THE EXPERIENCE OF THE UNEMPLOYED IN EUROPE: THE ROLE OF STATE AND FAMILY

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Are public and private support mechanisms substitutes with respect to unemployment? From the indicators of State and family support presented here, State and family are substitutes in the majority of European countries. State support is higher when family support is weaker, and lower when family support is stronger. In spite of this, the overall degree of support for the unemployed varies widely across Europe, due to differences in the generosity of unemployment benefits. Unemployment benefits are most generous in Denmark, while family support, which is more important in Southern Europe, only partially compensates for lower unemployment benefits. With the exception of Portugal, the unemployed are less well-treated in Southern Europe. Family support is most important in France and Portugal; in all countries family support improves the situation of certain groups of the unemployed, such as women in couples and young adults who still live at home.

1. INTRODUCTION

Despite the global goals announced in the European Employment Strategy, there remains a great deal of variation across European countries in terms of both employment policy and labour market outcomes. The diversity in unemployment rates across European countries is accompanied by sharp differences in systems of support for the unemployed.

The well-known typology of systems of social protection proposed by Esping-Andersen (1990) distinguished three types of models in Europe: the Nordic model with universal benefit coverage at high levels; a free-market model with less generous benefits; and a Continental model in the Bismarkian tradition of social insurance, whereby coverage is linked to employment and contributions based on salary. This typology reveals a first broad division regarding the generosity of social insurance, opposing the Nordic and free-market models, but does not completely describe the range of systems observed in EU countries. In particular, there are large differences in coverage rates and benefit generosity amongst countries where the Continental model applies. It has further been suggested that the low level of State support in Southern Europe is partially compensated for by an informal safety net provided by the family (Leibfried, 1992, Ferrera, 1996, Rhodes, 1996 and Gough 1996). The presence of family support led Esping-Andersen (1999) to suggest the possibility of a fourth model of social protection, a "Mediterranean" model in which the family tends to compensate for the lack of State support. In general, Esping-Andersen emphasises that social protection systems should be analysed taking into account the dimensions of State, market and family support.
A number of recent papers have underscored the importance of the family. Unemployment of the household head has a smaller impact on consumption in Southern Europe than in Northern Europe (Bentolila and Ichino, 2000). In addition, differences in the generosity of unemployment benefit systems do not necessarily lead to large differences in living standards of households in which some members are unemployed (Ekert-Jaffe and Terraz, 2000). Last, Algan *et al.* (2004) show that intra-family transfers are important in explaining the level of support of the unemployed. These results lead naturally to a number of questions. How can family support be quantified? Does the substitution of family for State in Southern Europe hold in other European countries? In this paper we analyse the relationship between public and private support for the unemployed, and evaluate how these two elements are combined in a number of European countries.

Our analysis is carried out in four stages. In order to develop measures of State and family support for the unemployed, we first build indicators of potential earnings of the unemployed. The next two sections then construct indicators of the degree of family and State support of the unemployed. The last section examines substitution between family and State support of the unemployed, and the standard of living of the unemployed in Europe.

2. THE POTENTIAL EARNINGS OF THE UNEMPLOYED

Why estimate the potential wage of the unemployed?

In order to evaluate the support provided by the State or the family to the unemployed, this support needs to be compared to some base level which represents complete compensation for unemployment. One such measure, which often appears in the literature, is the last salary received when in employment. While this is indeed often used in practice as a reference level to set the level of unemployment benefits, it is not above criticism. First, this salary is by definition unobserved for the young unemployed who are looking for their first

job. Second, it does not necessarily provide an accurate description of the salary that the unemployed can expect to earn in employment: unemployment can affect future wages, either through a loss of human capital or because unemployment is construed by employers as a negative signal regarding (unobserved) individual productivity. For these reasons, the unemployed's potential future salary needs to be estimated, taking into account their career profile over the years for which they are observed and the salary earned by those with similar characteristics.

We therefore estimated earnings equations by sex and by country (Ekert-Jaffé and Terraz, 2005). Our approach includes two relatively novel elements compared to a standard Mincerian earnings equation (estimated on education, labour market experience, working hours and industry, as in Mincer 1962): explicit controls for *unemployment* and *unobserved individual heterogeneity*.

Unemployment: We allow for two different effects of unemployment on earnings. First, and most standard, periods of unemployment represent a certain duration of "non-work experience" compared to those who continue to work, with its associated wage penalty. We also allow for an additional stigma effect of unemployment, dependent on the past duration of unemployment and the number of unemployment periods.[1]

Unobserved individual heterogeneity: the future low earnings of the unemployed could also reflect their unobserved characteristics. The unemployed could, on average, be less productive types than the employed, or with greater preference for leisure, or have weaker social relationships facilitating labour market insertion. These unobserved individual characteristics then explain both the labour market situation and the salary earned. Following recent work (Mougin and Ekert-Jaffé, 2001, and Breuil-Genier *et al*. 2004), we are able to distinguish the influence of these individual characteristics, so that we can estimate a pure effect of experience or non-employment on earnings.

Hypotheses and statistical framework

We use data from the European Community Household Panel (ECHP), covering the period 1994 to 2001. This general survey, which has the advantage of using an *ex ante* standardised questionnaire, includes a wide variety of economic and demographic information. The first wave took place in 1994, and covered the then twelve member countries of the European Union. As Austria and Finland are not present in all waves of the ECHP data, we exclude them from our analysis. We also exclude the Netherlands and Luxembourg, the first because of missing values for a number of critical variables, the other because of its small sample size (and especially the relatively few unemployed). Sweden did not take part in the ECHP. Our analysis therefore concerns ten European countries (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Portugal and the United Kingdom). We use both one-year lagged and one-year lead variables in our analysis, and our final regression sample includes 656 000 observations on salary between 1995 and 2000.

