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Centro de Estudios Avanzados en Ciencias Sociales (CEACS)

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Low-wage employment and household poverty : an analysis of the role played by households in alleviating the economic prospects of low-wage workers

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Abstract: El empleo de baja remuneración es visto por algunos autores como el resultado de un proceso de especialización que ha convertido a los mercados de trabajo en espacios segmentados de trabajadores cualificados y bien pagados y trabajadores de escasa cualificación y salarios bajos. Estos últimos se enfrentan a un doble reto en las economías avanzadas: no pueden competir con sus compatriotas cualificados, ni con trabajadores poco cualificados en economías menos desarrolladas. Dado que los sectores de vanguardia —donde el trabajo bien pagado es abundante— no pueden absorber grandes porcentajes de la fuerza laboral, políticas activas de formación y recualificación no pueden acabar con el empleo de baja remuneración. Esto condena a una parte de estos trabajadores a combinar empleos de baja remuneración y desempleo. Este panorama tan sombrío debe ser matizado. Aunque la baja remuneración siempre afecta al individuo en cuestión, el hogar como espacio donde convergen otras rentas y ayudas sociales, puede aliviar la situación económica de estos trabajadores. Este es el objetivo de la tesis: analizar el papel económico de los hogares donde hay trabajadores mal pagados. Para ello hemos dividido el estudio en tres partes: I) un análisis de las características del empleo de baja remuneración en cuatro economías occidentales (Reino Unido, Alemania, Dinamarca y España) intentando comprender la naturaleza de este fenómeno y las diferencias entre países; II) un segundo bloque donde se mide el papel económico de los hogares en cada país; y III) un estudio sobre las características económicas de aquellos trabajadores mal remunerados que viven en hogares pobres y aquellos que viven en hogares no pobres. Los resultados muestran que España es un país con altos porcentajes de empleo de baja remuneración, altos niveles de pobreza familiar y un porcentaje comparativamente alto de trabajadores de baja remuneración que viven en hogares pobres. La razón de este desalentador panorama hay que buscarla en los niveles comparativamente altos de hogares en los que hay un sólo perceptor, el escaso desarrollo de políticas sociales, principalmente políticas familiares, y una economía altamente especializada en sectores intensivos en mano de obra. Dinamarca representa el modelo opuesto: escaso empleo mal remunerado, escasa pobreza familiar y pocos trabajadores mal pagados que viven en hogares pobres. Aquí los altos

niveles de hogares con dobles perceptores, una política social defamiliarizada y generosa que produce empleo de calidad, y una economía más intensiva en capital y orientada a la exportación son claves para entender este éxito. El Reino Unido representa un modelo intermedio entre ambas realidades pero más próximo a las cifras españolas. El empleo de baja remuneración, los hogares pobres y los trabajadores que viven en familias pobres son comparativamente abundantes, aunque las familias británicas tienen más capacidad de protección que las españolas. Esto se debe principalmente a que un porcentaje muy alto de hogares cuentan con dos perceptores, ya que el apoyo social, aunque mayor que en España, es comparativamente escaso. Finalmente Alemania presenta resultados próximos a Dinamarca aunque sus políticas son diferentes. El porcentaje de hogares con un solo perceptor es comparativamente alto, aunque menor que en España, sus políticas sociales son más generosas que en nuestro país y los sectores especializados en alta cualificación mucho más abundantes. Esto explica su situación entre el modelo danés y el resto de modelos analizados.

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Instituto Juan March de Estudios e Investigaciones

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**LOW-WAGE EMPLOYMENT AND
HOUSEHOLD POVERTY:**

**AN ANALYSIS OF THE ROLE PLAYED BY
HOUSEHOLDS IN ALLEVIATING THE
ECONOMIC PROSPECTS OF LOW-WAGE
WORKERS**

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INTRODUCTION

Although it is indisputable that low-wage employment is better than not subsidised unemployment: is a low-wage job an efficient instrument to achieve adequate standards of living? Or is it merely a form of precariousness? In order to respond -yes or no- we need to know whether low wage is a transitory experience principally affecting workers in the initial phase of their labour career, a “stepping stone” that tend to lead to a better-paid job, or alternatively, a static condition affecting wider stratum of the labour force for extended periods.

We need to know also whether low-wage workers do constitute a homogeneous unit, or an aggregation of different labour groups. There are workers that fall into the low-wage category not only because their full-time, full-year earnings fall below a pre-defined threshold for any given year, but also because they work part-time or only for half the year, or because they are working in a paid apprenticeship scheme or are training under a special scheme related to their employment. Each group represents a particular reality with its own challenges and constraints.

The economic character of households adds further complexity to the analysis of low wage. Although low-wage experiences always affect the individual actor concerned, families may mitigate what otherwise might lead to insufficient living standards. The household, as the place where other household members' wages and welfare benefits converge (income-pooling entity), may significantly reduce individual economic risks. The experience of low-wages is hence less distressing in affluent households where

uniquely a low-wage represents an additional income. But it is also possible that the sum of wages may not be sufficient to push some households above the poverty line. Fortunately, the (welfare) state plays its part in rescuing households locked into poverty, through the provision of benefits. These patterns of wages (workers), gifts (households) and benefits (state) dependency may help us to clarify when and how low wages are useful in avoiding poverty or in condemning both workers and households to live under precarious economic conditions. The main purpose of this paper is hence to examine the role played by the household in alleviating the low-wage problem in Denmark, Germany, the UK and Spain.

In this sense, this research adopts what Wallerstein and Smith (1990: 42) have conceptualised as a “householding” perspective: the idea that *“the appropriate operational unit for analysing the ways in which people fit into the labour force is not the individual but the household, defined for these purposes as the social unit that effectively, over long periods of time, enables individuals, of varying ages and of both sexes, to pool income coming from multiple sources in order to ensure their individual and collective reproduction and well-being”*. I am in full agreement with this position. This research interprets the household as an economic sphere involving mutual solidarities in which individual economic prospects adopt a more complex dimension. Given the income-pooling character of households, low-wage workers play a dual role as both recipients and donors. They profit from other members’ incomes (gifts) and welfare subsidies (benefits) while they also contribute to the general well-being of the household through their wages, and to the maintenance of the welfare state, by fulfilling their fiscal responsibilities. Keeping this interpretation in mind, the explanatory structure of the investigation conducted here, is affected by *reverse causation*. The economic prospect of low wage workers becomes a source of explanation regarding the household’s capacity for economic protection. Therefore, findings that are relevant to the economic prospects of low-wage workers are pertinent to explaining how

households manage low-wage problems. This is what Blossfeld and Drobnic (2001) try to show: how work-family linkages are crucial in understanding current labour market features, i.e. the increase in labour-force participation of women, and its consequences on other spheres of the family and the market.

From the perspective of this research the work-family linkages are crystal-clear: if it is highly likely that a low-wage recipient belongs to a poor household, low-wage employment¹ may only marginally improve the welfare prospects of those families on the poverty line, thereby reinforcing their vulnerability in a precarious economic context. However, if workers who are in the category of low-wage are likely to form part of a household that is not poor, the promotion of low-wage employment may be useful to facilitate labour market entries without creating excessive risks of household poverty. It is therefore important to investigate when and how low-wage workers are sheltered by household incomes (wages and benefits), and under what conditions these workers become poor (household poverty).

There is abundant literature dealing with low-wage employment on the one hand and with household poverty on the other. However, literature examining the overlap between low-wage employment and household poverty is not so abundant. This literature agrees that low paid workers are frequently secondary earners whose incomes merely complement the total household income (Marx and Verbist 1998, Nolan and Marx 1999) and that most low paid workers are not in poor households (Card and Krueger 1995, Burkhauser et al. 1996, Nolan and Marx 1999). From our perspective however it is extremely important to know not only the exact number of people combining low wage and household poverty, but also the context in which this connection takes place. Although it is true that the percentages of workers combining low wage and household poverty are not huge (21,52% in Spain, 17,58% in the UK, 12,51% in Germany and 11,36% in

¹ From the purpose of this research low annual wage workers are those whose total annual net wages are below 2/3 of the total net national median income from work (wages).

Denmark) these figures are worthy of our attention not only because they represent a significant minority of the employed population, but also because additional knowledge on the low-wage employment-household poverty combination is very important in the current economic context in which low-wage employment is frequently presented as an alternative to unemployment in numerous sectors.

This research makes the following contributions: i) shows cross-national differences in the scope of low-wage employment, household poverty and the household capacity of low-wage protection by using a criteria only rarely used: total net year income from work; ii) presents statistical calculations that challenge the transitory character attributed to low-wage employment iii) emphasises the negative impact of having “atypical” employment on the risk of being a low-wage worker; iv) adds precision to the statistical effect that additional household earners have on the risk of household poverty v) trace a clear connection between household structure and the likelihood of household poverty; vi) offers evidences on the socio-economic differences of those low-wage workers who live in poor households and those who live in non-poor households.

1. Case Studies: Coping with Low-wage Employment and Household Poverty: Four Different Strategies

Esping-Andersen (1999) has analysed patterns of employment, family and welfare affinity which express diverse concerns on how to guarantee economic security. The predisposition of states to minimise or maximise welfare obligations, as well as individual responsibilities, is highly influenced by the predominant household structure, and vice-versa. States’ policies affect the work-family tensions arising from the erosion of the male breadwinner model. Therefore, “(de)-familialism”, namely the degree to which households’ welfare and caring responsibilities are relaxed, either through welfare state or market provision, is as

important as “(de)-commodification” – the minimisation or maximisation of employee dependency upon market incomes, in shaping national adaptation to post-industrialism (Esping-Andersen 1999).

There are countries where public policies assume that households bear the responsibility of their members’ welfare (familialistic system) and others where public policies seek to relax these responsibilities (Non familialistic system). Both concepts, (de)-familialism and (de)-commodification, are related; since de-familialism is a precondition, principally for women, for commodification, which indicates the degree to which social policy or markets render women autonomous enough to become “commodified”, or to set up independent households (Esping-Andersen 1999: 51). The family and the state are therefore dominant in managing social risks within the labour market according to this author, suggesting that these three spheres - the market, the family and the welfare state- are strongly related.

The high degree of head-of-household protection that is observed in Continental Europe may be explained by the strong role played by the family as well as the low levels of female employment, and thus reinforces the prototypical single-earner household model (traditional family model). The expansion of the professionalised welfare state employment, in which women predominate, has not expanded sufficiently to facilitate massive female labour incorporations. Thus, the family members’ high dependency on a single breadwinner motivates strategic choices to protect his, (rarely her), economic status. This turns into “*a self-reinforcing spiral in which ever-more privileged insiders produce ever-more excluded outsiders welfare effects may hardly be noticeable, precisely because the outsiders will share the dividends that accrue to the insider*” (Esping-Andersen 1998 : 40).

Conversely, the less important role of the family and the greater diffusion of dual-earner households in Scandinavia coincides with an individualistic strategy of welfare protection, which seeks to minimise individual insecurity, while maximising

employment flexibility. Scandinavian labour markets are flexible² and the welfare state is generous guaranteeing universalistic social benefits. This is unlike Continental countries in which labour market flexibility is limited and most welfare responsibilities are delegated to families.

In liberal welfare states, public policies play a more passive role because the market is the main source of job creation and welfare provision.³ As a result: *“the liberal regime cannot fall back on familial welfare obligations in its quest for de-regulation, and it is concomitantly unwilling to allow the welfare state to step into the welfare void. Hence greater precariousness, inequality and poverty emerge whether or not high employment and low unemployment ensue”* (Esping-Andersen 1998 : 41). Other authors have proposed the existence of a fourth cluster in Southern Europe. Leifbried (1992), Ferrara (1996; 2000), Moreno and Sarasa (1993) and Moreno (1999) have seen an independent regime (Latin Rim regime) characterised by the combination of the “statutory” policies that are typical of the Corporative regime and the residual ones that are typical of the Liberal regime. The over-protection of old-age groups, clientelism and family responsibility in the provision of welfare are common in Southern European institutions.

² The degree of labour market regulation (*little regulation* -Australia, Canada, **Denmark**, New Zealand, Switzerland, **the UK** and the USA- *medium regulation* - Japan, Ireland, The Netherlands, Finland, Norway, Sweden- *strong regulation* - France, **Germany**, Austria, Belgium, Italy, Portugal and **Spain**), welfare state provision (*residual* -Australia, Canada, New Zealand, the USA and to a degree, **the UK**-, *universalistic* -**Denmark**, Finland, Norway, Sweden, The Netherlands - and *social insurance* -Austria, Belgium, France, **Germany**, Italy, Japan and **Spain**) and family economic responsibilities in the provision of welfare (familialist -Austria, **Germany**, Italy, Japan, the Netherlands, Portugal, **Spain** and less so Belgium and France-, non familialist (Australia, Canada, **Denmark**, Finland, New Zealand, Switzerland, **the UK** and the USA).

³ Castles and Mitchell (1990) have identified distinctive features in the liberal regime. Although social benefits are of a limited scope, the UK and Australia have managed to achieve plentiful social rights through secure employment as well as comparatively high salaries and minimum wages in a framework of advanced health and security at the work place.

I aspire to trace connections between low-wage and household poverty by drawing on Esping-Andersen's work on welfare regimes as a source of comparative formulations. The four models presented above are expected to help us to understand the patterns of connections. These four case studies (Denmark, Germany, the UK and Spain) represent four different contexts of low wage-household poverty interaction that allow me to determine the conditions that permit the family and the welfare state to significantly improve the economic prospects of low-wage workers, while at the same time, attempting to define the contexts in which low-wage employment overlaps with household poverty.

1) *Model 1: Flexible labour market- residual social protection- non-familialistic systems (the United Kingdom).* Reliance to create employment is placed on the market, while the welfare state acts more as a passive force. This strategy seeks the massive incorporation of people into the labour market and produces drastic changes, in particular the move from single to dual or multi-earner models. The safety net feature of the family is principally based on the incorporation of new earners, which thereby increase the household's capacity for purchasing welfare service in the private sector.

Massive labour incorporations and the diffusion of multi-earner households, in a context of limited social protection may result in high levels of low-wage employment. At the same time, moderate "working" household poverty are attributable to the spread of multi-earners households. Households' capacity for alleviating low wages is expected to be limited and the percentage of low wage-workers living in poor households tends to be comparatively high. The UK is a typical case⁴.

⁴ In Bertolas' ranking, (1999) based on previous ranking of employment protection strictness, Italy (21), Spain (20), Portugal (19), Greece (18), Belgium (17), Germany (15) and France (14) occupy the highest position showing the highest level of labour rigidity. At the other end of the spectrum Denmark, the UK and Ireland rank in the lowest position. Similarly Polaviejas' ranking places Spain (2), Germany (10), Denmark (16) and the UK (17), being 1 the country

2) *Model 2: Flexible labour market- universalistic social protection-non familialistic system (Denmark)*. The state, and not only the market, is relied upon to create employment. The objective is not only massive labour incorporations and a rapid shift toward dual or multi-earners household, but also redistribution through individual-universalistic guaranties of welfare protection. The safety net function of the family is as a consequence of earners within the household, as well as a result of significant social redistributions.

In this context of abundant multi-earning households and strong social protection I expect to find moderate levels of low-wage workers, very low rates of household poverty, low levels of low-wage workers living in poor households (yes-yes) and high levels of low-wage workers living in non poor households (yes-no). Household capacity for protection is therefore expected to be very high. Denmark is prototypical of this case-scenario.

3) *Model 3. Rigid labour markets⁵- “corporatist-residual” social protection-familialistic system (Spain)* Labour-market flexibility is limited to peripheral workers and social protection

with the most restrictive labour market and 24 the country with the most flexible one. See Polavieja (2001: 70) for details.

⁵ The general strategies to make the labour market more flexible are : *Numerical Flexibility*. This type of flexibility seeks to facilitate the adjustment of employees to the needs of production by facilitating hiring or firing workers, in order to respond to cyclical or structural variations in demand and/or technological changes. *Functional Flexibility*. Job assignments are modified according to the needs of production. When production requirements change, workers can switch tasks, while the total number of workers and working hours remain unchanged. *Wage Flexibility*. This type of flexibility seeks to adapt wages to cyclical fluctuations and external and internal changes in production. The range of options included here encompass measurements, which move from direct wage adjustments to the reduction of employers' contribution and charges. Alternative formulas have also been proposed, i.e., wages supplemented by an additional payment that is related to the workers' output, performance-related bonuses that are calculated as a function of the performance of a workshop or plant in relation to targets or profits-sharing schemes, etc. (Atkinson 1987; Meulders and Wilkin 1987; Johannesson and Schmid 1980; Bruhnes 1989).

exhibits a residual bias, despite the universalistic character of pensions and health. Single (male) earner households are expected to predominate among the countries examined and the safety net function of the household largely depends on the protection of the main earner.

In this context low-wage employment might constitute an additional and positive source of income in households where the main earner is an insider. Low-wage employment however may not guarantee prosperity in households where additional earners are also on a low wage. The lack of generous benefits would prevent these households from raising themselves above the poverty line. I would therefore expect comparatively high percentages of low wage and household poverty, as well as. High percentages of low-wage workers living in poor households (yes-yes) and a low degree of household capacity for sheltering low-wage workers. Spain is prototypical of this case-scenario.

4) *Model 4. Rigid labour market- “corporatist” social protection – familialistic system (Germany).* Labour market flexibility is limited with the declared aim of protecting the core segment of the labour force, leaving flexibility in peripheral workers’ hands. Similarly social protection is frequently tied to core protected workers. Single-earner households still represent an important part of the total household figures and redistribution is achieved principally through the protection of workers, so that the safety net function of the family depends principally upon the labour and social protection of the breadwinner.

This mix of limited flexibility and well-developed social protection might produce low- rates of low wage employment and household poverty. Likewise higher rates of labour activity and female employment participation in addition to the greater degree of social protection than is found in Spain, leads to lower household poverty rates and consequently low percentages of low-wage workers living in poor households (yes-yes), and higher percentages of low-wage workers, living in non-poor households (yes-no). Germany is prototypical of this case-scenario. In the

following section I summarise the salient characteristics of the labour market, the family and the welfare state of these countries.

2. Case Study: Spain, Denmark, United Kingdom and Germany

2.1. Spain

The segmented character of the Spanish labour market has produced a decreasing core of strongly protected workers and an enlarged periphery of unprotected people who must make do principally with temporary work, and to a lesser extent with part-time jobs and self-employment as well- which is highly dependent on core workers' "privileges". The household structure that results is characterised by a twofold dependency: firstly on protected workers rights and secondly a high degree of inter-generational dependency of children and pensioners. With a rather limited welfare state, except for pensioners, and insignificant family policies, the household is the most important safety net for low-wage workers, which must cope with high dependency with scarce public and private support.

The Labour Market

Most of the labour reforms carried out during the eighties and nineties sought to modify hiring conditions by authorising short-term and temporary contracts. The aim of these policies was the incorporation of those groups that were more predisposed to suffering unemployment, without making substantive modifications to the conditions governing protected workers. This strategy has been reinforced using economic incentives for those firms that hire the young, women, the disabled and workers under 45, even if only temporarily. The result has been twofold: i) a huge increase in temporality with the expiration of contracts as the first cause of dismissal and ii) the institutionalisation of a new type

of labour career with alternating spells of employment and unemployment, principally among young women and the least skilled workers (Dolado and Bentolila 1992; Bentolila and Dolado 1993; Palomeque 1997).

In spite of that temporary-centred policy of labour flexibility, unemployment rates have remained the highest in Europe, always in double-digit rates, and achieving figure close to $\frac{1}{4}$ of the total active population in 1995. Measured in absolute terms, the growth of employment in the period 1983-1997 reflected significant increases in “atypical” employment (temporary, part-time and self-employment) at the expense of permanent full-time employment:

Table 1: Employment growth in the period 1983-1997 (absolute figures)

Total Employment growth (%)	Perm full-time employment growth	Part-time employment growth	Temporary employment growth	Self- employment growth
16.5	-17.8	19.8	85.36	12.7

Source: own elaboration with data of Eurostat (Labour Force Survey)

As a result, the Spanish labour market has become a prototypical segmented labour market case, with a protected core of workers with indefinite duration contracts and a periphery that is predominantly made up of workers with temporary contracts or those operating in the informal economy (Recio 1991, Bilbao 1993, Alba 1996, Moreno 1997). Although typical employment (permanent full-time) was still the majority category in 1997⁷, a

⁶ Our definition of “atypical” employment coincides with that of the European Industrial Relations Review that defines typical and atypical employment in this way: *Standard or typical employment might be defined as a paid employment relationship between an employee and a single employer regulated by an open-ended contract of employment, the work being performed full time on the employer’s premises and to his or her instructions. All other employment could be said to fall into the category of “non-standard”* (European Industrial Relations Review 1990: 1)

⁷ Data on permanent full-time employment varies depending on the source of information used. According to the Ministerio de Trabajo y Asuntos Sociales, (1996) this type of employment represented around two thirds of the workers in

decreasing tendency can be observed from the mid-eighties onwards. By contrast, temporary jobs have increased enormously during this period, representing around one in four of those in employment in 1995, and around 80% of the youngest labour stratum (Ministerio de Trabajo y Asuntos Sociales 1996)⁸. Non-agricultural self-employment has also increased, however part-timers are still a minority. This is in contrast to the significant increases observed in other European countries.

I have interpreted these changes as the result of a “Substitution Effect” which consists in the continuous growth of “atypical employment”, principally temporary, and comes at the expense of permanent full-time jobs, without significant effects on either the reduction of unemployment or on increases of the active population. (I provide a detail analysis of patterns of typical and atypical employment growth in the appendix III). This describes precisely the distinctiveness of the Spanish labour market: the significant shrinking of secure work⁹ through a continuous deterioration of typical employment and the expansion of atypical employment which has modestly affected the rates of employment and activity. The significant reduction of permanent full-time

the formal economy whereas data from the Labour Force Survey regarded this category as accounting for only around ½ (47,8%) of total employment.

⁸ Data variation also applies for temporary work. According to the Ministerio de Trabajo y Asuntos Sociales, 1996, temporary employment represented the 35% of the total employment in the formal economy whereas data from the LFS (Eurostat) reveal that temporary employment reached 23% in that year.

⁹ This is not really a Spanish labour market peculiarity. It is observable how the increase in atypical employment has coincided with a decrease in the volume of permanent full-time employment in most of the countries examined, eight out of eleven, (See Appendix III for details). Only in Denmark - alongside Portugal and Greece- has permanent full-time employment increased in relative terms. Additionally, the growth of “atypical” employment has had divergent effects on the level of the active *population as well as employment*. In some countries the growth of atypical employment has gone hand in hand with the growth of the active population and employment (The UK and Denmark, along with the Netherlands, Belgium, Ireland, Portugal), but such a growth did not take place in other countries (Spain, and Germany, along with France and Italy).

employment went hand-in-hand with a formidable invigoration of temporary work while the active population has only modestly increased, making Spain a country with one of the lowest rates of active population in Europe. In addition, female labour figures show how the female active population has increased more intensively than the male active population, however the rates of activity are still far from equal (38,8% females and 61,2% males in 1997). Furthermore, incorporation of women onto the labour market has not followed any distinct pattern. Although a majority of part-time workers are women (77, 1%) , part-time work only represented 6,2% of total employment and 13,7% of total female employment in 1997. Women frequently follow similar patterns of employment to men, principally in temporary work, 21,2% of total female employment and 22,7% of total male employment in 1997. Female permanent full-time work is the largest category accounting for 44,3% of total female employment. However the category has significantly decreased during the period in question.

From the preceding arguments it follows that the categorisation of Spain as a country, which has substituted a labour scenario that was characterised by the predominance of typical employment and a male labour force with a labour scenario characterised by the predominance of atypical employment, which has expanded across the board. This is precisely the Spanish distinctiveness: the significant elimination of typical work and the even distribution of “atypical” employment. The core-periphery structure which results from this process of substitution is not “female oriented” but is rather of a “wide-ranging” type, that is, a dynamic and general process of typical employment contraction and atypical employment expansion. The following table gives an account of this diagnosis:

Table 2: Patterns of evolution of different types of employment and activity

	Average 1983-97	1985	1987	1989	1991	1993	1995	1996	1997
Permanent	49,8		57,1	51,9	49,4	48,3	46,5	47,6	47,8
Temporary	19,7		9,5	17,8	22,4	21,2	23,0	21,9	22,2
Part-time	4,2		3,3	3,0	3,1	4,3	5,3	5,7	6,2
Self-employ	16,2		16,2	15,4	15,4	16,6	17,1	17,0	16,8
Unemployment	20,2	21,3	20,8	17,4	16,0	22,4	22,9	22,4	21,0
Activity	58,7	55,9	57,2	58,2	58,6	58,9	59,5	60	60,8
Female activity	35,7		32,8	34,5	35,3	36,6	38,2	38,5	38,8

Source: own elaboration with data of Eurostat (Labour Force Survey)

The hidden informal economy constitutes an additional sub-periphery for an important part of the Spanish labour force. Estimates attribute around 20 to 30% of the GDP to this informal sector (Moreno 1997). This has led Pérez Díaz and Rodríguez (1994) to argue that the Spanish labour market is mainly made up of four different camps: permanent workers, temporary workers, those in the informal economy and people in unpaid work.

Unemployment Benefits

To alleviate the precariousness associated with unprotected workers, the government has developed a system of unemployment benefits that is characterised by a continuous increase in the number of recipients, and a progressive reduction in the substitution rates (the sums of money provided as unemployment benefit). Unemployment benefits have the secondary function of alleviating the economic conditions of the increasing number of people who are alternately employed and unemployed. This precarious situation had necessarily to be alleviated by a system of unemployment benefits that enlarged their protective capacity while reducing their “generosity” in order to avoid voluntary unemployment and excessive public deficit.

Although benefits were originally launched as a distributive policy to alleviate the economic situation of the involuntary unemployed, certain concerns emerged at the beginning of the nineties. It was thought that generous unemployment benefits

might inhibit workers from taking up jobs and prolong periods of unemployment (Guillén and Matsaganis 2000, Gutiérrez and Guillén 2000, Valiente 2001). Contributory and non-contributory unemployment benefits significantly increased until 1993, after which began a continuous decrease. The number of recipients rose continuously until 1993, principally amongst males between 25 and 54, and decreased subsequently. The same applies to the rates of coverage and substitution during this period. With regard to the rates of substitution, these have steadily increased from 1985 to 1991, whereas the rates of coverage continued to grow until 1994. This indicates that after a period of general increase (1984-1991), the subsidy scope enlarged (the number of recipients) at the expense of their disposable income (1992-1993). Subsequently, (from 1994 on) the reduction has affected both the rates of coverage and substitution (Cebrián et. al. 1996, Arango-Fernandez 1999). The fact that those unemployed without previous work records - who tend to be young and women- are not entitled to unemployment benefits, reflects the discriminatory bias of unemployment benefit in Spain.

Active policies for the unemployed have evolved in line with the perception of unemployment benefits¹⁰. During the eighties, passive measures were identified with redistribution, and active policies demoted to a secondary position. Nevertheless, the above-mentioned concerns regarding the perverse effects of the system brought active policies to the forefront of policy debates during the nineties and previous perceptions of inefficiency gave way to new images of efficiency. Active measures have gained acceptance as a tool for combating unemployment, passive measures however continued to absorb most of the budget of the INEM (National Institute of Employment).

¹⁰ For a detailed very well-documented analysis on the debate surrounding active policies see Valiente (2001). Equally interesting is her evaluation of the reform of the system of unemployment protection: lack of coordination, lack of evaluation, inadequate training programs to insert people into the labour market, and lack of counselling about job searching.

Social expenditure and Family Policies

Spain devoted 20,9% percentage of its total public expenditure to social welfare in 1997, as the following table shows. Although an increasing tendency is observable, particularly from 1983 to 1994 followed by a decrease, these percentages are still lower than in the UK (21,6%), Germany (26,6 %) and Denmark (30,5%).

Table 3: Percentage of Social expenditure with respect to the total public expenditure

	<i>Spain</i>
<i>1983</i>	18.1
<i>1984</i>	17.8
<i>1985</i>	18.7
<i>1986</i>	18.6
<i>1987</i>	18.4
<i>1989</i>	19.2
<i>1990</i>	20.0
<i>1991</i>	20.8
<i>1992</i>	21.6
<i>1993</i>	22.7
<i>1994</i>	22.2
<i>1995</i>	21.6
<i>1996</i>	21.6
<i>1997</i>	20.9

Source: OECD social expenditure data

Apart from its frugality in financing social benefits, Spain also shows important particularities which reinforce the limited nature of its welfare state. The highest percentages of social expenditure accrues to pensions (Elderly cash benefits) which represent 38,7% of the total social expenditure (1997). When other benefits for widows, orphans etc. are added the percentage reaches 44,2% in 1997, which is almost half of total social expenditure. Unemployment benefits and other income transfers relating to disability, occupational disease, sick benefits etc represent another 25% of the total budget. The rest accrues to non-income transfers, principally health services. Without question, this distribution confirms that Spanish governments have placed little importance on family policies, reinforcing the strong familiarism that leads

families to assume a high degree of self-responsibility to guarantee its own welfare. Family policies, both income transfers and services, are the least frequency among the countries examined. Also the lack of household benefits (below 1% on average) place Spain in the lowest position with only 2% of the total social expenditure devoted to such expenditures in 1997. It is truly a low percentage when compared with 7,2% in Germany, 10,4% in the UK and 12,6% in Denmark.

A more detailed look reveals that unlike health care, pensions and education... "family policies have not yet found its way into the political agenda" (Flaquer, 2000:27). Spanish child benefits packages are among the lowest in Europe, day care provision for under-three is very limited¹¹. Moreover, family allowances had a contributory character until 1990. Despite the fact that entitlement no longer depend on a family's position in the labour market, policies for reconciling family-life and employment are still very limited (Iglesias de Ussel 1994, Valiente 1996, Pringle 1998, P.Carlos 2000, Naldini 2000)

Additionally the high degree of intergenerational dependency - namely the high proportion of people in their twenties or thirties who live with their parents and the high proportion of pensioners who live with their children- corresponds to low rates of non-married cohabitation, making single member households scarce and resulting in a very low-birth-rate. The privileged position of family heads in the labour market, chiefly male insiders in protected sectors, excludes women and the young. There is also a cultural environment that embraces a code of moral values that is highly influenced by strict catholic principles, and in which the family is still perceived as a central unit of socio-economic relations. All these factors contribute to the situation in which Spanish families are left to a large extent to meet their own social needs (Pérez Diaz 1993, Flaquer 1995, Ferrara 1996, Moreno 1997, Flaquer 2000)

¹¹ Provision for 3 to 6 year olds is high because this is part of the public educational system

Table 4: Percentage of Social expenditure (desegregated) with respect to the total public expenditure

	1980	81	82	83	84	85	86	87	88	89	90	92	94	95	96	97
SPAIN																
1- Elderly cash benefits	29.6	30.3	31.0	31.2	32.6	32.4	32.6	32.4	31.4	31.3	36.8	36.4	36.3	36.6	37.4	38.7
2- Disability cash benefit	7.0	7.2	7.3	7.2	7.4	7.2	7.2	7.1	7.0	7.2	6.6	6.7	6.4	6.4	6.5	6.4
3- Occupational injury and disease.	2.7	2.6	2.5	2.4	2.4	2.2	2.2	2.2	2.3	2.3						
4- Sickness Benefits	5.1	4.7	4.9	4.5	4.2	3.9	3.9	3.8	3.9	4.1	4.8	5.1	5.5	5.2	5.1	5.1
5- Services for the elderly and disable	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5							
6- Survivor	10.4	10.3	10.4	10.2	10.3	10.0	10.0	9.9	9.6	9.8	4.5	4.4	4.3	4.1	4.3	4.3
7- Family cash benefits	2.9	2.3	2.2	1.8	1.6	1.3	1.1	0.9	0.8	0.7	1.0	0.9	1.2	1.2	1.2	1.2
8- Family Services	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.4
9-Active Labour Market Projects	1.1	1.7	1.6	1.4	1.6	1.8	3.5	3.6	4.0	4.2	3.8	3.7	2.7	2.3	2.7	3.8
10- Unemployment	12.8	14.2	12.5	12.6	12.6	15.5	14.1	13.8	12.9	11.7	12.3	13.4	14.2	15.3	14.1	11.4
11- Health	27.6	26.0	26.7	27.9	26.3	24.6	24.4	24.9	2 ⁶ . 7	27.0	27.6	27.0	27.1	26.5	26.4	26.7
12- Housing Benefits				0.1	0.1	0.1	0.2	0.4	0.6	0.7	0.6	0.5	0.4	0.5	0.4	0.4
13- Other contingencies	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
Family Policies (7+8)	3,1	2,5	2,4	2	1,7	1,4	1,3	1,1	0,9	0,8	1,4	1,3	1,6	1,6	1,6	1,6
Family policies + housing (7+8+12)				2,1	1,8	1,5	1,5	1,5	1,5	1,5	2	1,8	2	2,1	2	2
INCOME TRANSFERS EXCLUDING PENSIONS (2+3+4+7+10+12+13)	30.8	31.3	29.6	28.7	28.7	30.6	28.7	29.1	28.3	27.6	26.3	27.4	28.7	29.4	28.3	25.8
NON INCOME TRANSFERS (8+9+11)	28.9	27.8	28.5	29.5	28	26.5	27.9	28.1	30.4	31.3	32.6	30.7	29.7	28.7	29	30.1
PENSIONS AND OTHER BENEFITS FOR WIDOWS ORPHANS ETC (1+5+6)	40.3	40.9	41.9	41.8	43.3	42.9	43.1	42.8	41.4	41.5	42.4	41.9	41.8	41.8	42.7	44.2

Source: own elaboration with data of OECD (Social Expenditure Database)

2.2. Denmark

Denmark represents a peculiar case of symmetry between labour flexibility and welfare generosity. This is this country's most distinctive feature. Denmark is the only country surveyed in which full-time jobs have not lost importance with respect to the total volume of employment, so that the increasing rates of "atypical" jobs have not altered the importance of permanent full-time employment. Female participation is highly integrated in labour and social policies with the subsequent effect on the high levels of female participation, the high number of multi-earners households, and very effective family policies that results in low levels of household poverty and a high household capacity for low-wage protection. The active role of the state in promoting secure and relatively well-paid "atypical" employment is also crucial in explaining the low rates of low-wages employment.

The labour market

Denmark symbolizes a successful combination of flexibility, social security and active labour market programmes, which during the nineties resulted in economic growth and rising employment without excessive wage inflation during the nineties. This constitutes a real economic miracle that is based upon "flexicurity" prescriptions of economic adaptability to increasing international competitiveness and social solidarity.

The main pillar of high flexibility in the labour market is job mobility, that is a high level of workers turnover and low average tenure, which can be observed in this country. The laxness of employment protection leads Denmark to rank at the low end, with countries like the UK. Severance pay and dismissal compensation is not applicable to all workers but only white-collar workers with long tenure (more than 12 years); dismissal is widely accepted for economic reasons or employees' lack of competence and the maximum compensation for unjustified dismissal is 12 months pay (Madsen, 2000). The year 1993 represents a turning point in

many respects, since important fiscal and welfare reforms were implemented, with the aim of reducing the high unemployment rates, observed at the beginning of the nineties. The result has been a significant growth in employment, via both “typical” employment, of the permanent full-time type (72,8% gross growth) and “atypical employment, principally part-time jobs.

Table 5: Employment growth in the period 1983-1997 (absolute figures)

	Total employment growth (%)	Percent of Perm full-time employment growth	Percent of Part-time employment growth	Percent of Temporary employment growth	Percent of Self-employment growth
Denmark	8.8	72.8	43.4	0.43	-16.6

Source: own elaboration with data of Eurostat (Labour Force Survey)

In this sense, Denmark might be considered to be a prototypical case of peaceful “cohabitation” between “typical” and “atypical” employment. The increase in the number of “atypical” jobs has not impeded the increase of permanent full-time work. This “cohabitation” has not been a hindrance to the percentage of the population who are active (already high at the beginning of the eighties from 78,6% to 79,8) and the decrease in unemployment (from 8.3% to 5.4%) as the following table shows. The role of female labour participation has also reinforced some of the main attributes that define the cohabitation effect. The “peaceful and harmonious” coexistence of typical and atypical employment has been in parallel with approximately equal participation of men and women in the labour market and the continuation of high levels of permanent full-time work. Denmark has the greatest instance of gender equality of those active in Europe, with women representing 46,3% of the total active population, a figure close to full gender equality. In 1997 women in “typical” employment represented 39% of total permanent-full-time employment and 52,8% of total female employment (the highest rates of female full-time employment among the countries examined). Female part-time workers have been very prominent in Denmark (33% of total female employment in 1997) yet, this female part-time

moved from 80% of total part-time employment in 1983 to 71% in 1997, showing an increasing tendency in male part-time jobs.

Table 6: Patterns of evolution of different types of employment and activity

	Average in the period 1983-97 (%)	1983	1985	1987	1989	1991	1993	1995	1996	1997
Permanent	60,8	60,4	58	59,2	60,9	60,7	61,0	62,2	62,9	61,7
Temporary	7,8	8,4	8,4	7,6	7,0	7,9	7,6	8,2	7,7	7,7
Part-time	21,2	19,0	22,1	22,4	21,6	21,3	21,3	20,3	20,2	21,3
Self-employ	6,7	7,2	6,8	6,4	6,5	6,6	6,7	6,6	6,8	6,8
Unemploy	7,8	8,3	7,7	6,1	8,2	9,2	10,8	7,0	6,8	5,4
Activity	80,6	78	80,3	81,1	82	82,2	81,2	79,5	79,5	79,8
Female activi	46,3	46,2	46,2	46,4	46,1	47,0	47,1	45,6	45,8	46,1

Source: own elaboration with data of Eurostat (Labour Force Survey)

Unemployment Benefits

The Danish unemployment system consists of two different types of income-replacements, namely unemployment insurance benefits and social assistance. The former is managed by private associations usually tied to labour unions, which are subsidised by the state. The vast majority of the unemployed receive unemployment insurance that amounts to 90% of their previous income (substitution rates) - up to a maximum of 145.000 DKK (in 1999)- this includes the self-employed and those in training programs. This is another particularity of the Danish unemployment system, namely its high rates of coverage (number of recipients). The self-employed and young people entering the labour market for the first time after attending training programs are entitled to received unemployment benefits. These benefits may be claimed from the first day of unemployment for a maximum period of four years, it is taxable and the recipients pay into a supplementary pension scheme. In order to avoid potential incentives to voluntary unemployment, the system demands that the unemployed must actively seek a work. After a period of rather poor results with those policies aimed at facilitating the incorporation of the unemployed, with subsequent high rates of

long-term unemployment existing between 1979 and 1993, a new reform was launched in 1994. The novelty was the introduction of a two-year benefit period with an initial passive period of four years in which the unemployed person was not obliged to attend training and job-seeking programmes, followed by a second “activation” period of three years in which the attendance at these programmes was compulsory. From 1994 onwards, further reforms have systematically reduced the passive period while increasing the active one. In 1996 it was reduced to two years (six months for young unskilled workers), and then to one year in 1999. After the passive period, the activation period lasts three years in which period, the unemployed person must find a job. Otherwise he/she loses the right to receive unemployment benefit, although he/she may be eligible for social assistance.

