improve satisfaction levels in main activity and leisure time. Finally, those living in a region or time of higher unemployment seem to suffer more owing to worse future prospects.

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**Table 1: Average Satisfaction Levels among the Employees and the Unemployed**  
**Data: Pooled Cross-section of ECHP (1994-2001)**

Country	Main activity			Finance			Leisure time			UR
	Emp.	Un.	Diff.	Emp.	Un.	Diff.	Emp.	Un.	Diff.	
Total	4,38	2,63	1,76	3,81	2,42	1,39	3,86	4,36	-0,49	9,26
Austria	4,93	3,00	1,93	4,29	2,70	1,59	4,47	4,96	-0,49	4,06
Belgium	4,49	3,03	1,46	4,16	2,94	1,22	3,88	4,62	-0,74	8,71
Denmark	4,93	4,10	0,83	4,54	3,50	1,04	4,31	5,00	-0,68	5,54
Finland	4,54	3,03	1,51	4,03	2,64	1,40	4,12	4,95	-0,83	12,48
France	4,41	2,57	1,84	3,70	2,38	1,32	3,97	4,44	-0,47	10,84
Germany	4,37	2,11	2,26	3,86	2,21	1,65	3,89	4,59	-0,70	8,30
Greece	3,99	2,09	1,90	3,34	2,09	1,26	3,39	4,34	-0,95	10,20
Ireland	4,57	2,71	1,86	3,84	2,00	1,84	4,22	4,26	-0,04	8,69
Italy	4,03	1,92	2,11	3,45	1,88	1,57	3,55	4,13	-0,58	11,05
Luxembourg	4,75	2,18	2,56	4,23	2,04	2,19	4,32	4,99	-0,67	3,00
Netherlands	4,73	4,04	0,69	4,59	3,69	0,90	4,06	4,46	-0,40	4,59
Portugal	4,00	1,85	2,14	3,11	1,96	1,15	3,57	3,90	-0,33	5,76
Spain	4,23	2,38	1,85	3,44	2,08	1,35	3,40	4,11	-0,71	15,45
UK	4,33	2,51	1,82	3,77	1,96	1,80	3,80	4,33	-0,53	8,60

Note: The sample period is 1994-96 for Germany, Luxembourg and the UK, 1995-2001 for Austria and 1996-2001 for Finland. UR is the average unemployment rate during the sample period.



**Table 2: Changes in Satisfaction by Employment Status Change Between Any Two Consecutive Years: ECHP 1994-2001**

	Main Activity				Finance			
	E→E	E→U	U→E	U→U	E→E	E→U	U→E	U→U
Total	-0,025	-1,150	1,418	0,047	0,019	-0,605	0,856	0,024
Austria	-0,015	-1,363	1,811	0,047	0,004	-0,874	1,010	0,027
Belgium	-0,025	-0,979	1,820	0,129	0,000	-0,679	0,893	0,026
Denmark	-0,050	-0,390	0,646	-0,002	-0,011	-0,555	0,693	0,006
Finland	-0,043	-0,952	1,571	0,139	0,052	-0,580	1,017	0,071
France	-0,035	-1,198	1,785	0,182	0,010	-0,503	0,845	0,079
Germany	-0,071	-1,746	1,638	-0,308	-0,060	-0,734	0,865	-0,132
Greece	0,002	-1,119	1,155	-0,018	0,069	-0,619	0,734	0,001
Ireland	-0,023	-1,243	1,576	0,148	0,072	-0,728	1,108	0,062
Italy	-0,025	-1,209	1,391	0,025	0,012	-0,748	0,896	0,046
Netherlands	-0,019	-0,641	0,739	0,042	0,026	-0,492	0,675	0,017
Portugal	-0,003	-1,466	1,582	-0,012	0,017	-0,681	0,743	-0,043
Spain	-0,022	-1,195	1,550	-0,028	0,034	-0,472	0,912	-0,016
UK	-0,054	-1,598	1,141	0,103	0,031	-0,828	0,991	0,082
	Leisure time				Number of Observations			
	E→E	E→U	U→E	U→U	E→E	E→U	U→E	U→U
Total	-0,013	0,624	-0,616	-0,021	208,440	6,181	6,922	16,166
Austria	-0,019	0,810	-0,607	0,047	11,818	294	201	365
Belgium	-0,004	0,710	-0,724	-0,058	13,896	271	254	1,384
Denmark	-0,020	0,685	-0,571	-0,054	13,494	379	443	523
Finland	-0,027	0,662	-0,595	-0,003	11,847	398	510	977
France	0,014	0,503	-0,551	-0,044	28,506	804	779	2,154
Germany	-0,077	0,655	-0,848	-0,114	7,056	232	179	332
Greece	-0,034	0,713	-0,904	-0,097	12,692	521	640	1,164
Ireland	0,001	0,209	-0,337	0,122	10,621	224	295	886
Italy	-0,030	0,681	-0,684	-0,011	27,022	625	859	2,881
Netherlands	-0,016	0,618	-0,335	0,011	23,092	383	534	1,720
Portugal	-0,008	0,208	-0,187	0,001	21,088	597	562	958
Spain	0,017	0,819	-0,766	-0,031	20,588	1,323	1,510	2,595
UK	-0,037	0,344	-0,661	0,130	5,239	109	137	207