The unemployed in our sample are those who *self-report* being unemployed for at least one month during the panel. This spell may have lasted a shorter or longer amount of time. We prefer this self-reported measure to the ILO definition[2], as it takes into account discouraged workers, and allows us to depict the experience of a broad class of individuals who do not work. This measure will be biased, however, to the extent that individuals are more likely to say that they are unemployed when the system of social support is more generous. We consider here individuals under the age of 65 with complete calendar information on labour force status, and for whom we have estimated salary levels.
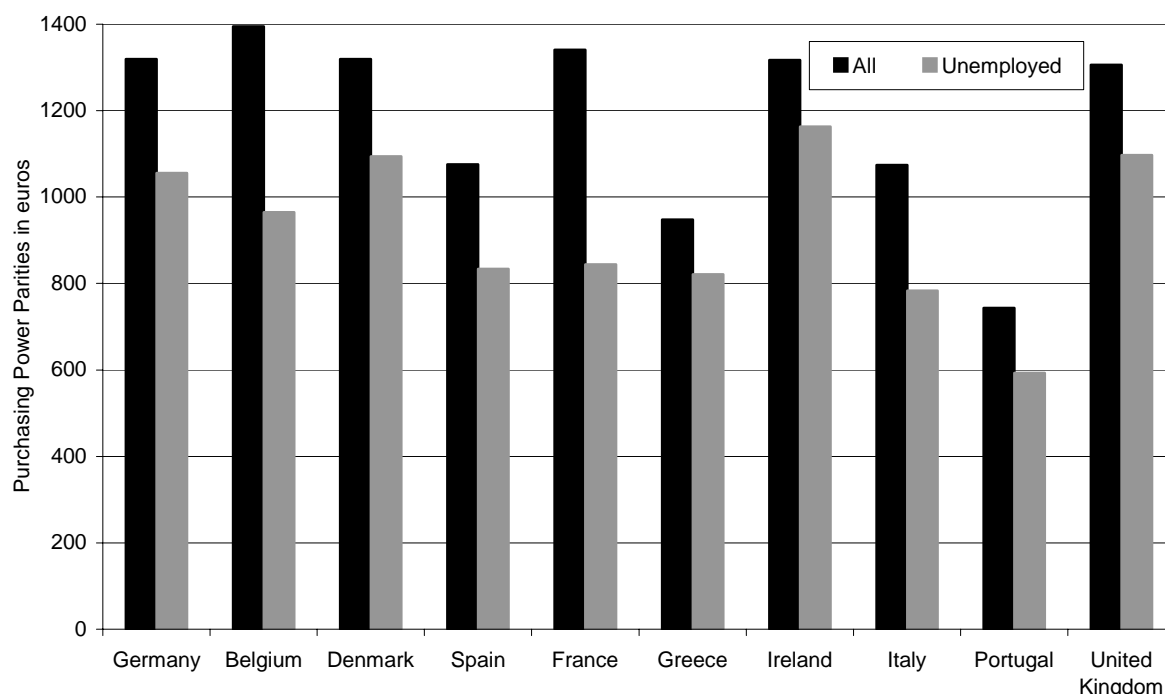
Estimated Salary Levels

We first estimate a participation equation depending on education, age, industry and family situation[3], and then a salary equation which allows us to impute salary levels for those who are not working. We take into account potential biases due to unobserved individual heterogeneity, the endogeneity of labour market experience and attrition using the method proposed by Wooldridge (1995) (see also Dustmann and Rochina-Barrachina, 2000). This estimation of salary levels, the details of which are provided in Ekert-Jaffe and Terraz (2005), allows us to identify the influence of unemployment as well as other traditional right-hand side variables.

The effect of a single period of unemployment, controlling for all other explanatory variables, can reduce the potential salary of the unemployed by up to 25 % (Ekert-Jaffe and Terraz 2005), depending on the individual's sex. We can discern four broad country groups according to the effect of six months of unemployment. In six countries, men and women are equal with respect to the salary effect of unemployment. In France, Ireland and the UK the wage effect is large, at over 10%. In Italy, Greece and Spain, the same effect is under 5% or even zero, but in this case the characteristics of the unemployed explain their low salaries. In Denmark, Germany and Portugal the wage effect is stronger for men, with an effect which is zero for women in Denmark. Belgium is the only country where the wages of women are more affected by a spell of unemployment (-15%) than are those of men.

For both women and men, the estimated salary of those who say they have been unemployed (Figure 1 and Table 1) depends not only on unemployment but also on other individual-level variables such as education, the duration of unemployment spells and individual heterogeneity.

FIGURE 1
ESTIMATED WAGES

Source: ECHP, *authors' calculation of estimated wages. For example, in Germany average estimated salaries are 1 319 Euros, while the average salary for those who have been unemployed is 1 056 Euros.*

TABLE 1
ESTIMATED WAGES

	Wave 2		Wave 3		Wave 4		Wave 5		Wave 6		Wave 7	
	Wage	Penalty	Wage	Penalty	Wage	Penalty	Wage	Penalty	Wage	Penalty	Wage	Penalty
EU-10	829	- 20.8	827	- 23.3	850	- 25.4	901	- 22.3	946	- 22.4	1011	- 20.9
Sample size	8189		7550		6508		5733		4816		4121	

The Wage column shows the potential earnings of the unemployed, expressed using purchasing power parities between countries. The penalty column (in %) shows the difference between these figures and those for the whole population. The last line shows the sample size. <u>Base</u>: Individuals who experienced an unemployment period of one month or more during the panel. <u>Source</u>: ECHP.

In Mediterranean countries, unemployment does not affect wages as such, but composition effects explain the low potential wages of the unemployed. To this extent, Italy, like Belgium and France, is a country where the potential wages of the unemployed are low relative to those of the whole population. On the contrary, unemployment duration only half as long as the European average and less recurrent unemployment explain the relatively high potential wages of the unemployed in the UK, whose situation is similar to that of the unemployed in Denmark. The wage penalty is lowest in Greece, Ireland and Portugal.