Social assistance is an alternative scheme to the means tested type, which is aimed at families, rather than individuals. The numerous recipients are commonly young, immigrants and unskilled workers who have no unemployment insurance benefits or who have lost them. The total amount of benefits provided by social assistance cannot exceed 50% of the maximum unemployment insurance. Nevertheless, supplementary benefits such as housing can increase this percentage, but never above that amount which is provided by the unemployment insurance (OECD, 1999; Madsen, 2000; Ploug, 2001).

Social Expenditure and Family Policies

Denmark devoted 30,5% of its total public expenditure to social issues in 1997, a reasonable stable figure since the percentage was 30,4% in 1983 (although there have been changes in the interim, as the following table shows), it remains the highest percentage among the countries observed.

Table 7: Percentage of Social expenditure with respect to the total public expenditure

	Denmark
1983	30.4
1984	28.9
1985	28.1
1986	27.2
1987	27.9
1989	29.4
1990	28.5
1991	29.5
1992	30.0
1993	31.6
1994	32.4
1995	31.7
1996	31.5
1997	30.5

Source: OECD social expenditure data

The most remarkable aspect is the stability in the distribution of social expenditure shown by Denmark; it has maintained its percentages of Income, Non-income Transfer and Pensions practically unaltered. However, some particularities are important to note. In contrast to the other countries examined, Income Transfer expenditures (disability, occupational disease, sickness benefits, unemployment benefits etc) are predominant in Denmark, so that pensions do not represent the main portion of social expenditure, as is the case in Spain and Germany. Another important aspect of the Danish social expenditure is the significant reduction in the percentages of Non-income Transfers, which is especially notable in the active labour market projects and Health services.

The total percentage of social funds devoted to family contingencies reached 15,1% of the total social expenditure in 1997, the highest among the countries examined. These figures are above Spanish, German and UK ones. With respect to the percentage of total social expenditure, these figures continue to be the highest, (30,5%). Changes in family structure have had an

impact on the type of family policy needed; Denmark provides a telling example of this. This country, as with its Scandinavian counterparts, has witnessed a huge increase in single-parent families and a massive incorporation of women into the labour market which in turn has led to changes in family policies. As Fagnani (1994) contends working mothers are fully integrated into family policies in Denmark, in contrast to the antagonism between maternity and employment that is observed in Germany and Spain. The welfare state is the main provider of child care in contrast to the low levels of public involvement in the UK, Germany and Spain. Public day care provision for children, as measured by the degree of coverage, is one of the highest in Europe. Child allowance and care services are very generous (3.8% of GDP) and user fees are very low (Bjork 2000). Additionally, most elderly people in need of care live in public institutions and there is a very developed system of home help and nursing services for the elderly (Jamieson 1991). All this evidence leads Greve (2000: 102) to define Danish family policies as “gender-neutral, family-friendly-highly solidaristic”

2.3. United Kingdom

The UK represents a case of intense labour market deregulation which has created abundant flexible employment in the low wage sector. Part-time employment is a common solution, principally for married women, in order to satisfy the need for both paid work and time for unpaid domestic tasks (Hakim 1991,1995,1996, 1997). Part-time employment for married women might be acceptable as a secondary wage, but proves insufficient for single mother. It is therefore expected that a significant number of poor households will be lone parents. It also reflects a traditional view of gender roles, with men not expected to give up work for parental responsibilities, whereas women are commonly expected to be responsible for house-keeping and child care (Delphy 1984; McLanahan, Casper, and Sorensen 1995; Arber and

Table 8:Percentage of Social expenditure (desegregated) with respect to the total public expenditure

	1980	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
DENMARK																
1- All age cash benefits	21.7	21.7	21.4	20.9	21.9	22.5	22.5	22.3	22.2	23.0	23.2	23.2	22.7	22.0	24.2	24.1
2- Disability cash benefits	6.5	6.4	6.3	6.1	6.0	6.1	6.2	6.0	5.8	5.9	5.8	5.7	5.5	5.4	6.1	6.3
3- Occupational injury and disease.	0.6	0.6	0.7	0.8	0.8	0.9	1.3	1.0	1.0	0.8	0.8	0.8	0.8	1.0	0.6	0.7
4- Sickness Benefits	7.6	6.3	5.8	4.3	4.1	4.4	4.8	4.8	5.4	4.4	4.4	3.8	3.7	3.7	2.0	2.1
5- Services for the elderly and disab	10.0	10.3	10.4	9.9	9.9	10.3	10.3	10.0	9.7	9.4	9.3	9.0	8.7	7.5	8.8	9.5
6- Survivors	0.5	0.5	0.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
7- Family cash benefits	4.1	3.9	3.6	3.2	3.5	3.6	3.5	4.6	5.2	5.2	5.4	5.3	5.4	5.2	5.8	6.0
8- Family Services	6.6	7.1	7.2	6.7	6.7	6.8	7.0	7.1	7.0	6.7	6.7	6.6	6.6	6.7	6.8	6.6
9- Active Labour Market Projects	1.6	2.2	2.8	3.8	3.9	3.3	4.4	4.2	3.9	4.1	4.0	4.5	5.0	5.9	5.6	6.1
10- Unemployment	18.2	18.5	19.1	19.3	18.6	17.0	15.2	14.8	15.0	15.9	15.7	16.3	16.8	17.9	15.8	14.4
11- Health	21.0	20.9	20.8	19.5	19.7	20.1	20.0	20.1	19.8	19.1	18.9	18.8	18.7	18.4	16.9	16.4
12- Housing Benefits	1.5	1.5	1.5	1.6	1.8	1.8	1.9	2.0	2.1	2.2	2.4	2.5	2.6	2.7	2.5	2.5
13- Other contingencies				3.3	3.2	3.0	2.8	2.9	3.0	3.1	3.2	3.3	3.3	3.4	5.0	5.1
Family policies (7+8)	10,7	11	10,8	9,9	10,2	10,4	10,5	11,7	12,2	11,9	12,1	11,9	12	11,9	12,6	12,6
Family policies + housing (7+8+9)	12,2	12,5	12,3	11,5	12	12,2	12,4	13,7	14,3	14,1	14,5	14,4	14,6	14,6	15,1	15,1
INCOME TRANSFERS BUT PENSIONS (2+3+4+7+10+12+13)	38.5	37.2	36.9	37.7	37.9	36.8	35.7	36.2	37.5	37.5	37.8	37.8	38.1	39.4	37.7	37.1
NON INCOME TRANSFERS (8+9+11)	29.2	30.2	30.8	30.1	30.2	30.3	31.4	31.4	30.6	30	29.7	29.9	30.4	31	29.2	29.1
PENSIONS AND OTHER BENEFITS FOR NON EARNERS (1+5+6)	32.3	32.5	32.3	31.2	31.9	32.9	32.9	32.4	31.9	32.5	32.6	32.2	31.5	29.6	33.1	33.7

Source: own elaboration with data of Eurostat (Labour Force Survey)

Ginn's 1995; O'Reilly and Spee 1998). Family policies have chiefly focused on child care protection but this depends largely on the principle of self-responsibility. Cash benefits have been scarce and child care services have sought to allow parents, principally mothers, to make employment and maternity compatible. It is therefore a clear "market-oriented" family policy with an additional particularity: family and household policies are not chiefly aimed to "active" or "working" households but marginalised ones, principally made up of inactive and/or long-term unemployed, reinforcing therefore the "mean-test" character of the British welfare state.

These figures may place the UK in a sub-intermediate zone of high percentages of low wage workers - as a result of deregulation and flexibility-, moderate rates of household poverty - attributable to the spread of multi-earners households-, and moderate degree of household capacity to alleviate low-wages.

The Labour Market

The United Kingdom has undertaken one of the most intensive processes of labour reform following to the principles of economic efficiency and competitiveness. Conservative governments sought to subordinate labour relations to the needs of free markets through a series of measurements such as abolishing national wage fixing arrangements; altering the burden of proof in cases of unfair dismissal; excluding part-timers who work less than 20 hours per week from employment protection, reducing some maternity rights; and removing legal protection for unfair dismissal and redundancy compensation for workers with less than two years of services. The incoming labour government in 1997 followed similar principles of maximising labour occupation and minimising welfare state dependency through the new concept of "welfare to work".

The intensity of these changes was facilitated by the absence of legislative rules governing working conditions and the historical preference for voluntary regulation at the workplace.

This context enabled the application of neo-liberal remedies. In this sense, Thatcherism can be seen as an attempt to "return to old British habits" of limited state intervention and voluntarism, but within a new economic framework in which unions' bargaining power has been eroded, individual rights reduced and the state's responsibility for welfare provision limited and partially substituted by a new "enterprise culture" which encourages individuals to assume their own initiative and responsibility in the context of free markets relations (Edwards et. al. 1992). Some regulation obviously did take place, principally anti-discriminatory laws (equal pay for equal work and authorisation for female working in quarries and mines) as well as training programs for young people and adults. However these labour regulations may have been motivated more by a concern to prevent labour shortage than by any enthusiasm for greater equality (Towers 1993: 334) and, I add, by some EC pressure.

The Labour government in the period 1974-1979 strengthened protection against unfair dismissal, introduced rights to maternity leave and guaranteed redundancy pay for 5 days pay per three months. After 1979 these rights were modified : a-) legal protection against unfair dismissal and redundancy compensation was limited to workers with more than two years service (previously six months had been sufficient) b-) the burden of proof was altered, so that responsibility to demonstrate that a dismissal was unfair, lay now partly on employees as well as their employers, c-) minimum compensations in case of dismissal was abolished, d-) tribunals had to take into account a firm's size and resources to decide if dismissals were reasonable and e-) although time-off for prenatal care was authorised, maternity rights (payment and leave) became more difficult to obtain (MacInnes 1987; Rubery, Wilkinson and Tarling 1989; Towers 1993) .

It is important to note that the strategy for the reduction of employment protection was accompanied by the reductions in legal distinction between "standard and non-standard" employment; therefore, differences between "insiders" and "outsiders" in the UK can be somewhat misleading. As Rubery

(1989: 61) argues, there were few employment rights associated with status and those that were established in the 1970s by the labour government, such as unfair dismissal protection, were considerably reduced during the 1980s. Thus, it is easier for UK employers to persuade individuals to take on non-regular work, and self-employment may seem an attractive proposition because of the opportunities one has to reduce or delay tax payments. However, the incentives for individuals to become temporary workers have been considerably reduced through the tightening up of Inland Revenue regulations, which require even temporary workers to be taxed through the “Pay as You Earn” system as if they were employed for 52 weeks, with taxes refundable only at the end of the year. The conservative government has also favoured both the abolition of minimum wage legislation¹² and more decentralised methods of pay determination. Moreover, the unions’ bargaining power has been severely reduced. From the mid-nineties onwards, the Labour Party followed the general spirit of work-welfare policies started under Thatcher and Major, and rejected their previous commitment to economic security for the unemployed while supporting a flexible de-regulated labour market as the key to creating employment (Clasen 2001).

These far-reaching changes in the orientation of labour policies have strongly modified the shape of the UK labour market. The growth of employment, measured in absolute terms, has been particularly salient among part-timers, followed by non-agricultural self-employment, temporary jobs and finally indefinite full-time contracts.

¹² Although national minimum wage did not exist in UK, wage councils could establish them for certain industries, and government could extend that regulation to non-union areas. After 1979, that possibility was abolished. In 1982, the government’s obligation to observe the terms and conditions of minimum wages which was established by successive House of Commons resolutions since 1891 was abolished. Four years later the wage councils’ power was reduced and those under 21 years old were excluded from the scope of legislation. Furthermore, the privatisation of major government - owned industries permitted them to pay wages below the limits set by the minimum standards. (Rubery et al 1989)

Table 9: Employment growth in the period 1983-1997 (absolute figures)

Total Employment growth (%)	Perm full-time employment growth	Part-time employment growth	Temporary employment growth	Self-employment growth
12,3	2,3	56,2	12,21	29,3

Source: own elaboration with data of Eurostat (Labour Force Survey)

Measured in relative terms, “atypical” employment has grown faster than the typical kind, increasing therefore its importance in relation to the total employment, as the following table shows (although it should be noted that part-time figures were already high in 1983). For lack of a better name, I call this tendency “the Activation Effect”, since the invigoration of “atypical” employment has resulted in significant reductions of unemployment and increasing rates of activity.

Table 10: Patters of evolution of different types of employment and activity

	Average in the period 1983-97 (%)	1983	1985	1987	1989	1991	1993	1995	1996	1997
Permanent	64,4	67,6	66,8	65,0	64,8	64,7	62,4	61,5	61,2	61,3
Temporary	2,4	2,6	2,0	2,1	1,7	1,6	2,6	3,2	3,3	3,4
Part-time	19,4	18,3	18,4	19,3	18,6	19,3	20,0	20,7	21,3	21,5
Self-employ	11,4	10,1	10,5	11,5	12,3	11,9	11,6	12,1	11,8	11,8
Unemploy	9,4	11,1	11,3	10,8	7,4	8,6	10,4	8,8	8,3	7,1
Activity	74,6	70,9	73,6	74,5	76,2	76,1	75,2	74,7	74,9	75
Female activi	42,8	41,1	41,5	42,3	43,1	43,3	43,8	43,9	44,1	44,3

Source: own elaboration with data of Eurostat (Labour Force Survey)

The substitution of atypical by typical employment has resulted in a considerable incorporation of people into the labour market, principally women in part-time jobs. As with Spain, the increase of atypical employment has been very marked but unlike Spain, the rate of activity has increased while has decreased unemployment. Furthermore, the bulk of atypical work has been taken up by women. This is the most notable particularity of the UK labour markets, namely the gender oriented character of their processes of activation. Female part-time jobs represented 40,3% of total female employment and only 6,3% of total male

employment in 1997, whereas the opposite applies to permanent full-time employment (72% of male employees held “typical” employment, compared with 48% of females).

Nevertheless, these positive results might give a distorted image of what has happened in the UK labour market. Male inactivity has increased considerably and unemployment among men is higher than it is among women, due to the decline in predominantly male types of employment and the growth of part-time jobs, which are generally carried out by women (Gregg and Wadsworth 1999, Clasen 2001). Additionally, about one in four jobs are part-time, the level of low-pay employment is the highest among the countries examined in this research, and poverty and inequality are among the highest in Western economies. The “activation effect” should be interpreted therefore with caution. The positive economic implications of decreasing unemployment and increasing active population rates should be tempered by the negative results of low pay employment and poverty.

Unemployment Benefits

The UK system of unemployment benefits is characterised by its centralisation, the strong of means-testing, the low level of benefits, the low share of public expenditure which goes to benefits received by the unemployed and the increasing importance of active policies (training and job seeking) at the expense of passive measures (Clasen 2001). These features are the result of the prevailing Thatcher ideology of non-intervention and the new “welfare to work” orientation introduced by Blair’s government. Unemployment benefits have not therefore seen significant reforms in the last twenty years, but only small and cumulative changes which were oriented towards the invigoration of active supply-side policies.

The incoming conservative government in 1979 sought to cut social security and enhance work incentives, so that in the 1980s significant restrictions characterised unemployment benefit policies (Atkinson and Micklewright 1991). The high rates of

unemployment reached at the end of the decade legitimated new policies that increasingly required the unemployed to take up low-paid employment generated by the deregulated economy (Finn 1998). During the nineties, unemployment policies sought to maximise labour force participation and minimise welfare state dependency (Dean 2001).

Social expenditure and Family Policies

21,6 out of 100 pounds in the UK are devoted to social issues, a higher percentage as compared to Spain, but lower than that observed in Germany (26,6 %) and Denmark (30,5%). This percentage has been more or less maintained throughout the years observed - except in the period 1992-96 where important increases can be observed.

Table 11: Percentage of Social expenditure with respect to the total public expenditure

	<i>United Kingdom</i>
<i>1983</i>	21.0
<i>1984</i>	21.1
<i>1985</i>	21.2
<i>1986</i>	21.3
<i>1987</i>	20.6
<i>1989</i>	18.9
<i>1990</i>	19.6
<i>1991</i>	21.3
<i>1992</i>	23.3
<i>1993</i>	24.0
<i>1994</i>	23.4
<i>1995</i>	23.1
<i>1996</i>	22.7
<i>1997</i>	21.6

Source: OECD social expenditure data

In the UK the preference for Income-Transfers (sickness, disability, unemployment benefits etc), which represents 35% of total public expenditure, has increased at the expense of

continuous Non-Income transfers (active labour policies and health), which have decreased to 29,6% of total public expenditure in 1997, with pensions representing 35,4%. This tendency is due to significant increases in disability and Housing benefits, although unemployment benefits have been progressively reduced after a period of increases.

Judging from the results of this research the importance given to family policies (10%) and housing (8%) by the conservative governments is the most notable. These two contingencies represented around 18% of the total social expenditure in 1997, the highest rates among the countries examined, higher than that observed in Denmark (15%), another prototypical non-familialistic country. Although the percentage of public expenditure devoted to social contingencies is significantly lower in the UK (21,6%) than in Denmark (30,5%), the importance of family and housing policies is quite similar in both countries highlighting their non-familialistic character. However, the purpose of these family policies has been motivated by different reasons in each country. The conservative governments sought to preserve the “traditional” male breadwinner family at the expense of increased participations in the UK’s labour market, (Sims-Schouten 2000; Dean and Shah 2001), whereas Danish family policies sought to promote gender equality and employment opportunities in Denmark (Greve 2000). Although household benefits¹³ are still considered a basic benefit defining the British welfare state, the policy of council-house privatisation (Housing Act 1980, 1988, 1995 of “right to buy”) constitutes a real turning point with respect to previous periods. In contrast to the “historical public commitment” to housing provision, initiated in the post-war period, the conservative government’s main purpose was the reduction of household benefits and the privatisation of public properties, principally council houses. There has been much discussion about the gainers

¹³ Housing benefits is a means tested benefits. The amount of HB to which a household is entitled is a function of three elements :a- needs allowance based on household composition and size, b- income after tax, national insurance and c- other disregards, eligible rent and rates.

and losers from the 1982/83, 1988 reforms and from the cuts that were made in the scheme during the 1980s. In general there is a widely held view that these reforms principally favoured middle class groups who were able to buy council houses. The spare council houses were occupied by poor families, so that, household policies resulted in the marginalisation of groups of poor families (Forrest and Murie 1983, 1989; Malpass 1992; Power 1993; James, Jordan and Kay 1993; Kleiman 1996).

UK family policies, along with other policies during the 1980s and 1990s, followed the principle that social policy should not interfere with the family's responsibility and autonomy. Thatcher's comment that "there is no such thing as society. There are individual men and women and there are families", exemplified the liberal philosophy of self-reliance and families responsibilities in supporting those at risk (Abbott and Wallace 1992, Ostner 1994). However, the conservative government did launch certain policies with the declared aim of preventing the deregulated labour market from affecting the "traditional" family structure. Government policies established a safety net for children in need, which consisted in day nurseries that catered to children six weeks to five years old. Although a low level of public sector involvement is noticeable in the UK, local authorities have assumed some responsibility for the regulation of private services, alongside voluntary organisations which have gained ground in the last years. Local authorities established nursery schools and classes for children from three to five years old. These policies sought to guarantee a minimum acceptable living standard for children who are perceived as being at risk, and whose home conditions were considered detrimental, while at the same time encouraging female participation through part-time jobs and low wage employment generated by the deregulated labour market (Ruspini 1997, 1999). The provision of child care however is chiefly private. Admission to child care provision does not require parental employment, except for lone parents. A group that is particularly abundant in this country, and is made up mainly of single mothers, widows, separated or divorced parents. Family

policies, however, principally seek to protect single mothers (OCDE 1997).

2.4. Germany

The preference for a regulated labour market and internal flexibility make Germany another typical case; which contrasts with the tendencies observed in Spain, Denmark and the UK. A high degree of regulation has sought to protect the employment status of the breadwinner, whereas the growth of “atypical” employment in recent years has served as an additional source of employment creation, and by extension as an additional source of income. Social policies, especially family policies, have reinforced this strategy of protecting the main earner by implementing policies that show partiality towards a traditional household model in which wives are expected to remain at home with their children, with only intermittent labour experiences, through temporary work or part-time jobs. In this sense there are certain similarities between the UK and Germany in their objective of protecting traditional household models and also the importance of subsidy principles. However, the regulated German labour market and the generosity of its welfare state display significant difference with the UK. There are also similarities with Spain in the high degree of familialism and labour regulation, although the Spanish labour market periphery is certainly more precarious (temporary employment tends to be a stepping stone toward permanent employment in Germany whereas this transition is very rare in Spain). “Bad” part-time jobs are less abundant than in Spain and the UK and the system of unemployment benefits, although under continuous strain, does not oblige the unemployed to take up low-paid employment, in contrast with the British model of compulsory acceptance.

Table 12: Percentage of Social expenditure (desegregated) with respect to the total public expenditure

	1980	81	82	83	84	85	86	87	88	89	90	92	94	95	96	97
UNITED KINGDOM																
1- All age cash benefits	27.7	27.9	28.7	27.4	27.2	26.4	26.3	26.4	26.4	26.8	32.7	32.6	30.4	29.7	28.6	28.7
2- Disability cash benefits	4.7	4.7	5.0	5.2	5.5	5.6	6.0	6.3	6.8	7.2	8.4	9.3	10.1	11.2	11.8	11.7
3- Occupational injury and disease.	1.3	1.1	1.1	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8
4- Sickness Benefits																
5- Services for the elderly and disab	2.9	2.7	2.7	2.5	2.4	2.3	2.4	2.6	2.7	2.6	2.6	2.6	2.5	2.6	3.0	3.0
6- Survivors	9.6	8.9	8.1	7.9	7.6	7.2	7.1	6.8	6.7	6.3	3.8	3.8	3.6	3.6	3.6	3.7
7- Family cash benefits	9.7	9.6	9.4	8.9	8.9	8.7	8.3	8.2	8.9	8.8	8.0	8.1	8.2	8.3	8.3	8.3
8- Family Services	2.8	2.6	2.5	2.4	2.2	2.1	2.1	2.1	2.0	2.1	2.0	1.9	1.8	1.9	2.1	2.1
9- Active Labour Market Projects	3.1	3.0	2.9	2.8	3.4	3.5	4.0	4.2	3.9	3.5	3.1	2.6	2.5	2.4	2.3	2.0
10- Unemployment benefits	5.8	7.3	8.2	8.4	8.4	8.4	7.8	6.4	4.5	3.3	3.4	4.9	5.6	5.2	4.5	4.0
11- Health	26.7	25.8	24.4	24.6	23.9	23.3	22.9	23.5	24.8	25.5	25.6	25.4	25.3	24.6	25.0	25.5
12- Housing Benefits	0.7	1.1	1.8	3.9	4.2	6.1	6.1	6.1	5.7	5.9	6.7	5.9	7.0	7.6	8.1	8.2
13- Other contingencies	3.5	3.8	4.2	3.8	4.2	4.2	4.8	5.1	5.3	5.5	0.9	1.0	1.0	1.1	1.1	1.2
Family Policies (7+8)	12,5	12,2	11,9	11,3	11,1	10,8	10,4	10,3	10,9	10,9	10	10	10	10,2	10,4	10,4
Family policies + housing (7+8+12)	13,2	13,3	13,7	15,2	15,3	16,9	16,5	16,4	16,6	16,8	16,7	15,9	17	17,8	18,5	18,6
INCOME TRANSFERS BUT PENSIONS (2+3+4+7+10+12+13)	27.2	29.1	30.8	32.5	33.4	35.2	35.1	34.4	33.6	33.1	30.3	31.1	33.9	35.2	35.5	35
NON INCOME TRANSFERS (8+9+11)	32.6	31.4	29.7	29.7	29.4	28.9	29.1	29.8	30.6	31.1	30.6	29.9	29.6	28.8	29.4	29.6
PENSIONS AND OTHER BENEFITS FOR NON EARNERS (1+5+6)	40.2	39.5	39.5	37.8	37.2	36.0	35.8	35.8	35.9	35.8	39.1	39.0	36.5	35.9	35.1	35.4

Source: own elaboration with data of OECD (Social Expenditure Database)

The Labour Market

In contrast to Spain and the United Kingdom, Germany has maintained a high degree of labour market regulation up to 1998. As the Council of Economic Advisers indicated in 1981 : *“The improvement of competitiveness must be achieved through the introduction of new products, i.e., those whose production requires special technical knowledge available only to a few suppliers. Such products are competitive not because they are particularly cheap, but because of their utility to those who use them; in short, because they are particularly expensive”*¹⁴. This strategy was accompanied by moderate amounts of deregulation during the eighties. Different strategies of flexibility were carried out, especially those relating to hiring conditions, labour force participation and working time. Such strategies however did not prevent Germany from maintaining a high labour market degree of regulation in general. The attitude of unions and a significant part of the CDU toward deregulation, employers’ preferences for a regulated system of collective bargaining, the importance of legislation in regulating working conditions, the highly efficient training system and the existing internal flexibility, explain such moderate levels of deregulation (Jacobi, Keller and Müller-Jentsch 1992)

Employment stability through fixed-term contracts was considered a priority in Germany until the mid-nineties. Temporary contracts were strictly limited to seasonal work, the replacement of temporarily absent permanent employees, temporary help in periods of peak demand, tasks that are temporary in nature and employment in the context of training programs. Outside of these “legitimated causes” exceptions, temporary work was banned. But the Law of Employment Protection of 1985 included economic uncertainty as a “legitimated cause” for the use of temporary contracts. This qualitative change had an uneven effect in Germany. As Brunhes

¹⁴ Cited in Jacobi, Keller and Müller-Jentsch 1992: 221

(1989: 22) points out, although most enterprises welcomed the Employment Promotion Act, only small and medium size firms have used temporary contracts intensively. Large firms have maintained their preference for stable employment. Bürchtemann (1993) draws a similar conclusion by analysing a representative survey of establishments in the private sector¹⁵. Consequently the Act of 1985 in Germany did not achieve the same impact as similar laws enacted in other European countries during the 1980s.

Variations in working hours have also been at the centre of discussion since 1987. Both employers and unions have interpreted differently how internal flexibility should be modified. The former sought to replace the regular working day with a more flexible time regime, while unions sought to reduce working hours¹⁶. Confronted by these opposing points of view, industrial agreements, especially the Agreement within the metal-working industry in 1984, sought to reconcile the conflicting interpretations with each other: a reduction in working hours together with a longer period within which working hours could be altered. Although wages rose during the recession of the 70s, unions accepted wage control recommendations in the 80s, and therefore real wages fell during the period 1980 to 1984. The unions' prudence must be understood in the context of an inflationary crisis which was similar to that experienced in the 1920s (Schmidt 1989). Finally, social benefits, and more specifically unemployment benefits experienced considerable variation during the decade. The replacement rate was reduced; suitable work for

¹⁵ This author asserts that even though the use of fixed-term contracts increased considerably during the 80s, most firms in the private sector made no use of these contrasts (67% of firms surveyed). The group of firms hiring temporarily (33%), and specifically those using fixed-term contracts intensively, consisted largely of small enterprises characterised by relatively significant fluctuations in demand, due to irregular orders, high worker turnover, a relatively high share of wage costs in total production cost, a rather low-skilled work force and a marked negative trend in overall employment during the period observed.

¹⁶ The federal government plays a marginal role in this field since working hours, holidays etc. are determined in free collective bargaining between unions and entrepreneurs.

the unemployed was redefined and accessibility to certain benefits was reduced.

As for other aspects of the labour market, it is relevant to note the important role played by functional flexibility in the German labour market, specifically its historical capacity to adjust to technological change. Unions have only infrequently objected to the restructuring of the work force when this has been due to technological requirements. The Unions' behaviour together with Germany's efficient training system has allowed Germany to cope successfully with structural changes. This capacity should be taken into account when explaining why this country has carried out only moderate labour deregulation.

These strategies have significantly influenced the shape of the German labour market. As the following table shows, the growth of employment coincides with a significant increase in permanent fulltime jobs. This "typical" form of employment has increased more than part-time, temporary work and self-employment. This is in marked contrast to the tendency observed in Spain, where permanent employment has been in decline and in the UK where the growth of this form of employment has only been marginal.

Table 13: Employment growth in the period 1983-1997 (absolute figures)

	Total employment growth (%)	Perm full-time employment growth	Part-time employment growth	Temporary employment growth	Self-employment growth
Germany	28,3	46,9	28,1	12,90	12,1

Source: own elaboration with data of Eurostat (Labour Force Survey)

Measured in relative terms, the growth of "atypical" employment has been at the expense of the percentage of permanent full-time employment. At first glance, Germany seems to follow a pathway of "activation" similar to that observed in the UK. The growth of atypical employment has coincided with a decrease in the typical type and an increase in the active population. However, unemployment increased during the period observed. I therefore consider the German case as an hybrid

between the activation and the substitution effect observed in the UK and Spain.

Table 14: Patters of evolution of different types of employment and activity

	Average in the period 1983-97 (%)	1983	1985	1987	1989	1991	1993	1995	1996	1997
Permanent	67,7	69,7	69,2	68,1	68,3	69,3	67,8	66,8	65,8	64,4
Temporary	8,3	7,5	7,8	9,3	8,6	7,8	8,0	7,8	8,7	9,1
Part-time	12,5	10,3	10,8	10,8	11,6	12,5	13,3	14,6	14,8	15,6
Self-employ	7,8	7,5	7,4	7,5	7,8	7,2	7,9	8,4	8,8	9,1
Unemploy	6,9	6,2	6,8	6,8	5,7	5,3	7,7	8,2	8,8	9,8
Activity	68,7	64,1	66,2	67	68,1	71,7	70,5	70,5	70,4	70,6
Female activi	41,2	39,3	39,7	39,5	39,8	42,5	42,5	43,0	43,2	43,3

Source: own elaboration with data of Eurostat (Labour Force Survey)

Unemployment Benefits

As Reissert (2001) has contended, the German unemployment protection system is based upon two basic principles: the insurance principle - whose principal aim is to protect the previous standard of living and is determined, therefore, by insurance contributions, which are paid prior to unemployment-, and the welfare principle which is aimed at providing a minimum level of income, and is usually independent of previous contributions.

Although the system has undergone no substantial reform since 1970, some modifications have been carried out. New concerns about the increase in unemployment during the eighties, and the process of unification during the nineties, imposed economic restrictions. Two changes in labour market policies have affected the system of employment protection (although it must be noted that both measures were launched in 1998, that is, after the period of analysis): the idea that more flexible forms of work are necessary in internationalised economies nowadays, and that passive policies, with their corresponding demand for self-responsibility are ineffective in creating employment.

Contrary to the UK system, that requires the unemployed to take up low-paid employment, the German system allowed beneficiaries to refuse jobs below their qualification level, because

of the difficulty in subsequently reintegrating into a job at that level. In addition, there were different layers of benefits that allowed the unemployed to spend prolonged periods in subsidised unemployment. Apart from the unemployment insurances taken up by those entering unemployment after having worked at least 12 months in the last three years, there are two complementary sources of income support for the unemployed: the unemployment assistance and the social assistance (which applied to all persons in need irrespective of their previous employment status (Reissert 2001: 15).

As to the promotion of more flexible employment, the reduction in working time was designed to facilitate the diffusion of part-time jobs. In 1994, those unemployed who voluntarily accepted a reduction in working hours (less than 80% of the standard working hours) were treated as if they had not reduced their working hours, for the purpose of their unemployment benefits which were to be calculated as if they had been working on a standard basis. Subsequently, in 1998, part-timers working less than 18 hours per month were allowed to receive partial unemployment benefits. Additionally, those in seasonal employment were entitled to unemployment insurance after six months, instead of the twelve months normally required. Labour training was also promoted. Those who entered into training schemes could qualify for a training allowance (the equivalence of unemployment assistance) that might qualify them for unemployment insurance. Most of these measures however, were abolished in 1998.

Social Expenditure and Family Policies

Germany devoted about one in four D-marks to finance its social programs, with a slightly increasing tendency from 23,9% in 1983 to 26,6% in 1997, placing Germany in the highest position for social expenditure.

Table 15: Percentage of Social expenditure with respect to the total public expenditure

	Germany
1983	23.9
1984	23.6
1985	24.3
1986	24.2
1987	24.5
1989	23.6
1990	22.9
1991	25.0
1992	26.5
1993	26.9
1994	26.7
1995	27.2
1996	27.2
1997	26.6

Source: OECD social expenditure data

Although the percentage of public expenditure devoted to social programs is very different, Germany and Spain display similarities in the way they distribute that social expenditures. The highest percentages accrues to pensions (36,7% in 1997, which reaches 40,9% when other benefits for widows etc. are added). Unemployment benefits and other income transfers relative to disability, occupational disease, sickness benefits etc represent another 22%, whereas health services and other non-income transfers represent a limited 36%; these German figures are very similar to those shown in Spain. Yet, what clearly constitutes a difference, from the perspective of this research is the percentage of social expenditure which is devoted to family policies and housing; which is significantly higher in Germany (7,7%) than in Spain (2%), although the tendency is to reduce this spending in Germany. These results reinforce the familialistic character of these countries where public policies assume that households must bear the responsibility of their members' welfare in contrast to the non-familialistic character observed in the UK and Denmark.

Generally speaking, family policies in Germany strengthen the antagonism between maternity and employment (Fanagnì 1994) and reinforce the principle of subsidiarity, (the priority of the smaller unit over the wider community or state), that is to say, the nearest relative of a person in need of care is expected to provide for that care. If this relative cannot afford such care, the second sphere of solidarity is the community and only finally the state (Ostner 1994). The level of public involvement in child care facilities for children under three is very low, affecting around 3% of the total child population under three. Kindergartens are not part of the educational system and tend to be managed by churches. In the same vein, public support for elderly people in need of care is rather limited. More than 90 % of elderly people are normally cared for by a close relative (Ostner 1994) as is the case in Spain.

Although parental leave policies are quite generous (there is no previous work requirements for taking two years paid leave, although this is means-tested after seven months) this policy is usually envisaged as a mean of subsidising females in the labour market (Lewis 1994). Women are entitled to paid leave for 6 weeks before and 8 weeks after childbirth, and both partners may take up to 12 months unpaid leave after that period .

Summary

All the arguments set out here point to the same conclusion: that each country represents a typical case study which is embedded in particularities of the way in which the workers, households and the welfare state relate to each other: Spain represents a prototypical case of a segmented labour market of protected insiders and unprotected outsiders with a limited welfare state in which family policies are practically absent. This picture contrasts with the flexible labour market and the gender-neutral, family-friendly-high solidaristic welfare state of Denmark. The

Table 16: Percentage of Social expenditure (desegregated) with respect to the total public expenditure

	1980	81	82	83	84	85	86	87	88	89	90	92	94	95	96	97
GERMANY																
1- Elderly cash benefits	42.14	40.9	41.2	42.0	42.4	40.9	40.6	40.5	40.3	41.3	41	37.6	36.2	36.1	36.3	36.7
2- Disability cash benefi	4.7	4.5	4.4	4.2	4.1	3.9	3.6	3.6	3.5	3.6	3.5	3.4	3.4	3.5	3.6	3.9
3- Occupational injury and disease.	1.9	1.8	1.8	1.8	1.8	1.6	1.6	1.5	1.5	1.5	1.5	1.3	1.3	1.3	1.3	1.2
4- Sickness Benefits	2.1	1.9	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.7	1.7	1.6	1.7	1.7
5- Services for the elderly and disab	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.5	1.6	1.6	1.7	2.0	2.1	2.2	2.3	2.1
6- Survivors	3.5	3.3	3.2	3.1	3.1	2.9	2.9	2.8	2.7	2.5	2.4	2.0	1.9	1.9	2.1	2.1
7- Family cash benefits	7.8	7.7	6.8	6.2	5.8	5.4	5.5	5.6	5.4	5.4	5.3	5.4	5.2	4.8	4.5	4.4
8- Family Services	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2	2.7	2.8	2.9	2.9	2.8
9- Active Labour Market Projects						3.2	3.7	4.1	4.3	4.3	4.5	5.3	6.3	5.8	5.0	4.9
10- Unemployment Benefits	3.3	5.2	6.9	7.0	6.2	5.7	5.4	5.5	5.5	5.1	4.8	7.1	7.3	9.3	9.2	8.5
11- Health	29.3	29.4	28.6	28.7	29.4	29.1	29.0	28.7	29.1	28.0	28.7	29.0	29.2	27.9	28.3	29.0
12- Housing Benefits	0.5	0.6	0.6	0.6	0.5	0.5	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.5
13- Other contingencies	1.2	1.2	1.3	1.4	1.5	1.7	1.8	1.9	1.9	2.4	2.2	1.9	1.8	1.9	2.2	2.2
Family Policies (7+8)	10	9,8	8,8	8,2	7,8	7,3	7,5	7,6	7,4	7,4	7,5	8,1	8	7,7	7,4	7,2
Family policies + housing (7+8+12)	10,5	10,4	9,4	8,8	8,3	7,8	8,2	8,3	8,1	8,1	8,1	8,7	8,7	8,4	8	7,7
INCOME TRANSFERS EXCLUDING PENSIONS (2+3+4+7+10+12+13)	21.5	22.9	23.4	22.7	21.5	20.3	20.3	20.4	20.1	20.4	19.5	21.4	21.4	23.2	23.1	22.4
NON INCOME TRANSFERS (8+9+11)	31.5	31.5	30.6	30.7	31.5	34.3	34.7	34.8	35.4	34.3	35.4	37	38.4	36.7	36.2	36.7
PENSIONS AND OTHER BENEFITS FOR WIDOWS, ORPHANS ETC (1+5+6)	47.0	45.7	46.0	46.6	47.0	45.3	45.1	44.9	44.5	45.3	45.1	41.6	40.2	40.1	40.7	40.9

Source: own elaboration with data of OECD (Social Expenditure Database)

UK represents a flexible labour market, with a residual welfare state whose family policies have tried to favour self-responsibility in addition to maintaining the traditional household model, which has resulted in a massive incorporation of women into the labour market who principally hold part-time jobs. Germany also shows a segmented labour market, although the degree of segmentation is less strict than in Spain and with more generous benefits and family policies that are highly conditioned upon principles of subsidiarity.