**Table 3: Results from Fixed-Effect OLS Regressions**  
**Data: ECHP 1994-2001**

	Satisfaction with Main Activity		Satisfaction with Financial Situation		Satisfaction with Leisure Time	
	Coeff.	T	Coeff.	T	Coeff.	T
Unemployed (re: employed)	<b>-1,68</b>	-28,22	<b>-0,80</b>	-14,52	<b>0,73</b>	11,45
Unemployed * (re: Germany)						
Austria	<b>0,35</b>	4,53	<b>0,11</b>	1,54	<b>-0,09</b>	-1,03
Belgium	<b>0,43</b>	5,97	<b>0,14</b>	2,07	<b>-0,08</b>	-1,00
Denmark	<b>1,00</b>	14,57	<b>0,33</b>	5,12	<b>-0,07</b>	-0,98
Finland	<b>0,31</b>	4,51	<b>0,08</b>	1,26	<b>-0,04</b>	-0,50
France	<b>0,25</b>	3,91	<b>0,15</b>	2,60	<b>-0,14</b>	-2,10
Greece	<b>0,62</b>	9,58	<b>0,17</b>	2,79	<b>0,12</b>	1,73
Ireland	<b>0,39</b>	5,29	<b>-0,01</b>	-0,09	<b>-0,46</b>	-5,77
Italy	<b>0,44</b>	7,02	<b>0,06</b>	0,97	<b>-0,12</b>	-1,79
Netherlands	<b>1,21</b>	19,00	<b>0,36</b>	6,16	<b>-0,40</b>	-5,91
Portugal	<b>0,26</b>	3,94	<b>0,18</b>	2,96	<b>-0,45</b>	-6,37
Spain	<b>0,43</b>	6,87	<b>0,16</b>	2,80	<b>-0,01</b>	-0,16
UK	<b>0,50</b>	5,26	<b>0,10</b>	1,22	<b>-0,35</b>	-3,57
Non-participant	<b>-0,15</b>	-20,48	<b>-0,22</b>	-32,91	<b>0,16</b>	20,54
Health status (re: very bad)						
Very good	<b>0,79</b>	37,08	<b>0,51</b>	25,78	<b>0,39</b>	17,20
Good	<b>0,65</b>	31,18	<b>0,42</b>	21,80	<b>0,26</b>	11,57
Fair	<b>0,53</b>	25,44	<b>0,30</b>	15,93	<b>0,14</b>	6,45
Bad	<b>0,28</b>	13,44	<b>0,16</b>	8,15	<b>0,13</b>	5,88
Social club	<b>0,02</b>	3,72	<b>0,00</b>	-0,72	<b>0,03</b>	6,31
Contact with friends	<b>0,02</b>	3,80	<b>0,02</b>	4,66	<b>0,07</b>	13,07
Contact with relatives	<b>0,05</b>	9,04	<b>0,05</b>	9,70	<b>0,10</b>	18,38
Log Household income	<b>0,17</b>	32,43	<b>0,45</b>	91,14	<b>0,00</b>	0,28
Log Unemployment rate	<b>0,01</b>	1,74	<b>-0,25</b>	-32,68	<b>-0,05</b>	-5,64
Sigma u	<b>0,98</b>		<b>0,98</b>		<b>1,09</b>	
Sigma e	<b>0,94</b>		<b>0,87</b>		<b>1,01</b>	
Rho	<b>0,52</b>		<b>0,55</b>		<b>0,53</b>	
Hausman Chi-sq. (fixed vs random effect)	<b>7173.37</b>		<b>7483.06</b>		<b>3129.38</b>	
N	<b>444310</b>		<b>444310</b>		<b>444310</b>	

Figure 1: Labor Market Institutions, Job Prospects and Unemployment Effect