3. STATE SUPPORT OF THE UNEMPLOYED

An index of State support

The unemployment benefits provided by the State serve a number of different purposes.[4] In the sense of social insurance or assistance, as training support for the unemployed, they help to guarantee a certain standard of living for the unemployed, and avoid excessively large fluctuations in consumption (Browning and Crossley, 2001). Unemployment benefits are also designed to allow the unemployed to search for a suitable job (Acemoglu and Shimer, 1999). In the majority of cases, benefits are personal in that they reflect the individual's own situation.[5] However, the income loss attendant on unemployment may render the individual eligible for other benefits which are not directly linked to her unemployment, but come about rather as a result of the associated drop in income. The extent of these mechanisms differs between countries, but can form an important part of support to the unemployed. This is the case in the UK, where unemployment benefits are not generous, but are accompanied by housing benefits which guarantee a certain standard of living.[6] Housing benefits do depend however on both State and family in the sense that the level of benefit depends on the individual's family situation. As this benefit is disbursed by the State, we consider that both types of benefit come under the heading of State support.

To have an idea of the living standard of the unemployed, we need to standardise the benefits received. We have shown that it is not useful to compare State benefits to the previous earnings of the unemployed, when they exist, as these are not necessarily a good measure of the potential earnings of the unemployed on the labour market. We take explicitly into account the impact of unemployment on potential earnings by using estimated salary as a reference level. As such, State support will be calculated as the total amount of benefits divided by estimated labour market earnings.

For every panel respondent with a period of unemployment, we calculate an individual index of State Support (be_i) which can be written as the sum of an index reflecting unemployment benefits (bec_i) and another showing other State benefits (bea_i).

$$bec_i = \sum_t \frac{d_{it}}{Di} \frac{c_{it}}{w_{it}} \quad \text{and} \quad bea_i = \sum_t \frac{d_{it}}{Di} \frac{a_{it}}{w_{it}}$$

In the ECHP we have information on annual income and the labour market situation of the respondent month by month; we use this information to obtain monthly data. The variable c_{it} shows the monthly amount of unemployment benefits received by individual i in year t, a_{it} is a measure of other monthly State support received by the unemployed[7], and w_{it} is monthly potential earnings. To calculate an index of State support in the panel, we weight the indicator for each wave by the duration of unemployment that the individual experienced that year. This weight is written as d_{it}/D_i, where d_{it} represents the duration of unemployment over the year, and D_i the total duration of unemployment over the panel. A low value of this index thus reveals either less generous benefits or a higher level of potential earnings.

The North-South Divide

On average in Europe, State Support accounts for under one third of the unemployed's potential earnings, with a great deal of heterogeneity between countries. The index goes from 5% in Italy and in Greece to 79% in Denmark (Table 2). Although this index value is generally lower in Southern countries than in Northern countries, there is notable heterogeneity in this group, from 5% to 26.5% in Portugal.

TABLE 2
STATE SUPPORT OF THE UNEMPLOYED

Country	Unemployment benefits	Other benefits	All
Belgium	43.4	12.9	56.3
Denmark	61.1	17.7	78.8
Germany	41.7	8.9	50.6
Greece	4.1	1.3	5.4
Spain	18.1	1.8	19.9
France	36.0	15.0	51.0
Ireland	36.5	8.5	45.0
Italy	4.0	1.3	5.3
Portugal	22.3	4.2	26.5
UK	7.0	20.0	27.1
EU – 10	22.7	7.0	29.7

Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. For example, in Belgium, unemployment benefits represent on average 43.4% of the unemployed's potential earnings, other sources of State support (such as housing benefit) count for 12.9% of potential earnings. The unemployed thus receive on average 56.3% of their potential earnings.

Denmark, the only Nordic country in our sample, is something of an exception. State support in Denmark is very generous, despite the high level of potential earnings of the unemployed. If we put this particularly generous country to one side, three groups of countries can be distinguished according the generosity of State support:
- The first group consists of Belgium (56 %), France and Germany (51 %) and Ireland (45 %).
- A second group with an index value between 20 % and 30 % consists of the United Kingdom and the "most generous" Southern countries, Spain and Portugal.
- Last, a third group consists of countries where State compensation only accounts for a small percentage of potential earnings: Italy and Greece (5%).

These levels of State support can be traced back to the characteristics of the unemployment benefit systems (Table 3). The generosity of the Danish system reflects both wide coverage and a high level of benefits.

The situation in other countries differs widely. The unemployed in Belgium are very likely to be covered: 90% receive benefits, the level of which is close to the European average. This combination produces high levels of State support. In the first group, the percentage of unemployed covered is the lowest in France (59%), and close to 80% in Germany and Ireland, for similar levels of unemployment benefit generosity. State support in France is high due to the other benefits received by the unemployed. The potential earnings of the unemployed are higher in Germany and Ireland than in France, which also increases the index of State support in the latter.

TABLE 3
UNEMPLOYMENT BENEFITS

Country	Percentage of Unemployed Eligible (%)	Average Benefits (Benefit Recipients)
Belgium	89.9	486
Denmark	92.8	735
Germany	78.9	573
Greece	22.7	201
Spain	37.4	452
France	58.6	508
Ireland	80.9	521
Italy	9.1	378
Portugal	33.5	420
UK	32.2	272
EU – 10	43.4	490

Average benefits are calculated using PPPs. For example, in Belgium 89.9% of the unemployed receive benefits, which are on average worth 486 Euros per month. Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP

Southern European countries are in the second and third groups. Here the potential earnings of the unemployed on the labour market are in general low, and the index of State support reflects relatively ungenerous benefit levels. Spain and Portugal cover one third of the unemployed with benefits slightly below the European average. The index value in Portugal is augmented by the unemployed's low potential earnings while the index value in the UK is similar to that of other countries in these groups due to the other benefits received by the unemployed. The low index values in Italy and Greece have different causes: low benefits in Greece, but low coverage in Italy.

State support of the unemployed thus differs widely from country to country. While the index reflects both the generosity of State support and the unemployed's potential earnings, inter-country differences mostly seem to reflect the degree of social protection, as measured by the generosity of State support. Potential earnings seem to be only a secondary factor, especially in France and Portugal.