In the following chapter I aspire to ratify the proposed hypotheses by first measuring the volume of low-wage employment and the socio-economic context in which this type of employment frequently emerges. Secondly I will dissect low wage employment, identifying its most relevant components. Thirdly, I analyse the character of household poverty in the countries observed and trace the connection between low-wage employment and household poverty. The aim being to identify those low wage workers who live in poor households and those who live in non-poor households. This should shed light on the relative importance of the labour market, the family and the welfare state in explaining patterns of connection between low-wage employment and poverty.

PART ONE: BACKGROUND AND FINDINGS IN THE LITERATURE

1.1. The Labour Market, The Family and the Welfare State in the Golden Age of Capitalism

The labour market, the family and the (welfare) state have undergone profound transformations in the last thirty years. In the Golden age of capitalism the apogee of certain forms of industrial production (Taylorism-Fordism), social provision (Welfare States), public economic intervention (Keynesianism) and family articulation (male breadwinner model) moulded the entire socio-economic order of what Crouch (1999) has defined as the Mid-Century Compromise.¹

Employers sought to create a loyal, attached and internal labour force, whereas unions main concern was to protect wages and jobs (Sengenberger, 1981). This convergence of interests, in a context of economic growth, facilitated labour legislation which gave rise to the predominance of secure, well-paid and full-time employment. Public spending not only improved labour force skills through educational policies, but also provided the out-of-work population (unemployed and pensioners) a guarantee of demand which stimulated more production, while conferring legitimacy to the Mid -Century Compromise.

Fordist techniques of production facilitated unprecedented growth in productivity. It was undoubtedly a time in which industrial production predominated and where the efficiency associated with fordist techniques of production (to strip down production to its simplest components, in order to assemble them in sequential production lines) achieved unprecedented development. A period of significant and durable growth in productivity resulted from the rapid installation of new, highly-productive systems of manufacture and the quick scrapping of old, low-productive machines.

The family also played its part in conforming to this period of growth and prosperity. The relationship between employment and social protection emerged around the male breadwinner family model, that is, “ a model in which the husband is the sole agent operating within the market sector, deploying his labour in order to secure the funds necessary to support a dependent wife and children. In exchange the wife assumes responsibility for the unpaid labour required for the everyday reproduction of her husband’s market work, such as cooking, cleaning and laundering. In addition, she provides for the intergenerational reproduction of labour: the bearing and raising of children” (Janssens 1994: 3). Such male employment dominance came from the triumph of the liberal principle of leaving the sphere of family and work separated, but not isolated,. As Crouch (1999) contends, the potential conflict between the criteria governing the economy, which is rooted in rational and calculated exchange relations, and those governing the family was achieved by segregating married females from the labour market. As a result, female labour participation was comparatively lower, intermittent and predominantly in “atypical” jobs (Lewis 1992, O’Reilly and Spee 1997, Rubery et al. 1997). Although this model

¹ For Colin Crouch the “Mid-Century Compromise” basically meant the acceptance of a primary framework of property ownership together with certain rights of citizenship in predominantly industrial and sociologically liberal societies. A mutual concession that made possible the institutionalisation of conflicts stem from the tensions that exist between the inequalities inherent in capitalist property ownership and the idea of equality embedded in the concept of mass citizenship.

was never fully realised because women always participated in the labour market, it constituted the prototypical model during the Golden age of capitalism in western economies.

In sum, it is possible to state that the confluence of these spheres of welfarism, keynesianism, Taylorism and female segregation, in the context of a working-middle class compromise, gave rise to predominantly male, life-long, continuous full-time employment with a family structure that was principally of the male breadwinner type and with states devoting increasing attention to social policies.

1.2. The Turning Point: The Labour Market, the Family and the Welfare State from the Eighties onwards.

The oil crises of 1973-74 and 1978-79 altered the previous scenario of economic growth and abundant stable employment, which predominated during the Golden Age of Capitalism. The decline in real rates of GDP and the on-going increase in public deficit and inflation, together with a slowdown in productivity and profits and a increase in unemployment gave way to a period of economic uncertainty which transformed the socio-economic order of the period of Mid-Century Compromise. The need to maintain profitability under more restrictive economic conditions led employers to focus on achieving real productivity gains, expanding their markets and engaging in organisational decentralisation. These aims made necessary wider and more intensive processes of deregulation and employment flexibility that profoundly altered the previous labour scenario, (Castells 1996). The new economic scenario was interpreted as a no-return pathway of flexible employment consolidation, which gave way to a new epoch of “flexible specialisation” (Piore and Sabel 1984)². Fordist principals of mass production, with assembly lines, economies of scale and consolidated job permanency, were considered to be incompatible with “post-industrial” requirements and employment creation was thought to be highly conditional upon the expansion of flexible work conditions. Unions reacted negatively by opposing modifications that involved reductions in labour rights, at least for “their” unionised workers. Employers responded to these pressures by developing parallel systems of production using workers with less favourable job stability, wages and promotion prospects (Berger and Piore 1980, Sengenberger 1981)³. This lack of coincidence was considered crucial in explaining

² These authors recognise the existence of two basic types of industrial production (mass production, characterised by standardised products manufactured in big industries, run by low –semi skilled workers, and flexible specialisation, a system of continuously updated skilled labour force producing customised goods) which have historically co-existed. From the 70s onwards flexible specialisation has become predominant for several reasons, (the fragmentation of markets, the diversification of products, taste and consumer demands, the development of technologies applied to production) which have favoured a more open economy. This openness has reduced the disadvantages faced by small firms and has favoured networks of small firms in which the employer-employee relationship has substantially modified under new requirements of innovation. In this framework the skilled workers operate through the whole process of production, assume more independence and responsibility than ever before.

³ Segmentation theories sought to blur “human capital” assessment regarding the strong correlation among educational qualifications, workers’ productivity and incomes. Authors such as Gary Becker (1964) had contended that those who invest more in their own education are more productive, and consequently get more secure and better paid jobs. To Becker’s view, the best paid workers are those with the highest amount of human capital at their disposal. Therefore wages, and by extension better access to superior employment conditions, reflect the investment in human capital of each worker. But these explanations fail to satisfactorily accommodate the abundant facts supporting the idea of compartmentalised spheres associated to different levels of stability, wages and promotion inside the firm as well as the disparity of wages among employees with equivalent skills. Initially labour segmentation was attributed to the firm size (Averitt 1968) so that the largest firms usually offered protected permanent employment whereas the smallest firms normally offered only unprotected temporary jobs. But the tripartite structure of the economy with core, periphery and irregular components was also used to explain a motive of segmentation. In Bluestone’s (1970) view, firms in the core usually provide stability and high wages as a result of their higher productivity and profits, intensive utilisation of capital and monopoly elements and their higher degree of unionisation. By contrasts workers in the periphery usually have insecure low-paid jobs because firms here are mainly of a small size, and are characterised by labour intensity, low profits, low productivity, intensive product market competition and poor unionisation. From a demand side perspective Doeringer and Piore (1971) interpreted segmentation as principally a question of technical specialisation associated with employers’ drive for increasing productivity. Despite considerable problems of growing rigidity, employers promote internal labour markets of secure and well-paid employment to reduce the costs of turnover of trained in-house workers” with firm-specific skills. For

core-periphery structures during the 80s (Rubery 1978, Carter 1982, Hodson and Kaufman 1982). A new managerial strategy, defined by Atkinson and Meaguer (1986) and Atkinson (1987) as the “flexible firm” emerged, dividing the labour force into a multi-skilled and functionally flexible protected core and a disposable periphery with fewer labour rights.

In this context advocates of labour market deregulation boosted a widely held view that low unemployment in the USA, as opposed to the steady upward trend in Europe, was the consequence of a more flexible American strategy of contractual arrangements, wage setting and income distribution. The contrast between the “dynamic-unequal” USA and the “fossilised - equal” Europe was used to suggest the existence of a trade-off between employment and equality. Countries with high income inequality and more flexible employment conditions showed better labour market performance, resulting in higher employment figures, than those with high income equality and more rigid labour legislation. The persistence of rigidities in hiring and firing conditions, of a high tax wedge and of considerable varieties of “generous” welfare benefits, were presented as major obstacles to employment creation since they raised the cost of production, hindered competition and limited future profits (Ellman 1985, Lindbeck 1992, Krugman 1993, Siebert 1997). Reduction in unemployment rates should therefore be achieved through more flexible strategies of contractual arrangements, wage setting and income distribution. The difficult choice is between more jobs or more equality, rarely both (the employment-equality trade-off). From the standpoint of what Howell (2002) calls “Unified Theory” or “Trans-Atlantic consensus”, since current unemployment rates are relatively high, there is no alternative but to choose more jobs. This entails the eradication of egalitarian policies, usually tied to regulated labour markets, generous social policies and restricted strategies favouring labour rigidity⁴.

These prescriptions seem to have gained ground judging by their wide diffusion. With increasing unemployment rates placing strains on European economies the aim of creating employment has come to the fore of the policy agenda and economic openness and flexibility are widely proselytised. The perception of a new epoch of stronger economic restrictions has

authors inspired by Marxist ideas, all these perspective ignored something fundamental : the inherent conflict between capital and labour, a conflict which makes the workplace into a “contested terrain”, to borrow Edwards’ words. The existence of protected and unprotected employment was interpreted as the result of different forms of managerial control (Edwards 1979; Gordon, Edwards and Reich 1982). The former observed a curious correlation between segments in the labour market (secondary, subordinate primary and independent primary) and systems of firm control (simple, technical, and bureaucratic) finding abundance secondary jobs in firms managed with systems of “simple control”, subordinate primary jobs in firms where “technical control” was predominant and primary jobs in those firms managed under bureaucratic principles.

⁴ These prescriptions are not without their critics. To begin with, the proposed dichotomy “equality-unemployment” should be examined with caution. For example, when comparing the Netherlands and the USA, periods of high wage inequality have coincided with falling employment in Holland, and viceversa, subsequent periods of wage equality accompanied employment growth similar to American rates (Salverda 1998). When observing data on employment and poverty in the early 1990s it is conspicuous that the idea of “economic dynamism-inequality (USA) versus fossilised- equal Europe” does not stand up to scrutiny. Scandinavian countries (except Finland) combined the highest employment levels with poverty rates which were among the lowest, therefore showing that there is no inevitable trade-off between employment and inequality (Marx and Verbist, 1998). For Howell (2002) Belgium and Germany, with substantial declines in earning inequality in the period 1979-97, augmented their unemployment rates less than the UK, Canada, and New Zealand, countries which exhibit significant increases in earning inequality during the same period. On the contrary, despite similar increases in earning inequality, the Netherlands experienced declining unemployment, Denmark’s unemployment rose slightly and France and Sweden exhibited high increases in unemployment. Going further, one might postulate that high levels of European unemployment during the 70s are attributable to supply-side shocks and the ensuing restrictive stance of macro-economic policies, rather than to the greater rigidity of its labour regulations (Samek, 2000). What seems to be plausible is that the less-skilled are at risk of exclusion from protected, high-wage labour markets while in deregulated market their main risk is low pay (Esping-Andersen 1999). Stringent regulation may affect the composition (who are the unemployed) rather than the levels of unemployment (how many are the unemployed) which orthodox theory seems to suggest. Regulation does not imply a linear connection between a particular policy acting on a specific zone of the economy but rather a package of policies that are upheld by a set of institutional infrastructures. Regulation may not have an effect per se, but lead to diffused consequences that are multiplied by the coincidence with other conditions. All this together with the lack of appropriate data suggests that a certain amount of caution is appropriate when assessing the unilateral effects of regulation on employment (Esping Andersen 2000).

boosted a widely held view that previous patterns of protectionism, labour regulation and (welfare) state support are unable to create employment today.

1.3. Toward more Flexible Forms of Employment

Stringent labour legislation (redundancy payments, unfair dismissal regulations, minimum notice periods and lengthy and costly procedures for formal negotiation) is thought to hinder the process whereby companies adapt to labour demand shocks, thereby preventing firms from shedding redundant employment with subsequent negative effects on employment creation. Employers incorporate firing costs into their hiring strategies and the possibility of additional present employment is restricted by expected future downturns. Given that firms behave as if dismissal compensations were part of the present labour costs, they do not employ the number of workers they would in the absence of firing cost, resulting in abundant unemployment during cyclical upswings (Wagschal 1997, Bertola 2000). Similarly generous sources of non-employment income are said to inhibit workers from taking up low-paid jobs (Nickell 1979; Lynch 1989; Layard, Nickell and Jackman 1996, OECD 1996), to prolong the period of unemployment (Bertola 1990) and to stimulate inflationary pressure by unrealistically maintaining high rates of demand while encouraging unions to press for higher wages in the knowledge that the unemployed are still in the receipt of generous benefits, (Siebert 1997).

The “overprotection” associated with permanent full-time employment has been accused of causing high unemployment, whereas alternative forms of (flexible) jobs are believed to be efficient at reducing unemployment. Part-timers are thought to provide a closer relation between paid time and work time and the opportunity to cover unsociable hours and short shifts (Delsen 1993; Maier 1994; Smith, Fagan and Rubery 1998). This enables firms to make optimal utilisation of capital equipment, while avoiding overtime payments to full-time workers (Robinson and Wallace, 1984). Additionally it allows firms to avoid the under-utilisation of full-time labour during slack periods of demand, with subsequent savings in wage and non-wage payments (Wood and Smith 1989, Delsen 1995, Tam 1997). Since full-time, full-year wages are still the standard, not only for employment but also for social security and pensions systems, the low cost and low-taxation associated with part-time work may result in incentives for employers (but these are principally towards offering low paid, low-skills jobs) (Ginn and Arber 1993; Delsen 1995, 1998; Fagan, O'Reilly and Rubery 2000). Part-time employment is not only beneficial for employers. Workers may also take advantage because part-time jobs may serve the purpose of avoiding dismissals during economic downturns. By cutting back on the hours worked, a significant part of the surplus workforce may save their jobs (Delsen 1998).

Arguments attached to the so-called “flexible firm” have been invoked to justify the need for temporary employment, in particular, the quest for numerical flexibility in the context of uncertain product markets and short-term fluctuations in demand (Atkinson et al. 1996). By allowing employers to hire and fire workers easily and costlessly when faced with a downturn, temporary workers may be decisive to the survival of certain industries in periods of rapid demand fluctuation, (Bentolila and Bertola 1990, Booth 1997). In the same vein, seasonal factors are frequently used to justify the use of temporary contracts, especially in the tourist, leisure, catering, and manufacturing sectors (Casey 1988). Self-employment has also been considered a source of employment flexibility, an occupational alternative during periods of high unemployment. When changes in the labour market prompt mass unemployment, self-employment becomes a pragmatic option for those without a job (Staber and Bogenhold 1993) as well as those who prefer to liberate themselves from insurance payment obligations (Dale and Bamford 1988). Additionally, over-protected labour scenarios are likely to persuade employers to offer “non-standard” contracts or subcontracting work to small firms that are not subject to legislative restraints, causing increased segmentation between protected insiders and peripheral outsiders (Hamermesh 1986; Blanchard and Summers 1987).

The acceptance of the overriding need for flexible de-regulated labour markets as a key to creating employment in competitive contexts have legitimated the used of part-time jobs,

temporary work and self-employment.⁵ But flexibility and competitiveness have different meanings for skilled-well paid insiders and low skilled low paid outsiders. As Dean (2001) contends, flexibility for insiders principally means adaptability and the potential to skills update where competitiveness is highly associated with innovation. Flexibility for outsiders relates more to time than to skills, specifically the capacity of employers to hire and fire without restriction, where competitiveness depends more on low wages. These antithetical scenarios, described by Lloyd (1999) as career jobs and crap jobs, are fundamental to understanding the context in which low wage employment takes place.

1.4. Who are the Low- wage Workers?

Low pay is well known to be linked to those with the lowest educational qualifications, the lowest occupational scales and those working in small firms, especially in the private sector. Low qualifications, prolonged unskilled trajectories and lack of experience are characteristics frequently associated with low pay (Keese, Puymoyen and Swaim 1998; Dex, Robson and Wilkinson 1999). However, Sloane and Theodossiou (1998) found that not only the highest **educational attainment** (a university degree or equivalence), but also lower levels of education qualifications improve the chances of moving into higher paid work in the UK. This reveals that intermediate educational qualifications are riskier than the extremes. The reason is quite intuitive. An important section of those displaying the least educational qualifications are likely to be young workers in process of continuous educational upgrading, or workers receiving training etc, so that their probability of moving into higher paid jobs is comparatively higher than those with intermediate, but already completed educational qualifications.

In spite of this peculiarity, low educational attainments are generally highly correlated with low wages, although according to Arai, Asplund and Barth (1998) certain **labour occupations** (in Finland, Norway and Sweden) tend to be more important than individual education in explaining the probability of receiving low-pay. In their opinion there are typical occupations associated with a high likelihood of low pay. In the same vein Keese, Puymoyen and Swaim (1998) observed that being in a non-manual occupation does not guarantee high pay. There are occupations in which low pay is common (wholesale, retail and catering sector) and other occupation less likely to face low wage risks (transportation, communications, trades). Wage differentials across occupations cannot be explained entirely by human capital. It is certainly the case that some highly skilled workers carry out activities in elementary occupations (craft and related trade occupations, services workers, shop and market sales etc) for lack of employment opportunities in qualified jobs. Although mobility towards skilled occupations is likely to happen (see the “stepping stone” debate below) levels of education cannot entirely capture the complexity of the relationship between skill and low wage employment. In countries where low wages are the major source of job growth, principally in certain occupations in the service sector, the prospect of high unemployment may lead some highly skilled workers to take up low wage jobs in these occupations. Arai, Asplund and Barth’s hypothesis can be tested by applying it to other countries, as I set out to do here.

⁵ There are serious doubts about the positive effects of more “atypical” employment on the creation of employment. “Atypical” jobs in low skilled sectors may serve mainly to increase the overall size of the labour force rather than reduce measured unemployment. In countries with low female participation it is likely that part-time jobs encourage women to enter the labour market and thus does little to reduce recorded levels of unemployment (Walwei 1998). The business cycle may also encourage the non-active population to participate in the labour market. When unemployment rapidly increases, workers may be more willing to accept part-time jobs to compensate reductions in family income, and alternatively, the reduction of unemployment may boost female labour participation (Clain and Leppel 1996, Delsen 1998). These arguments have led other authors to find no relationship between overall employment growth and the increasing rate of part-time employment (Delsen 1995). Furthermore the emergence of a new “sub-contracting” culture which stimulates the growth of self-employment (Steinmentz and Wright 1989, Cowling and Mitchell 1997) may suggest that certain forms of self-employment do not represent an additional source of work but rather a substitution of dependent employment for that of the own-account type. In 1986 the OECD found no clear connection between levels of unemployment and the growth of self-employment, refuting other perspectives that identify self-employment with employment invigoration in times of mass unemployment.

Manual workers represent the majority of low-paid workers. They face more difficulties in escaping from low paid jobs. Mobility from high to low pay is more frequent among these groups of workers (Contini, Filippi and Villosio (1998) (Italy); Keese, Puymoyen and Swaim 1998). The size of a firm also matters, since unionism and collective bargaining are less likely to apply to small companies (see further the effect of institutions on the spread of low pay in chapter 1). As a result a greater instance of low pay is expected in small firms (Sloane and Theodossiou 1998; Robson, Dex, Wilkinson and Salido 1999). *The public sector* may provide jobs, principally for the unskilled, at wage rates that are above the market value for their marginal productivity, reducing the expected volume of low-pay. Larger percentages of low pay are therefore expected in private firms (Keese, Puymoyen and Swaim 1998; Robson, Dex, Wilkinson and Salido 1999). The same applies to big firms.

The youngest labour stratum display the highest percentages of low pay (Robson, Dex, and Wilkinson 1998; Dex, Robson and Wilkinson 1999; Keese, Puymoyen and Swaim 1998). This has been interpreted as a transitory process that leads to higher pay in a reasonable period of time. Given that wages tend to increase with experience, skills and tenure, it is not surprising that younger workers tend to occupy mainly low paying jobs, that they are likely to leave as they acquire experience. This view implies that the normal labour life-cycle consists of continuous upward movement from a starting point until the end of career. This upward mobility, frequently described as a “stepping stone” effect, considers low pay to be a brief phenomenon, a transitory period before more secure and better paid jobs. Sloane and Theodossiou (1998) have observed that belonging a younger age group reduces the probability of remaining in the low-paid category in the UK, suggesting that there is upward mobility among those in the initial phase of their career.

On average *women* not only have a higher probability than men of being low paid, but also of remaining in low-paid employment for longer periods (Asplund and Persson 2000). This may help to explain the over-representation of women in low paid employment that is observed in this research. Among women (in the UK) the probability of moving out of low pay is highly conditioned on additional educational attainment, whereas the influence of age is less important. Alternatively, the probability of upward trend mobility for men increases with age, but not necessarily with education (Stewart and Swaffield 1998). Apart from the dispersion of earnings that affect low pay in general, women are more likely to be affected by other factors, which increase the risk of low annual wages. Their higher concentration in service jobs, certain forms of ‘atypical’-low skilled employment usually in small firms at the lowest levels of the hierarchy within occupations, as well as extended periods of unpaid/non market activity (birth and childcare) with consequently higher instance of career breaks, make women a group particularly predisposed to suffer from low pay (Dex et al. 1994 (UK); Keese, Puymoyen and Swaim 1998⁶; Robson, Dex, Wilkinson and Salido 1999⁷; Asplund and Persson 2000⁸). The “female character” of low-paid jobs has also triggered controversial debates on whether or not the incorporation of women into the labour economy reproduces pre-existing patterns of discrimination. The fact that most women are dependent-secondary earners and are over-represented in atypical/low-paid jobs has been interpreted both as a sign of discrimination (Delphy 1984; McLanahan, Casper, and Sorensen 1995; Arber and Ginn’s 1995; O’Reilly and Spee 1998) and alternatively as a positive and calculated strategy for raising household income (Becker 1981) that allows women to make employment compatible with other activities (Hakim 1991,1995,1996, 1997).

There has recently been a great deal of attention paid to *earning dynamics* that have principally focused on individual trajectories. Their main aim has been to reject the assumption that low wages accrue to static groups of “trapped” workers who are unable to escape their marginality, suggesting instead that upward movement in earning are positive as a result of training and experience over time. As Lilley 1998 (cited in Hills 1998) has contended:

⁶ These authors have examined 19 countries of which 5 are part of our sample (the UK, France, Germany, Italy and Belgium)

⁷ These authors have examined the UK, Germany, Luxembourg, USA and Spain.

⁸ These authors examined 20 countries by using secondary sources (OECD. Eurostat and other authors’ results).

“discussion about poverty is often based on the assumption that figures for households on low incomes describe a static group of people trapped in poverty, unable to escape and getting poorer. However this picture has been challenged by recent studies. They show that the people in the lowest income category are not the same individuals as were in it last year, still less fifteen years ago.”

Poverty is then regarded a transitory phenomenon, an episode in the course of life instead of a permanent situation (Leisering and Liebfried 1999). For Sloane and Theodossious (1996) the likelihood of **upward mobility** from low pay to higher pay is greater than that of downward mobility (in the UK), and for those employees in high-pay occupations, unemployment followed by quick re-employment tends to allow them to find a similarly high-paying job. This “stepping stone” character might compensate present poverty with the prospect of a better-off future. Goodwin et al. (1999) draw similar conclusions when examining the USA, Germany and the Netherlands. As Esping Andersen (1994; 1996) has pointed out, “Mcjobs” (low paid-unskilled employment principally in the service sector) are necessary for the achievement of full employment. But instead of being permanently held by the same workers, this author proposes a citizen’s guarantee of skill acquisition and social servicing at any point during the life cycle, which would allow “Mcworkers” to escape from their “Mcjobs” experience within reasonably short periods of time. It is a question of distributing these jobs among those in the initial phase of their employment life-cycle, so that the public provision of skills and training practices help them to replace these jobs with others that are much better qualified, protected and paid.

Yet the transitory character attributed to low pay is by no means crystal-clear. Other analyses have found that the probability of being low paid in a period “ t ” is considerably higher among those who were low paid at “ $t-1$ ”. A considerable share of low paid workers in a given year (1991) was also low paid in a previous year (1985) (OECD 1997b), although this pattern varies significantly among countries. Keese, Puymoyen and Swain (1998) find the highest degree of persistence in the USA (58,8% of those in low pay in 1986 remained there in 1991) and the lowest in Denmark (8,1%). For the UK, Stewart (1999) finds a high degree of persistence, especially among those who have been repeatedly low paid and Gosling et al (1997) conclude that only a few people from the bottom of the earnings distribution ladder escape from low pay. For Stewart and Swaffield (1997; 1998) the probability of being low paid at “ t ” is higher for those being low paid at “ $t-1$ ” than for those coming directly from unemployment. The low paid are both more likely to move out of employment and more likely to be low paid when they move back into employment, suggesting a state dependence in these transitions’ probabilities. The probability of being low paid (in 1990) was much higher for those who were low paid in 1986 than in Italy (Contini, Filippi e Villosio 1998). Exits from low pay tend to decrease significantly after the first five years of continuance (Asplund and Persson 2000) suggesting an initial period of encouraging improvement and a subsequent one of low pay consolidation. However other authors consider that transition to better paid jobs rarely occurs.

Movements from low pay to no-pay stand out as the aspect most frequently repeated by low paid employees, challenging the “stepping stone” character attributed to this form of work. In general, movement from low pay tend to mean movements out of employment and/or through revolving doors to different low paid jobs (OECD 1996, 1997b, Stewart 1998, Stewart and Swaffield 1998). Once again, cross-national differences appear to matter. Upward movements are more difficult in countries with greater earning inequality and where the incidence of low pay is associated with high poverty rates. Therefore low paid jobs are more prevalent in those countries with the largest earning inequalities (OECD 1997b; Marx and Verbist 1998; Keese, Puymoyen and Swaim 1998; Asplund and Persson 2000; Sloane and Theodossiou 2000). In view of these results, the notion of the transitory character, which is attributed to low pay, should be approached with caution. This research aspires to shed some light on these issues by measuring how the cumulative numbers of months in low pay during the years 1995 and 1996 influences the probability (odds) of low annual wages in 1997. In a similar vein, I will measure how tenure (the number of years workers remain in the same firm), influences the risk of low-wage in the year examined.

1.5. Should Low-wage Employment Analyses Be Restricted to Full-time Full-year Workers?

I have already responded negatively. The exclusion of part-timers, temporary workers and the self-employed would ignore about 45% of the total employed population which is also a group that is highly likely to hold low-wage jobs. The literature above has examined low-paid employment by focusing on full-time full-year workers only, part-time workers⁹ however tend to be found disproportionately in low-paid sectors and jobs which do not require high levels of skills (Meulders et al. 1994; OECD 1994; Delsen 1995; Hakim 1996; Fagan and Rubery 1996; Rubery 1998; Walwei 1998; Fagan, O'Reilly and Rubery 2000). Nevertheless there is also evidence that part-time work has significantly increased in sectors of the "high skilled" type, indicating a trend away from low-wage sectors (DuRivage 1992, Warme et al. 1992, Delsen 1995, 1998, Fagan et al. 1995). The focus on part-timers' wages reveals that there are "good" and "bad" part-time jobs. The former are those whose annual wages are found above the low-pay threshold, while the latter receive less. "Bad" part-time work is in the majority, judging by the frequency of percentages (above 50% in most of the countries examined - except in Denmark and only marginally above in the case of Germany).

Table 17: Percentages of part-time workers on a low wage. Annual basis.

	<i>Part-time workers in low wage</i>
Denmark	30.98
Germany	51.00
Spain	65.45
UK	74.13

Source: own elaboration with data of European Household panel (1997)

Part-timers tend to be secondary earners in households where there is another earner, usually a full-timer (Gregg and Wadsworth 1995, 1999 - (in the UK); Natti 1995; Hakim 1996; Blossfeld and Hakim 1997; Doudeiins 1998; Delsen 1998). Although this situation is typical for female workers, part-time work among men tends to be held by the young, students and older people approaching retirement (Hakim 1997; Delsen 1998; Walwei 1998; Fagan, O'Reilly and Rubery 2000). Moreover part-time amongst men tends to be used as a transition into or out of the workforce (Meulders, Plasman and Plasman 1994; OECD 1994; Hakim 1995, 1996, 1997). The vast majority of part-time jobs are concentrated within a narrow range of female-dominated occupations (Hakim 1993) that function as labour market entry and exit jobs for small numbers of male students and pre-retirement older workers as well (Hakim 1997).

Users of part-time work in the private sector are principally small establishments, retail and personal service establishments, those which have a high proportion of lower-skilled job positions, those which make greater use of shift-work and firms which have experienced an increase or stagnation in product demand (Tam 1997). Rubery (1988) has stressed that part-time workers earn lower hourly wages than full-timers and lose more on benefits than on hourly pay.

⁹ Even though part-time jobs are frequently defined as a type of employment in which working time is less regular, it would be inappropriate to consider this definition as universal. Definitions of part-time work vary from country to country depending on the number of hours attributed to full-time jobs. An *absolute definition* is that connecting part-time with a specific number of hours (30, 35, etc.) or a period (between 15 and 30 hours) whereas a *relative definition* identifies part-time work with employment below the legal number of hours established for full-time jobs (Meulders, Plasman and Plasman 1994). The question of choosing one method or another is not irrelevant, on the contrary, some authors point out that outcomes differ as a result of using a threshold other than 30 hours as that established for full-time employment. Bastelaer, Lamaitre and Marianna (1997) propose a threshold of 30 hours (absolute definition) because it causes less cross-national variation in the results. This threshold seems to be widely accepted as a measure of the "real" dimension of this form of work. Although statistics used in certain institutions have followed different definitions. OECD's statistics opt for an absolute definition (30 hours) whereas the European Commission has chosen a relative one ("shorter working hours than statutory, collectively agreed or usual working hours", Articles 100, 100A). For Eurostat (Labour Force Survey) the distinction between full-time and part-time work is generally made on the basis of a spontaneous answer given by the person interviewed (except for Greece, Italy and The Netherlands).

Pay gaps are lower (in centralised and regulated systems) and part-time workers are more vulnerable to low pay than full-timers in the UK.

As to self-employment, although it tends to be defined in simple terms as the employment of those working on their own, it is a heterogeneous and complex phenomenon, which includes a range of different individual labour situations. Such heterogeneity causes important problems of measurement and identification, principally the underestimation of the amount of business ownership (Hakim 1988) and an inability to clearly identify self-employment at the level of the individual worker (Smeeding 1997). All these limitations have led Hakim to assert that it is fair to conclude that the statistics for self-employment are not designed to serve anyone's purpose, but the category serve merely as the "residual" group left over once employees have been identified (Hakim 1988: 424).

For Crouch, Finegold and Sako (1999: 15), self-employment is not a single category of work, but an aggregated group of four different categories: entrepreneurial founders of small firms, practitioners of the liberal professions, people who are really employed by a corporation but are kept in a fictional self-employed category and some marginal people who are essentially unemployed but sell things or do odd jobs in order to scratch out a living. As with part-time work, self-employment can be classified as "good" or "bad" depending on the number of self-employed whose total annual wages fall above or below the low-wage threshold respectively. According to this criterion, most countries have good self-employment because a majority of self-employed score above the low-wage line. This gives an initial picture of the quality of self-employment. In all the countries examined the quality of employment tends to be "good", although there are significant percentages of self-employment in the low-wage category.

Table 18: Percentages of self-employed with a low-income. Annual Basis

	<i>Self-employed in low-wage</i>
Denmark	20.99
Germany	21.60
Spain	30.36
UK	32.21

Source: own elaboration with data of European Household panel (1997)

Temporary work¹⁰ is also important in low-wage analysis. Shifts from employment to unemployment constitute one of the most distinctive features of temporary labour relations. This "job- unemployment-job" pattern conditions the welfare prospects of temporary workers in different ways. Frequent turnover may negatively affect workers' chances of receiving specific training in the firm. The subsequent cost in skills upgrading and productivity results in lower wages (Dolado, García-Serrano and Jimeno 2000). But it is also the case that temporary workers might consider inefficient to invest in specific human capital in a context of high turnover (Booth, Francesconi and Frank 2000). This lack of competitive skills and job tenure renders temporary workers highly vulnerable to both layoff and low annual wages.

In principle, there should be no wage discrimination between permanent and temporary workers; on the contrary, a wage premium might be expected for the latter, given that their temporality offers employers the significant advantage of adjusting quickly to downturns. However, Booth, Francesconi and Frank (2000) have found a wage penalty for those with temporary jobs. Although employers should be willing to pay a higher wage to temporary

¹⁰ The definition of temporary work is less problematic, although it is also subject to interpretation. In a strict sense, it refers to the termination of a job by causes previously known to the employer and employee (date, causal employment, substitution, seasonal employment etc.). As Blanpain (1993:6) has highlighted, there are two crucial elements embedded in the concept of temporary work: "the fact that the temporary worker is looked upon as an employee and the notion of work of temporary nature". Disagreement on the appropriate definition hinge on whether self-employment is considered temporary work or not. Until 1992 Eurostat included the self-employed as temporary workers but since then self-employed workers have been excluded. The European Commission has moved in the same direction although other authors maintain their preference for a definition of temporary workers which includes the self-employed (Atkinson, Rick, Morris and Williams 1996). There is also a definition, which limits temporary employment to those workers coming from an employment agency. With this controversy in mind, data and the definition of temporary employment are from Eurostat (labour force survey).

workers in an open-competitive economy, this is not likely to happen due to the high costs of acquiring specific human capital among those continuously obtaining and leaving a job. From this perspective, the ability level of temporary workers is constrained by the instability in their labour prospect. Temporary workers who enjoy a degree of permanency show higher ability levels than workers in firms with continuous turnover.

There is also the situation where the lack of specific human capital investments and their associated lower wage risks are the result of transitory options. Young individuals may not be interested in investing in specific human capital before deciding on their employment preferences and future career paths. In the same vein, women and older workers might be reluctant to “waste” time in skills upgrading since their main objective is to make employment and inactivity compatible. Finally, there are also temporary jobs associated with high wages, principally of the high skill type, which bring high returns for human capital investment. For these workers the prospect of successive temporary jobs may be more attractive than permanent employment (Booth, Francesconi and Frank 2000). These insights help one to understand much better the context of temporary employment.

Table 19: Percentage of temporary workers on a low-wage. Annual basis

	<i>Temporary workers in low wage</i>
Denmark	51,48
Germany	62,36
UK	66,42
Spain	77,82

Source: own elaboration with data of European Household panel (1997)

1.6. The Family as a Safety Net

As I explained above, governments must mediate between deregulation/flexibility, (increasing low wage employment), and redistribution (risking unemployment). It is hardly surprising then, that such a Damocles sword hangs continuously over a government’s head gives the family new poignancy. The male breadwinner model predominant during Golden age capitalism is difficult to sustain now. Claims for gender equalization are in opposition to the survival of patriarchal structures, and high unemployment in contexts of limited welfare state expansion, obliged households to have additional sources of income which make those usually inactive (principally women) participate in the labour market.

Although socio-economic institutions are fundamental in the shaping of particular household configurations (Esping-Andersen 1993, 1999; Ellingsaeter 1999), other perspectives have reservations about the link between models of family and social protection regimes (Gallie and Paugam, 2000) or have opted for examining the micro-economic meaning of the household as an aggregated sum of individual options (Gershuny, Godwin and Jones 1994; Hakim 1999). Members’ actions and individual preferences generate the structure of the family as well. As Gershuny, Godwin and Jones (1994) contend, households’ responses to changes in their relationship with the formal labour market are the result of household members’ negotiations. Redistribution of employment and home-care responsibilities occurs through extended processes of household negotiation and reconstruction, which conform, to patterns of single versus dual earner predominance. From this perspective, the predominance of single or dual earner models is the result of intra-negotiations, which result in different types of economic households. In a similar vein, Hakim (1999) observes connections between household types and individual preferences, regarding values and sex-role attitudes. The contraceptive and equal opportunities revolutions of the 20th century allow women to make choices about accessing the labour market. Far from being equal, women’ preferences diverge in the priority they give to their family and employment career. “Home centred women” or “full-time homemakers” prefer to give priority to children and family, “work-centred women” or “full-time career centred women” prefer to give priority to their career, and the largest group of “adaptive women” prefer to combine employment and family responsibilities without either taking priority. This interpretation suggests that the current context of labour opportunities is not exclusively the

result of institutional changes but is also a result of micro-negotiation inside the family¹¹. This may explain why the movement away from the male breadwinner model is not toward a full dual career model, but toward some forms of transitional dual breadwinner households.