State support and the household position of the unemployed

The unemployment of someone living alone does not have the same consequences as that of the head of a household, or that of a young person still living at home. To investigate these differences, we consider the index of support by position in the household.Taking our

European sample as a whole, we consider six separate categories of unemployment by household position.[8]

TABLE 4
STATE SUPPORT AND HOUSEHOLD POSITION

| Weight (%)	State Support (%)	*Household position*	Benefit Coverage (%)	Average Benefit
6.4	47.7	*Living alone*	65.1	342
2.9	66.2	*Single-parent family*	50.9	279
24.6	41.1	*Household head*	59.7	345
23.6	37.1	*Spouse*	54.7	241
39.8	13.6	*Adult children*	21.7	84
2.7	16.6	*Other*	27.8	107
100	29.7	*Total*	43.4	213

Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. For example, over all countries 6.4% of the unemployed live alone. Their level of State support, expressed as a percentage of their potential earnings, is 47.7%. Of these unemployed, 65.1% receive State benefits, which represent on average 342 Euros (corrected for PPP) per month. .

Across Europe, over a third of the unemployed are adult children living in a family. This is the household type the least supported by the State, with a figure of only 13.6 % of potential salary (Table 4). At the other extreme, we find those living on their own and single-parent families. The former receive almost half of their potential earnings while the latter receive only moderately generous unemployment benefits but are eligible for other kinds of State support, summing to two-thirds of their potential salary (which salary is the lowest of the different household types). This potential salary effect also explains the small difference in the index value for household heads and their spouses. For example, the coverage for the reference person in a couple is close to that of their partner, although the latter have a lower average benefit level. As the potential earnings of the latter are also lower, the average indicator of State support is relatively higher.

Young adults living at home

On average, young adults living at home receive only low levels of State support. The percentage of unemployed living with their parents varies considerably from country to country. The figure is 46% in Spain, 47% in Greece, and 61% in Italy, but only 10% in Denmark and 18% in Germany (see Figure 2). The high rates of youth unemployment in Southern Europe partly explain this phenomenon, but country differences in the age at which children leave home are also important. Young people in employment are also more likely to live with their parents in Southern Europe than in Northern Europe.

FIGURE 2
UNEMPLOYMENT AND FAMILY COMPOSITION IN THE EU
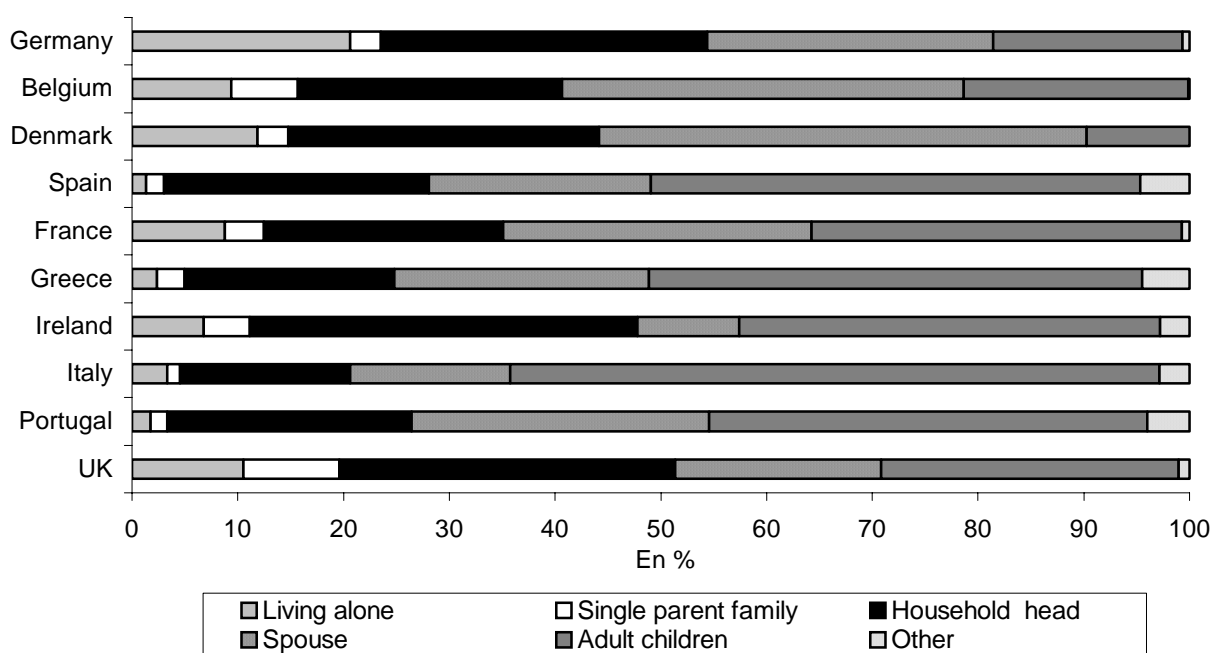
Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. For example, in Belgium 9% of the unemployed live alone.

This difference in the share of young adults living at home may help to explain the country values of State support. In general, in all EU countries (see Appendix 1), young adults living at home and the household head's spouse receive the lowest levels of State support, with single-parent families and household heads having the greatest support. The country average support figure will in part reflect the distribution of unemployment across household types. Table 5 shows how the country figures can be decomposed into benefit level and unemployment composition effects, by calculating average State support figures were the country to have the European distribution of unemployment by household type, or were the country to have the European level of State support for the unemployed.

TABLE 5
STATE SUPPORT: BENEFIT GENEROSITY OR HOUSEHOLD COMPOSITION?
%

Country	Country	Country Level – European structure	European Level – Country structure
Belgium	56.3	49.7	35.9
Denmark	78.8	66.6	37.7
Germany	50.6	46.1	36.9
Greece	5.4	5.5	27.0
Spain	19.9	21.3	27.0
France	51.0	48.2	32.2
Ireland	45.0	44.3	30.8
Italy	5.3	7.5	23.9
Portugal	26.5	29.2	27.4
UK	27.0	23.9	34.3
EU – 10	29.7	-	-

Base: Individuals having experienced an unemployment period of one month or more of unemployment during the panel. Source: ECHP. Country Level – European structure shows the index of State support with country levels of benefit but European average levels of unemployment by household type; European Level – Country structure shows the index of State support with European average levels of benefit but country levels of unemployment by household

type. For example, in Belgium the index of State support would be 49.7% were the distribution of unemployment by household type to be at the European average level with Belgian-level benefits, and 35.9% with the Belgian distribution of unemployment by household type but European-level benefits.

Country differences in the generosity of unemployment benefits explains the most part of the differences in State support. Nonetheless, the composition of unemployment by household type does play a role. The small percentage of young adults living at home in Belgium, Denmark and Germany pushes the average State support figures in these countries upwards, and explains a quarter of the difference from the European average figure. Household composition is also important in Spain and Portugal, where it pushes the average State support figures downwards, but plays only a marginal role in Italy, Ireland and Greece. In these countries especially, the state support figures essentially reflect the generosity of unemployment benefits. The UK is the only country where household structure tends to increase the State support figure, but benefit levels are below the European mean level.

State support thus mostly reflects benefit generosity, with only a secondary role for household composition and notably for the percentage of the unemployed who are still living at home. These latter only receive low levels of State support, but this does not necessarily translate into a sharp drop in living standards if the family is a partial substitute for the State.

4. FAMILY SUPPORT

An index of family support

Living in a family allows fixed costs to be shared, but also a certain amount of resource-sharing.[9] Family support is often suggested to be particularly important in Mediterranean countries (Bentolila and Ichino, 2000). The unemployed are taken care of by the family to the extent that they benefit from the resources available to other household members. Family support, as provided by those with whom the unemployed person lives, will be measured by the income of these other household members[10] It would be interesting to explicitly model the determination of the level of support via intra-household bargaining (Browning and Chiappori, 1998), but this would require information on individual levels of well-being, which are not available.

Transfers between households are another source of support for the unemployed. While these transfers are typically only small in Europe, they are larger when the recipient is unemployed. The average figure is only 0.4% to 2% of total income, but reaches 4% for the Italian unemployed and 3% for the Greek unemployed.[11] Above all, such transfers may be especially important for the unemployed in certain household types, such as those living alone or single parents of unemployed. These transfers account for 5% of the income of single-parent families in France, with analogous figures of 16% and 19% in Greece and Italy.

We would ideally like to add household domestic production to this financial support, but this is difficult to quantify (Chiappori, 1997; and Apps and Rees, 1997). Household production is likely to play a larger role in Southern Europe, where women are less likely to be active in the labour market, than in Northern Europe. However, this disparity in time available for domestic production may be compensated by the greater use of sophisticated household equipment in Northern Europe. Last, the role played by domestic production depends crucially on the position of the unemployed individual within the household. The unemployed may or may not contribute to domestic production with their non-work time (Maurin, 1989). A serious analysis of domestic production is beyond the scope of this article and would require information on time use which is not available in the ECHP.

To calculate the extent of family support we first sum up by year the income of all those who live in the same household as the unemployed individual ($\sum_{m \neq i} y_{mt}$). We then add transfers to the unemployed from other households (T_{it}) to give the total level of family support. We express the household income variables at the individual level by dividing by the number of equivalent adults (e_{it}).[12] Finally, as above, this income is normalised relative to the potential earnings of the unemployed.[13] Income-sharing at the household level implies that the income loss due to unemployment is equally shared by all household members. However, a number of studies have shown that household sharing tends to improve the living standards of those household members with the lowest potential earnings (Weiss, 1997; Ekert-Jaffé and Sofer, 1996; Becker, 1991; and Grossbard, 1984).

For every person in the panel having experienced unemployment, the family support index is defined by:

$$bf_{it} = \frac{\left(\sum_{m \neq i} y_{mt} + T_{it} \right) \Big/ e_{it}}{\left(w_{it} + \sum_{m \neq i} y_{mt} + T_{it} \right) \Big/ e_{it}} = \frac{\sum_{m \neq i} y_{mt} + T_{it}}{w_{it} + \sum_{m \neq i} y_{mt} + T_{it}}$$

This index is independent of the equivalence scale used. Family support is zero if the unemployed individual lives alone and does not receive transfers from other households, and increases with the income of other household members. The index is also greater for the unemployed with lower potential earnings relative to the income of other household members. To calculate the panel value of this index (bf_i), we use the weighting factor described above:

$$\left(bf_i = \sum_t \frac{d_{it}}{D_i} bf_{it} \right).$$

A High Level of Family Support

Across Europe, the level of family support is consequential (47 percent). In most European countries, the family provide the unemployed with almost half of what they could earn on the labour market. Again, there are disparities across countries, but less so than for state support above. Family support varies from 36 percent in the United Kingdom to 55 percent in Portugal (Table 6), compared to a range of 5 to 79 percent for State support.

TABLE 6
FAMILY SUPPORT OF THE UNEMPLOYED
%

Country	All	Men	Women
Belgium	43.1	39.4	45.4
Denmark	41.5	35.1	46.2
Germany	37.2	32.9	42.0
Greece	49.4	40.5	56.4
Spain	49.1	43.3	55.6
France	48.0	43.2	52.3
Ireland	40.9	35.9	50.9
Italy	52.3	47.4	58.0
Portugal	55.1	50.8	58.7
UK	36.0	34.2	38.4
EU – 10	46.8	41.6	52.3

Consistent with the idea of a "Mediterranean Model", the family contributes more to the unemployed in Southern Europe than in Northern Europe. In Greece, Italy, Portugal and Spain, the family provides half of what the unemployed person could have earned in the labour market. France is more similar to the Southern European countries in terms of family support. At the other extreme, the countries representing the Nordic or Free Market position are those in which family support is smallest.