The significant integration of women into the labour market in the preceding decades is inseparable from changes in family structures during that period. When actively participating in the labour market, women not only re-configure important spheres of employment but also society as a whole. Welfare policy prerogatives, patterns of consumption, educational models and family prototypes are re-considered and adapted to a new socio-economic scenario. Functionalist views of the family as a social institution that reproduced the division of labour between men and women in the apogee of industrialism (Parson 1951, Goode 1963) have given way to reconsiderations on the social-economic role of the family in the context of emerging household diversity. The emergence of single individual households, couples living together but not married, reconstituted families containing children of earlier unions or gay couples, modified patterns of nuclear family predominance (a man, a woman and their children). Additionally the increasing importance of income contributed by wives challenges traditional household division which are based upon the idea of a husband who plays the role of income provider, and a wife who is primarily responsible for home-making, child-caring etc. (Blossfeld and Hakim 1997, Sweeney 1997)

This household transformation may be seen as a response to current economic changes that seek to integrate ideas of self-realisation and economic motives. Dual or multi-earner household models might then be considered the prototype of a new economy, a necessary adaptation that allows families to improve their living standards within a new framework in which the absence of a second earner constitutes a serious threat of poverty (Marx and Verbist 1998, Nolan and Marx 1999). Nevertheless, dual or multi-earner households do not necessarily protect a household from poverty. For families that have access only to low-skilled, low paid jobs, a second earner is not always a safety net. Two earners in the periphery (the unskilled-low paid sector) may not be sufficient to avoid a family falling into poverty- as Lewis (2000) observes in the UK. This is especially the case where dual earners are really “one and a half” earners in practice (a full-time (male) earner and a part-timer, usually a woman) - or there is in fact only a single earner in practice, because both earners are part-timers or experience continuous unemployment spells.

These different household models, measured in terms of the number of earners and the type of employment at their disposal, remains therefore of paramount importance to the understanding of the conditions under which low-paid workers can nevertheless achieve adequate standards of living. There is a plethora of literature on how the decision to form assortative mating partnerships, namely that spouse share similar levels of education that are expected to provide similar earning capacity in the labour market (homogamy), affect future decisions on, e.g. a wife’s propensity to actively participate in the labour market (Gonzalez-López 2001, Bernardi 2001), interdependencies of husbands and wives’ transitions between paid employment and unpaid household work (Blossfeld, Drobnic and Rohwer 2001), fertility (Sorenson 1989). On the whole these studies are of the view that differences in patterns of employment still persist despite reductions in the gender gap with respect to educational attainment. Even though the incorporation of married women into the labour force is very likely to imply that they do less housework, childcare and unpaid work are still perceived as female tasks. On the other hand husbands are still identified as the main income providers. The general

¹¹ Feminists have strongly criticised Hakim’s approach, chiefly because she highlights choice and underplays constraints (Lewis 2000). From the feminist standpoint women’s roles are usually considered secondary and highly dependent upon men as primary income providers. As O’Reilly and Spee (1998) point out, since the organisation of work is closely linked to the sphere of social reproduction, the fact that childcare and domestic work are frequently the responsibility of women constrains female labour participation and forces women, very rarely men, to experience a dilemma of choosing between family and employment. This dilemma adopts the form of a disadvantage in the labour market, as well as in the private sphere of the family, given that unequal earnings become more pronounced between partners in the private sphere than among men and women in the labour market (Arber and Ginn’s 1995). The logical corollary of such segregation is women’s economic dependency and subordination, which contribute to the perpetuation of gender inequality and the maintenance of women’s subsidiary position in the labour market (Barrett 1980, Delphy 1984, Sorensen and McLanahan 1993).

tendency is therefore for asymmetric relations to persist because the labour market and the family constitute separated spheres of life for men but joined spheres for women.

I only use homogamy tangentially. Aspects related to how spouses' similarities in educational background affect women's labour participation or fertility rates are assumed here. My main concern is to investigate whether or not patterns of spouses' educational similarities conform to a secure sphere of economic protection for low-wage workers. Since a combination of highly educated partners is expected to correlate very little with household poverty, the role of the household as a safety net is likely to be well-established in those households whose partner displays high levels of education. Three of the five household models examined in this research (single individual household, couples without dependents, single parents, couples with one child and couples with children) can be examined in light of homogamy.

PART TWO: EMPIRICAL ANALYSIS

2.1. Interpreting the Result with Cautions. Problems of Selection bias through Attrition

As always with data, there are important limitations in the results shown in this study. The data from the European Community Household Panel provide information about all disposable incomes the respondents had during the year in question. As a result informal economy is not reported, with the subsequent effect on the percentages of low-wage workers and household poverty shown in this research. This is particularly the case for Spain where estimates attribute around 20 to 30% of the GDP to the hidden informal economy. It is likely that some of those labelled, as “low-wage workers” are not low wage in practice. Some part-timers scoring below the low-wage line may be full-timers in reality, holding an additional part-time job in the informal economy. Putting together “formal” and “informal” wages the total amount may place these workers above the low-wage line. Something similar may applied for self-employed who do not declare their total incomes or for some temporary workers combining employment and unemployment, not being in unemployment actually, but in the informal economy. This limitations affect household poverty as well. Incomes from the informal economy are not likely to be reported in the ECHP, so that, the total volume of poverty may be substantially lower than that shown by the panel. Moreover, information on individual and household earnings is obtained through responders self-declared incomes, so that one should be careful with the reliability of the answers. The problems of attrition underlined above add additional limitations. The sample bias previously observed, principally educational, gender and age bias, may conditioned the over-representation of certain groups more likely to fall into low-wage employment, and by extension into poverty. The number of women leaving the sample is higher than the number of women entering in Spain and the UK (in Denmark and Germany the

number of women leaving and entering the sample is quite equilibrated). This may indicate that the volume of low-wage may be higher than that shown in this research in Spain and the UK and somehow lower in Denmark and Germany. Over-representation of low skilled workers among those entering into the sample is apparent in Spain and Denmark, whereas under-representation is observable in the UK and Germany. Since low-skilled workers are more likely to fall into low wage, the figures of low-wage employment in Spain and Denmark may be lower than the figures shown in this research. Finally, the number of young people leaving the sample is significantly lower than the number of people entering in Spain, the UK and Denmark. This may artificially increase the percentages of low wage in these countries.

My definition of low-wage and household poverty adds further complexity to my results. The first novelty provided by this research is the widening of the concept of low-wage¹: it includes not only full-time, full- year employees but also part-timers, temporary workers and the self-employed. Problems of low-wage affliction do not accrues to full-time, full-year workers only, but also to those holding other jobs, sharing the insufficiency in wages. This broader perspective provides a more detailed account of low-wage, although it limits comparisons with other studies results. These results should be examined with caution.

The analysis of attrition carried out in this study (see appendix I for details) suggests that the percentages shown in this research may be substantially different. The over-representation of women and low-skilled workers among the group of individuals that is produced by subtracting leaves from entries in the sample – the so-

¹ The general tendencies found in this research allow me to consider low-wage employment an quite homogeneous phenomenon. In spite of significant differences in the percentages and duration of low-wage employment, the four cases examined display similarities as to who are the low-wage workers: a young woman, with little education, holding “atypical” employment in a small firm at the low end of the occupational scale with previous spells in low wage, personifies the prototypical low-wage worker in the four countries.

called “spare” group-, indicates that the percentages of low wage might be higher than the results shown in this research in Spain (since both women and low-skilled workers are more likely to hold low-wage jobs). However the under-representation of young –who tend to be more liable to fall into low wage- and the negative sign (the number of young entering the sample is higher than the percentage of young leaving it) may partially compensate the over-representation of the former risky groups (women and low-skilled) leaving the sample. Low-skills are also over-represented in Denmark, suggesting an educational-bias that may hinder the validity of the results, but women and young individuals are under-represented that may compensate the educational-bias. Strong over-representation of women is observable in the UK with the subsequent sample bias. Nevertheless young individuals are also over-represented, but with negative sign (the percentages of young entering the sample is higher than those leaving it). More equilibrated figures are found in Germany with slight over-representation of women and low-skilled individuals, but very close to 0. We can conclude from all this that the results may be higher for Spain, and somehow moderate for the UK and Denmark (see appendix I for details).

2.2. Low Wage Employment (LWE)

2.2.1. International Differences in the Incidence of LWE

Since the current literature dealing with low-wage employment has principally focused on full-time, full-year workers and has ignored other forms of employment (part-time, self-employment etc), our results cannot be compared with previous analyses of low-wage employment. This is the first novelty of this research: a wider definition of low-wage employment and, by extension, a more detailed analysis concerning the distribution of low wage jobs in different countries.

The following table shows the percentage of workers whose total net income from work (wages) does not surpass two-third of the national net median wages. In order to avoid controversies as to whether two-third or fifty percent of the median is the best criteria for measuring the incidence of low-wage employment, I have calculated it using both values. I have also measured the average low-wage gap (ALG)², that is, the distance of the low-wage workers' group from the low-wage threshold and the Gini coefficient³ that allows us to establish categories of distribution

²To calculate the Average Low-Wage Gap (ALG), I estimate the average income of the entire low-income population (Yq), and then I measure the gap between this average income and the low-wage threshold (z) (50% of the median national income) so that :

$$ALG = \frac{(z - Yq)}{z}$$

Another possibility consists in calculating the

average of every low-income's individual (Y_i), measuring every distance to z and then to sum all distances:

$$ALG = \frac{1}{q} \sum_{i=1}^q \frac{z - y_i}{z}$$

³ The Gini coefficient (G) is equal to the ratio of the area enclosed by the Lorenz Curve and the diagonal of perfect equality to the total area below the

that are based on lower or higher degrees of equality among low-wage workers.

Table 20: Percentages of low-wage employment, Average Low wage gap and Gini Coefficient. Total annual earning. All employee categories

	LWE I (2/3 income from work)	LWE II (1/2 income from work)	Average Low Wage Gap	Gini Coefficient
Denmark	14	9.3	0.25	0.30
Germany	16.53	9.95	0.19	0.26
Spain	22.84	16.1	0.31	0.34
UK	25.94	17.13	0.23	0.28

Source: own elaboration with data of European Household panel (1997)

The cross-national heterogeneity shown in this table is notable whichever cut-off point is used, whether two-third or fifty percent of the median. Denmark and the UK lie at the two extremes, while Spain scores close to the UK; Germany ranks closer to Denmark' figures. Spain exhibits both the highest average low-wage gap and the highest Gini coefficient among the four countries examined. It displays not only the biggest gap between the low-wage group and the low-pay threshold, but also the highest spread among low-wage workers. The low-wage group is relatively close to the low-wage threshold in Germany (19%), internal dispersion here is also low. In spite of the significant difference between the percentages of low-wage employment of Denmark and the UK, these share similar low wage-gap and Gini coefficient results.

diagonal, and it is defined by the following formula
$$G = \frac{2}{n^2} \sum_{i=1}^q i \left(y_i - \bar{y} \right)$$

where n= total population; y= income, $\bar{y}$ =median income. The coefficient moves from 0 (maximum value of equal distribution) to 1 (maximum value of unequal distribution). Of course, the Gini coefficient can be applied to all individuals or families, or only to low-income groups.

The degree of labour market flexibility explained neither the extent of low wages, nor the internal inequality among low-wage workers, as can be seen from the significant differences among highly flexible countries (the UK and Denmark) and less flexible ones (Germany and Spain). I would expect low-wage employment to feature most in the UK and Denmark and least under Spain and Germany. The aspirations of de-regulation and flexibility in the UK, and the wide commitment to regulation and secure employment in Germany coincide with the percentages of low-wage employment observed in these countries. But, why are low wages so uncommon in the flexible Danish labour market and so common in the regulated Spanish market? As a tentative working hypothesis I would point to the dual character of the Spanish labour market and the development of high-quality employment within the Danish welfare services. Although Spain always scores high in labour market restrictiveness (Bertola 1999, Polavieja 2001), there are in reality two differentiated segments: a protected core and a flexible periphery which is characterised by the massive use of temporary contracts that allow employers to evade redundancy payments, unfair dismissal regulations, and lengthy and costly procedures of formal negotiation. An important part of the low-wage employment observed in Spain is likely to accrue to those in the unprotected segment. In Denmark, the expansion of professionalised welfare state employment, and the spread of “good” part-time work, may lie behind its low extent of low-wage employment.

This point brings us to another possible source of explanation: the type of employment. The way in which different forms of employment have evolved in the countries examined may provide information about the extent of low wage. As I point out above, permanent full-time employment, that tends to be protected and well-paid, has decreased in Spain (substitution effect), while increasing in Denmark (Cohabitation). Since “atypical” employment and low wages are expected to be highly correlated, the significant increase in “typical” permanent full-time jobs alongside the high rates of “good” “atypical” employment may

explain the low figures in Denmark. Decreasing “typical” employment and the growth of temporary work may lie behind the high rates of low-wage employment in Spain. It is important to note that permanent full-time employment in Spain represented 47% of the total employment in 1997, a truly low percentage when compared with 61,7% in Denmark, 64,4% in Germany and 61,3% in the UK. Differences between typical and atypical employment in the UK however are less salient (see the introduction for details).

In order to validate these speculations the next section seeks to identify those groups who are most likely to suffer from low wages. I will examine the groups that constitute the majority of low-wage employment, their sex, their sector of occupation, their age, their employment and the levels of education they have attained. The idea is to highlight the relative importance of these groups with respect to the entire employed population.

2.2.2. Who are the Low-Wage Workers?

The table below shows the percentages of male and female employees (column 1) as well as male and female low-wage employees (column 2). If both groups were identically distributed, the percentages of column 1 and column 2 would be the same. This is unlikely to occur. Column 3 therefore seeks to measure the relative weight of male and female low pay with respect to the total male and female employed population. The same applies to other categories such as education, occupation, age, sector of activity and type of employment. Values above 1 in column 3 indicate over-representation, whereas values below 1 denote under-representation.

Table 21: Degree of over/under representation of low-wage workers by gender and levels of education

Low Wage Workers (LWW)																
	Volume	Gender						Education*								
		Male-female workers (%)		Male-female LWW (%)		B/A		A Levels of education among workers			B Levels of education among LWW			B/A		
		Male	Fem	Male	Fem	M	F	1	2	3	1	2	3	1	2	3
Denmark	14.4	55.60	44.40	41.2	58.8	0.74	1.32	20.4	40.3	39.3	33.3	45.6	21.1	1.63	1.13	0.54
Germany	16.53	59.43	40.57	29.9	70.1	0.50	1.73	11.7	57.9	30.4	20.6	62.9	16.6	1.76	1.09	0.55
Spain	22.8	68.55	31.45	55.2	44.8	0.81	1.42	53.1	20.5	26.4	63.3	22.7	14	1.19	1.11	0.53
UK	25.94	54.06	45.94	29.6	70.4	0.55	1.53	33	16.2	50.8	47	17.9	35	1.42	1.10	0.69

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Third level education (ISCED 5-7)

Table 22: Degree of over/under representation of low wage workers by occupation

Low Wage Workers by Occupation																	
	A- Occupation among Workers						B- Occupation among Low Wage Workers						B/A				
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5
Denmark	10.39	10.80	36.99	19.74	22.08		18.51	10.68	46.26	13.52	11.03		1.78	0.99	1.25	0.68	0.50
Germany	8.00	11.74	43.79	18.44	18.03		16.95	9.67	50.19	13.60	9.58		2.12	0.82	1.15	0.74	0.53
Spain	13.62	12.82	39.60	10.39	23.57		26.77	12.84	37.45	5.59	17.35		1.97	1.00	0.95	0.54	0.74
UK	6.19	9.76	40.25	13.07	30.73		11.52	8.51	54.74	9.19	16.04		1.86	0.87	1.36	0.70	0.52

Source: own elaboration with data of European Household panel (1997)

Occupation: 1= Elementary occupations, 2= Semi skilled occupations (Skilled agricultural and fishery. Plant and machine operators and assemblers), 3= Skilled occupations (Clerks, Services workers and shop sales workers. Craft and related trades workers), 4= Semi high skilled occupations (Technicians and associate professional), 5= High skilled occupations (Legislators, senior officials and managers, Professionals)

Table 23: Degree of over/under representation in low wage workers by age

	A- Groups of age				B- Groups of age among low wage workers				B/A			
	15/31	32/49	50/65	66+	15/31	32/49	50/65	66+	15/31	32/49	50/65	66+
Denmark	23.76	52.45	22.92	0.71	52.50	31.25	14.00	1.5	2.21	0.60	0.61	2.1
Germany	25.65	52.39	21.61	0.35	32.13	48.98	17.96	0.93	1.25	0.93	0.83	2.7
Spain	31.2	48.2	20.6		50.54	34.45	15.00		1.62	0.71	0.73	
UK	31.79	46.65	21.56		38.80	38.41	22.79		1.22	0.82	1.06	

Source: own elaboration with data of European Household panel (1997)

Table 24: Degree of over/under representation in low wage workers by sector of activity.

	Sector			Sector for LAWW					
	Agric	Indu	Service	Agric	Indu	Service	Agric	Indu	Service
Denmark	4.24	25.26	70.50	12.81	13.88	73.31	3.02	0.55	1.04
Germany*									
Spain	7.24	31.41	61.36	13.38	27.35	59.27	1.85	0.87	0.97
UK*									

Source: own elaboration with data of European Household panel (1997)

* Data not available

Women evidently carry out low-wage employment disproportionately. The under-representation of men is clearly observable in all the countries but is especially pronounced in Germany and the UK. As far as the level of education is concerned, there is a general decrease in the rate of low-wage employment as one moves from lower to higher educational levels. There is clearly an overrepresentation of low-wage employment among those with the lowest levels of education and a pronounced under-representation (rates below 0) among those with the highest levels of education. The percentages of workers (total) with only elementary education qualifications (less than the second stage of secondary education (ISCED 0-2) in Spain (53,1%), is especially high.

Since occupations are graded according to the degree of skill required, and skills are highly related to educational attainment, I would expect a strong correlation between educational attainment and the type of occupation. Low-wage workers are under-represented among “high skilled” (value 5) and ‘semi-skilled’ (value 4) occupations. They are clearly over-represented among “elementary” occupations (value 1). There is hence a kind of decreasing pattern from the under-representation of the highly and semi-highly skilled occupations, to the over-representation of low-wage workers in elementary occupations. In-between, semi-skilled and skilled occupations reveal a combination of over and under-representations. Looking at each one of these occupational levels in turn, the B/A rate (column 3) shows under-representation with respect to semi-skilled occupations in the UK and Denmark, although the rates are very close to 1. Level 3 (skilled occupations) also shows great internal differences with Spain showing under-representation. As to age, the youngest (15/31) are over-represented in low wage employment in all the countries examined. Under-representation occurs among those aged 32/49. Those in the 50/65 years category combine under and over-representation. Regarding sectors, low-wage employment (LWE) is over-represented in agriculture sector, under-represented in the industrial sectors and combine both under and over-representation

in the services sectors (with Denmark showing over-representation in this sector).

The corollary of all these tendencies is a highly homogenous composition of low-wage employment in the countries observed. In all the cases examined there is an over-representation of women and low-educated workers among the youngest labour stratum in elementary or semi-skilled occupations. This homogeneity in composition contrasts with the heterogeneity of the percentages of workers receiving low wages.

2.2.3. Stepping Stone or Durable Trap?

This scenario may be better interpreted by adopting a dynamic perspective, that is, by measuring spells of low-wage employment (LWE) during a relatively extended period of time (1995, 1996 and 1997). It is certainly a limited period, but unfortunately the European Household Panel figures does not allow us to examine any additional years.⁴

In spite of this limitation, the following table provides extremely interesting insights. Column 2 provides information about the precise number of months with low wages during the period 1995-1996-1997. I have divided this period into three sub-periods that show the numbers of individuals subject to low wages from 1 to 12 months, not necessarily consecutive (column 2.1), the number of persons in low wage employment from 13 to 24 months (column 2.2), those in low wage employment from 25 to 36 months (column 2.3.) Column 3 displays figures for workers who combine low wages with unemployment during the period in question.

⁴ However there are important analyses that have examined short periods, i.e., two years (Sloane and Theodossiou 1998 for the UK).

Table 25: Percentage of workers with low wage during one to twelve months; percentage of workers with low wage during thirteen to twenty four months; percentages of workers with low wage during twenty five to thirty six months and percentage of workers who combine low-wage employment and unemployment during the period in question.

	Months in Low wage during 1995-1996-1997			Workers combining LOWE and unemployment (1995-1997)
	1-12	13-24	25-36	
Denmark	53.83	36.76	9.41	22.4
Germany	48.85	43.03	7.12	29.7
Spain	36.09	54.24	9.67	47.1
UK	40.69	54.31	4.96	24.8

Source: own elaboration with data of European Household panel (1997)

The table above seems to underline some of the tendencies stressed previously. Although at first sight there are no excessive dissimilarities with respect to the percentage of workers who experienced low pay during the three year period, Spain, and to a lesser extent the UK display important particularities. While the rates of low- wage permanency in the period 25-36 months are moderate in Spain - similar to those shown in Denmark- this does not seem to be as a result of stability, but of continuous shifts from low wages to unemployment and vice versa as, column 3 shows. Almost half of the Spanish low wage population (47,1%) has combined low-wage employment with unemployment during the period 1995-1997. This gives us an idea of the hazardous and unstable labour trajectories of a significant part of the Spanish labour market.

Denmark sees numerous terminations after the first year (around 50%), with moderate low wage employment-unemployment rotations (people combining low-wage employment and unemployment). This “transient” bias is significant to note because it makes Danish low-wage employment “scarce” and “ephemeral” in contrast to the “abundant” and “persistent” phenomenon observed in Spain. In Germany, abundant termination can be observed after the first year. Low wage employment-unemployment rotations however are higher in

Germany, closer to 30%, which place it in the sphere of “moderate” low-wage rates, “rapid transitions” and abundant “low-wage-unemployment” spells. The UK exhibits the highest rates of low wage employment, with termination patterns similar to Spain and “moderate” rotations from low-wage employment to unemployment and vice versa⁵.

⁵ Once again problems of attrition should be taken into consideration. Although the sample size for individuals in a given wave (t) is always above 92% regarding the wave t-1 in all the countries observed, there are abundant lost cases. Denmark has lost 21,6% of all its cases from wave 1 to wave 4. The group that result from subtracting the number of entries from those of leaving (the spare group) shows an educational and age bias. Those individuals with elementary education are over-represented in wave 3 and wave 4. Since this group is more likely to be affected by low wage, it is possible that the over-representation increases the real incidence of low-wage during the years observed in Denmark. However the under-representation of young individuals entering, that tend to be affected by low wage more easily, might compensate the increase that may cause the over-representation of individuals with elementary education. The UK has lost 15,1% of its cases from wave 1 to wave 4. The spare group exhibits a clear educational and age bias. Individuals with elementary education – that are more likely to fall into low-wage- are strongly under-represented in wave 2, wave 3 and wave 4, suggesting that the percentages of low-wage workers being in low-wage during the period examined in table 1.7 might be higher in reality. However young individuals are strongly over-represented, that may compensate the under-representation of low-skills individuals. Women –that are more likely to fall into low wage- are under-represented in wave 2 and wave 3 and over-represented in wave 4. Spain has lost 17,2% of its cases with a clear age bias and a more moderate gender and educational bias. Young are under-represented in the four waves, suggesting that the rates and duration of low-wage is likely to be higher in reality, although low- educated individuals and women are slightly over-represented in the four waves. As in the previous cases these contradictories degree of under/over-representation may result in a compensated diagnosis. Germany is the only country not losing cases, but increasing them. This country has gained 2569 cases (27,1%). Women are under-represented in wave 2 regarding wave 1, but they are over-represented in wave 3 and wave 4. An strong over-representation of low-skilled individuals in wave 2 regarding wave 1, and to a lesser extent in wave 3, but under-representation is observable in wave 4. Similarly and strong over-representation of young individuals in wave 2, in contrasts to the strong under-representation in wave 3 and wave 4.

Table 26: A summary overview of low-wage characteristic

	Volume of LAWE	Duration of LAWE	LAWE-Unemployment Rotation
Denmark	Moderate	Transient	Moderate
Germany	Moderate	Transient	High
UK	High	Persistent	Moderate
Spain	High	Persistent	High

Source: own elaboration with data of European Household panel (1997)

2.2.4. Logistic Regressions of the Probability of Low-Annual Wage versus non-Low Annual Wage.

In the following analysis I set out to shed some light on this debate by examining how previous spells in low-wage, as well as, previous periods in unemployment during the pasts 24 months (in 1995 and 1996) affect the risk of low wage in 1997. The initial hypothesis suggests that past labour trajectories have an effect on the present, so that, the higher the number of months in low-wage in the past, the higher the likelihood of low-wage in the present. In a similar vein, previous experience of unemployment is expected to increase the risk of low-wage in the present, reinforcing the idea that low-wage workers tend to combine (low wage) employment and unemployment rather frequently. With these hypotheses in mind I present two probabilistic models. In the first one I only take into consideration those variables widely accepted to have an unambiguous effect on the risk of low wage, namely age, level of education, gender, type of employment, the private versus public character of the firm and the size of firm in which workers carry out their activities⁶. In the second model I have added those

⁶ Y) the dependent variable is the expected probability of low-wage coded 1 if a worker had less than two-third of the median income from work during the year 1997 and 0 otherwise (non-low-wage worker). This dependent variable was modeled as a function of the following number of predictors: *Age* is the respondent's age, a categorical variable with values from 15 to 65 (some national legislation allows workers to postpone the age of retirement beyond 65 (Denmark). In these cases values span from 15 to 89. *Gender* is a dummy coded 1 for males and 2 for females; *Education* is respondent's educational attainment

variable whose effects on the risk of low-wage are more controversial, namely previous spells in low-wage and previous spells in unemployment. The principal idea is to check how the incorporation of these variables improves the explanatory capacity of the model as well as other improvements in the degree of sensitivity, specificity, goodness of fit of the model etc.

Results:

1-) Our models displays strong similarities among the countries examined. The variables that are included in the models affect similarly the probabilities of low-wage employment in Denmark, Germany, the UK and Spain. As a result, it is possible to state that *even though the expansion of low-wage employment significantly differs in these countries, the composition of low wage is analogous.*

2-) All other conditions being equal, an additional unit in the variable age (being one year older)- except for the youngest and oldest stratum as the variable age2 seems to suggest- decrease the probability of low wage, suggesting that labour seniority plays its part in decreasing the risk of low pay in the four countries examined. This statistical effect might be thought to reinforce the “stepping stone” character of low-wage employment. Given the decreasing risk of low-wage among those not being in the initial or final phase of the labour career, it is reasonable to postulate that

(1= primary degree, 2= secondary degree, 3= university degree). *Size of Firm* contains values for regular paid employees in the local unit in current job grouped in seven categories 1= none; 2= 1-4; 3= 5-19; 4=20-49; 5= 50-99; 6=100-499; 7= 500 or more. *Private-public* firm is a dummy coded 0 for private firms and 1 for public ones. The variable *previous spells of low pay* measures the cumulative number of months in low pay during the years 1995 and 1996 with 25 values: coded 0= no month in low pay to 24= two years in low pay. Low pay has been measured on the basis of monthly wages (2/3 median). *Previous spells in unemployment* measures the cumulative number of months in unemployment during the years 1995 and 1996 with 25 values: coded 0= no month in unemployment to 24= two years in unemployment. “*Sector of activity*” has not been included because this information is not available in Germany and the UK.

low-wage is principally a transitory phenomenon that led to a better job. However such a statement should be examined with cautions, as the variables included in the model 2 (previous experiences in low-wage and unemployment) seem to suggest. *The odds of being in a low pay situation are greater for those who experienced periods of low pay in previous years.* Therefore what the “previous spells of low wage” variable suggests then is that low-wage workers have higher probabilities of being or remaining in low-wage than non low-wage workers. In the same vein the variable “previous spells in unemployment” adds force to the “trapped” character of low-wage employment. Being unemployed increase the risk of getting a low-wage job in the four countries examined, particularly in the UK. For those low-wage workers who frequently experience break in their careers with sustained unemployment periods and/or continuous changes of employment, the “stepping stone” effect attributed to low-wage employment is likely to be irrelevant.

3-) *“Types of employment” is a crucial variable affecting the risk of low-wage in the countries observed.* The odds of receiving low pay during 1997, is higher for those holding “atypical” employment (part-timers, temporary workers, and self-employed) than for those in permanent- full-time situation. The higher probability of low-wage among temporary workers supports Booth, Francesconi and Frank’s hypothesis of a wage penalty for temporary jobs. Although employers gain various advantages when hiring workers temporarily - principally the avoidance of redundancy payment- they are at a higher risk of low pay, regarding permanent full-time workers, in all the countries examined. The same applies for part-timers. The effect of holding a part-time job on the probability of low-wage is particularly strong in Spain (26,37) and the UK (17,82) whereas the effect in Denmark, and to a lesser extent in Germany, is statistically significant but less intense. The quality of the employment is highly likely to be behind the observed tendencies:

Table 27: Logistic regression of the probability of low annual wage employment

	Denmark				Germany			
	Model 1		Model 2		Model 1		Model 2	
	Odds R	ER	Odds R	ER	Odds R	ER	Odds R	ER
Age	.656***	.02	.632***	.03	.836***	.025	.854***	.028
Age2	1.01***	.001	1.01***	.001	1.01***	.001	1.01***	.001
Gender (male ref)								
Female	2.66***	.43	2.95***	.55	3.72***	.351	3.94***	.403
Education	.723***	.07	.749***	.09	.603***	.044	.605***	.048
Type of employment Perm.full-time (ref)								
Part-time	8.72***	1.94	8.28***	2.2	12.8***	1.56	12.01***	1.57
Temporary/fixed-term	5.42***	1.07	5.02***	1.1	5.53***	.781	4.76***	.727
Self-employment	6.33***	1.67	3.15***	1.1	5.15***	.656	3.71***	.52
Private/public	1.69***	.299	1.32	.27	.313***	.036	.317***	.031
Size of Firm	.887***	.043	.924	.051	DNA		DNA	
Previous Spells in Low Pay (1995/96)			2.71***	.26			2.86***	.187
Previous Spells in unemployment (1995/1996)			1.61***	.13			1.44***	.091
Model sensitivity	32.40%		67.65%		32.99%		60.83%	
Model specificity	97.15%		92.94%		96.69%		92.59%	
Correctly classified (cutoff point 0.30)	87.29%		89.24%		86.75%		87.70%	
Pseudo R2	0.29		0.44		0.26		0.34	
Goodness of Fit test (Prob > chi2)	0.5426		1.000		0.0778		0.9960	
Maximum Degree of Correlation among Varia	Size of firm /Type of employ (-4056)				Previous spells in high pay/type of employ (-0.2892)			
N	2108		2091		5616		5602	

Source: own elaboration with data of European Household panel (1997)

Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Table 27b: Logistic regression of the probability of low annual wage employment

	UK				Spain			
	Model 1		Model 2		Model 1		Model 2	
	Odds R	ER	Odds R	ER	Odds R	ER	Odds R	ER
Age	.724***	.015	.744***	.017	.780***	.01	.784***	.01
Age2	1.01***	.001	1.01***	.001	1.01***	.001	1.001***	.001
Gender (male ref)								
Female	3.28***	.301	3.92***	.402	2.51***	.19	2.6***	.24
Education	.651***	.031	.661***	.033	.716***	.03	.948***	.05
Type of employment Perm.full-time (ref)								
Part-time	17.82***	2.18	17.26***	2.26	26.37***	4.5	17.33***	3.5
Temporary/fixed-term	3.69***	.715	2.52***	.553	8.25***	.81	5.22***	.61
Self-employment	2.80***	.375	2.51***	.375	8.97***	1.1	11.44***	1.7
Private/public	.653***	.075	.755**	.092	.675***	.09	.775	.12
Size of Firm	.849***	.018	.869***	.021	.827***	.02	.871***	.02
Previous Spells in Low Pay (1995/96)			3.83***	.309			2.44***	.94
Previous Spells in unemployment (1995/1996)			2.13***	.183			1.95***	.07
Model sensitivity	52.14%		73.83%		57.11%		85.13%	
Model specificity	93.25%		87.75%		87.98%		83.86%	
Correctly classified (cutoff point 0.30)	82.85%		84.23%		78.49%		84.23%	
Pseudo R2	0.31		0.41		0.31		0.47	
Goodness of Fit test (Prob > chi2)	0.4359		0.9200		0.9214		1.000	
Maximum Degree of Correlation	Size of firm /Type of emplo –(0.4510)		Size of firm and Priv/Public (0.4241)					
N	4897		4907		5764		5625	

Source: own elaboration with data of European Household panel (1997) Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Table 28: Percentages of workers in low wage according to type of employment

	<i>Permanent full-time workers in low wage</i>	<i>Part-time workers in low wage</i>	<i>Temporary workers in low wage</i>	<i>Self-employed in low wage</i>
Denmark	9.1	30.98	51.48	20.99
Germany	10.24	51.00	62.36	21.60
UK	18.11	74.13	66.42	32.21
Spain	16.91	65.45	77.82	30.36

Source: own elaboration with data of the European Household panel (1997)

The focus on wages reveals that there are “good” and “bad” jobs. The former are those above the low-pay threshold, while the latter receives less. “Bad” employment is principally concentrated in Spain and the UK whereas good employment is abundant in Denmark and, to a lesser extent, in Germany. Particularly eye-catching is the small percentages of low-wage among part-timers in Denmark and the high percentages in the UK and Spain. Something similar applies for temporary employment. The percentages are comparatively moderate in Denmark and very high in Spain. As to self-employed, the heterogeneity of this group in terms of wages, educational attainment etc., complicates a serious analysis on the real effect of being a self-employed on the risk of low-wage.

4-) *The proposed models also confirm what other analyses have already stressed*, namely that being a woman increases the risk of low pay. The fact that most part-time jobs are in women’s hands added to the existence of employment discrimination - principally the gender wage gap (Blau and Kahn 1992, 2000; Altonji and Blank 1999)- may explain women’s higher risk of low pay. Our results reveal small divergences in the intensity of this effect in the four countries examined. Although the biggest impact is to German and British women, the standardised odds ratios are quite similar. Respecting education, the results are also straightforward. The risk of low wage is particularly high for the least educated workers. All other conditions being equal, an additional unit in education reduces the risk of low pay. The

private-versus-public character of the employment and the size of firm also account for the probability of low wage. With the exception of Denmark, where public industries increase the risk of low wage – although the odds ratio is not statistically significant- the remaining countries’ ratios indicate that those who work in big firm and those who work in the public-sector experience a lower probability of falling into low-wage employment than those in small firms and those working in the public sector.

2.3. “Working-Poor Households”

Definitively, low-wage employment is not exclusively an individual phenomenon: analyses of low-wage from at the individual level may exclude crucial information. The household constitutes a sphere in which income and benefit come together, a form of economic “meeting point” which condenses individual economies and public social actions. It operates therefore as a safety net because in it wages and benefits converge. Individual adversities can be alleviated in an altruistic sphere in which low-wage workers acquire social meaning. It is therefore necessary to examine the household contexts of low-wage workers.

The central aim of this section is twofold. The first objective is to measure the volume of working-poor households -those households with at least one earner, therefore excluding households exclusively made up of pensioners or inactive members. The second objective is to examine the household composition of these working-poor households. As I have already explained, household poverty is here defined as a total net income below one half of the median. I apply an equivalence scale that assume weights of 1 for the first person, 0.5 for a second person, 0.38 for a third person and 0.225 for each additional person.

The following table indicates the volume of working-poor households, the poor households gap and the Gini Coefficient among poor households.

Table 29: Percentages of working- poor households, the Poor household Gap and Gini Coefficient

	<i>Working Poor households</i>	<i>Household poverty Gap</i>	<i>Gini Coefficient</i>
Denmark	3.71	0.18	0.29
Germany	4.87	0.40	0.35
UK	8.11	0.31	0.22
Spain	10	0.34	0.24

Source: own elaboration with data of European Household panel (1997)

Once again, two extremes emerge from this table. Denmark displays the lowest figures, suggesting that a particular confluence of wages, gifts and benefits give households a strong safety net against poverty. This is not the case for Spain where the confluence of wages, gifts and benefits fails to prevent ten percent of working households from falling into poverty. These results point towards a zone of economic vulnerability where certain workers have to cope with low-wages and household poverty at the same time. This vulnerable zone is of great magnitude in Spain, while it is less significant in Denmark.

The UK and Germany score in between the two referential points (Denmark and Spain). The UK displays figures that are closer to Spain while Germany's figures come closer to Denmark's. In this sense the figures almost mirror the figures on low-wage employment. Low-wages and household poverty are abundant in Spain and the UK while they are scarce in Germany and Denmark⁷.

⁷ Comparisons with other studies constitute a problem. There are few studies that examine the overlap between low-wage and household poverty. The majority focus is on full-time, full-year workers. Some of these studies provide information on the percentages of low-wage workers who live in poor households, without specifying the percentages of working-poor households (Nolan and Marx 1999); other studies that use data base from the 80s provides information about household poverty in some countries examined in this study, but ignoring others (O'Connor and Smeeding 1993). According to this study based upon LIS data base, the percentage of working-poor household in the UK in 1986 represented 9% of all working households, a similar figure to that shown

Turning to the Household Poverty Gap (HPG), Germany exhibits not only the highest average poverty gap but also the highest Gini coefficient among the four countries examined. This indicates that not only does it exhibit the longest gap between the poor-household group and the poverty threshold, but it also has the highest dispersion among poor households. On the contrary, the poor household group is relatively close to the poverty threshold in Denmark (18%), although internal dispersion is quite high (29). Spain and the UK, the countries with the highest instances of household poverty, have similar distributions of inequality among their poor households, with poverty gap values of 0.31 and 0.34 respectively, and similar Gini coefficients (0.22 and 0.24), indicating both moderate distances from the threshold and moderate dispersion among poor households.

How can we explain these cross-national differences? Household poverty is the result of insufficient wages, insufficient benefits or both. The percentages of dual/multi-earners households, the generosity of the welfare state and the household structure predominant in each country are hence expected to

in this study, (8,11% in 1997). Unfortunately the other results are referred to the Netherlands (1987), Sweden, (1987), Canada (1987) and the USA (1986). Most studies are concerned with household poverty in general - including elderly couples, lone pensioners etc.- rather than dealing specifically with poverty among households with incomes from the labour market (wages). Comparisons between my results and these studies' results are therefore neither, useful nor illustrative. The rankings provided by these studies indicate that Denmark exhibits the lowest percentage of household poverty followed by Germany, Spain and the UK (Bradshaw and Chen 1997, Smeeding 1997, Föster 1997, Smeeding 1998). The higher figures of household poverty in the UK compared to Spain may indicate that the percentage of poor households made up of pensioners and other inactive members are higher in the UK than in Spain as several studies have already observed (Smeeding 1997, Föster 1997). The percentage of social expenditure devoted to pensions in Spain (44,2% of the total social expenditure in contrast to the 35% in the UK) may partially explain why Spain always scores lower than the UK in this respect. As many studies have observed, Spanish pensioners have a "privileged" situation as compared to other beneficiaries of the welfare state (Guillén 1992; Ferrara 1996; Moreno 1997, 1999), whereas the situation for British pensioners has made them relatively worse-off in recent decades (Bradshaw 1999).

explain an important part of the cross-national differences in household poverty found.

2.3.1. Number of Earners per Household

The following results confirm the predominance of dual/multi-earners in Denmark and the UK where respectively only 14,3% and 19,5% of households are single earners, as compared to the 25,3% in Germany and the 34,3% in Spain. Putting another way, at the extremes Denmark has 85,7% (67,16 + 18,53) of dual/multi-earners households and Spain has 65,24% while the UK (80,5%) and Germany (74,7%) lie in between, as is often the case⁸.

Table 30: Percentages of single earner households, dual-earners households and multi-earners households

	Single Earner Household	Dual Earners Household	Multi-Earners Household
Spain	34.4	46.7	18.9
Germany	25.3	54.3	20.4
UK	19.9	56.5	23.6
Denmark	14.3	67.2	18.5

Source: own elaboration with data of European Household panel (1997)

These results seem to indicate a connection between the number of earners and the volume of household poverty, so that the countries with the highest percentages of dual and multi/earners households are expected to show the lowest rates of “working” household poverty. This is certainly the case for Spain and Denmark. However the UK and Germany represent challenging cases since British high levels of multi/earning do correspond with comparatively high levels of poverty whereas the lower percentages of dual and multi/earners households in Germany coincide with moderate levels of household poverty.

⁸ I have excluded single member households (“1 adult without dependents”) because there is no possibility of multi-earning in that model

Given the better quality of the German employment, it is not surprising such a result. However the quality of employment cannot explain the whole variance in the results observed. The (welfare) state also matters by rescuing households locked into poverty, through the provision of benefits. The generosity of the welfare state is therefore decisive in explaining the scope of household poverty.

2.3.2. Household Composition and “Working Household Poverty”

From the point of view of this research it is vital to accurately identify the predominant composition of “poor working households”. The socio-economic implications are substantially different if household poverty is concentrated principally among “couples with children” or among “one-person households”. In the first case, household poverty is likely to correlate highly with adult earners in marginalized jobs, with a subsequent risk of “persistence” in poverty; whereas poverty among “one person households” is expected to affect young workers in the initial phase of their labour careers, thereby indicating the possibility of a more transient bias.

I consider five types of households, with a view to the information provided by the European Household Panel. These household types are : a) 1 adult without dependents, or one person households; b) a couple without dependents, c) single parents, d) a couple with a child and e) a couple with 2 or more children⁹. The

⁹ These five types of households stem from question HD006b (household type-economic typology) that set up fourteen household categories: 1-) 1 person household: male under 65; 2-) 1 person household: male aged 65 or more; 3-) 1 person household: female under 65 4-) 1 person household: female aged 65 or more; 5-) two adults without dependent child with both under 65; 6-) two adults without dependent child with one person aged 65 or more; 7-) two adults without dependent child with both aged 65 or more; 9-) Other household without dependent children; 10-) Single parents with 1 or more dependent child; 11-) 2 adults with 1 dependent child; 12-) 2 adults with 2 dependent children; 13-) 2 adults with 3 or more dependent children; 14-) Other households with dependent

purpose here is to examine the household composition predominant in each country (poor household composition is examined later). In the following table, I provide data on the proportion of households of a certain type with respect to the total household population.

Table 31: Proportion of households of a proposed type with respect to the total household population

	<i>1 person without dependents</i>	<i>2 adults without depend</i>	<i>Single parents</i>	<i>2 adults with 1 child</i>	<i>2 adults with 2 o + children</i>	
Spain	1.86	37.1	1.15	9.66	50.2	100%
UK	6.95	49.3	2.60	11	30.2	100%
Germany	7.23	41.8	2.34	14.8	33.8	100%
Denmark	13.87	41.8	3.16	12.3	29	100%

Source: own elaboration with data of European Household panel (1997)

The table above should be interpreted as follows: the category of “one-person without dependents” in Spain represents 1,86% of all household population. The sum of each column in the five proposed categories for each country is equal to 100% (total household population). The cross-national heterogeneity in household composition is notable. Denmark on the one hand, and Spain on the other hand, represent two different archetypes, while Germany and the UK show figures closer to the household composition predominant in Denmark. The highest share of people living in “one person households” accrues to Denmark and the lowest to Spain. In the category “two adults with children households” the picture is the opposite, with Spain showing the highest rates and Denmark the lowest. The percentage of “single parents households” are quite homogeneous, - although slightly

children; -9= missing. I have recoded these values into five new categories: a) 1 person without dependents (values 1 and 3 of the variable HD006b); b-) 2 adults without dependents (values 5 and 6); c) single parents (value 10); d) a couple with a child (value 11); e) a couple with children (values 12,13 and 14). Values 2 4, 7 were dropped because they referred to persons aged 65 or more, that is, non working age population.

higher in Denmark- whereas “two adults without children” are a majority in the UK and significantly high in Germany and Denmark.

It is important to recall, that I focus on households whose income is derived from work (wages). Some studies on household size are based upon the total household population and include pensioners and non-earner households. These studies however provide similar results. Brandolini and D’Alessio’s calculations (2001:30) on the distribution of household types in accords with the tendencies observed in this study. Denmark and Spain represent the extremes, the former showing the highest percentages of “one person households” (29,3%) and the lowest percentage of households with “2 adults with children¹⁰” (23,7%), while Spain exhibits the lowest percentages of “one person households” (3,9%) and the highest percentages of couple with children (52,1%). As is frequently the case in my study, the UK (14,4% of “one person household” and 30,8% of “2 adults with children”) and Germany (18,3% of “one person households” and 32,2% of “2 adults with children”) somewhere in-between.

The spread of *male breadwinner households*, which refer to the concentration of wages and benefits in the hands of married men, with the subsequent low levels of married women activity, as well as the spread of *intergenerational dependency*, which refer to the proportion of people in their twenties or thirties living with their parents, from two competing explanations for the cross-national differences observed in household composition. The combination of high unemployment, a weak welfare state and a durable legacy of high protection for family heads, has resulted in high levels of intergenerational dependency in Spain. Neither the labour market nor the welfare state allow young people to live on their own. The high percentage of unemployment has been ascribed to the rigidity of the labour market that impedes the creation of employment via flexible jobs. The substitution of

¹⁰ “2 adult with children” in Brandolini and D’Alessio’s calculation correspond to the categories of “2 adult with 1 child” and “2 adults with 2 or more children” in my study.

protected employment for unprotected employment has principally affected young people who experience alternating spells of employment and unemployment without having significant benefit incomes at their disposal. This panorama increases young workers' dependency upon a protected worker in the family, and thus postpones their personal autonomy. As a result, the percentage of "one-person households" and couples without dependents – which tend to be young couples – are relatively very low while the percentage of "two-adults with children" is very high. Spain shows an additional specificity in the composition of "one person household" with respect to the other countries examined: 50% of "one-person households" are made up of people aged 50-65 while only 28,57% are aged 16-31. These results contrast with those of the other countries examined, where the young form the majority of "one-person households". The low rates of young people living on their own (28,57%) as a proportion of the total "one-person households" confirms the strong dependency of Spanish youth as is highlighted by the literature on this topic (Pérez Diaz 1993, Flaquer 1995, Ferrera 1996, Moreno 1997, Flaquer 2000). Although the percentages of single parents with regards to the total household population are quite similar in the four countries, Spain exhibits the lowest figures. Once again, the high degree of inter-generational dependency explains this tendency, since more Spanish single parents, principally single mothers, tend to live in their parents' home (Jurado 1998, Naldini 2000).

In Denmark, inter-generational dependency is significantly lower. Young people move out of the parental household sooner thanks to a combination of labour market flexibility and extended benefits that provide them with abundant employment and social protection. Unemployment rates are very low and job mobility is very high, pointing towards a dynamic labour market that is able to create adequate employment opportunities. Unlike Spain, where employment creation is chiefly through "atypical" jobs. In Denmark the growth of permanent full-time employment has run

Table 32: One- person household: main characteristics

	Gender		Age			Education		
	Male	Fema	16-31	32-49	50-65 >	Less than second stage of secondary education	Second stage of secondary level education	Recognised third level education
Germany	35.59	64.41	89.83	6.78	3.39	50.00	43.75	6.2
Spain	35.71	64.29	28.57	21.43	50.00	57.14	28.57	14.29
UK	41.67	58.33	63.89	16.67	19.44	52.94	8.82	38.24
Denmark	55.38	44.62	83.08	9.23	7.69	29.03	58.06	12.9

Source: own elaboration with data of European Household panel (1997)

Table 33: Single- parents household: main characteristics

	Gender		Age			Education		
	M	F	16-31	32-49	50-65 >	Less than second stage of secondary education	Second stage of secondary level education	Recognised third level education
Spain	31.03	68.97	41.38	51.72	6.90	53.57	25.00	21.43
UK	10.13	89.87	45.57	49.37	5.06	44.74	27.63	27.63
Denmark	25.00	75.00	41.67	50.00	8.33	50.00	33.33	16.67
Germany	18.67	81.33	40.00	54.67	5.33	29.41	69.12	1.47

Source: own elaboration with data of European Household panel (1997)

in parallel with an increase in “atypical” work – the cohabitation effect- principally part-time jobs of “good” quality. Although severance pay and dismissal compensation is only applicable to white-collar workers with long tenure, young people who enter the labour market for the first time after attending training programs are entitled to receive unemployment benefits from the first day of unemployment. This combination of abundant employment and social protection is highly responsible for the high rate of “one-person households” observed in Denmark, most of them made up of young workers aged 16-31.

Although jobs have become less secure, more episodic and casual in the UK in the last decade, the shift from permanent full-time jobs to other forms of “atypical” employment has resulted in a substantial increase in the active population and an important reduction in unemployment. Overall, more people are employed and the proportion of households with two earners has increased significantly (Föster 1994, Bradshaw 1999). This relaxes the degree of male breadwinner dependency and encourages young workers to move out of the parental home. Household policies have historically been quite favourable to this emancipation. Even though the conservative government initiated a process of cuts in housing benefits and the privatisation of council houses, housing benefits remain more generous in the UK than in other countries (Kleinman 1999). Housing subsidies, such as mortgage interest relief, exchequer grant to council housing and household benefits for the young are still abundant and the amount of benefit received per household falls broadly in line with income (Kemp 1992). This combination of abundant- although rather precarious employment- in line with public policies of housing provision place the number of “one person household” in an intermediate position between Spain and Denmark. Additionally the number of couple without dependents –who tend to be young couples- is the highest among the countries examined, suggesting adequate opportunities for emancipation. Something similar goes for Germany with respect to its moderate figures for “one-person households”. The high degree of regulation and a preference for

employment stability in the context of high rates of employment activity act as incentives for the young to leave the parental home. Unlike Spain where most temporary employment involves continuous spells of employment and unemployment that do not result in permanent employment, in Germany temporary employment is usually a stepping stone to finding a secure job. The prospect of secure employment for the young is therefore better than in Spain. However, social benefits are highly linked to active participation in the labour market (previous contribution via income taxes) leading to greater intergenerational dependency than in Denmark. The percentage of “one-person households” and “couples without dependents” is therefore the result of this combination of secure employment and welfare policies that are link to the labour market.

2.3.3. Poor households Composition

Demography and household poverty are related. The distribution of household income very much depends on the household composition. Since, on average, men earn higher wages than women, and older persons earn more than the young, a household’s economic well-being is highly likely to be influenced by its earners’ sex, age and marital status (in the logistic regression in table 2.9 I give an account of the effect of these variables on the probability of poverty among working households). Similarly, exogenous characteristics, such as the number of earners or the number of children, also condition households’ economic prospects.

There is literature, which looks at how household size affects the risk of poverty, principally concentrating on under-developed countries where each household member is a potential earner. In these countries labour regulation is insignificant and welfare state protection is practically non-existent, leading to the active participation of children in the labour market in badly paid, precarious jobs. In this socio-economic context additional children

can improve the household economic position, since they allow economies of scale in consumption and at the same time provide additional sources of income. Therefore, large households may be a rational strategy against poverty in under-developed countries (Lanjouw and Ravallion 1995, Dreze and Srinivasan 1997, Meenakshi and Ray 2000). Although numerous earners guarantee against household poverty as various studies has proved (O'Connor and Smeeding 1993, Förster 1994) the radically different scenario in developed countries necessitates different household strategies. Children are not allowed to participate in the labour market and regulation affects every aspect of labour relations, from security to wages, even in the most de-regulated of labour markets. While larger households are more likely to fall into poverty if they depend upon a single earner, the (welfare) state may act as a compensatory source of income to compensate the household for its lack of an additional source of wages. As a result the size of the household does not necessarily affect its propensity to poverty as it does in under-developed countries. Other factors, such as the labour market's capacity to provide employment, or the generosity of the welfare state are more decisive element in explaining household poverty in the countries examined.

Let look at household poverty as a proportion of poor households of a proposed type with respect to the total of the poor household population.

Table 34: Proportion of "working poor households" of a proposed type with respect to all "working poor households"

	1 person without dependents	2 adults without depends	Single parents	2 adults with 1 child	2 adults with 2 o + children	All working poor households
Spain	1.19	19.9	2.47	9.72	66.7	100%
UK	6.19	32.3	13.6	14.9	33	100%
Germany	12.09	24.4	15.4	14.5	33.6	100%
Denmark	46.43	29.3	8.57	1.43	14.3	100%

Source: own elaboration with data of European Household panel (1997)

According to the results in the table above, the vast majority of poor households in Spain are “two adults with two or more children” (66,7%). On the contrary “one person without dependent” (46,4%) and “two adult without dependent” (29,3%) are the most abundant categories in Denmark. These results provide us with some interesting insights. Since poverty is more abundant among “one-person” and “single-parent households” in Denmark, which are more likely to include young people with the potential to escape from poverty, it might be thought that household poverty is likely to have a more transitory character in Denmark. On the other hand, the predominance in Spain of poor households which are made up of two adults with two or more children, and who tend to be more mature workers who are already established on the labour market, suggests more persistency in the poverty dynamic.

Germany and the UK represent intermediate models. Although in these countries the highest percentage of household poverty accrues to household made up to “2 adults with children”, the figures are comparatively lower than in Spain and in addition the percentages of “two adults without dependents” who tend to be young couples, is considerably higher in Germany and the UK. What constitute a real particularity in these countries is the high rate of “single parents” in poverty. An important part of the economic resources devoted to family policies in both countries, and particularly in the UK, is aimed at this group. It is reasonable therefore to conclude, that these countries represent an intermediate point between the Denmark’ transitory households poverty and Spain’s abundant and persistent household poverty. Although some studies dealing with poverty dynamics suggest that there is a high degree of mobility in household poverty, (Leisering and Liebfried 1999)- recent analyses point to the specificity of that transition within different countries. One of the most compelling analyses– that of Whelan, Layte, Maitre and Nolan (2000)- examines the mobility into and out of poverty from one year to the next, on the basis of equalised income reported for 1993 and 1994. Their findings accord, to a great extent with my hypothesis on the

“transitory” bias of household poverty observed in Denmark in contrast to the “persistent” bias observed in Spain regarding the household type. By using Wave 1 and Wave 2 of the European Community Household Panel, the authors find that poverty persistence (on a 50% of the median basis) was lowest in Denmark (41,9% of those households in poverty in 1993 were also poor in 1994), followed by the UK (44,7%), Spain (48,7%) and Germany (60,7%). Although the study is certainly based on very limited number of years and the differences are not excessive, the tendencies observed by Whelan et al. are consistent with my perception of the household poverty dynamic as linked to household structure. Germany constitutes the locus of discrepancy since I find moderate persistency in contrast to the high persistence observed by Whelan et al. Differences in samples may play their part in explaining this discrepancy— since, once again, Whelan et al. examine the total household population whereas this study is focused on “working household population. In any case, the connection between household structure and the poverty dynamic constitutes a topic plenty of potential insights that unfortunately lie beyond the aim of my investigation.

2.3.4. Logistic Regression on the Probability of Household Poverty

In the next probabilistic analysis I set out to check the effects of the proposed variables on the risk of “working” household poverty. I am particularly interested in examining how additional units of earners per household increase or decrease the likelihood of “working household poverty”. Although it is rational to think that additional earners are likely to reduce the risk of poverty, I get the impression that such diagnosis only applies for household where there are high-wage workers as well. In that context low-wage constitutes a very useful economic complement. However in households predominantly made up of low-wage workers, an additional low-wage earner is highly likely to increase the risk of

poverty. In this section I would like to unravel this seeming contradictory tendencies.

The regression is the following: (Y) the dependent variable is the expected probability of household poverty coded 1 if a household had less than one half of the net median total income during the year 1997 and is coded 0 if a household scores above this threshold. This dependent variable was modelled as a function of the following number of predictors: number of earners per household, earners' age, earners' level of education, social income dependency, number of dependent per households, household type and the number of low-wage worker per household¹¹. Given the vital importance of tracing a clear connection between low-wage employment and household poverty I present two logistic models, the first containing all the proposed variables except "number of low-wage employed per household ". This has been included in the second model in order to check the explanatory dimension of this variable and how it foster substantive improvements in models' capacity of explanation, degree of sensitivity, specificity, goodness of fit etc.

¹¹ *Ratio of earners per household* is the result of dividing the number of earners into the number of household members. Values span from 0 to 1. *Ratio of low-wage workers per household* is the result of dividing the number of low-wage earners into the number of earners. Values span from 0 to 1. *Earners' age* is the respondent's age, and applies only to the household's earners; It is a ratio that results from dividing the total sum of all earners' ages by the number of earners. It is a variable with values from 15 to 65 (some national legislation allows workers to postpone the age of retirement beyond 65 (Denmark). In this case values span from 15 to 89. *Earners education* is a respondent's educational attainment and applies only to a household's earners (1= primary level, 2= secondary level, 3= university level). It is also a ratio that result from dividing the total sum of all earners' educational attainment by the number of earners. *Social Income dependency* is the result of dividing the total net household income from benefits among total net household income. *Type of Family* is a categorical variable made up of five values: 1-) 1 adult without dependent, 2-) 2 adults without dependents, 3-) Single parents, 4-) A couple with a child, 5-) A couples with children.

Table 35 :Logistic regression of the probability of household poverty

	Denmark				Germany			
	Model 1		Model 2		Model 1		Model 2	
	Odds R	ER	Odds R	ER	Odds R	ER	Odds R	ER
Number of Earners per Household	.941	.605	.736	.642	.281***	.075	.394***	.078
Earners' age	.905***	.027	.953**	.020	.932***	.011	.945***	.010
Earners' level of education	.832	.232	.755	.192	.446***	.058	.572***	.072
Social Income Dependency	1.87***	.005	2.58*	2.07	.005***	.002	.951	.451
Number of Dependents per Households	4.56*	1.64	1.05	.738	1.07	.207	1.01	.161
Household type								
Single member household (ref)								
Couple without children	.091***	.072	.095***	.064	.073***	.036	.446**	.159
Single parent	5.06***	2.83	23.2***	18.4	4.88***	1.73	7.21***	2.85
2 adults with a child	-	-	.155**	.142	.445**	.171	.782	.283
2 adults with children	.181*	.145	.249*	.174	.181***	.078	.471*	.182
Ratio of Low-wage workers per Hous			409***	313			63.9***	16.9
Model sensitivity	33.33%		48.30%		30.09%		47.75%	
Model specificity	99.38%		99.38%		99.31%		98.97%	
Correctly classified (cutoff point 0.30)	98.42%		98.28%		98.18%		97.63%	
Pseudo R2	0.44		0.50		0.42		0.46	
Goodness of Fit test (Prob > chi2)	1.000		1.000		1.000		1.000	
Maximum Degree of Correlation among Variables								
N	2279		2619		6882		6924	

	UK				Spain			
	Model 1		Model 2		Model 1		Model 2	
	Odds R	ER	Odds R	ER	Odds R	ER	Odds R	ER
Number of Earners per Household	.449***	.063	.486***	.071	.687***	.042	.631***	.047
Earners' age	.942***	.007	.939***	.008	.961***	.005	.987*	.006
Earners' level of education	.701***	.052	.784***	.071	.189***	.022	.361***	.049
Social Income Dependency	.021***	.005	.353***	.119	1.062***	.011	4.73***	1.17
Number of Dependents per Households	12.75***	5.39	7.01***	3.71	1.58**	.139	1.82*	.568
Household type								
Single member household (ref)								
Couple without children	.505*	.178	.779	.314	.602	..281	.811	.393
Single parent	4.66***	1.84	24.33***	11.2	5.53***	3.37	19.58***	16.9
2 adults with a child	2.82***	.995	2.49**	1.03	1.91	.895	3.47**	1.76
2 adults with children	1.26***	.442	.981	.411	2.93**	1.38	2.91**	1.42
Ratio of Low-wage workers per House			76.9***	19.4			373.1***	91.8
Model sensitivity	32.68%		51.67%		22.24%		67.92%	
Model specificity	97.78%		98.03%		96.45%		95.84%	
Correctly classified (cutoff point 0.30)	94.57%		95.88		90.29%		93.89%	
Pseudo R2	0.32		0.45		0.22		0.48	
Goodness of Fit test (Prob > chi2)	1.000		1.000		0.000		0.6779	
Maximum Degree of Correlation among Variables								
N	5212		5165		6661		6468	

Source: own elaboration with data of the European Household panel (1997)

Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Results

1-) Statistical evidences indicate that the variable “ratio of earners per household” is statistically important in decreasing the risk of household poverty (although the effect is not statistically significant in Denmark). The odds of being a working poor household, as opposed to not being poor, significantly decrease with additional units of earners. However, the higher the number of low-wage workers per household, the higher the risk of poverty. The intensity of this effect – which is huge in all the countries – may indicate that poverty principally accrues to households made up of all or various low-wage workers. Nolan and Marx (1999) have already observed this effect. While most low-paid workers are not in poor households, most workers in poor households are themselves low paid (54,3% in Denmark, 85% in Germany, 88% in Spain and 92,5% in the UK). *The upshot of all this is that the decreasing effect that additional earners have on the probability of household poverty become the opposite (increasing effect) when additional earners are low-wage in households already containing low-wage workers.*

2-) The variable “household type” is also crucial. Regarding households that are made up of a single person, the odds of being poor (household poverty) are much higher for single parents in the four countries examined. The picture is substantially different when observing households with 2 adults and children. These types of households are at a lower risk of poverty in the countries examined, except in Spain. This evidence is in accord with the patterns of over-representation outlined above and is also related to the abundance of “couple with children” in poverty in Spain. Similarly, the risk of poverty is substantially lower among couples without dependents, although the intensity of this effect is stronger in Denmark and Germany.

3-) Poor households are more dependent on benefits in Spain and Denmark. All other conditions being equal, those households whose main source of income are benefits, with respect to those whose main source of income are wages, are more likely to fall

into poverty. However the effect is the contrary in the UK and Germany. The stronger the importance of social benefits regarding total net incomes, the lower the risk of poverty. How can I explain these similarities in countries with so apparent socio-economic differences? Although certainly speculative, the observed cross-national differences and similarities are highly related to the household structure and the generosity of these countries' welfare states. As it has been already stressed most poor households are single members in Denmark and 2 adults with children in Spain. The former tend to be young people making compatible education with sporadic jobs or public benefits that complement their total income. This dependency on benefits is what the model shows. By contrasts, the dependency in Spain predominantly accrues to traditional households (adults with children) as a result of the high degree of temporality in the labour market together with the comparatively scarce number of multi-earners household (see more details below) and the stingy character of the Spanish welfare state.

4-) The effect of earners' age is slightly and speculations are dangerous here. Since multi-earner households may combine different workers, the aggregated effect of earners' ages on the probability of household poverty may become very diffuse. A highly educated young worker living in his/her parental home, and whose parents are low skilled workers, is likely to contradict the expected effect on poverty. Since these young workers are likely to earn more than their parents, the expected relation "the older the earner the lower the risk of household poverty" might not work. I therefore posit that the number of low-wage workers in general, rather than the specific earners' characteristics are more important in explaining poverty. Something similar applies to earners' educational attainment. Since I have taken into consideration different levels of education, the effect of this variable on the probability of household poverty is rather ambiguous. *However the aggregated effect is clear: additional units in earners' age and earners' level of education reduce the probability of household poverty.*

2.3.5. More about Dual-earners Households

Given the crucial importance that dual-earners have on reducing the risk of household poverty I set out to examine this issue in depth. In order to simplify the task, I use the concept of homogamy as the main criteria of analysis. This study uses homogamy to describe spouses with similar levels of education who are expected to provide similar earning capacity within the labour market. Households will be classified according to spouses' similarities in education, so that the category "*homogamy*" corresponds to those spouses with the same levels of education. The category "*female ascendancy*" refers to those in which the wife is better educated than her husband while the category "*male ascendancy*" corresponds to those couples who show the inverse tendency (a better educated husband). My objective is to determine whether similarities between partners' level of education results in similar wages or not. This evidence enables me to explore how the economic structure of household, controlling for education, affects the risk of household poverty.

The following table shows the incidence of homogamy among the total household populations:

Table 36: Total Assortative Mating partner. Percentages of couples showing the same levels of education (homogamy). Percentages of couples in which the wife has higher level of education than her husband (female ascendancy). Percentages of couples in which the husband has higher level of education than his wife (male ascendancy).

	<i>Homogamy</i>	<i>Female Ascendancy</i>	<i>Male Ascendancy</i>
UK	48.60	19.82	31.58
Denmark	53.14	20.59	26.27
Germany	54.73	13.68	31.59
Spain	72.65	11.22	16.13

Source: own elaboration with data of European Household panel (1997)

Some features become clear on judging the table: first of all, there is a high incidence of assortative mating partners (homogamy). Spain shows the highest incidence, (72,65% of

couples with the same level of education), while the UK, Germany and Denmark have percentages that come close to 50%. Second, couples with a better-educated husband (male ascendancy) are more common than couples with a better-educated wife (female ascendancy).

If I focus exclusively on dual earners, that is, couples where both husband and wife earn wages, similarities with the table 3.5. are apparent. Spain, for example, is more homogamic than the other countries, as it the case in table 3.6. referred to couples in general –not dual earner couples- and the same applies for the other countries observed. But also has some dissimilarities: the difference between the country with the highest rates (Spain) and the country with the lowest rates (the UK) diminishes; moreover couples with a better educated husband are more frequent in the UK and Spain, while couples with a better educated wife are more frequent in Denmark and Germany. Denmark also displays a “double homogamy” as expressed in the equilibrated figures of homogamy (54,23%) and the similar percentages of male (22,35%) and female (23.42%) ascendancy.

Table 37: Assortative Mating partner. Percentages of dual-earners (partners earning wages) with similar level of education. Percentages of dual earners where the wives have higher levels of education than their husbands (female ascendancy). Percentages of dual earners in which the husbands have higher levels of education than their wives (male ascendancy)

	<i>Homogamy</i>	<i>Female Ascendancy</i>	<i>Male Ascendancy</i>
UK	47,93	21.53	30.54
Denmark	54,23	23.42	22.35
Germany	57,63	17.55	24.82
Spain	60,11	21.46	18.43

Source: own elaboration with data of European Household panel (1997)

Should one expects to find similar rates of wage equality among dual earners with similar levels of education? The

following table answers this question in the negative¹². The results are straightforward: wage equality among dual earners hardly surpasses 14% whereas male partners' superiority is overwhelmingly higher than female superiority in all the four countries. Controlling for homogamy (spouses with the same level of education), wage equality increases as we ascend in levels of education; this indicates that equality is in direct relation to the level of education achieved. Nevertheless, the rates of wage equality hardly surpass 18%, as the male partners superiority tends to be consistently higher.

Whatever model of homogamy is used, wage inequality is maintained in all four countries. The UK which has the lowest degree of wage equality in model 1, also shows the lowest levels in model 2 (Dual Earners with low levels of education), model 3 (Dual Earners with medium educational levels) and model 4 (Dual Earners with high levels of education); the same result applies for the other countries as well. One result is notable: wage equality among dual earners with similar levels of education in Spain is higher than that in Germany and the UK. Given that the number of dual-earners in Spain (65,24%) is significantly lower than in the UK (80,4%) and Germany (74,7%), the "homogamy-wage equality" interplay does not seem to be strongly conditioned on the spread of dual-earners. Similarly, Spain exhibits the highest rate of female wage ascendancy (when wives' wages are higher than their husbands' wages). This reinforces the view that the spread of dual-earners is not a sufficient condition for explaining either the high wages inequalities or the more equilibrated percentages in male and female wage ascendancy.

¹² The following table displays the degree of wage equality, female ascendancy and male ascendancy among i) the total population of dual earners (model 1), ii) dual earners with low levels of education (model 2); iii) dual earners with intermediate levels of education; iv) dual earners with high levels of education (model 3).

Table 38: Percentages of dual-earner couples earning the same amount of earning (equality). Percentages of dual-earner couples where the wife earns more than her husband (female). Percentages of dual-earner couples where the husband earns more than his wife (male).

	Household model 1 (both earning wages)			Household model 2 (both earning wages with low educational levels)			Household model 3 (both earning wages with medium educational levels)			Household model 4 (both earning wages with high educational levels)		
	Equality*	Female**	Male***	Equality	Female	Male	Equality	Female	Male	Equality	Female	Male
UK	8.50	16.17	75.34	7.83	16.09	76.09	8.57	20.00	71.43	11.11	18.25	70.63
Germany	10.73	18.03	71.25	6.45	6.45	87.10	10.37	18.22	71.41	13.55	20.88	65.57
Spain	12.34	20.53	67.14	10.72	18.23	71.05	12.50	17.19	70.31	18.81	18.32	62.87
Denmark	14.87	14.87	70.27	11.84	10.53	77.63	13.85	15.15	71.00	18.65	13.49	67.86

Source: own elaboration with data of European Household panel (1997)

* wage equality accrues to those couples earning ($\pm$ 10%) the same wages

** Female ascendancy accrues to those wives or female partners earning above 10% of their male partner wages

*** Male ascendancy accrues to those husbands or male partners earning above 10% of their female partner wages

Apart from an explanation based on employment discrimination - principally the gender wage gap- the fact that most part-time jobs are in women's hands, married women included, may explain why similar levels of education between couples do not result in similar wage levels (Tables 3.11. and 3.12 provide information on the extension of part-time jobs in married women's hands).

But the relationship between dual-earners' levels of education and the degree of wage inequality does not belong to the real core of this research. It is interesting in so far as it provides information on gender inequality, but it says very little about how important dual earner households are to avoid poverty. More than that, the issue that is more interesting as far as this research is concerned, is whether the risk of household poverty decreases amongst dual-earner households or not. In order to test this premise, I measure the level of poverty among non-single member households, that is couples with or without children (table 3.6); as well as the level of poverty among couples earning wages (dual-earners) both with or without children (Table 3.7)

Once again the results are straightforward and the ranking of countries reproduces the tendency for Denmark and Spain to mark the extremes and Germany and the UK to lie in-between. The most remarkable result is the low level of poverty among dual earner households, which indicates that dual earners are a useful in reducing the risk of household poverty, particularly in Denmark where it affects less than 1% of dual-earner households. Although the percentage of poverty among dual-earner households in Spain is not huge at all (4%), it nevertheless reveals that multiple sources of wages are still insufficient to keep some dual-earner households out of poverty. The UK and Germany display slightly different figures, indicating that around 3% of the dual-earner households are unable to avoid poverty. From this it follows that although dual-earner households unquestionably provide a better safety than single breadwinner households, they are not necessarily an absolute guarantee against poverty. Certain dual-earner

populations continue to be poor despite having multiple sources of wages.

Table 39: Percentages of Poverty among Single Earners Couples

	Poverty among single earners couples	A-Idem with Homogamy	B-Idem with Female Ascendancy	C-Idem with Male Ascendancy	All single earners couples
Denmark	1.93	52.00	24.0	24.00	100%
Germany	3.05	62.35	9.41	28.24	100%
UK	5.73	46.88	21.09	32.03	100%
Spain	10.44	80.99	9.64	9.37	100%

Source: own elaboration with data of European Household panel (1997)

Table 40: Percentages of Poverty among Dual Earners Couples

	Poverty among dual earners couples	Idem with Homogamy	Idem with Female Ascendancy	Idem with Male Ascendancy	All dual earners couples
Denmark	0.87	66.67	11.11	22.22	100%
Germany	2.08	65.79	10.53	23.68	100%
UK	2.75	43.18	29.55	27.27	100%
Spain	3.88	80.49	14.63	4.88	100%

Source: own elaboration with data of European Household panel (1997)

As I hypothesized in the introduction, those dual-earner households that have access to atypical jobs in the unprotected periphery of the labour market are more likely to suffer problems of poverty, especially when they are i) “one and a half in practice” (a full-time (male) earner and a part-time worker, who is usually a woman) as Lewis (2000) has contended, or ii) a single-earner in practice, because both earners are part-timer workers. In order to verify the validity of this hypothesis I make a detailed examination of the types of employment taken up by dual-earners. Through this desegregated exploration I can analyse the riskiest combinations of employment. The first table displays figures of different types of dual-earners according to their type of employment. The second table specifies how many of these dual earner households are poor. Although most dual-earner households are not poor, there are

some combinations that seem to make them more vulnerable to falling into poverty.

Generally speaking, dual-earners who hold permanent full-time employment (column 1), are expected to be non-poor because this type of employment is less likely to cause them to fall into poverty, see part I above. It is therefore not surprising that the countries with the highest levels of secure employment exhibit the lowest rates of household poverty. Similarly dual-earners who combine permanent full-time employment with temporary jobs or self-employment are unlikely to be poor because the low risk of poverty associated with full-time employment is further reduced by an additional source of wages (columns 3, 7, 10). A low poverty-risk is also expected when couples combine permanent full-time with part-time employment (the “one and a half” earners households) (columns 2, 4). Other combinations are more vulnerable to poverty, particularly dual-earners who both hold part-time jobs (the single earner in practice model) (column 5), and those couples that combines temporary works with self-employment (columns 9) or temporary works or self-employment with part-time (columns 6,8,11).

The rate of dual earners holding permanent full-time employment is very high in Denmark (41,84%) and significantly lowers in Spain (15,59%) while Germany comes closer to Denmark and the UK closer to Spain as it is often the case. Poverty among these dual earners is insignificant, below the 1% in the four countries examined. This reinforces the significance of secure full-time employment as a means of avoiding poverty.

Permanent full-time– part-time job combinations (columns 2 and 4) are comparatively abundant in the UK and Germany and to a certain extent in Denmark while they are uncommon in Spain. This is the typical “one and a half earner” model that shows the highest rates (3% and 6,5% respectively) and seems to be less effective in avoiding poverty in the UK and to a lesser extent in Spain where the rates are 1,59%- 4,3% respectively. However this combination is effective in Germany and Denmark where the rates of poverty are insignificant, above 1%. Once again the abundance

of “good” part-time jobs in these countries, as opposed to “bad” part-time which is predominant in the UK and Spain, might be partially responsible for the differences in the extent of poverty among this group of dual earners. Another interesting features of these results is that the percentages of poverty among “one and a half earners” are higher when wives hold the permanent full-time employment and husbands the part-time job, rather than the other way around. Once again this evidence seems to suggest that all other conditions being equal, men earn higher wages than women despite holding the same jobs. Combinations of permanent full-time employment with temporary jobs or self-employment support this perception. The level of poverty found when the husband holds permanent employment and the wife holds temporary work or is self-employed are lower than when the wife has permanent full-time employment (columns 3,7,10). This combination is common to Spain and Denmark, since the combination of “wife with permanent employment and husband with self-employment” is highly likely to fall into poverty.

But the real “zone of vulnerability”, so to speak, accrues to couples who both hold “atypical” employment, and this is particularly true in Spain. The “one earner in practise model” (both partners holding a part-time job, column 5) describes households that are especially predisposed to suffer from poverty in Spain, where 33 out of 100 dual earners are poor, compare with 13,3% in the UK; once again these figures are lower than in Germany while they do not exist in Denmark, which has a predominance of prototypical “good part-time” work. Other risky combinations are those in which the husband is self-employed, regardless of the type of employment held by the wife.

In summary I conclude that i) dual earner households are rarely affected by poverty although ii) there are certain combination more riskier than others. Dual earners holding full-time employment and those holding “atypical” employment (part-time jobs, temporary work and the self-employed) represent two side of the same coin. The risk of poverty among the former is practically non-existent, whereas it does affect dual earners that

Table 41: Percentages of Dual-earner households according to the type of employment in the couples' hands

	1 Husband permanent full-time Wife permanent full time	2 Husband Permanent Full-time Wife part-time	3 Husband Permanent Full-time Wife Temporary/ Self-employ	4 Husband Part-time Wife Permanent Full-time	5 Husband Part-time Wife Part-time	6 Husband Part-time Wife Temporary/ Self-employ	7 Husband Temporary Wife Permanent Full-time	8 Husband Temporary Wife Part-time	9 Husband Temporary Wife Temporary / Self- employ	10 Husband Self-emp Wife Permanent Full-time	11 Husband Self-emp Wife Part-time	12 Husband Self-empl Wife Temporary/ Self-employ	All Dual earners households
Spain	15,59	3,21	7,08	2,70	0,15	1,02	6,27	1,43	3,57	7,34	1,02	50,64	100%
UK	28,15	15,50	1,96	11,40	1,02	0,40	2,00	0,49	0,13	9,40	3,39	26,15	100%
Germany	33,56	14,38	4,25	11,74	0,68	0,94	4,85	0,89	0,89	6,93	1,70	19,18	100%
Denmark	41,84	9,22	7,18	7,99	0,33	0,49	7,59	0,65	1,39	5,87	2,12	15,33	100%

Source: own elaboration with data of European Household panel (1997)

Table 42: Percentages of Poor dual earners household according to the type of employment in the couples' hands with respect to the proposed type of Dual Earner household.