The sex differences in family support reflect differences in labour market activity and wages (Altonji and Blank, 1999; and Weichselbaumer and Winter-Ebmer, 2003). Within couples, women are less active on the labour market and earn less, and thus have higher levels of family support than their partners. This stands out clearly when we decompose family support by household position (Table 7).[14]

TABLE 7
FAMILY SUPPORT AND HOUSEHOLD POSITION (%)

Household Position	Weight	Family Support
Living alone	6.4	3.9
Single-parent family	2.9	19.0
Household head	24.6	33.4
Spouse	23.6	57.3
Adult children	39.8	59.8
Other	2.7	58.4
Total	100	46.8

Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. For example, over all ECHP countries 6.4% of the unemployed live alone; the average level of family support for this group is 3.9%.

The household head in unemployment (conventionally the man) benefits far less than his spouse from other income in the household (33 against 57 percent). Apart from the differences in wages already evoked, an unemployed man is more likely to live with an unemployed or inactive partner, whereas an unemployed woman is more likely to live with an active partner.[15]

Considering resources that are shared within families, individuals still living with their parents benefit from a high level of family support when unemployed. With the exception of Denmark and the UK, families contribute more than half of potential earnings to the unemployed household member (see Appendix 2). In general, living in a family structure allows the unemployed to avoid the payment of a number of fixed costs that they would likely have difficulty in meeting if they were to live on their own. This may reduce the incentive to leave home, in particular in Southern Europe, (Cordon, 1997; Chambaz, 2000; Holdsworth, 2000; and Aasve *et al.*, 2001).

Family support and household type

We find an effect of household type when comparing the average levels of family support between countries. The young unemployed who still live at home receive relatively little in the way of benefits, but enjoy the highest level of family support. The high levels of family support seen in Southern Europe are essentially due to this phenomenon; this is particularly the case in Greece, Italy and Spain, and to a lesser extent in Portugal (Table 8).

TABLE 8
FAMILY SUPPORT: FAMILY GENEROSITY OR HOUSEHOLD COMPOSITION?
%

Country	Country	Country Level – European structure	European Level – Country structure
Belgium	43.1	46.3	44.3
Denmark	41.5	40.2	43.0
Germany	37.2	46.6	38.1
Greece	49.4	46.3	51.1
Spain	49.1	45.9	50.7
France	48.0	49.0	46.4
Ireland	40.9	46.6	43.9
Italy	52.3	47.2	52.2
Portugal	55.1	51.6	50.9
UK	36.0	41.0	38.1
EU – 10	46.8	-	-

Base: Individuals having experienced an unemployment period of one month or more of unemployment during the panel. Source: ECHP. Country Level – European structure shows the index of Family support with country levels of family generosity but European average levels of unemployment by household type; European Level – Country structure shows the index of Family support with European average levels of generosity but country levels of unemployment by household type. For example, in Belgium the index of Family support would be 46.3% were the distribution of unemployment by household type to be at the European average level with Belgian-level family generosity, and 44.3% with the Belgian distribution of unemployment by household type but European-level generosity.

On the other hand, a low level of family support is associated with unemployment that is particularly concentrated on groups who receive little in the way of family transfers. In Ireland, for example, unemployment principally concerns household heads who are the main income-earners. Further, female labour force participation is relatively low, so that the income of other household members is limited. In the UK, the low level of the family support index is explained by the concentration of unemployment amongst those living alone, single parents, and household heads. Last, in Germany, the percentage of unemployed who live on their own is high, whereas relatively few unemployed still live at home.

The distribution of potential earnings is also important. In France, for example, the high value of the family support index can be explained by both family support for the spouse of the household head, and the low potential earnings of the latter. On the contrary, the high potential earnings of women in couples in Denmark tends to reduce the index of family support there.

In sum, the level of family support between countries is strongly influenced by the distribution of unemployment by household type. Both the percentage of unemployed living alone and the percentage of unemployed still living at home are crucial in explaining inter-country differences in family generosity.

5.   COMPLEMENTS OR SUBSTITUTES ?

On average, family support is lower than the European average in Denmark, Germany and Ireland, where State support is higher; it is relatively generous in Southern European countries where State support of the unemployed is lowest (the Pearson correlation coefficient between countries is –0.53). However, these results on country average values do not tell us about substitution at the individual level. This requires information at the individual level on family and State support for all those who have experienced unemployment. These figures are first

calculated over all individuals, and then separately by country. Finally, the structure of unemployment is taken into account by the calculation of correlation coefficients by sex, age, and duration of unemployment.

TABLE 9
CORRELATION BETWEEN FAMILY AND STATE SUPPORT AT THE INDIVIDUAL LEVEL

Country	Total Population	Men	Women	Under 25	25-55	Short-run Unemployment	Long-run Unemployment
Belgium	-0.2289[**]	-0.2556[**]	-0.2251[**]	-0.2938[**]	-0.1836[**]	-0.1295[**]	-0.2872[**]
Denmark			-0.0864[**]		-0.050	**0.053**	-0.1960[**]
Germany	-0.0791[**]		-0.09551[**]	-0.2040[**]	-0.0761[**]	-0.5370[**]	-0.1466[**]
Greece			-0.0555[*]	**0.0563**	**0.043**[*]	**0.038**	-0.0661[*]
Spain	-0.1960[**]	-0.2349[**]	-0.0836[**]		-0.1517[**]	-0.1572[**]	-0.2737[**]
France	-0.1271[**]	-0.1288[**]	-0.1366[**]	-0.0902[**]	-0.1230[**]	-0.0944[**]	-0.2543[**]
Ireland	-0.0815[**]	-0.0574[*]	-0.2951[**]	-0.0918	-0.1014[**]	-0.1608[**]	
Italy	-0.1577[**]	-0.1689[**]	-0.1823[**]		-0.1390[**]	-0.1542[**]	-0.1159[**]
Portugal	-0.0968[**]	-0.1038[**]	-0.0925[**]	-0.1098[**]			-0.2314[**]
UK	-0.2196[**]	-0.1683[**]	-0.2915[**]	-0.2145[**]	-0.1781[**]	-0.2251[**]	-0.0990[*]
EU – 10	-0.1734[**]	-0.1788[**]	-0.1962[**]	-0.1687[**]	-0.1267[**]	-0.1337[**]	-0.2210[**]

Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. Only significant correlation coefficients are shown. [**]= significant at the 1% level, [*]= significant at the 5% level, no stars implies significance at the 10% level. Figures in bold indicate complementarity between State and family support.