	1 Husband permanent full-time Wife permanent full time	2 Husband Permanent Full-time Wife part-time	3 Husband Permanent Full-time Wife Temporary/ Self-employ	4 Husband Part-time Wife Permanent Full-time	5 Husband Part-time Wife Part-time	6 Husband Part-time Wife Temporary/ Self-employ	7 Husband Temporary Wife Permanent Full-time	8 Husband Temporary Wife Part-time	9 Husband Temporary Wife Temporary / Self-employ	10 Husband Self-emp Wife Permanent Full-time	11 Husband Self-emp Wife Part-time	12 Husband Self-empl Wife Temporary/ Self-employ
Spain	0,33	1,59	1,15	4,30	33,33	24,32	6,71	7,41	11,84	6,53	20,00	11,26
UK	0,79	2,84	4,17	6,44	13,33	10,00	4,00	16,67	0	4,37	10,53	6,47
Germany	0,72	0,70	0	0,87	5,26	10,71	3,20	0	0	1,47	3,77	5,50
Denmark	0	0,86	0	0,79	0	0	1,1	0	5,26	6,25	3,85	3,13

Source: own elaboration with data of European Household panel (1997)

hold “atypical” employment; iii) part-time jobs can be effective in avoiding poverty, above all in countries which have a predominance of “good” part-time work and/or when part-time work coincides with permanent full-time employment, principally in husband’s hands.

2.4. The Overlap Between Low Annual Wage Workers And “Working” Household Poverty

Having examined low-wage employment and household poverty separately, the objective now is to trace the connection between both spheres, by testing whether or not a majority of low wage workers live in poor households.

The following table displays the percentages of “working” poor households (column 2), low-wage workers (column 3) and the combination of both categories, namely low wage workers living in poor households¹³ (column 4) and low wage workers living in non poor households (column 5). It should be recalled that I focus on households with at least one earner, that is, with at least one source of income. It is equally important to note that incomes have been adjusted according to a household’s size using an equivalence scale that assumes the following weights: 1 for one person, 0.5 for a second person, 0.38 for a third person and 0.225 for each additional person.

¹³ Nolan and Marx’ (1999) findings on the overlap between low-wages and household poverty diverge from my own results, the differences between our samples is the most important reason for this. They focus on full-time full-year workers whereas I also include part-timers, temporary workers and the self-employed. In spite of this difference, the percentage of low wage workers who are in poor households in Nolan and Marx’s analysis show similarities with my own results for Denmark 18,1% and Germany 20,6, and significantly different for the UK (19,6) and Spain (21,8%).

Table 43: Percentages of “working” poor households. Percentages of low-wage workers. Percentages of low-wage workers living in “working” poor households. Percentages of low-wage workers living in non “working” poor households

	% of “working” Poor Households	% of Low- wage workers	% of Low-wage workers living in “working” poor households	% of Low-wage workers living in non “working” poor households
Denmark	3.71	14	11.36	88.64
Germany	4.87	16.53	12.51	87.49
UK	8.11	25.94	17.58	82.42
Spain	10	22.84	21.52	78.48

Source: own elaboration with data of European Household panel (1997)

The table 60 above provides a clear picture of the overlap between low-wage employment (LWE) and household poverty. Spain not only shows high levels of low wage workers on the one hand, and the highest rates of household poverty on the other hand, but also has the highest percentage of low wage workers who live in poor households (21,52%). These results give new urgency to the issue of low wage employment. A lethal combination of LWE and household poverty condemns more than 20% of low-wage workers in Spain to live in poor households. These results constitute a serious social problem.

Denmark represents a prototypical case of welfare efficiency among the employed population. It is at the other end of the spectrum to Spain. Denmark not only exhibits the lowest levels of low-wage employment and household poverty, but also has the lowest percentage of low-wage workers who live in poor households (11,36%). The UK combines a high percentage of low-wage with a moderate rate of household poverty. The overlap between low-wage and household poverty is less extreme (17,58%) than in Spain, which suggests that the UK households acts as more robust safety nets. Germany exhibits moderate rates of both low wage and household poverty. The overlap between low wages and poverty is similar to that in Denmark.

It is a combination of labour market flexibility, de-familialism and a “generous” welfare state that may explain the Danish success in coping with the overlap between low-wage and

household poverty. Combinations of multi-earning households a generous benefits present the best of two worlds. A high degree of labour market flexibility has favoured the massive incorporation of the active population into the workforce. Yet this massive incorporation has not resulted in high levels of low wage employment due to the expansion of highly professionalised welfare-state employment, in which women predominate. This has accelerated the spread of dual and multi-earner households, reinforcing the household's capacity to protect low-wage earners from poverty. All of this takes place within the context of a generous (welfare) state that play a very important role in alleviating low wage situations through "gender-neutral, family-friendly-high solidaristic" family policies.

Spain's segmented labour market, which protects insiders and exposes outsiders to precariousness, together with its very limited welfare state and insufficient family policies is likely to cause the high rates of low-wage employment and household poverty observed in Spain. The abundance of single-earner households, which tend to be highly dependent upon a single breadwinner for protection, has led to a particular type of flexibility, which most affects the youngest labour force stratum whose labour conditions are highly precarious in comparison to those of the insiders. The high rates of low-wage employment in Spain accrue chiefly to this unprotected periphery of workers. This has impeded the growth of dual-earner households which are more common in Denmark and the UK, it also explains the high degree of dependency on (male) breadwinner "privileges" and the limited capacity of households to protect from poverty. To make matters worse, the residual character of the Spanish welfare state and its lack of family policies reinforce this problem.

While Germany's labour market is highly regulated and the segmented, this degree of regulation and segmentation is less than that found in Spain. In addition it has more generous welfare policies, and its family policies allow it to achieve similar low levels of low-wage employment and household protection to Denmark. Finally the abundance of multi-earner households and

the limited benefits model in the UK is likely to explain the UK figures. The flexible labour market has favoured the massive incorporation of the young and women into the labour force. They are very often a secondary source of household income that can reinforce the household's capacity to protect from poverty. The abundance of multi-earner households may be responsible for the moderate rates of household poverty and the more robust protection safety net compared with Spain. Family policies have favoured this process of massive incorporation by subsidizing child care policies that seek to maintain the traditional family structure with women remaining as the principal home carer. The high rates of low wage employment are likely to accrue to married women holding part-time jobs in unskilled sectors.

Although this overview provides some interesting insights it may be worthwhile to translate these results into percentages for the entire labour force, as in the following tables:

Table 44: Percentages of low-wage workers living in poor households (yes-yes) with respect to the total employed population. Percentages of low-wage workers living in non-poor households (yes-no) with respect to the total employed population. Percentages of non-low-wage workers living in poor households (no-yes) with respect to the total employed population. Percentages of non low-wage workers living in non poor households (no-no)with respect to the total employed population.

Denmark Poor Household Yes No Yes 1,6 12,3 Low-Wage Worker No 0,3 85,8	Germany Poor Household Yes No Yes 2,1 14,5 Low-Wage Worker No 0,7 82,7	UK Poor Household Yes No Yes 4,6 21,4 Low-Wage Worker No 1 73,1
	Spain Poor Household Yes No Yes 4,9 17,9 Low-Wage Worker No 2 75,2	

Source: own elaboration with data of European Household panel (1997)

The tables should be read as follows: in the first window “Denmark”, 1.6% of the total employed population are low-wage workers who live in poor households (yes-yes), 12.3% are low-wage workers who live in non-poor households (yes-no). For the purpose of completeness, I provide additional information on both “non low wage workers living in poor households” (no-yes; 0.3 %) and “non low wage workers living in non poor families”, (no-no; 85.8%). It is important to note that these results not only consider low wage workers, as is the case in table 60 but rather the entire labour force. The percentages shown in table 60 and 61 are therefore different. In table 60, 11,36 % of low wage workers live in poor household in Denmark. However this group represents only 1,6% of the total Danish labour force as shown in table 61. The same applies to low-wage workers in non-poor households, which represent 88,64% of the low-wage population, but only 12,3% of the employed population.

When these figures are compared with those of Spain, at the other extreme of the spectrum, the differences are significant. The number of workers in the “yes-yes” category is the highest among the countries examined (4,9%), the percentage in the “yes-no” category is comparatively high (17,9%) while the household capacity to alleviate low-wages is the lowest (21,52% of the low wage workers live in poor households, the highest rates found). This indicates the existence of a significant problem of economic precariousness affecting around 5% of the total Spanish labour force and 21,5% of the total low wage employed population.

The Danish and Spanish figures represent two referential points with which to compare the situation in the other countries. Germany, on the one hand, and the UK on the other hand, represent intermediate examples between the two extremes of Denmark and Spain. A moderate low wage-household poverty overlap (yes-yes) places Germany close to Denmark while the UK comes closer to Spain. What constitute a significant “UK particularity” is the high percentage of low-wage workers who live in non-poor households (yes-no), with respect to the entire population. 21,4 out of 100 workers are on a low wage, but live in

non poor households, the highest percentage in all the countries studied.

2.4.1. Differences and Similarities between those Low-wage Workers who Live in Poor Households and those who Live in Non-poor Households.

2.4.1.1. The Household Structure of those Low-wage Workers who Live in Poor Households (yes-yes)

I have considered five types of households with a view to the information provided by the European Household Panel in this respect. These household types are : a) 1 adult without dependents, or single member households; b) a couple without dependents, c) a single parent, d) a couple with a child and e) a couple with 2 or more children.

I split each column into three sub-columns, the first shows the percentage of each family type with respect to the entire household population, the second shows the percentage of each family type that are “yes-yes” (low wage workers living in poor households), and the third shows the result of dividing sub-column 2 by sub-column 1 and shows the degree of over or under-representation. For example 49,3% of the total household population in the UK are “2 person without dependent” (sub-column 1), of which 32,8% are low wage workers living in a poor household (sub-column 2) which means that “yes-yes” households are under-represented among households of “2 person without dependents”. The same applies to other categories.

The majority of low-wage workers living in poor households in Spain (yes-yes) are made up of “2 adults with children” (49,6%). Meanwhile “one person without dependents” (41,46%) and “two adults without dependents” (31,7%) are the most abundant groups in Denmark. From my standpoint, these figures say a lot about the real dimension of the “yes-yes” household

Table 45: Percentages of low-wage workers living in poor household (yes=yes) according to different type of households.

	1 person without dependents			2 adults without depend			Single parents			2 adults with 1 child			2 adults with 2 o + children		
	Total	overla	B/A	Tota	Over	B/A	Tota	Over	B/A	Tota	Over	B/A	Tot	Ove	B/A
UK	6.95	10.78	1.55	49.3	32.8	0.66	2.60	17.7	6.80	11	13.8	1.25	30.2	25	0.83
Germany	7.23	11.94	1.65	41.8	23.9	0.57	2.34	21.6	9.25	14.8	17.2	1.16	33.8	25.4	0.75
Spain	1.86	3.94	2.12	37.1	27.6	0.74	1.15	3.94	3.43	9.66	15	1.55	50.2	49.6	0.99
Denmark	13.87	41.46	2.99	41.8	31.7	0.76	3.16	9.76	3.09	12.3	4.88	0.40	29	12.2	0.42

Source: own elaboration with data of European Household panel (1997)

structure. The low-wage household poverty overlap is less pronounced in Denmark because it principally affects “1 adult without dependent” and “couples without dependents”, which tend to be young workers who are more likely to abandon low wage contexts faster. The low wage-household poverty overlap is more dramatic in Spain, because the overlap principally affects “couples with children” (49,6%) that tend to be established workers who are less likely to escape low-wages.

Although “2 adults with children” (25,4%) represent the most abundant group in Germany, “two adults without dependents” (23,9%) and “single parents” (21%) are also common. A similar situation applies to the UK; “two adults without dependent” (32,8%) “two adults with children” (25%) and “single parents” (17,7%) are the most numerous groups. However the low-wage-household poverty overlap is less marked in Germany and the UK than it is in Spain, because an important percentage of “yes-yes” households are “couples without dependents”, that tend to be young people. In spite of these similarities the lower incidence of low wage workers living in poor households (yes-yes) which is 2,1% in Germany, alongside a greater household capacity to alleviate low wages, (12,51% of the total low-wage workers, as compare to 17,58% in the UK) which positions Germany closer to Denmark and the UK closer to Spain.

Particularly eye-catching is the high incidence of “single parent” as low-wage workers in poor households; the figure is 21,6% in Germany and 17,7% in the UK. These figures indicate that an important percentage of “yes-yes” households are made up of single parents, above all single mothers. The low rate in Spain (3,9%) may be a result of high inter-generational dependency, which lead in turn leads to a high proportion of single mothers living with their parents. If I focus on the degree of under and over-representation a clear picture emerges. The categories “1 adult without dependents” and “single parents” are over-represented in all four countries whereas “couples without dependent” and “couples with children” are under-represented.

2.4.1.2. The Household Structure of those Low wage Workers who Live in Non-poor Households (yes-no)

The most remarkable aspects of the “yes-no” overlap (low wage workers living in non-poor households) is the strong presence of “couples” and the relative absence of the categories “1 person without dependent” and “single parents”. These results indicate that a significant portion of the household’s potential to alleviate low-wages in the “yes-no” model comes from other household members’ incomes.

“2 adults without dependents” and “2 adults with children” represent the 91,81% of “yes-no” households in Spain, 83,48% in UK, 76,58% in Germany and 74,28% in Denmark. Meanwhile single member households¹⁴ and single parents, account for only 2,24% in Spain, up to a maximum 16,37% in Denmark. But, how is it possible to be a low-wage worker and not live in a poor household for single member households? The answer is obvious: the welfare state. The comparatively high rates in Denmark may indicate the important role played by the Danish welfare benefits in rescuing low-wage workers from poverty. From an over-under-representation perspective, “2 adults without dependents” are over-represented in all the countries examined, hence reinforcing the strong link between couples and “yes-no” households.

In summary, the most abundant groups of “yes-yes” households are i) in Spain “two adults with children” and “two adults without dependents”; ii) in Denmark “one person without dependents” and “two adults without dependents”; iii) in Germany “two adults with children”, “two adults without dependents” and “single parents” and iv) in the UK “two adults without dependents”, “two adults with children” and “single parents”. With respects to the “yes-no” model, “two adults without dependents” and “two adults with children” constitute the most abundant groups, Denmark being the exception with

¹⁴ The fact that a household made up of one person can fit in the category of low wage workers living in a non-poor households is due to the social benefits that allow some low wage workers to score above the household poverty line.

Table 46: Percentages low wage workers in non-poor households according to the type of households

	1 person without dependents			2 adults without depend			Single parents			2 adults with 1 child			2 adults with 2 o + children		
	Total	Over		Total	overl		Total	overl		Total	ovel		Total	ovel	
Spain	1.86	1.81	0.97	37.15	51.01	1.37	1.15	0.43	0.37	9.66	5.96	0.62	50.2	40.8	0.81
UK	6.95	5.85	0.84	49.28	50.38	1.02	2.60	1.60	0.62	11.00	9.06	0.82	30.2	33.1	1.10
Denmark	13.87	15.20	1.10	41.76	48.54	1.16	3.16	1.17	0.37	12.32	9.36	0.76	29	25.7	0.89
Germany	7.23	4.70	0.65	41.78	43.48	1.04	2.34	1.07	0.46	14.83	17.63	1.19	33.8	33.1	0.98

Source: own elaboration with data of European Household panel (1997)

comparatively high rates of single member household in this category.

I suggest above that a distinctive feature of “yes-no” households is that they have various sources of income and often have two wage earners (see next table for details). The next section attempts to support this hypothesis: 1) whether the predominance of dual earners is a particularity of “yes-no” households or not, and 2) to what extent cross-national differences in the number of earners explain the variations in the potential for household low-wage alleviation in the four countries analysed.

2.4.1.3. Number of Earners in “yes-yes” and “yes-no” Households

The following table displays figures on the degree of over-under-representation in households of the “yes-yes” and “yes-no” type. The table should be interpreted as follows: 34,37 percent of Spanish households have a single earner (in parenthesis). For “yes-yes” households the percentage that have only a single earner increased till 43,21, so that, single earners among “yes-yes” households are over-represented 1,26.

The incidence of dual-earners or multi-earners with respect to all households varies amongst the four countries examined. At the extreme Denmark has 85,68%¹⁵ and Spain has 65,24% while the UK (80,5%) and Germany (74,7%) lie in between, as is often the case. I have excluded single member households (“1 adult without dependents) because there is no possibility of multi-earning in that model. The results confirm the predominance of dual-earner in Denmark and the UK where respectively only 14,3% and 19,5% of households are single earners, as compared to the 25,3% in Germany and the 34,8% in Spain. Policies of multi-earning diffusion through market flexibility and market-oriented family

¹⁵ This percentage is the result of summing dual earners (67,16%) and multi-earners (18,53%)

policies in the UK and through market flexibility and gender-neutral, high solidaristic policies in Denmark have produced similarly high number of dual-earners although with very different capacities for poverty alleviation.

Table 47: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households). Percentages of single, dual and multi-earners households of the “yes-no” type. (low-wage workers living in non poor households).

	One Earner		Two Earners		Three or more earners	
		Over/under-representati		Over/under-representati		Over/under-representati
Spain (total)	(34.37)		(46.76)		(18.87)	
Yes-Yes	43.21	1.26	38.11	0.82	18.68	0.99
Yes-No	14.71	0.43	48.53	1.04	36.77	1.95
UK	(19.95)		(56.44)		(23.61)	
Yes-Yes	36.55	1.83	49.16	0.87	14.28	0.60
Yes-No	14.22	0.71	54.58	0.97	31.2	1.32
Denmark	(14.30)		(67.16)		(18.53)	
Yes-Yes	13.79	0.96	62.07	0.92	24.13	1.30
Yes-No	18.60	1.30	57.89	0.86	23.51	1.27
Germany	(25.3)		(54.3)		(20.4)	
Yes-Yes	40.09	1.58	55.30	1.02	4.61	0.23
Yes-No	12.19	0.48	59.67	1.10	28.14	1.38

Source: own elaboration with data of European Household panel (1997)

With regard to the number of earners in “yes-yes” households (low wage worker who are living in poor households), Denmark registers the highest rates of dual and multi-earners households (86,2), in contrast to the lower rates in the UK (66,44%), Germany (59,9%), and Spain (56,79%). As to “yes-no” models (low-wage workers living in non poor-households), the tendency is the opposite. The highest incidence of single earners in this category accrues to Denmark (18,8%), although cross-national differences are not so apparent.

In terms of over-under-representation the results accord with the tendencies presented above. Single earners are over-represented in “yes-yes” households in Spain , Germany and the UK, whereas dual and/or multi-earner households are under-represented in the same countries. The tendency is the opposite in Denmark. The over-representation of single earners in “yes-yes” households may indicate that problem of overlap between low-

wages and poverty is highly related to the lack of additional earners in Spain, the UK and Germany. The under-representation of dual-earners in Denmark may indicate that household poverty chiefly affects groups of marginalized single member households.

Regarding households of the “yes-no” type (low-wage workers living in non-poor households), single earners are under-represented in Spain, the UK and Germany while they are over-represented in Denmark, which is, the exact reverse of the trend observed among “yes-yes” households. This suggests the importance of multi-earning to alleviate poverty in Spain, the UK and Germany and the important role played by the Danish welfare state.

2.4.1.4. Logistic Regression of the probability of being a low-wage worker living in a poor household (yes-yes) versus being a low-wage worker living in a non-poor household (yes-no).

The methodology used computes the logistic regressions of the probability of being a low-wage worker living in a poor household versus being a low-wage worker living in a non-poor household. The independent variables have been classified according to individual characteristics (gender, age, education), firm characteristics (size of firm, sector of activity, the private-public character of the firm) type of employment and previous labour market experiences, namely being in low wage in previous years, being in unemployment and being in non-low-wage unemployment affect the risk of being a low-wage workers living in a poor household versus low-wage worker living in a non-poor households.

The model displays similarities among the countries examined. The risk of being a low-wage worker living in a poor household (yes-yes) in a given year (1997), is higher for those being in low-wage the whole period or at some point during 1995 and 1996 than for those who have never been in low wage in that period. This effect seems to indicate that low-wage workers in

poor households tend to hold low-wage jobs for longer period than those who live in non-poor households. Similarly previous spells of low-wage and unemployment seem affect low-wage workers living in poor households more strongly than low-wage workers living in non-poor households. *More specifically, low-wage workers in poor households are more likely to suffer from low-wage and unemployment for longer periods than low-wage workers living in non poor households.* Furthermore, previous spells of high wage employment (or non low-wage jobs) reduce the risk of low wage/household poverty, reinforcing therefore the already observed tendency that previous experiences of low-wage increase the likelihood of low wage/household poverty combination.

Type of employment seemed to be at work in explaining differences between low-wage workers in poor and non-poor households as well, except in Denmark. Regarding permanent full-time employment, part-time and self-employment increase the risk of low wage/household poverty. *This might be interpreted as a higher incidence of part-time and self-employed among low-wage workers living in poor households, or alternatively, that low-wage workers in poor households are less likely to hold permanent-full-time employment. This effect also includes temporary contracts in Spain.*

Being a woman is statistically significant in Germany and Spain although the effect in Germany increases the likelihood of being low-wage in a poor household, whereas it is the opposite in Spain. Additional education is favourable to reduce the likelihood of being low-wage in poor households in the four countries, although it is statistically significant in Germany only.

Table 48: Logistic regression of the probability of being a low-wage worker living in poor households versus being a low-wage worker living in a non-poor household.

	Denmark		Germany		UK		Spain	
	Odds Ratio	Est. Error	Odds Ratio	Est. Error	Odds Ratio	Est. Error	Odds Ratio	Est. Error
Age	.954	.097	.996	.083	.952	.042	1.004	.005
Age2	1.001	.001	.999	.001	1.001	.0005	.999	.0006
Gender (male ref)								
Female	.589	.307	1.11***	.123	1.31	.279	.481***	.111
Education	.626	.208	.554***	.123	.951	.095	.791	.131
Type of employment								
Perm.full-time (ref)								
Part-time	.773	.566	1.43*	.494	1.99***	.501	3.61**	1.78
Temporary	.486	.329	1.41	.557	1.4	.574	2.88**	1.16
Self-employment	4.59	3.85	3.30***	1.15	3.95***	1.21	7.94***	3.65
Private/public	1.14	.718	.766	.266	.755	.216	1.81	.837
Size of Firm	.821	.160	DNA	DNA	.956	.049	.867	.083
Previous Spells in Low Pay (1995/96)	1.78***	.338	1.41***	.156	1.57***	.141	1.25**	.112
Previous Spells in unemployment (1995/1996)	.753	.185	1.26*	.161	1.63***	.203	1.27***	.111
Previous Spells in High Pay (1995/96)	.626***	.107	.775***	.069	.753***	.072	.821**	.075
Model sensitivity	45.45%		31.46%		40.00%		48.85%	
Model specificity	93.90%		94.22%		90.17%		82.87%	
Correctly classified (cutoff point 0.30)	88.17%		86.56%		82.32%		76.26%	
Pseudo R2	0.26		0.15		0.15		0.16	
Goodness of Fit test								
Prob > chi2	0.9842		0.6192		0.9188		0.7271	
N	279		729		1086		674	

Source: own elaboration with data of European Household panel (1997)- Significant: ***= P≤0.01, **= P≤0.

PART THREE: CONCLUSIONS

This study has started from the commonsense assumption that low-wage employment is only socially tolerable for those workers who live in non-poor households. The alternative combination, which condemns low-wage workers to live in poor households, is unfair and unacceptable. This starting point leads me to set up two models as a reference point with which the economic prospects of low-wage workers in different countries can be compared:

i) The “yes-no” model covers those low-wage workers who live in non-poor households and represents the best possible outcome for those holding low-wage jobs. This model constitutes a kind of positive sum game in which both workers and households benefits from each other. Given the altruistic character of the household, household members are sheltered, whether they contribute to the total household income or not. In this context, low-wages are preferable to inactivity or non-subsidised unemployment.

ii) The “yes-yes” model, covers those low-wage workers who live in poor households and personifies the worst case scenario for workers in today labour markets. Although low-wages are preferable to inactivity or non-subsidised unemployment, the best option for poor households is not a low-wage but a high-wage or generous benefit.

The economic role of the household is therefore the touchstone of this research. Such a role is highly influenced by social institutions that are fundamental in the shaping of particular household configurations, without ignoring the micro-economic meaning of the household as the aggregated sum of individual options. This interpretation sought to integrate individual choices and institutional contexts in order to explain social outcomes.

Labour and welfare policies not only influence the allocation of economic resources but also individual decisions about crucial life choices such as what kind of job to take or when and how to set up a new household. Similarly individual decisions provide incentives that encourage policy-makers to act in ways that lead to a particular path of policy development. This feedback effect is highly responsible of the different household capacity of low-wage protection observed in this research.

3.1. Market, State, Household and the Economic Prospect of Low-wage Workers.

Given the income-pooling character of the household, household poverty is the result of insufficient wages, insufficient benefits, or both. Policies to avoid household poverty might do so indirectly by facilitating the massive incorporation of people into the labour market, with the aim of increasing the number of earners per household or by increasing the amount of money that is devoted to social policies through the “generosity” of its social benefits or both, facilitating the incorporation of new household earners and increasing the generosity of welfare benefits. The way in which the countries examined have combined these strategies is vital in explaining differences in household capacity of low-wage protection. Spain represents the worse scenario. The Spanish hallmark, so to speak, is a segmented labour market of protected core and unprotected periphery, with very abundant “bad employment”, the lowest levels of dual and/or multi-earners households with very limited social support. This lack of “good” employment, second earners and/or abundant benefits explains the weak capacity of protection showed by the Spanish households. By contrast, Denmark represents the opposite scenario of a flexible labour market of “good” jobs, comparatively high levels of dual or multi-earners households with abundant social support that become Danish households a strong sphere of low wage protection. The UK and Germany always place between Denmark and Spain. Policies has put the emphasis in facilitating the labour incorporation of new household members in the UK, principally married women in part-time jobs, limiting the scope of social

benefits. This strategy has resulted in a comparatively high number of dual and multi-earners households with limited social support in a flexible labour market of abundant “bad” jobs. Finally Germany is another intermediate case characterised by figures close to Denmark in low-wage and household poverty although the number of dual and multi-earners households is lower and the scope of social benefits weaker than in Denmark.

3.2. Number of Earners and the Risk of Household Poverty

Differences in the number of earners are crucial in explaining the household capacity of protection. Dual-earner households prove that they are much less likely to fall into poverty, particularly: i) when both earners have high levels of education, ii) when both earners hold permanent- full-time employment or iii) when the part-time job of one household member coincides with the permanent full-time job of another, especially one in the husband’s hands (the “one and a half” model). There are however some more risky combinations such as when both dual-earners hold “atypical” employment, principally part-time jobs (the “one earner in practise” model). As is commonly the case, the riskier combinations are more numerous in Spain and the UK and less common in Germany and, especially, in Denmark. Single-earner households are over-represented among low-wage workers who live in poor households (yes-yes model) in Spain, Germany and the UK. This suggests that the overlap between low-wage workers and household poverty is related to the lack of additional earners within the household in these countries. On the contrary, the under-representation of dual-earner households in poverty in Denmark indicate that household poverty mainly affects marginalized groups of single-earner households, principally in households of the “one-person” type. In other words, household poverty in Denmark principally affects individuals rather than households. The analysis of low-wage workers living in non-poor households (yes-no model) ratifies these impressions. As it was

expected, dual and multi-earners households are over-represented amongst “low-wage workers who live in non-poor households. This indicates that multi-earning is crucial in alleviating household poverty, or in other words, that the non-poor character of these households is to a large extent the result of various sources of wage.

However we cannot ignore the effect that additional low- wage earners have on the risk of poverty. Although statistical evidences indicate that the higher the number (ratio) of earners per households, the lower the risk of household poverty, additional earners holding low-wage jobs in households made up of low-wage earners increase the risk of poverty. This evidence allows me to state that the positive effect of additional earners on reducing the risk of poverty, become negative when additional earners are low-wage in households already containing low-wage workers.

3.3. Low-Wage Employment

In spite of significant cross-national differences in the scope of low-wage employment, the “nature” of this labour phenomenon is rather similar in the four countries examined. The probability analyses have shown that low-wage employments tend to accrue to women, to those in the initial phase of their labour career, specially when they hold “atypical” employment (temporary work, part-time jobs and self-employment), to the least educated workers in low-skilled oriented sectors, principally in private firms. Additionally, previous periods of low pay increase the risk of low pay today, suggesting that the “stepping stone” character attributed to low-pay jobs might not be fully true. Rather, low wage seems to be a quite static phenomenon that spans extended periods of time. Additionally movement from low pay to no-pay stand out as the aspect most frequently repeated by low paid employees, so that the probability of being in low wage in a given year is higher for those combining low-wage and unemployment in previous years. This conclusion reinforces my reservations about the “stepping stone” character attributed to low-wage employment, although the period covered by this research is certainly limited, namely three years.

Strong cross-national similarities are also found when comparing those low-wage workers who live in poor households with those who live in non-poor households. On a whole, those who live in poor-households are higher likely to hold low-wage jobs for longer periods. Similarly movements from low pay to non-pay is highly likely to run out longer among those who live in poor-households whereas the incidence of permanent full-time employment (the type of employment less likely to fall into low wage) is significantly weaker among low wage people in poor households.

3.4. Additional Implications: Emancipation and Inter-generational Dependency

These prescriptions help us to understand individual and household expectations in different institutional contexts. The fact that a large group of the young Spanish population in their twenties and thirties live with their parents is highly conditioned by the risk of unemployment, temporality and low-paid employment associated with the segmented character of the Spanish labour market. Access to secure, well-paid employment is difficult for the youngest strata of the labour force in Spain and social benefits are strongly linked to previous contributions. Therefore an important part of the young population is condemned to cope with low-wage employment and/or unemployment. In this situation emancipation for young low-wage workers is certainly an arduous task. By contrast, those who postpone their emancipation optimise their behaviour in several ways. First, they profit from other household's wages and benefits, improving considerably their economic prospect. Second, they may use this income-pooling context to invest in human capital that is likely to help them to escape from low-pay sooner.

However, the option of postponing emancipation is not entirely a "free-rider" strategy, especially for low-wage workers. A low-wage favours economies of scales in consumption while

providing an additional source of wages. In those households in which the main earner is a “protected” worker, an additional low-wage is particularly positive for both the low-wage worker and the household. But the “substitution effect”¹ observed in the Spanish labour market indicates that the percentage of permanent full-time employment (the protected core), is decreasing at the expense of significant increases of temporary work, and to a lesser extent part-time work and self-employment, that are more likely to be low-wage jobs. As a result it is more difficult for the young low-wage workers to share the dividends that accrues to the insiders (the protected workers), simply because there are less protected workers every day (the volume of permanent full-time has decreased 17,8% in absolute terms. In relative terms permanent full-time employment has decreased from 57,6% in 1986 to 47,8% in 1997). The comparatively low rates of employed married

¹ The probability analyses carried out in this research also provides some interesting food for thought. “Atypical” forms of employment increase the risk of low-wage significantly above that of “typical” employment. It is therefore not surprising that the way in which “typical” and “atypical” employment has evolved in the last years may influence the volume and “quality” of low-wage employment. This fact is worth noting because it provides an additional source of low-wage explanations. Where the growth in part-time jobs, temporary work and self-employed comes at the expense of secure, full-time employment (Substitution effect), as in Spain, low-wage employment is abundant. Atypical employment has also grown at the expense of typical employment in the UK, although differences between typical and atypical employment in that country are less salient than in continental Europe. Where the growth in “atypical” employment co-exists with increases in secure- full-time employment (cohabitation effect), as in Denmark, low-wage employment is limited. The good quality of part-time employment and the maintenance of high rates of permanent full-time employment are additional reasons, which explain the moderate rates of low-wage employment in Denmark and the high rates of Spain. Previous experiences at a low-wage also play its part in explaining the diffusion of low-wage employment. Low-wage workers are more likely to remain at a low-wage, than non-low-wage workers. This is especially true in Spain, where low-wage workers tend to combine spells of low-wage employment with spells of unemployment. This contrasts with Denmark in which this combination is not so common. The “transient” versus “trapped” character of low-wage, alongside the predominance patterns of coexistence between “typical” (permanent full-time employment) and “atypical” employment and the effect of “previous experience in low wages on the probability of remaining in low wage in future periods, accurately define the context of low wage and poverty affliction observed in this research.

women and, by extension, the abundance of single-earner households (34%-the highest percentages among the countries examined) ratifies this perception. Since welfare benefits have not increased to compensate the decreasing rates of the protected jobs, Spanish households have to alleviate the economic prospect of low-wage workers (22,84% of the total employed population in 1997) with less secure-protected employment, high risk of unemployment and a rather limited social support. This principally means that Spanish families have to bear the responsibility of their member's welfare with little public (benefits) and private (wages) support. Additionally, the fact that low-wage employment is "abundant" and "persistent" in Spain influence the weak household capacity. Such employment is "trapped-oriented", as the high percentages of workers in low pay during 13 to 24 months and the high number of workers who combine low-wage employment and unemployment seem to suggest.

As a result Spain shows the highest rates of household poverty and the weakest household capacity for low-wage protection. The most prevalent poor households are made up of "two adults with children", that tends to contain mature-established workers, and is thus seen as a sign of permanency in contrast to the "transitory" character of household poverty observed in Denmark. The number of low-wage workers who live in poor households, indicate that Spanish households exhibits the weakest capacity of low wage protection among the countries examined (22 out of 100 low-wage workers live in poor households in Spain, in contrast to 11 in Denmark, 13 in Germany and 18 in the UK).

These mechanisms have worked very differently in Denmark. Easy access to "good" employment and "generous" benefits facilitate emancipation, as the high rates of one-person households observed in Denmark seem to suggest. The high rates of activity and the low rates of unemployment indicate that the Danish labour market is dynamic enough to provide abundant employment that result in high rates of dual and/or multi-earning households that are less likely to fall into poverty. Family policies are also responsible for the low levels of household poverty. The massive

incorporation of women into the labour market, and the subsequent changes in family structure are the cause and effect of the gender-neutral, family friendly bias of family policies. This combination of abundant multi-earner households and social benefits reinforces the household capacity for protection. As a result Denmark shows the lowest rates of household poverty and the strongest household capacity for low-wage protection. The type of family, which is prevalent amongst poor households are the “one person without dependent” type. This prevalence is interpreted as an indicator of “transitory” poverty, since this type of household tends to be formed by young people who are more able and therefore likely to escape poverty sooner. The overlap between low wages and household poverty has proved that the Danish households constitute a very strong sphere of low-wage workers protection since only 11,36% of the low-wage workers live in poor households, in contrast to 17,58% in the UK or 21,52% in Spain. The percentages of low-wage workers living in poor households (“yes-yes” model) with respect to the total employed population are the lowest among the countries observed (1,6%). Additionally low-wage jobs tend to be “scarce” and “ephemeral”. It is endowed with a “stepping-stone” character, judging from the numerous terminations after the first year at low-wage, and the low percentage of workers who combine low-wage employment and unemployment in the three-year period observed.

Germany and the UK constitute intermediate cases between the extremes represented by Denmark and Spain. The historical preference for stable jobs and the high degree of receptivity to incorporate new technologies into the firms have allowed Germany to maintain a high degree of secure well-paid employment. Although single-earner household are more abundant than in the UK and Denmark, the family members’ dependency on the protected earner is less strong than in Spain. The segmented character of the labour market is less striking than in Spain and the welfare state more generous as the percentages of public expenditures devoted to social issues in general, and the importance of family policies and unemployment benefits in particular seem to suggest. The fact that temporary contracts have been limited until mid-nineties, and that most temporary contracts become permanent jobs comparatively sooner than in other countries, also

help in facilitating emancipation among the young low-wage workers in Germany. All this has resulted in low percentages of poor household (only 4,87%) and a strong household capacity of low wage protection (only 12 out of 100 low-wage workers live in poor households). In addition the percentages of low-wage is comparatively moderate, with a transient character, in contrast to the persistent type observed in Spain, and high percentages of workers combining low-wage and unemployment.

The UK followed a “market-oriented” strategy of high flexibility “across the board” that sought to facilitate massive incorporation of people into the labour market. The strong deregulation carried out in the last decades, in addition to the flexible character of British employment facilitated the massive labour incorporation of youth and women, -chiefly secondary earners that have taken up the low-paid employment generated in the deregulated economy. The restrictions applied in the last twenty years have resulted in low levels of benefits, low share of benefits and the increasing importance of means-test policies. Although family and housing policies still represent an important source of public support, they do not tend to affect “active” households, but marginalized ones, principally formed by inactive and/or long-term unemployed. As a result the household capacity for low-wage protection principally stems from various sources of income (dual or multi-earner households), rather than from welfare benefits. The high volume of household poverty (the highest among the countries examined) and the high percentage of low-wage workers living in non-poor households (yes-no model) place this country close to the Spanish figures.

Despite the fact that this study focuses on four countries, I have shown results for ten European economies (see appendix 3), reinforcing the legitimacy of my conclusions. On the whole, Germany’s results have coincided with those shown by France and Belgium. Likewise Spain’s results have been similar to those shown by Italy, Portugal and Greece, while Ireland has always scored closer to the UK. These matches indicate that the country-specificities found in this research might be extrapolated to other

countries in line with cluster-oriented criteria. By extent, these clusters are then very close to mirroring the four worlds of welfare commonly cited: the Conservative-continental (Germany, Belgium and France), the Liberal (the UK and Ireland), the Southern European (Spain, Italy, Portugal and Greece) and the Scandinavian (although I have also examined Denmark).

3.5. Future Explorations

This account fits into what certain literature has labelled “familialism – or alternatively defamilialism”-, namely the idea that the macro-economic meaning of the household is highly conditioned by the (welfare) state and the labour market. Familialism is a quite useful concept to capture crucial lines of welfare state definition. It says a lot about how the labour market, the family and the state relate to each other. However it does not explain how effective is this relationship in providing individual and collective well-being for low-wage workers. Familialistic (Spain and Germany) and non-familialistic (Denmark and the UK) countries have managed the dilemma of “unemployment- low-wage employment” differently which has resulted in very different outcomes. There are familialistic countries that show modest rates of low wages and household poverty and a notable household capacity for low-wage protection (Germany) and other familialistic countries exhibit the opposite figures: high low wage and household poverty and limited household capacity for low wage protection (Spain). Similarly non-familialistic countries such as the UK and Denmark show very different rates of low wage employment, household poverty and low-wage workers living in poor households. Thus, although Denmark fits under the category of “non-familialistic country” quite well and Spain fits neatly into the classification of “familialistic” country, Germany and the UK represent sub-categories in between the extremes. Although it is certainly true that both the Spanish and the German states assume that households must bear the responsibility of their members’ welfare, the result in terms of household poverty and household capacity of low wage protection is significantly different. The same applies for Denmark and the UK.

Similarly the dichotomy “flexibility versus rigidity” in the labour market does not seem to be very fruitful in explaining the spread of low wage and household poverty. High levels of low-wage employment and household poverty are observable in flexible (the UK) and rigid (Spain) labour markets. The same goes for Denmark and Germany, with low levels of low wage and household poverty in spite of having different type of labour markets (flexible in Denmark and rigid in Germany). Thus, the quality of employment and the generosity of the welfare state seem to be more important in explaining cross-national differences in low wage and household poverty.

APPENDIX (I): Definition of Key Terms

I.1. Low-wage Workers and Household Poverty

I.1.1. Low-Wage Workers

This study defines low-wage workers as those whose total annual net wages fall below two-thirds of the total net national median income from work (wages). This definition takes into account the following factors: how to measure low wages (in relative, absolute or subjective terms), the mode of earning (hourly, weekly, monthly or annual incomes measures), and who should be considered a low-wage worker (full-time full-year workers exclusively or other groups also liable to suffer low wage problems (part-timers, temporary workers, self-employees, those in paid apprenticeships or training etc.)

I.1.2. Absolute, Relative and Subjective Definitions of Low Wage

Low-wages can be measured in absolute terms by defining a minimum acceptable standard of living, and then calculating the minimum value of wages necessary to fulfil that minimum. Individuals falling below this pre-determined threshold are low-wage workers (Bradshaw et al. 1987, Bradshaw and Morgan 1987, Bradshaw and Holmes 1989, Oldfield and Yu 1993). Using the absolute approach is problematic for several reasons, the most important one being its arbitrariness. Moreover, cross-national disparity in real incomes and the difficulties involved in drawing up minimum subsistence concepts are commonly cited as well (Föster 1993, 1994; Bradshaw et al. 1996). What basic needs are is still undetermined. Experts and consumers do not always have the same criteria of need in a given country or in comparisons. Since absolute measures are always defined on a national level, cultural factors and real income disparities render absolute measures useless in cross-national comparison. Moreover, the use of absolute measures tends to correlate closely with recessions and economic booms, making it difficult to know whether wage differentials are due to economic factors (economic growth or downturn) or to specific anti-poverty public policies. I full in agreement with these critics. I therefore prefer to use an alternative measure, in relative terms, that can overcome the above restrictions.

Low wages may also be defined in relative terms. A reference point (the median or the mean-equivalence wage) is used to establish a test to determine which and how many workers are below this threshold. Since relative measures overcome most of the restrictions attributed to absolute measures, most of the studies cited here have used this technique to measure low-wage rates (OCDE 1982; EUROSTAT 1990; European Commission 1991; O'Higgins and Jenkins 1989; Mitchell 1991; CERC 1992; Föster 1993; Bazen, Gregory and Salverda 1998; Robson et al. 1998; Keese et al. 1998; Asplund, Sloane and Theodossiou 1998; Sloane and Theodossious 1998; Arai, Asplund and Barth 1998; Asplund and Persson 2000). Yet some authors remain in favour of absolute measures when examining poverty. For Carabaña, (1998) the use of relative measures gives an idea of inequality rather than of poverty, so that, absolute measures are better suited to measuring poverty.

A subjective approach is based upon public opinion on wages levels, that is, how people feel about their wages (Van Praag, Hagenaaars and Weeren 1982, Mack and Lansley 1985, Veit-Wilson 1987). Föster (1993: 6) explains the differences between relative and absolute approaches by saying that when a person say "I have less than an objectively defined absolute minimum" he or she is using an absolute approach. Yet if the person say " I have less than others" he or she is using a relative approach.

The most frequent low pay cut-off is two-thirds of median earnings. Throughout the literature however, there is a variety of values cited as the low pay cut-off: 68% of median (Council of Europe, cited in McKnight, 1998), two-thirds of the mean (Lucifora, 1998), two-thirds of the median male (Robson, Dex, Wilkinson and Salido 1998), two-thirds of the median full-time income (Asplund and Persson 2000) the lowest quintile of the earning distribution

(Asplund, Bingley and Westergaard-Nielsen 1998; Eriksson 1998; Gregory and Jukes 1998), and other various thresholds (Stewart and Swaffield 1998).

This study will employ the relative definition of low wage which is net wages below two-thirds of the total net national median income of all workers not just full-time full-year workers, as most studies do.

1.1.3. Criteria of Earning Selection

Another debatable issue is the criteria of earning selection: an hourly, weekly, monthly or annual basis. Previous empirical studies measuring inequality, poverty and low-income have observed slight divergences between current (hourly, weekly, monthly) or annual income measures. Although the latter tend to reduce the percentages of poverty and low income, the differential is quite small. For Nolan (1987) the use of monthly or annual incomes (pre-tax, pre-transfer from the Family Expenditure Survey in the UK brings about minor differences, although less instances of low income were observed when using annual income measures. By using the US Survey of Income and Program Participation, Ruggles (1990) arrives at a similar conclusion in terms of lower poverty estimations when using annual instead of hourly or weekly income. Nevertheless, the differential is larger than that reported by Nolan. Böheim and Jenkins (2000) observe very similar results in inequality and low income incidence when using monthly and annual income indicators from the British Household Panel Survey. Again however, smaller figures emerge when using the annual measure.

The evidence seems to suggest that the criteria of earning selection is less a question of precision than that of practical utility. Many analyses have used hourly (Stewart and Swaffield 1998; Arai, Asplund and Barth 1998) or weekly (Robson, Dex, Wilkinson and Salido 1998; McKnight 1998) measures because they are thought to be the most appropriate way of quantifying the volume of low pay (Dex et. al 1994). From my standpoint however, an annual basis is more useful in identifying the complex dimension of low wage employment given that wage fluctuations are better identified over the long term. Although fluctuations during the year may be infrequent and have little impact on total annual wages, certain groups are more likely to experience labour trajectories that are weighted towards either continuous employment or unemployment fluctuations; these fluctuations escape capture by hourly, weekly or monthly income measures. These transitions are better observed in the longer term. As Sloane and Theodossiou contend:

Earning variations may be of a short-term nature because of seasonal factors, suggesting that the definition should focus on annual earning. However, relatively few data sets contain information on annual earning. Earning may rise without any change in workers inputs as a result of an annual wage adjustment and we may feel that this is a more appropriate indicator of an improvement in the position of the worker, particularly when the increase is positive in real terms. Again earnings may alter as a result of a job change with the same or a new employer and some of these changes may be involuntary (Sloane and Theodossiou, 1998: 4)

Fortunately the European Community Household Panel uses the annual basis, allowing annual analysis. The European Community Household Panel is well suited to this purpose as it is an individual and household-based survey over four years (1994-97) and in fifteen European countries. It measures a range of social and economic indicators such as income, education, housing, health and social relations etc., (for further information about this panel data and problems relating to its sample base, weighting and attrition, see the appendix I)

1.1.4. The Universe of Workers Covered in this Study

It is important to clarify from the outset that Low- Wage Workers are not exclusively those holding full-time, full year jobs as the relevant literature on low paid employment has usually stressed, (O'Connor and Smeeding 1993; OECD 1996; Eurostat 1998; Bazen, Gregory and Salverda 1998; Marx and Verbist 1998; McKnight 1998; Robson, Dex, Wilkinson and Salido

1998; Keese, M., Puymoyen, A. and Swaim P. 1998; Lucifora 1998; Nolan and Marx 1999; Lucifora 2000). Very few commentators have considered the entire employed population or both full-time and part-time workers together (Contini, Filippi and Villosio 1998; Sloane and Theodossious 1998; Robson, Dex and Wilkinson 1998).

Data constraints and a certain predilection for homogeneous groups have impeded more widespread analysis. Given that part-timers work below the standard number of hours and temporary workers are constrained by provisional limits, it is tempting to claim that these forms of employment cannot capture the real nature of low pay amongst part-time and temporary workers. Given the differences respecting the time worked and the wage they fall into categories, these workers have normally been excluded from analyses.

As I see it, however, the exclusion of part-timers, the self-employed and those combining employment and unemployment may result in an incomplete study which would ignore close to 45% of the total employed population, also a group that is highly vulnerable to low wages. The subjects of my study are therefore i) full-time full year workers (the traditional focus of low pay analyses), ii) part-timers, iii) temporary workers and iv) self-employed earning less than two-thirds of the national median net income, that is income exclusively coming from work. Other groups will also be observed - although less exhaustively- namely those moving from inactivity to employment and from employment to inactivity and those moving from part-time to full-time or from full-time to self-employment etc.

i) Full-time Full-year Low Wage Workers. Since the period of analysis is one year (1997), the permanent character of full-time employment is limited to twelve months. It follows individuals from January to December 1997, focusing exclusively on those holding full time jobs during the twelve months whose total net income from work (wages) is below the low-annual-wage threshold.

ii) Part-time Full-year Low Wage Workers. This group includes those in part-time work from January to December 1997 earning below the given low-wage line. Although, at first sight, one might expect a majority of part-timers to be low wage looks can be deceiving. There is “good” and “bad” part-time employment as suggested by the relatively high percentage of high wage part-timers found in various countries (see chapter 4 for details).

iii) Full year, Low Wage Self-Employed. This comprises those working on their own whose net incomes do not surpass the low annual wage line. Although self-employment can be very heterogeneous - entrepreneurs of small firms, practitioners of the liberal professions, those who are really employed by a corporation but who retain in a fictional self-employed status, and people who are essentially unemployed but who sell things or do odd jobs in order to scratch out a living, (Crouch, Finegold and Sako 1999)- I expect that the problem of low income among self-employed is concentrated within the two latter categories

iv) Temporary Workers. For the purposes of this investigation, temporary workers are those combining employment and unemployment throughout the year. Since an important percentage of these workers may be entitled to unemployment benefits, it might be suggested that their benefits should be incorporated into the total amount of money at the temporary workers’ disposal. However, I do not fully agree with this view. Although the fluid relationship between low wage and unemployment are unquestionable, wages and benefits have different socio-economic meanings. This is not the same as arguing that benefits should be omitted from our analysis, on the contrary, benefits are integrated into a households’ income. This allows me to examine both the individual sphere of low-wage employment - by focusing exclusively on wages- and the wider sphere of the household -by taking into account both wages and benefits. Each measurement brings with it certain implications; the first sphere shows the labour market capacity of income provision, while the second sphere (a household’s total annual income from wages and benefits) offers a more precise definition of the role played by the family and the (welfare) state in alleviating low-annual-wage experiences.

“Transitory” Low-Wage Workers. In this category I include: a) those working in paid training or apprenticeship during the period in question; b) those moving from apprenticeship to paid employment whose net income does not surpass the low-annual-wage threshold; those moving from inactivity to employment (first job workers) or from employment to inactivity (early or standard retirement) whose wages fall below the threshold; and iv-) those moving from

one type of employment to another (from part-time to self-employment or from self-employment to full-time etc) who earn less than the threshold annual wage (two-thirds of the total national median wage).

1.1.5. Household Poverty

To identify poor households I have used the definition of 50% of the median, that is, those households whose net total incomes are below ½ of the median national net income. I have uniquely considered those households with at least one earner. Those households that are exclusively made up of pensioners or other inactive members are not part of the sample. Incomes have been adjusted by household size using an equivalence scale, described by Föster (1993;1994b) as a “policy based scale” or “expert programme judgments”, whose equivalence elasticity lies around 0.55. The weights for this equivalence scale are the following: 1 for the first person, 0.5 for a second person, 0.38 for a third person and 0.225 for each additional person.

1.1.6. Overlap between Low-wage Employment and Household Poverty

In order to understand the connection between low-wage employment and household poverty I set out to build an analytical model which will allow me to identify the relative importance of the labour market, the family and the welfare state in order to explain the patterns of connections. The following table allows readers an overview of this analytical model.

		<u>Poor household</u>	
		Yes	No
<u>L.A.W.W.</u>	Yes	1	2
	No	3	4

Number 1 (yes-yes) represents the worst possible combination of individual, household and (welfare) state action, since it corresponds to those Low Annual Wage Workers (LAWW) living in poor households. In this case, neither the labour market, the household, nor the welfare state prevent workers from falling into low annual wages and poverty. **Number 2** (yes-no) represents those low wage workers living in non-poor households. The labour market is insufficient as the sole income provider, but the household, as an aggregated sum of different wages and benefits compensate sufficiently. This combination of low wage and non poverty (yes-no) constitutes the core of our analysis because it is in this context where the household acts as a safety net. Since it is assumed that the economic prospects of the low-wage workers are significantly improved in the context of a non-poor household, a detailed examination is called for the socio-economic characteristics embedded in this “yes-no” overlap.

This study will offer an exhaustive description of the low wage workers who live in these non poor households, their gender category, their age, their level of education, the type of employment they hold, the status of their occupations, the sectors in which they work, along with other variables that relate to their employment records and their previous experiences in other low-wage occupations. Similarly, I will provide a meticulous description of the households that host low-wage workers, by specifying their socio-economic characteristic: the type of household that prevails - single members, single parents, couples with or without dependents-, the number of earners and the benefits they receive. Although Number 3 (no-yes) and Number 4 (no-no) are not central to my analysis, for purposes of completeness, I will show the percentages of workers in these categories. **Number 3** (no-yes) represents the case of non-low-wage workers living in poor households. Here the household constitutes the sphere of

poverty risk. **Number 4** (no-no) represents the optimal situation of non-low wage workers living in non-poor households. It is the optimal situation in which the labour market, the family and the welfare state interplay successfully.

APPENDIX (II) SEPARATING OUT LOW WAGE EMPLOYMENT

As I have maintained, low-wage employment is not a homogeneous phenomenon, but it is rather comprised of different labour groups. The groups conforming to low wage employment need to be separated out in order to delimit different spheres of specificity. This segregation of groups should allow me to see the real dimensions of the low wage phenomenon.

Individuals were followed on a month-by-month basis, from January to December during 1997. Thus the low-wage groups shown below represent categories of people who maintained their employment status during the whole period of observation (12 months in 1997). Column 2 shows the percentage of low-wage employment that is full-year full-time during 1997 with regard to the total full-time employment. Column 3 shows the percentage of low-wage employment that is full-year part-time during 1997. Column 4 shows the percentage of low-wage workers combining employment and unemployment. Column 5 shows the percentage of low-wage self-employed (agricultural self-employment in parenthesis). The Entry-Exit label in column 6 shows those workers who were at a low-wage because they moved from inactivity to employment (most of them are first-time workers), or from employment to inactivity (essentially those who retired during 1997). Finally, column 7 shows the percentages of LAW due to other causes, i.e those who worked in paid training or apprenticeship, those who moved from apprenticeship to paid employment, those who moved from one type of employment to another (from part-time to self-employment or from self-employment to full-time employment etc.)

This table should be interpreted as follows: 15,8% of the total low-wage employment in Denmark, which represents 14,4% of the total employed population, accrues to full-time, full-year workers, 14,3% to part-time, full-year workers, 16,2% to temporary workers, 8,5% to the self-employed (of which 32,3% are agricultural self-employed) 16% are first-time job workers or the retired and the remaining 29,2% are low wages workers who moved from one type of employment to another who earned less than two-third of the total national median wage.

Table 49: Percentages of low-wage worker of a proposed type with respect to all low-wage workers

	<i>Fulltime full-year</i>	<i>Part-time Full-year</i>	<i>Temporary</i>	<i>Self- employed</i>	<i>Entry - exit</i>	<i>Rest</i>
Spain	15,4	9	35	21,2 (29,4)	6,8	12,6
Denmark	15,8	14,3	16,2	8,5 (32,3)	16	29,2
UK	18,4	28,8	9,2	22,9	9,7	11,1
Germany	22,3	23,6	14,8	9,7	7,5	22,1

Source: own elaboration with data of European Household panel (1997)

At first sight the composition of low-wage employment is rather homogeneous. The proportion of full-time full-year workers in comparison with the total of low-wage workers is relatively similar, spanning from Spain's (15,4%) to Germany's (22,3%). However, the proportion of part-timers, temporary workers or self-employed exhibit greater differences between the countries. Part-time workers represent 9% of the total low wage employment in Spain and 28.8% in the UK; temporary workers reach over 9,2% in the UK and 35% in Spain, while the self-employed account for 8,5% in Denmark and 21,2% in Spain.

To better understand low-wage employment, I examine these groups of workers separately in order to find patterns of similarity and distinctiveness.

II.1. Full-time full-year Low-wage Workers

The literature on this topic has used different definitions and criteria of earning selection to measure the volume of full-time workers in low wage employment (see further on the criteria of earning selection in the introduction). The OECD has used two-third of the median. The earning measure used is net of tax and social security contributions. Nolan and Mark, (1999) use two-third of the median gross wage of all full-time full year workers on an hourly earning basis. Keese et al. (1998) use relative measures of low pay, two-third median for full-time workers on hourly earning. These differences in gross-versus-net of tax or hourly

versus monthly earning basis, bring about different results as the following table 3.1. shows.

In the next table, column 2 shows the percentage of full-time, full-year low-wage workers according to our criteria of two-third income from work net of tax and on a annual basis. I have selected first those workers whose main self-declared employment status was “working full-time in paid employment during the year 1997 (referred to 1996)” and whose total net wages are below two-third of the national median wage. The results tend to coincide with those found in other works, although certain differences are appreciable. My figures are quite similar for Denmark and Spain and somewhat smaller for Germany and the UK. The use of annual net wages in this study, in contrast to other studies which use on hourly or monthly gross wages basis (see table 1.9.) may be the main reason for the differences observed.

However, my second results (second column) differ clearly not only from the results of other studies, but also from our my own initial inspection. This time I follow individuals month by month during 1997. I isolate those who were in full-time work during the whole year (12 month) and count how many of these were low-wage workers. The results differ markedly from those of other studies. To begin with, the volume of low-wage workers among full-time full year workers is smaller, suggesting that a low annual wage among “pure” full-time full-year workers is less common than is currently believed. Similarly differences between countries in the percentage of full-time workers in low wage employment are also less marked.

Table 50: Percentages of Full-time, Full-year Workers in low wage according to diverse studies

	Own elaboration on “self-declared worker employment status (full-time)”	Own elaboration on “being in full-time 12 months in 1997”	CERC* (1992)	OECD (1998)	Robson et al. (1998)		Keese et al. (1998)**	Nolan and Marx (1999)
					male	female		
Denmark	9,9	2,99		9,6				
Germany	10,2	5,03	11	18,3	11	30	13	12,7
UK	15,8	7,54	20	21	21	32	20	19,9
Spain	17,2	5,56	19	16,8	19	27		

*Centre d’Etudes des Revenues et des Couts

** Approximations from figure shown in table 12.2, pp. 228.

Once again Denmark ranks in the lowest position, (2.99%) and the UK in the highest (7.54%), although the distance between these extremes is significantly shorter than that observed when using the criteria of self-declared employment status (column 1). Spain and Germany score in an intermediate position with very similar figures. **These results indicate that exhaustive analyses might show that the risk of low-wage work among full-time full-year workers is significantly lower than is currently believed.** The evidence that permanent full-time employment is statistically significant in reducing the risk of low-wage may partly explain the high rates of low wage in Spain (where permanent full-time employment is decreasing dramatically) and the low rates in Denmark and Germany (where the percentages of this type of employment was stable during the period 1983-1997).

II.2 Who are the Low Wage Full-time workers?

The tables below show the under or over-representation of different variables among low-wage full-timers. The over-representation of female full-time workers in low-wage employment is especially true in Spain and Germany. In terms of the level of education, there is a general decrease in the number of low wage full-timer workers as one moves from lower to higher educational levels. There is a clear overrepresentation among those with the lowest level of education and a clear under-representation (rates below 0) among those with the highest educational level. In the intermediate level (level 2), there is over-representation in Germany and Spain, but this over-representation is not particularly dramatic. The under-representation in this intermediate educational category is also relatively low, almost reaching parity (B/A rate=1). The differences between countries at the higher educational levels are not as salient as at the lower ones. The B/A rate is particularly striking in Denmark at the lowest level of education.

Turning to the last section of the table occupation, the rate of low wage full-time workers decreases as one move from the low-skilled occupational levels to the high-skilled levels. Low pay is clearly under-represented among 'semi high skilled' and 'high skilled' occupations. The decreasing pattern does not apply to occupational level 3, where the B/A rates increase in relation to the occupational levels 1 and 2. Looking at each one of the occupational levels in turn, the B/A rate is particularly adverse for elementary occupations (level 1) in Spain. In Denmark, on the contrary, they are under-represented. The educational levels 2 and 3 also show great internal differences. Standard deviations are also high in levels 2 and 3. The opposite, a similar pattern across the countries surveyed, is found amongst the semi-high skilled (level 4) and high skilled occupations (level 5).

As to age, I observe that, the higher rates of low wage employment among full-timers are obtained by the youngest and eldest cohorts. The rate reaches striking figures for the 66 + age cohort. The over-representation is particularly outstanding in Denmark; it is very high in Greece, Italy and Spain; and quite high in Ireland and France.

The main conclusion that one can draw from the "Sector" table is the over-representation of low-wage workers in the Agriculture sector, whereas the Industrial sector and Service sectors show a slight under-representation or parity when compared with other full-time workers. The over-representation in the Agricultural sector is particularly striking in Denmark. They are more than eight times likely to be on a low-wage than other full-time workers. Denmark also has a marked under-representation of full-time low-wage workers in Industry (0.4).

Table 51: Degree of over/under-representation according to criteria of gender and education

Full-time Full-Year Low Wage Workers																
		Gender						Education*								
	Percentage s of low- wage workers in full-time	Male-female full-time workers (%)		Male-female FTFY Low Annual Wages (%)		B/A		A Levels of education among Full-time Full- year workers			B Levels of education among Full-time Full- year Low annual Wages workers			B/A		
		Male	Fem	Male	Fem	M	F	1	2	3	1	2	3	1	2	3
Denmark	2.99	57.9	42.1	41.3	58.7	0.7	1.4	18.8	38.6	42.6	41.4	34.5	24.1	2.2	0.9	0.6
Germany	5.03	64.2	35.8	24.1	75.9	0.4	2.1	10.2	58.2	31.6	18.2	67	14.8	1.8	1.2	0.5
Spain	5.56	69.2	30.8	39.5	60.5	0.6	2.0	48.7	21	30.3	69.2	22.2	8.6	1.4	1.1	0.3
UK	7.54	59	41	24.8	75.2	0.4	1.8	30.6	15.2	54.2	55.9	14.2	30	1.8	0.9	0.6

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Third level education (ISCED 5-7)

Table 52: Degree of over/under-representation among full-time workers according to criteria of occupation

Full-time Full-Year Workers by Occupation															
	A- Occupation among Full time Full year Workers					B- Occupation among Full time Full year Low Wage Workers					B/A				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Denmark	6.77	10.86	35.50	21.97	24.90	5.88	23.53	58.82	11.76	0.00	0.9	2.2	1.7	0.5	0.0
Germany	6.97	12.02	44.68	18.93	17.40	15.09	8.62	59.48	10.78	6.03	2.2	0.7	1.3	0.6	0.3
Spain	12.43	11.18	44.58	13.01	18.81	36.76	7.03	46.49	4.32	5.41	3.0	0.6	1.0	0.3	0.3
UK	4.21	11.00	37.05	14.32	33.43	8.94	10.57	61.79	7.32	11.38	2.1	1.0	1.7	0.5	0.3

Source: own elaboration with data of European Household panel (1997)

Occupation: 1= Elementary occupations, 2= Semi-skilled occupations (Skilled agricultural and fishery. Plan and machine operators and assemblers), 3= Skilled occupations (Clerks, Services workers and shop and market sales workers. Craft and related trades workers), 4= Semi- high-skilled occupations (Technicians and associate professional), 5= High-skilled occupations (Legislators, senior officials and managers, Professionals)

Table 53: Degree over/under-representation of full-time workers according to criteria of age

	A- Groups of age among full-time full-year				B- Groups of age among Full-time Full-year Low-Wage Workers				B/A			
	15/31	32/49	50/65	66+	15/31	32/49	50/65	66+	15/31	32/49	50/65	66+
Germany	25.11	52.85	22.04	-	29.9	52.7	17.4	-	1.2	1.0	0.8	-
Spain	27.5	51.7	20.8	-	53.3	29.3	17.4	-	1.9	0.6	0.8	-
UK	32.01	48.36	19.63	-	44.4	38.7	16.9	-	1.4	0.8	0.9	-
Denmark	19.4	56.1	24.1	0.4	55.6	33.3	11.1	-	2.9	0.6	0.5	-

Source: own elaboration with data of European Household panel (1997)

Table 54: Degree of over/under-representation of full-time workers according to criteria of sector of activity

	Sector								
	Agric	Indu	Service	Agric	Indu	Service	Agric	Indu	Service
Germany*									
Spain	2.86	33.58	63.56	9.73	25.41	64.86	3.4	0.8	1.0
UK*									
Denmark	2.11	27.54	70.36	17.54	10.53	71.93	8.3	0.4	1.0

Source: own elaboration with data of European Household panel (1997)

*Data not available

II.3. Logistic Regression of the Probability of Low-wage among Full-time, Full-year Workers

In this section I set out to measure the effects of the proposed variables on the probability of a low wage for full-time-full-year workers. The methodology followed is to run logistic regressions to calculate the probability of a full-time full-year worker being in the low annual wage category during 12 months in 1997 (coded 1) versus the probability of a full-time, full-year worker not being in the low wage category (coded 0). As I explained above the category of full-time full-year workers is not based upon self-declared status, but follows full-time workers month by month during the year in question, isolating those who are on a low wage. Our dependent variable is the expected probability of a low wage, which is coded 1 if a full-time full-year worker received less than two-third of the median income from work during the period January-December 1997 (low annual wage) and which is coded 0 otherwise (if a full-time full-year worker scores above the low-wage threshold during the period January-December 1997). The model is therefore conditioned by two restriction: 1-) being a full-time workers, and 2-) being a full-time workers during the whole year. Although this choice reduces the sample, the model is expected to provide a more detailed account of the main features which affect the risk of low-wage. Non “pure” workers, namely those combining unemployment and unemployment will be examined in the section “temporary workers”.

I reproduce the model previously used to analyse low-wage employment (see table 1.7.) in order to find out the peculiarities embedded in full-time, full-year employment. The variable type of employment is obviously dropped (I do not examine low-wage in general, but low wages among full-time full-year workers). Employment stability is also dropped due to colineality.

Table 55: Logistic regression of the probability of full-time full-year low annual wage worker

	Denmark	Germany	UK	Spain
Age	.4166222**	.9301521	.7792906***	.6980691***
Age²	1.00891**	1.00083	1.002964***	1.004245***
Gender (male ref)				
Female	3.005475***	11.32537***	13.40337**	3.890637***
Education	.7985433***	.6812535***	.6012399***	.7786525***
(Occupation)	.7558932***	.6848525***	.5535729***	.7517885***
Sector (service. ref)				
Agriculture	1.057454**	Data not available	Data not available	3.043591***
Industry	.3341993	Data not available	Data not available	.874868***
Private/public	.2345603***	.1871072***	.5544534***	.6043712***
Size of Firm	.9073614	Data not available	.7809875***	.8278129***
Previous Spells on Low Pay (1995/96)	3.898869***	6.396366***	8.998572***	14.98441**
Model sensitivity	54.17%	24.27%	45.66%	59.22%
Model specificity	98.15%	99.02%	94.93%	97.69%
Correctly classified (cutoff point 0.30)	96.28%	95.23%	91.50%	95.58%
Log likelihood	-149.189967	-646.32189	-543.39417	-336.70086
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.5046	0.2314	0.3159	0.5143
Goodness of Fit test				
Prob > chi2	1.0000	1.0000	1.0000	1.0000
N	565	4596	3140	3255

Source: own elaboration with data of European Household panel (1997)

Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Results

The model practically identically reproduces the results observed in the previous analysis of low-wage employment. In this sense the patterns of explanation found in low wage can be also applied to low wage among full-time full-year workers. Once again our prototypical full-time full-year low wage worker is a young, low-educated woman in a small firms at the low end of the occupational scale and with previous spells at a low wage. “Ceteris paribus” the odds of being a full-time full-year low-wage worker (value 1) compared with not being a full-time full-year low wage worker (value 0) is greater for younger than for older

workers (Odds ratio <0), except in Germany where this variable is not statistically significant; for women (coded 1) than for men (coded 0), (Odds ratio >1), for less educated workers than for more educated ones (Odds ratio <0), for those in the lower occupational scales than for those in the highest ones (odds ratio <0), for those working in private firm (coded 0) than for public employees (coded 1) (odds ratio <0) for those working in small firms than for those in bigger ones (odds ratio <0) and for those with previous periods of low pay (odds ratio >0). With respect to full-time full-year workers in the service sector the probability of low pay is higher for those in the agricultural sector and lower for those in the industrial sector.

Obviously, the intensity of these effects vary among the countries analysed. The gender effect is particularly high in the UK, and to a lesser extent in Germany, but is moderate in Denmark. This suggests that even though the risk of low pay is higher for women in the four countries observed, the intensity of this risk is lower in the Scandinavian country. All other conditions being equals, the age effect is the strongest in Denmark whereas the “previous spells in low pay” effect is the weakest reinforcing the transient character of low pay stressed above. On the other hand the risk of being a low-wage worker for full-time workers with previous periods at low wages is the highest in Spain, in accordance with the persistency effect observed in this country. This evidence allows us to infer a “trapped” bias in Spain and a more “stepping stone” character of low-wage/full-time employment in Denmark. In Germany, the variable age is not statistically significant, suggesting that the age effect cannot be extrapolated to the whole population.

My results are consistent with the literature claiming that women are more likely to hold low paid employment (Dex et al. 1994, UK; Keese, Puymoyen and Swaim 1998; Robson, Dex, Wilkinson and Salido 1999; Asplund and Persson 2000). As far as education is concerned, my results also coincide with those published in the current literature. The risk of being a full-time low wage worker is particularly high for the least educated workers in Denmark (.38). Odds ratios in Germany (.86) and Spain(.77) show a less marked effect, suggesting that the educational bias among full-time workers is less important in these

countries. Sloane and Theodossiou's finding that not only those with a university degree or its equivalent, but also those with the lowest level of education qualification can improve their chance of moving into higher paid work (in the UK) is a really interesting hypothesis. The fact that those with intermediate degrees are at a higher risk of low pay than the extremes may suggest that widely observed labour market polarisation might be creating two main spheres of employment opportunities for the highest educated (core) and the lowest educated (periphery). Those in intermediate positions are more likely to fall into low pay. According to my results, this hypothesis does not stand up in the countries observed.¹ All other conditions being equal an additional unit in education reduces the risk of low pay. Consequently those with intermediate education qualifications are less likely to suffer from low pay than those with the lowest qualifications.

II.4. Part-time Workers

As with full-time employment, I have selected those workers whose main self-declared employment status is "working part-time in paid employment during the year 1997 (referred to 1996)" and whose total net wages were below two-thirds of the national median wage. I follow these individuals month by month during the year in question, isolating those who were in part-time work during the whole year (12 month). The results differ significantly in Denmark, Germany and Spain but are similar in the UK. In general the percentage of those on a low wage is smaller when using a "month by month" criteria, indicating that more exhaustive

¹ It is important to clarify that Sloane and Theodossiou's analysis consists of a multinomial regression to model the probability of an individual being in the low or high-pay category in 1993 given that he or she was in the low-pay category in 1991. Hence they measure probabilities of transitions rather than probabilities of being in the low or high pay category. This particularity makes my analysis rather different since they link the probability of being on low pay in 1993 with the fact of being on low pay in 1991.

analysis might provide a precise account on the real dimension of low wage among part-time workers:

Table 56: Percentages of part-time workers on a low wage. Annual basis

	Wages	
	Low Wage Part-timers “month by months”	Low Wage Part-timer “self-declared”
Denmark	30.98	42.92
Germany	51.00	59.4
Spain	65.45	77.56
UK	74.13	76.63

Source: own elaboration with data of European Household panel (1997)

I commented on the results above, showing that “bad” part-time employment is prevalent in the UK and Spain, where a majority of part-time workers earn below the low wage threshold. It is moderate in Germany where only a little more than 50% of the part-time workers are on a low wage and it is low in Denmark where only 31 out of 100 part-time workers are on a low wage, which is the lowest result.

II.5. Who are the Low-Wage Part-timer workers ?

Once again women are overwhelmingly likely to do part-time work, the figures from Spain, where 78 out of 100 part-time jobs are in women’s hands, to the UK where female part-time employment represent the 93,8% of total part-time employment. Regarding low-wage part-time employment the gender bias is also apparent. Females are over-represented in “bad” part-time work, so that most low wage part-time employment is in women’s hands (78% in Denmark, 80,6% in Spain, 95,1 in the UK and 95,3 in Germany). The converse of these results is that men are underrepresented. The results apparently point the same picture as in the case of full-time low wage workers. Yet, the degree of over-representation of female workers in “bad” part-time employment is less than female workers with “bad” full-time employment. The predominance of women in both, “good” and “bad” part-time work makes the over or under-representation results misleading. The slightly over or under-representation is conditioned by the

strong gender bias, which is embedded in part-time employment. In Spain and the UK there is neither over- nor under-representation. In Denmark, female are slightly underrepresented. This cannot be interpreted as a sign of equality, but is merely a result that confirms the huge over-representation of women in part-time employment.

Something similar applies to age. Although I find a slight degree of over or under-representation in the four countries surveyed, the volume of low wage part-time jobs chiefly accrues to those aged 32-49 years, although the youngest stratum also represent a high percentage (41,12%) in Spain. The situation of male in “bad” part-time employment is very similar to males in “bad” full-time. Here, the comparison of results shows similar rates of representation. Similar findings to that found for full-time, full-year employees arise when one compares the levels of education. Again, “bad” part-time jobs are over-represented by those with only the first educational level (less than second stage of secondary education), everywhere in Europe. Again, the over-representation of this group is pronounced in Denmark. The under-representation of “bad” part-time work at the high level (Recognised third level education. University degree or similar) is also general and similar to that found with full-time workers. At this level, the UK deserves a mention, because its level of under-representation is very low (0.8). The same mixed picture is taken from an analysis of the intermediate educational level, where both under- and over-representation occurs.

The next table is dedicated to the distribution of “bad” part-time work by occupational level. As with their full-time counterparts, the over-representation of low-wage workers decreases as one moves from low-skilled to high-skilled occupational categories (see the last section of the table). The general overrepresentation of “bad” part-time work in the first three categories (“elementary workers”, “semi-skilled occupations”, and “skilled occupations”) becomes a general infra-representation of these workers across all four countries. Unlike

full-time workers, category 3 (“skilled workers”) do not rise above this decreasing pattern.

Regarding age, the distribution of “bad” part-time work shows interesting differences in relation to full-time work. The finding above that the pattern of distribution of low-paid full-time workers has a clear U-shape, with low-paid workers over-represented among the youngest and eldest age cohorts is hardly noticeable among part-time workers. While the cases of Spain or Denmark remind one of such a pattern, the rates reveal a pattern that is a much more subtle and diffuse. The general, cross-country pattern, in fact, seems to be closer to parity, as in the case of the UK (1.0; 1.0; 1.1). In conclusion, low-wage workers are more represented within young age cohorts of full-time workers when compared with the same cohorts of part-time workers; and intermediate age cohorts shown a higher representation of low-paid workers than their part-time counterparts.

Turning to the distribution by sector and comparing it with the relative table for full-time workers, the striking contrast between agricultural workers, on the one hand, and industrial and service sector workers, on the other hand, has disappeared. The distribution of low-paid workers across sectors is much more homogeneous for part-time workers than for full-timers. Firstly, “bad” part-time is not as over-represented in the agricultural sector as full-time work is; secondly part-time workers are only slightly more represented in the Industrial sector than full-time workers; finally, the representation of low-paid workers in the Services sector seems to be very similar across countries with respect to part-time and full-time employment.