At the European level, and in most countries, the correlation between family and State support is negative and significant. This substitution is most apparent for the total population of the unemployed.[16] The State provides support when family support is relatively low. This correlation is particularly strong in the United Kingdom (-0.22), Belgium (-0.22), Spain (-0.20), Italy (-0.16) and, to a lesser extent, France (-0.13). It is weaker but significant in the other countries. The substitution of family and State support in Mediterranean countries is thus confirmed, but this substitution also exists in the majority of the other European countries analysed. The only exceptions, Denmark and Greece, occupy extreme positions with respect to State intervention. Almost all of the Danish unemployed enjoy a generous benefit system, while the opposite holds in Greece, where benefits are very low and cover less than a quarter of the unemployed, almost 95% of whom live in a family structure.

This substitution between State and family support holds by sex, age, and unemployment duration (see Table 9). Even though State benefits for short-run unemployment (less than a year) are less generous, the correlation holds for both short-run and long-run unemployment. This correlation does not depend on the definition of unemployment either, as it still holds when the ILO definition of unemployment is considered.[17]

As the levels of State and family support are sharply different for those living alone, household heads, and young adults living at home, the correlations at the country level partly reflect family structure. In every country, young adults living at home and spouses naturally receive considerable levels of family support, while those living alone and household heads can count on greater levels of State support. The substitution between types of support holds even when country differences in the family structure of the unemployed are taken into account, as shown in Table 10.

TABLE 10
CORRELATION BETWEEN FAMILY AND STATE SUPPORT BY HOUSEHOLD POSITION

Country	All	Living alone	Single parent family	Household head	Spouse	Adult children
Belgium	-0.2289**	-0.1563*	**0.1400**	-0.2267**		
Denmark		-0.1194	-0.3074*			**0.1913**
Germany	-0.0791**		**0.2408****	**0.0801****(1)**	-0.0481	
Greece			-0.1952	**0.0672**	**0.0970****	**0.0452**
Spain	-0.1960**	-0.1691*		-0.0539**		-0.0652**
France	-0.1271**		-0.2254**			**0.0804****(1)**
Ireland	-0.0815**		-0.3922**	-0.0778*	**0.2852****	
Italy	-0.1577**			-0.0550*	-0.1121**	
Portugal	-0.0968**			**0.0845***		
UK	-0.2196**		-0.2504**	-0.0691*		-0.0945*
EU-10	-0.1734**	-0.0722**	-0.1406**	**0.0364****		-0.0283**

*Base: Individuals having experienced an unemployment period of one month or more during the panel. Source: ECHP. Only significant correlation coefficients are shown. ** = significant at the 1% level, * = significant at the 5% level, no stars implies significance at the 10% level. Figures in bold indicate complementarity between State and family support. (1) The correlations controlling for income are insignificant.*

Overall, those living alone and single-parent families benefit from transfers from other households, which are more frequent and larger when State support is lower. With the exception of German single-parent families, who receive greater family support when State support is higher, family and State support remain substitutes. For other family structures, the correlations are less strong. This net result comes about due to a number of opposing effects: means-tested State support is greater for poorer families; less generous unemployment benefits may encourage the spouse or children to work (Pollak, 1985, and Ekert-Jaffé, 1997); and homogamy within the family suggests that outcomes will be correlated between family members.

For young adults living at home, the State and the family are substitutes in Spain and the UK, a correlation which exists equally over the whole population. In France, Denmark and Greece, the relation is inversed: family and State support going together for young adults living at home. We also find complementarity for German and Portugese household heads, and Greek and Irish spouses. In these countries, for these groups, we observe a phenomenon of social homogamy. The better-educated are more likely to live with others of the same social background with the same kind of salary, but also receive greater benefits from contributory unemployment schemes.

To summarise, over the whole population there is no correlation between family and State support in Greece and Denmark, a result which holds over the majority of family types. In Portugal and Germany, the State and the family are complementary for a number of different family types. The substitutability which is observed over the whole population results from the distribution of unemployment between young adults living at home and spouses, who receive family support, and household heads and those living alone, who receive State support. This phenomenon of unemployment structure is also important in Spain and Italy, to the extent that the substitutability over the whole unemployed population is stronger than that observed at the disaggregated level. In these two countries, as well as in Belgium and the UK, strong substitution is found for, amongst others, household heads, but sometimes also for those living alone, single parents, and young adults living at home. In Ireland and France, this substitution is strongest for single parents, which is an important element of the correlation found over the whole population.

Whilst this finding of substitution between family and State support is important, we have not demonstrated any causal link between the two. The fact that State support is higher when family support is lower does not prove that the family support arrives because the Welfare State is insufficient, or that State support is low because of the generosity of family support.

Where should the unemployed live?

What is the total level of support for the unemployed, taking into account both family and State contributions? State and family support combine to provide the unemployed with a standard of living which we compare to that which she could have earned if in employment. For every person having experienced unemployment, total support (bt_{it}) is defined by:

$$bt_{it} = \frac{\left(C_{it} + \sum_{m \neq i} y_{mt} + T_{it}\right)\Big/ e_{it}}{\left(w_{it} + \sum_{m \neq i} y_{mt} + T_{it}\right)\Big/ e_{it}} = \frac{C_{it} + \sum_{m \neq i} y_{mt} + T_{it}}{w_{it} + \sum_{m \neq i} y_{mt} + T_{it}}$$

where the numerator represents State support via benefits (C_{it}) as well as family support $\left(\sum_{m \neq i} y_{mt} + T_{it}\right)$, while the denominator reflects the unemployed's potential salary as well as family support. The income loss from unemployment, $1 - bt_{it}$, can then be written as a combination of losses due to the State and the family: $(1 - bt_{it}) = (1 - be_{it})(1 - bf_{it})$. The shortcoming due to the State reflects the fact that the State does not in general provide unemployment benefits equal to the potential salary of the unemployed.

TABLE 11
LOSSES DUE TO UNEMPLOYMENT
(%)

Country	State loss	Family loss	Total loss
Belgium	43.7	56.9	21.2
Denmark	21.2	58.5	11.4
Germany	49.4	62.8	28.5
Greece	94.6	50.6	48.1
Spain	80.1	50.9	39.1
France	49.0	52.0	22.6
Ireland	55.0	59.1	30.2
Italy	94.7	47.7	44.8
Portugal	73.5	44.9	31.2
UK	72.9	64.0	42.3
EU – 10	70.3	53.2	36.6

Base: Individuals having experienced an unemployment period of one month or more during the panel. <u>Source</u>: ECHP. For example, in Belgium, State support for the unemployed covers 56.3% of their potential earnings (Table 2). Hence 43.7% is the State loss for the unemployed. The family loss shows the part of earnings that is not compensated by the family (Table 6) and the total loss is the percentage of the unemployed's potential salary that is not covered by the State or the family.

Overall, the unemployed seem to live better in Denmark, France and Belgium than in the UK and Southern Europe (Table 11). The difference in State support between these countries is far from compensated by family support; the ranking of countries by total support is similar to the ranking by State support. Denmark, with a total loss of 11% is the country where the total loss due to unemployment is the lowest. At the other extreme, the loss due to unemployment is highest in Italy and Greece. The role of family support ensures that Portugal

occupies a central position in this ranking, while France appears third on the list, and Spain and the UK are overall relatively less generous.

For households where there is no support from other adults in the household, the level of support is relatively low in some countries. In Greece and Italy, over 90% of those living alone receive less than 50% of their potential earnings, with comparative figures of 70 percent in Ireland, Spain and UK, and less than one-half in Portugal. In these countries, transfers between families tend to compensate for the low level of support.

Family support improves the situation of young adults living at home. While State support for young adults is particularly low, the total loss is reduced. In all of the countries analysed, the percentage of individuals suffering a loss of over 50% is under 30%. Spouses are the group with the highest level of support, with an analogous figure of 11%, while the figure is higher for household heads (35%). It is important to underline that this figure refers only to monetary transfers, and that household production may provide an alternative source of support. In addition, these are instantaneous figures, and do not take into account the consequences of unemployment on the individual's future life. These might be thought to be particularly important for young adults or women in couples. However, the explicit treatment of the intertemporal consequences of unemployment is beyond the scope of this paper.

Concentrating only on monetary compensation during the period of unemployment, it is clear that family support, which is substantial, does not compensate for the variation in European systems of State unemployment support. Even so, family support tends to improve the situation of certain groups of unemployed, such as women in couples and young adults living at home.

6. CONCLUSION

There is a wide variety of levels of support for the unemployed in Europe. Europe is far from being harmonised in this area of social policy, and even more so to the extent that differences in State support are not evened out by differences in family support. With the exception of Denmark and Greece, the family tends to support those who receive relatively low levels of State support, but family support is far from providing a complete alternative to State support. Our analysis of this heterogeneity could be taken further by considering the potential link between State support for the unemployed and cultural differences in children leaving the family home. In addition, our hypothesis of the equal sharing of income within the household is debatable. Further work could consider family support in the context of household bargaining, although the data requirements for the robust modelling of this process will likely restrict its current empirical application.

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[1] These are measured as the duration of unemployment in the year preceding the interview and the number of periods of unemployment preceding the last unemployment episode.

[2] Someone who is unemployed according to the ILO definition is of working age, has not worked in the reference week, is available for employment, and is actively looking for work.

[3] The family situation is particularly important in Southern Europe.

[4] In this article we do not distinguish between State benefits and those from other insurance entities (such as those run by firms and unions). In both cases, we label this State support.

[5] Benefits may sometimes be linked to the family, as in Germany where the replacement rate depends positively on the number of children living at home.

[6] These benefits may depend on the family situation of the unemployed, and we would need a micro-simulation model to evaluate the part which depends on the unemployed individual. We imagine, following the hypothesis proposed by Eurostat, that benefits allocated at the household level are divided equally between the adult household members.

[7] The level of State benefits are declared annually and divided between the different household members by Eurostat. We divide these figures by twelve to convert them to a monthly equivalent, which makes the comparison with our estimated monthly earnings easier.

[8] Average state support is decomposed into six categories: $be = \sum_{k=1}^{6} be_k * sf_k$ where be_k is state support in category k and sf_k the weight of this category amongst the unemployed. Household position refers to the individual's situation in the first wave where she reported being unemployed; changes in household position occur for less than five per cent of the unemployed who are observed for two periods or more.

[9] It is usual to split resources equally between household members, although this is sometimes contested (Jenkins, 1991; Chiappori, 1994; and Browning and Chiappori 1998).

[10] We only consider the monetary resources of other household members. Domestic production is ignored here as we are not able to measure it.

[11] These figures come from Wave 2 of the ECHP.

[12] Under the hypothesis of a unitary household model, and restrictive conditions on preferences and the nature of goods, the share of household income received by each adult is measured by the income of the equivalent adult.

[13] The indicator defined in the text calculates family support for a given family structure, and is therefore independent of the equivalence scale used. It would also have been possible to compare the level of family support to the unemployed's potential earnings only, but such a measure is composed of two different elements: being unemployed as opposed to in work (which is the subject of this paper), and the fact of living in a family as opposed to being alone.

[14] Average family support is decomposed into six categories. We use the same six-level classification of household position as above.

[15] Across the EU, 52% of household heads have an active wife, as against 41% of household heads who have experienced unemployment. For women living in a couple, the percentages are inverted: 76% have an active husband against 79% for those who have experienced unemployment.

[16] This correlation holds even though, technically, as the income of the unemployed falls, the indices of State and family support both automatically increase, which introduces a mechanical positive correlation between them. Unless explicitly mentioned in the text, all the results in this section, for both complementarity and substitution, still hold when income is controlled for.

[17] With the exception of Germany, where the negative (substitution) correlation is no longer significant.