Table 57: Degree of over/under-representation according to criteria of gender and levels of education

Part-time Full-Year Workers																	
	Wages		Gender						Education*								
	Non low pay	Low Paid	Male-female (%)		Male-female in low wage part-time empl		B/A		Levels of education among Part-time workers			Levels of education among low wage Part-time workers			B/A		
			Male	Fem	Male	Fem	M	F	1	2	3	1	2	3	1	2	3
Denmark	69.02	30.98	16.3	83.7	21	78	1.3	0.9	19.1	41.5	39.3	42.9	37.5	19.6	2.2	0.9	0.5
Germany	49	51.00	10.2	89.8	4.7	95.3	0.5	1.1	13.6	60.6	25.8	17	68.8	14.2	1.3	1.1	0.6
Spain	34.55	65.45	23.1	76.9	19.4	80.6	0.8	1.0	55.2	20	24.8	71.3	20.4	8.3	1.3	1.0	0.3
UK	25.87	74.13	6.2	93.8	4.9	95.1	0.8	1.0	44.4	20.9	34.7	51	22.4	26.6	1.1	1.1	0.8

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Recognised third level education (ISCED 5-7)

Table 58: Degree of over/under-representation according to criteria of occupation

Part-time Full-Year Workers by Occupation*															
	A- Occupations among Part-time workers					B- Occupations among Part-time workers on a Low Wage					B/A				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
UK	12.55	2.32	60.23	12.93	11.97	15.36	3.13	66.41	9.38	5.73	1.2	1.3	1.1	0.7	0.5
Germany	17.89	3.46	48.37	17.89	12.40	27.38	4.37	55.56	10.71	1.98	1.5	1.3	1.1	0.6	0.2
Denmark	15.09	5.66	37.74	22.64	18.87	26.32	15.79	42.11	10.53	5.26	1.7	2.8	1.1	0.5	0.3
Spain	30.30	4.24	42.42	6.67	16.36	42.59	6.48	42.59	5.56	2.78	1.4	1.5	1.0	0.8	0.2

Source: own elaboration with data of European Household panel (1997)

*Occupation: 1= Elementary occupations, 2= Semi skilled occupations (Skilled agricultural and fishery. Plan and machine operators and assemblers), 3= Skilled occupations (Clerks, Services workers and shop and market sales workers. Craft and related trades workers), 4= Semi high skilled occupations (Technicians and associate professional), 5= High skilled occupations (Legislators, senior officials and managers, Professionals)

Table 59: Degree of over/under-representation according to criteria of age

	A- Groups of age among Part-time full-year workers					1.1.1.1.1 B- Groups of age among Part-time Full year Low Wage Workers					B/A			
	15/31	32/49	50/65	66+		15/31	32/49	50/65	66+		15/31	32/49	50/65	66+
Germany	11.80	62.60	25.20	0.4		11.37	66.27	21.96	0.4		1.0	1.1	0.9	1.0
Spain	34.8	50.6	14.6			41.12	44.86	14.02			1.2	0.9	1.0	
UK	13.39	53.15	33.46			13.07	51.47	35.5			1.0	1.0	1.1	
Denmark	11.41	52.72	33.70	2.2		14.04	40.35	40.3	5.2		1.2	0.8	1.2	2.4

Source: own elaboration with data of European Household panel (1997)

Table 60: Degree of over/under-representation according to criteria of sector of activity

	Agric	Indu	Service		Agric	Indu	Service		Agric	Indu	Service
Germany*											
Spain	2.42	13.33	84.24		3.70	12.04	84.26		1.5	0.9	1.0
UK*											
Denmark	1.89	10.06	88.05		6.67	11.11	82.22		3.5	1.1	0.9

Source: own elaboration with data of European Household panel (1997)

*Data not available

In sum, part-time employment reproduce identically the patterns of distinctiveness that are found in low wage employment in general, that is the over-representation of women, the young and the less educated.

II.6. Logistic Regressions of the Probability of Low-Wage among Part-time Workers

Once again I apply the logistic regression run used in the preceding sections to measure how the proposed variables affect the probability of being a part-time full-year low-wage worker.

Table 61: Logistic regression of the probability of part-time full-year low- wage workers

	Denmark	Germany	UK	Spain
Age	.9740354	.9977839	.9329871	.7668526
Age²	1.001073	1.169261	1.000775	1.0031
Gender (male ref)				
Female	1.600212***	4.484955***	2.665546***	3.681072***
Education	.4405956**	.4256481***	.5219475***	.1906505***
(Occupation)	.392941***	.5198231***	.612415***	.1675145***
Private/public	.2561087***	.4272523***	.9204623	.1293356**
Size of Firm	1.133389	Data not available	.9001389***	.7727844
Previous Spells on a Low Pay (1995/96)	17.85148***	7.770694***	9.760757***	12.96121***
Model sensitivity	78.33%	92.44%	95.58%	75.00%
Model specificity	94.59%	50.21%	59.33%	90.64%
Correctly classified (cut-off point 0.30)	87.31%	71.28%	77.93%	89.04%
Log likelihood	-148.993183	-237.22641	-288.55069	-59.734544
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.4683	0.2825	0.2770	0.5586
Goodness of Fit test				
Prob > chi2	0.1029	0.0000	0.1393	0.8170
Correlation among variables (maximum)				
N	134	477	648	228

Source: own elaboration with data of European Household panel (1997)

Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Results

Homogeneity in results is also observable when dealing with part-time workers. Most of the proposed variables affect the risk of low-wage employment among part-timers in the four countries examined. To begin with, the number of observations in Denmark (134) may be insufficient, suggesting that low wages among part-timers is not a problem in this country because of the abundance of “good” part-time work, principally in professionalised welfare state employment. This is caught in the model. All other conditions being equals the risk of low wages significantly decreases in the public sector, so that part-time workers in private firms are more likely to be affected by low wage. Similarly those part-timers in the lowest occupational scales are more likely to earn below the low wage threshold. Finally the significant effect of the variable “previous spells in low pay” indicates that the longer the period on low wages in previous years the higher the risk of being on low wage in the year in question. These results reveal that low wage employment among part-timers is a very limited problem which principally affects a specific group of workers in low skilled occupations in the private sector who have prolonged experience on a low wage. The same results apply in Germany. The three effects observed in Denmark are statistically significant in Germany, although their intensity is less. Those in low skilled occupations in the private sector with previous experiences on a low wage are more likely to be on a low wage. In both countries the impact of education is not significant, confirming once again Arai, Asplund and Barth’s hypothesis regarding the existence of typical occupations associated which are associated with a high degree of low pay, and by extension, that certain occupations are more significant than the level of education in determining the probability of being a low wage part-time worker.

The low-wage profile of the Danish and German part-time workers is also relevant to Spain. Those in low skilled occupations in the private sector with prolong experience of low pay are more likely to be on a low wage. However, there are other important factors at work in Spain. The variable age indicates that the older

the worker, the lower the risk that they are on a low wage, so that a high proportion of low-wage part-time employment is expected to be filled by young workers. This may be related to the segmented character of the Spanish labour market whose periphery is full of young workers. Additionally, the limited diffusion of part-time jobs may suggest that they are occupied principally by the youngest labour stratum, leaving the well-paid employment in the oldest workers' hands. The UK also shares some of the low-wage part-time features that are observed in other countries, namely low skilled qualifications and prolonged periods on a low wage, but there are some signs of particularities. The private or public character of the work is not statistically significant, suggesting that differences between both these do not matter.

Age is not statistically significant in any of the four countries. Given the overwhelming majority of women in part-time work, (more than 80% of the total part-time employment) the risk of low-wage employment accrues to all women, whatever their age. Young and older women might be similarly affected by the same risk of low-wage affliction.

In summary, the proposed model suggests strong similarities between the countries examined, with little significant differences. This confirms my hypothesis that low-wage composition (who are the low-wage workers) is a quite homogeneous phenomenon, in spite of significant differences between the countries in the percentage of low-wage workers.

II.7. Self-employment

As with full-time and part-time employment, self-employment may also be classified as "good" or "bad" depending on the number self-employed whose total annual income comes above the low wage threshold (good self-employment) and the number of self-employees whose total annual income falls below the low-income threshold (bad self-employment).

Most countries show a minority of low wage self-employed which gives an initial idea as to the quality of the work carried out

by those working on their own, it tends to be “good” in all the countries examined.

Table 62: Percentages of self-employed in low-income

	Self-employees in low wage
	Low Income “month by months”
Denmark	20.99
Germany	21.60
Spain	30.36
UK	32.21

Source: own elaboration with data of European Household panel (1997)

II.8. Who are the Low Annual Income Self-employed ?

The gender distribution of low-income employment among the full-year self-employed confirms that low incomes are consistently more likely to accrue to female employment than male employment. As with low-wage workers in general, both full-time and part-time workers, women are systematically over-represented among the low-income self-employed. The over-representation of low-paid employment is higher among the female self-employed than among female part-time workers and approaches similar figures to those found among female full-time workers.

The opposite is the case with men: as with full-time and part-time workers, the low-income self-employed are systematically under-represented among men, and this pattern is found in all the countries studied. I do not find that the degree of under-representation differs much between the four categories of male workers considered: low-wage workers in general, full-time, part-time workers and the self-employed.

As regards education, a strong cross-country commonality is apparent if one compares the relative distribution of low-income self-employment to the same distribution among the groups of full-time and part-time workers previously examined. All the

countries in the study seem to differ in a similar fashion to the move from the former table to the latter. The distribution of low-income self-employment among educational levels shows a steady, regular decrease as one moves from the lower to the higher educational level. Yet, for each country, over-representation at educational level 1 is less than it is for low-wage self-employment at the same educational level; conversely, the under-representation at educational level 3 is also systematically less; in other words, the closer it is to parity in the opposite direction. Summing up, the representation of low-income self-employment in each country seems to decrease much more slowly as one moves from lower to higher educational levels than is the case for the non-self-employed.

The low-income self-employed differ quite markedly from both low-wage full-time and low-wage part-time workers, as is clear from the distribution among the occupational categories. The distribution of the latter among these categories was in accordance with their distribution among educational levels, so that over-representation in the low-skilled categories turn systematically into under-representation as one moves to categories corresponding to high-skilled occupations (see results above). In the case of full-year self-employed, it is more difficult to ascertain such a trend and the figures from the UK, and in particular Denmark, question this trend. There are certainly countries, like Spain, where one can still perceive a decrease in the B/A rate as one moves to high-skilled occupations, but even here the trend is not particularly clear.

As regards age, the U-shape that is detected in the relative distribution of low-income self-employment among age cohorts is even less pronounced than in the case of low-wage part-time employment. It seems that the low wage self-employees are almost evenly distributed along the age scale.

Table 63: Degree of over/under-representation according to criteria of gender and levels of education

Full-Year Self-Employed																	
	Wages		Gender						Education								
	High Paid	Low Paid	Male-female self-employed (%)		Male-female Low Income Self-employed		B/A		A Levels of education among Self-employed			B Levels of education among Low –Income Self-employed			B/A		
			Male	Fem	Male	Fem	M	F	1	2	3	1	2	3	1	2	3
Denmark	79.01	20.99	79.01	20.99	70.59	29.41	0.9	1.4	24.2	36.7	39.1	30.3	42.4	27.3	1.3	1.2	0.7
Germany	78.40	21.60	70.99	29.01	51.43	48.57	0.7	1.7	8.1	49	42.9	12.5	55.8	31.7	1.5	1.1	0.7
Spain	69.64	30.36	78.81	21.19	65.10	34.90	0.8	1.6	65.6	16.8	17.6	67.1	19.6	13.3	1.0	1.2	0.8
UK	67.79	32.21	75.93	24.07	60.44	39.56	0.8	1.6	33	15.2	51.8	40.9	10.8	48.3	1.2	0.7	0.9

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Recognised third level education (ISCED 5-7)

Table 64: Degree of over/under-representation according to criteria of occupation

Full-Year Self-Employed by Occupation															
	A- Levels occupation among Self-employed					B- Levels occupation among Low-income Self-employed					B/A				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Germany	1.68	14.11	25.68	17.05	41.47	2.97	15.84	29.70	15.84	35.64	1.8	1.1	1.2	0.9	0.9
UK	6.21	8.87	29.08	9.22	46.63	5.49	11.54	26.37	10.44	46.15	0.9	1.3	0.9	1.1	1.0
Denmark	2.63	10.53	18.42	13.16	55.26	0.00	0.00	28.57	14.29	57.14	0.0	0.0	1.6	1.1	1.0
Spain	3.10	21.19	18.10	4.40	53.21	4.31	23.53	20.00	2.75	49.41	1.4	1.1	1.1	0.6	0.9

Source: own elaboration with data of European Household panel (1997)

Occupation: 1= Elementary occupations, 2= Semi-skilled occupations (Skilled agricultural and fishery. Plant and machine operators and assemblers), 3= Skilled occupations (Clerks, Services workers and shop and market sales workers. Craft and related trades workers), 4= Semi-high-skilled occupations (Technicians and associate professional), 5= High skilled occupations (Legislators, senior officials and managers, Professionals)

Table 65: Degree of over/under-representation according to criteria of age

	A- Groups of age among Self-employed					B- Groups of age among Low Wage Self-employed					B/A			
	15/31	32/49	50/65	66+		15/31	32/49	50/65	66+		15/31	32/49	50/65	66+
Germany	10.49	62.55	23.66	3.3		11.43	60.00	23.81	4.76		1.1	1.0	1.0	1.4
Spain	15.4	51.2	33.4			22.40	44.40	33.20			1.5	0.9	1.0	
UK	12.50	51.31	36.19			10.84	45.78	43.37			0.9	0.9	1.2	
Denmark	5.56	53.70	35.19	5.6		2.94	55.88	32.35	8.8		0.5	1.0	0.9	1.6

Source: own elaboration with data of European Household panel (1997)

Table 66 : Degree of over/under-representation according to criteria of sector of activity

	Agric	Indu	Service		Agric	Indu	Service		Agric	Indu	Service
Germany*											
Spain	23.45	19.64	56.90		29.41	13.73	56.86		1.3	0.7	1.0
UK*											
Denmark	28.29	23.68	48.03		35.48	16.13	48.39		1.3	0.7	1.0

Source: own elaboration with data of European Household panel (1997)

*Data not available

Finally, as regards the sectors of work, there seems to be some degree of over-representation in the Agricultural sector, which is almost the same as is observed among part-time workers. Industry tends to have an under-representation of low-income self-employed. Parity seems to be more the case with the service sector, where the low-income self-employed are under-represented.

II.9. Logistic Regressions of the Probability of Low-Wages among Self-employed.

Now that I have examined who are the main groups which make up the low wage self-employed the next step is to measure the effects of the proposed variables on the probability of being low-income self-employed. Some variables are excluded because self-employment constitutes a particular labour relation which depends on the autonomy of those working on their own. In fact the description “low-income self-employed” is not strictly correct because the self-employed do not earn wages. Job status, the size of firm, its private versus public character are variables that affect the non-self-employed whose status is conditioned upon their dependency on a firm. This is not the case for the self-employed whose main labour characteristic is their autonomy. I therefore have excluded these variables from the model.

The methodology is to run logistic regressions of the probability (odds ratio) of a full- year self-employed person being in the low annual income category in 1997. Since self-employment constitutes a particular labour relation defined by the autonomy of those working on their own, there is no point in applying the proposed model in a logistic regression because some of the variables (Size of the firm, job status, the private versus public character of the firm) do not affect the self-employed.

Table 67: Logistic regression of the probability of low-income self-employment

	Denmark	Germany	UK	Spain
Age Age²		1.022813*** .9996712***	.8624216*** 1.001876***	.9196542*** 1.000771***
Gender (male ref) Female		2.32362***	2.928763***	2.593757***
Education		.5193128***	.8502051***	.8526323***
Previous Spells on Low Pay (1995/96)		7.61515***	16.59269**	3.451417***
Model sensitivity		55.79%	67.05%	80.44%
Model specificity		88.47%	84.07%	56.47%
Correctly classified (cutoff point 0.30)		81.45%	78.52%	66.99%
Log likelihood		-176.97296	-244.2332	-484.60457
Prob > chi2		0.0000	0.0000	0.0000
Pseudo R2		0.2306	0.2835	0.1454
Goodness of Fit test				
Prob > chi2		0.0847	0.1314	0.1519
Correlation among variables (maximum)				
N	38	442	540	827

Source: own elaboration with data of European Household panel (1997)

Results

All the proposed variables affect the risk of low-income among self-employees, although the lack of sufficient cases in Denmark prevents an accurate comparison. Age, gender, education and previous spells at a low-income are statistically significant in the UK, Germany and Spain, affecting to a similar extent the risk of low-income among the self-employed. “Ceteris paribus” the odds of receiving low-income are greater for women (coded 1) than for men (coded 0). The intensity of this effect on the probability of a low-income is certainly strong in the three countries observed which all shared similar odds ratio.

The linear effect of age is statistically significant in Germany, the UK and Spain. The same applies for age², suggesting a very slight effect at the extreme ends of the curve (the youngest and the oldest). The intensity of the age² effect is mild. The older self-employed are less likely to fall below the low-income threshold than the younger self-employed, as the variable age suggests. Additional units in age reduce the risk of low-income. Something

similar applies to education. The higher the level of education the lower the risk of low-income among the self-employed. Once again previous spells of low-income (1995-1996) affect the risk of low-income in 1997, especially in the UK (odd ratio 16,59) and to a lesser extent in Germany (7.61).

What is important to note here is that the effect of the proposed variables affects similarly the risk of low income among the self-employed. There are no significant differences among the employment categories (full-time full-year, part-time and self-employment) observed in this study. The proposed model affects similarly the risk of low income.

II.10. Temporary Workers

An analysis on the quality of temporary employment is not relevant because the range of workers who combine employment with periods of unemployment is very heterogeneous. According to the definition of temporary workers used in this research (those combining periods of employment and unemployment through the year, it is reasonable to infer that some very well paid workers who became unemployed at some point during 1997 are classified as low-wage temporary workers because their total net wage did not surpass the low-pay threshold. Although the economic quality of their employment was “good”, the fact that they became unemployed makes them a low wage.

The fact that most temporary workers are in the low-wage category is not surprising because the combination of spells of employment with spells of unemployment prevent the majority of workers from rising above the low annual wage threshold. Those who were in good jobs during, for example, three months (January, February and March 1997) who then became unemployed are likely to fall into this category. However there is no reason to state that the quality of their employment was bad. This groups of temporary workers therefore constitute an enigmatic population made up of highly risky groups of unskilled

workers who are in temporary employment, but also of high-skilled workers who combine unemployment and underemployment.

Table 68: Percentage of temporary workers in low wage.

	Low wage Temporary workers
Denmark	51.48
Germany	62.36
UK	66.42
Spain	77.82

Source: own elaboration with data of European Household panel (1997)

II.11. Who are the Low-Wage Temporary Workers?

As in previous chapters I analyse who the low-wage temporary workers are, or more precisely, I seek to find out which groups are over or under-represented in this category.

The table below shows the percentage of employed male and female (column 1) and the percentage of male and female low-wage temporary workers (column 2). Column 3 measures the over or under-representation of these groups with respect to the total male and female employed population. The same applies for other categories such as education, occupation, age and sector of activity. Values above 1 in column 3 indicate over-representation whereas values below 1 denote under-representation.

As with other labour categories above, female over-representation is also apparent among low-wage temporary workers, although over-representation is only very slight in Spain. However, the degree of over-representation of low-wage temporary workers is less pronounced than in the case of female low wage full-time workers in line with the degree of over-representation showed by female part-time workers. As to the education, once again one finds similar tendencies, with the lowest educational categories showing over-representation, the highest one showing under-representation and the intermediate level of education showing both over and under-representation depending on the country (Denmark displays over-representation and Spain, Germany and the UK shows under-representation). The clarity of

this patterns of over/under-representation is less than that found when examining other groups.

The table displays results on the over/under-representation of occupational scales and suggests similarities with the results concerning occupation detailed above. However there are also important dissimilarities. As usual the lowest occupational categories show over-representation and the highest under-representation. However, category 3 (Skilled occupations (Clerks, Services workers and shop and market sales workers. Craft and related trades workers) reveal a across the board over-representation, instead of the usual mixed picture.

Something similar applies for age. Although the general tendency is for an appreciable over-representation among the youngest and oldest segments, there is no over-representation among the youngest population in Germany. Another important specificity is the slight under-representation observed among the intermediate category.

The distribution of low-paid temporary workers across sectors is more heterogeneous, with pronounced over-representation in the agricultural sector in Spain and Denmark, A mixed picture emerges from the results in the industrial and service sector, with no clear patterns of over/under-representation. In the industrial sector the four countries studied display under-representation, whereas the service sector shows over-representation.

Table 69: Degree of over/under-representation according to criteria of gender and level of education

Temporary Low Annual Wage Workers																			
	Wages			Gender							Education								
	High Paid	Low Paid		Male-female Temporary workers		Male-female Temporary Low Wages		B/A			Levels of education among Temporary workers			Levels of education among Temporary Low Wages workers			B/A		
				Male	Fem	Male	Fem	M	F		1	2	3	1	2	3	1	2	3
Denmark	48.52	51.48		53.59	46.41	36.07	63.93	0.7	1.4		32.8	44	23.3	37.6	40.2	22.2	1.1	0.9	1.0
Germany	37.64	62.36		60.36	39.64	48.98	51.02	0.8	1.3		18.2	67.4	14.4	20.6	67.7	11.7	1.1	1.0	0.8
UK	33.58	66.42		64.55	35.45	57.30	42.70	0.9	1.2		42.6	18.6	38.8	49.4	19.8	30.8	1.2	1.1	0.8
Spain	22.18	77.82		55.27	44.73	58.73	41.27	1.1	0.9		65.5	18.5	15.9	67.6	19.6	12.8	1.0	1.1	0.8

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Recognised third level education (ISCED 5-7)

Table 70: Degree of over/under-representation according to criteria of occupation

Temporary Low Annual Wage Workers by Occupation																	
	A. Occupation among Temporary Workers						B- Occupation among Temporary Low Annual Wage Workers						B/A				
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5
Denmark	17.96	15.57	43.11	13.77	9.58		21.05	10.53	46.05	13.16	9.21		1.2	0.7	1.1	1.0	1.0
Germany	17.61	18.94	45.51	10.63	7.31		22.16	14.20	45.45	10.80	7.39		1.3	0.7	1.0	1.0	1.0
Spain	29.89	12.15	43.19	5.91	8.87		36.57	10.88	41.67	5.32	5.56		1.2	0.9	1.0	0.9	0.6
UK	11.90	10.95	49.05	13.33	14.76		13.53	12.03	51.88	11.28	11.28		1.1	1.1	1.1	0.8	0.8

Source: own elaboration with data of European Household panel (1997)

Occupation: 1= Elementary occupations, 2= Semi-skilled occupations (Skilled agricultural and fishery. Plan and machine operators and assemblers), 3= Skilled occupations (Clerks, Services workers and shop and market sales workers. Craft and related trades workers), 4= Semi- high- skilled occupations (Technicians and associate professional), 5= High skilled occupations (Legislators, senior officials and managers, Professionals)

Table 71: Degree of over/under-representation according to criteria of age

	A- Groups of age among Temporary workers					1.1.1.1.2 B- Groups of age among Low Annual Wage Temporary Workers					B/A			
	15/31	32/49	50/65	66+		15/31	32/49	50/65	66+		15/31	32/49	50/65	66+
Germany	30.55	46.73	22.55	0.18		30.32	46.36	23.03	0.29		0.99	0.99	1.02	1.61
Spain	53.5	35.7	10.8			54.65	34.45	10.90			1.02	0.97	1.01	
UK	50.37	34.70	14.93			53.37	31.46	15.17			1.06	0.91	1.02	
Denmark	41.35	45.57	13.08			44.26	39.34	16.39			1.07	0.86	1.25	

Source: own elaboration with data of European Household panel (1997)

Table 72: Degree of over/under-representation according to criteria of sector of activity

	Sector of activity				Sector of activity						
	Agric	Indu	Service		Agric	Indu	Service		Agric	Indu	Service
Germany*											
Spain	8.36	41.64	50.00		9.93	38.57	51.50		1.19	0.93	1.03
UK*											
Denmark	6.19	24.74	69.07		8.33	12.50	79.17		1.35	0.51	1.15

Source: own elaboration with data of European Household panel (1997)

II.12. Multinomial Logistic Regression of the Probability of Low-Wage among Temporary Workers

In this section I set out to measure how several variables affect the probability of being a low-wage temporary worker. The methodology used is a multinomial logistic regression². Firstly, of the probability of holding a low wage job for the entire year $P(Y=3/X)$. Secondly, a regression of the probability of combining low-wage with unemployment ($P(Y=2/X)$). Thirdly of the probability of not being on a low wage in 1997 ($P(Y=1/X)$).

This model defines three categories of low wage experiences related to the year in question. In the multinomial logistic regression a set of coefficients corresponding to each outcome category are estimated as followed: (it is important to note that the values of Y are not ordered, that is, 1 does not imply that outcome 1 is less than outcome 2, which in turn is less than outcome 3. As Sloane and Theodossiou (1996: 662) assert, the above model is unidentified since there is more than one solution to $\beta_1, \beta_2, \beta_3$ that leads to the same probabilities for $Y=1, Y=2$ and $Y=3$. Hence one of the β must be arbitrarily set to zero (in this case β_3 may be used as the case of reference because it constitutes our optimal scenario) in which case coefficients β_1, β_2 would measure a relative change with respect to β_3 , so that (see further in Hosmer and Leweshow 1989; Bohrnstedt and Knoke 1994).

The idea behind this analysis is to identify the various types of workers who are affected by the proposed labour categories of

² The way in which I examine low-wage employment justifies the use of a multinomial, instead of logistic regression, for calculating the effect of certain variables on the probability of low-wage temporary employment. In view of the fact that the period of analysis is one year (1997), the differentiation of those workers holding permanent employment from those workers holding temporary jobs for the whole year, would be impossible. Since the combination of periods of employment together with periods of unemployment is the most distinctive feature of temporary employment, the use of multinomial analysis allows me to set up an intermediate category of those low-wage temporary workers who combine employment and unemployment during the year in question. The idea here is to explore the effect of the proposed variables on the probability of being affected by low-wage and unemployment, -a category that is highly embedded in the concept of temporary employment that I try to examine. In my view the use of multinomial regression is the best way to examine low-wage temporary workers.

“low wage and unemployed” (never at a low wage in 1997, combining low wage and unemployment in 1997 and always at a low wage in 1997), rather than explain the determinant of each category. I seek to find out the variables that affect the double risk of “always at a low wage” and “combining low wage and unemployment. This clarification is crucial to correctly interpreting the variable’s parameters. The coefficients in the first column indicate that the effects of each predictor on combining low wage employment and unemployment, relative to not being a non low wage worker. The coefficients in the second column indicate the effects of each predictor on being a low-wage worker during the whole year in 1997 relative to not being a low-wage workers in 1997.

These dependent variables have been modelled as a function of a concrete number of predictors or independent variables. Although the literature on low pay does not specifically examine temporary workers, it might provide important insights into low – wage workers in general. Since a detailed analysis has been carried out in the introduction above, suffice is to say here that the three blocks of independent variables used in the analyses above (low-wage employment in general, low wage among full-time and part-time workers) are inspected to determine the most important features embedded in the risk of being a low-wage worker in 1997 or of combining low wages and unemployment in 1997: individual characteristics (gender, age, education), firm characteristics (size, sector of activity, private-public character) and previous experiences of low pay. To repeat, the literature contends that, on average, women, the youngest labour stratum, those with low educational attainments, and workers in small firms in the private sector are at a higher risk of low annual wage affliction. Similarly, previous spells at low annual wages are likely to increase the probability of low wages. The multinomial logistic will therefore

Table 73: Multinomial logistic regression on the probability of temporary low- wage workers

	Denmark					Germany					UK			
	1 LWE & Unem		2 LWE			1 LWE & Unem		2 LWE			1 LWE & Unem		2 LWE	
	Odds ratio	SE	Odds ratio	SE		Odds ratio	SE	Odds ratio	SE		Odds ratio	SE	Odds ratio	SE
(Education)	-.2619195	.262	-.3457985	.284		-.7354***	.1561	-.3770***	.1314		-.3570***	.1175	-.6069***	.0857
Occupation	-.3946**	.173	-.2272032	.254		-.5484***	.0803	-.3601***	.0688		-.4727***	.0930	-.5962***	.0698
Age	-.0959293	.145	-.5956***	.1202		.0084468	.067	-.0744513	.055		-.2779***	.0530	-.2593***	.0393
Age2	.0007957	.0018	.0066***	.0014		-.0001537	.0008	.00094	.0006		.0032***	.0006	.0031***	.0004
Gender	.018843	.418	.902*	.4068		.8893***	.1751	2.023***	.1627		.5210*	.2195	1.926***	.1712
Size of firm	-.1066307	.119	-.1200596	.125		Not availab		Not availa			-.1518***	.0515	-.2227***	.0372
Private / Public firm	-1.395***	.4331	-.8218249	.553		-.2940593	.218	-1.186***	.2120		-.3298324	.297	-.6784***	.2048
Sector (agr=re)														
Industry	-1.857**	.7859	-2.379***	.7118		Not available		Not available			.2515665	.251	-	-
Service	-1.169	.7081	-1.227*	.5936									.47190**	.1885
Previous Spells at low pay (1995/96)	2.216***	.3255	1.451***	.3599		2.026***	.1668	1.676***	.1649		3.169***	.2210	2.070***	.2176
Log likelihood	-240.83311					1332.126					1054.7179			
Interactions	5					5					5			
Chi squared	189.29					497.59					676.59			
Number of observation (N)	1306					4803					3373			

Source: own elaboration with data of European Household panel (1997)
Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

be modelled as a function of the these explanatory variables: age, gender, education, occupation, job status, size of firm, the private versus public character of the firm, sector of activity, previous spells at low pay.

	SPAIN			
	1 LWE & Unem		2 LWE	
	Odds ratio	SE	Odds ratio	SE
Education	-.0993144	.109	-.5294223**	.14999
Occupation	-.19746**	.0736	-.3481264**	.0892
Age	-.0914768	.0531	-.3524801***	.05561
Age2	.0005797	.0006	.004132***	.00069
Gender	.3014714	.1836	1.257314***	.2196
Size of firm	-.1028*	.0538	-.199823***	.0720
Private / Public firm	-.3365928	.2752	-.4748475	.3562
Sector (service=re)	.922**	.373	1.030742**	.40383
Agriculture Industry	.7167***	.185	-.0230197	.2425
Previous Spells in low pay (1995/96)	2.637***	.1454	3.227106***	.18433
Log likelihood	-938.78563			
Interactions	6			
Chi squared	1206.85			
Number of observation	3519			

Source: own elaboration with data of European Household panel (1997)

Significant: ***= P≤0.01, **= P≤0.05, *= P≤0.10.

Results:

Same sign coefficients should be interpreted as follows: the “previous spell of low pay ” parameters in Denmark (2.216 – 1.451) mean that, all other conditions being equal, the longer the period in low wage in 1996-97, the higher the risk of combining low wages and unemployment in 1997 (column 1) and also of being low wage in the year 1997 (column 2) relative to not being a low wage worker in 1997; or alternatively that the probability of

not falling into the low wage category during 1997 is higher for those who were in the non-low wage category previously.

The negative signs appreciable in “education” parameters in Germany (1 for supervisory, 2 for intermediate, 3 for the not category) (-.7354; -.3770) indicate that “Ceteris Paribus” the higher the level of education attained, the lower the probability of combining low wage and unemployment (column 1) and the lower the probability of being a low wage worker for the whole year in 1997, relative to not being a low-wage worker during 1997. Alternatively, these results can be interpreted to mean that the higher the level of education the higher the probability of being a non low wage worker. When moving from value 0 (Less than second stage of secondary education) to value 1 (Second stage of secondary level education) or from value 1 to value 2 (Recognised third level education) the odds of falling into unemployment and low wages or low wage for the whole year increase.

With these premises in mind the multinomial logistic results indicate that those workers with the highest level of education, at the high end of occupational scales, in big firms in the public sector and with no previous experience of low-wages are less likely to fall into low-wage category and/or combine low-wage and unemployment. Previous periods of low pay (1995-1996) strongly explain current low wage situations in 1997 and mean that there is a higher risk of combining employment and unemployment during this current year. This is the statistically significant variable that uniquely affects the odds in all countries examined. This variable suggests that low-wage workers have higher probabilities than non low-wage workers of remaining in low-wage or combining unemployment and low-pay employment.

The negative figure found in the variable education in all cases examined indicates that the higher the level of education attained the lower the risk of falling into the low-wage category during the whole year or of combining low-wage employment with unemployment during the year (education is only statistically significant in Denmark and Spain for the category combining low wages and unemployment). Something similar applies to the occupation variable. The risk of low-wage employment and the combination of low wage and unemployment is higher for those at the low end of the occupational scale.

The variable age also indicate that as one grows older the risk of both low-wage and the combination of low-wages and unemployment reduces. Female workers are also more likely to be affected by the low-wage and unemployment combination, suggesting that precariousness (in the sense of a high risk of combining unemployment with low wage) principally affects women (although it must be noted that the effect is not statistically significant in Denmark and Spain).

The “Size of firm” and the private versus public character of the firm also affect the risk of both low wages and the combination of low wage and unemployment. “*Ceteris Paribus*” the larger the firm the lower the risk of both low wages and unemployment. The same applies to public firms.

It follows from all this that, as is the case, with many of the results above, the risk of low-wages and unemployment is determined by the same variables that affect the risk of low wage for full-time and part-time workers. The prototypical worker suffering from low wages and unemployment tends to be a young woman, who is poorly educated, at the low end of the occupational scale in a small firm in the private sectors and with previous spells at a low wage. More precisely, women, the youngest stratum of the work force, those working in small firms, those with the lowest level of education working in the private sector, at the low end of the occupation scale and those with previous experience of low wages are at a higher risk of precariousness (in the sense of combined low wages and unemployment).

II.13. The Overlap between Low Wages and Household Poverty among Full-time, Full-year Workers

I display figures of low-wage workers living in poor households (yes-yes), low-wage workers living in non-poor households (yes-no) for full-time, full-year workers. Once again, it should be noted that I focus on households with at least one earner, that is, with at least one source of wages.

Table 74: Percentages of low-wage workers in permanent full-time employment. Percentages of low-wage workers in full-time employment living in poor households.

	<i>Percentages of full-time Low wage workers</i>	<i>% of full-time workers on a low wage living in poor households</i>
Denmark	2.99	3.5
Germany	5.03	16
Spain	5.56	10.7
UK	7.54	8.2

Source: own elaboration with data of European Household panel (1997)

The risks of household poverty among full-time full-year workers are insignificant. Not only is the number of full-time low-wage workers very low, but also most of them live in non-poor households. Denmark combines the lowest incidence of low wages with the highest capacity for household protection against poverty. Only 3,5 out of 100 low wage full-time workers live in poor households. Germany combines a low incidence of low wages with the lowest capacity for household protection against poverty (16% live in poor households). Spain combines a low incidence of low wages with a higher capacity for household protection than Germany, while the UK combines the highest incidence of low wages with a high capacity for household protection that is second only to Denmark.

When applying these results to the entire full-time, full-year population I find the following combinations:

Table 75: Percentages of low-wage workers in full-time employment living in poor households (yes-yes) with respect to the total employed population in full-time. Percentages of low-wage workers in full-time employment living in non-poor households (yes-no) with respect to the total employed population in full-time. Percentages of non-low-wage workers in full-time employment living in poor households (no-yes) with respect to the total employed population in full-time. Percentages of non low-wage workers in full-time employment living in non poor households (no-no)with respect to he total employed population in full-time.

Denmark <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,1 2,8 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,4 96,6	Germany <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,8 4,2 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,7 94,3	UK <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,6 6,7 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1 91,5
	Spain <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,6 5 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,7 92,7	

Source: own elaboration with data of European Household panel (1997).

At first sight, the results are straightforward, supporting the link between a low risk of poverty and households with full-time, full-year workers: the percentages of full-time low-wage workers living in poor households is really insignificant, none of the countries examined show figures above 1%. Additionally, most low-wage workers live in non-poor households. These statistics reinforce the results above, regarding the strong connection between full-time employment and poverty alleviation.

Cross-national differences are however significant. Once again the “British particularity”, namely the high percentages of low-wage workers living in non-poor households (yes-no), is apparent among full-time workers. This particularity is the result of multi-earning diffusion, which is prevalent in the UK. The strong deregulation and flexible character of employment in the UK have resulted in massive labour incorporations that reinforced the household’s capacity for low wage protection (91,8% of the low wage full-timer live in non-poor households). Market-oriented family policies have facilitated this compatibility through subsidies to child care services under the principle of self-responsibility.

Denmark represents the opposite case-scenario. Its strategy of combining multi-earning diffusion with strong welfare state support has proven successful, making it the country with the lowest incidence of low wages and the highest household capacity for sheltering low-wage full-time workers. Germany and Spain share similar results to each other in various ways. They have a similar percentage of full-time low-wage workers (5.03% in Germany and 5,56% in Spain), and also share roughly equal levels of “yes-yes” and “yes-no”. These similarities may be the result of both countries’ protection of insiders, in particular full-time workers.

II.14. Number of earners in households containing full-time low-wage workers.

In this section I measure the over or under-representation in the number of earners in households with full-time full-year low-wage workers. I have selected single, dual and multi-earner models. Column 2 displays the number of household earners with respect to the total number of households. Column 3 focuses on the number of earners as well, but in this instance it focuses exclusively on households with at least one full-timer. Column 4 seeks to measure over/under representation, as in the preceding chapter.

B/A rates of single earners show over-representation in Spain (1,05) and Germany (1,07), both being countries where single earner households are still abundant: 32,7% in Spain and 24,8% in Germany. By contrast, under-representation is observable in the UK and Denmark. Yet the results are very close to 1 (B/A) in both single and multi-earner households, suggesting a reasonable uniformed distribution.

Regarding the number of earners in “yes-yes” and “no-yes” models, the household structure of full-time workers is also quite homogeneous. As with low-wage workers in general, the categories “yes-yes” and “yes-no” show significant similarities. The over-representation of the single earner model is widely spread among low-wage full-time workers living in poor households (yes-yes) in Spain and Germany, which each have regulated labour markets in which the protection for “insiders” is apparent and the incidence of single earner households high. By contrast single earners are under-represented in the UK and Denmark, which have flexible labour markets and numerous multi-earner households.

Table 76: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with full-time low wage workers.

	A- Number of earners per Household (total)				B- Number of Earners in Households with Full-time low wage workers				Degree of over/under-Representation B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14,02	86	66.22	19,76	13.42	86.6	68.8	17,8	0,96	1,01	1,04	0,90
UK	21,31	78,7	54.58	24,11	19.48	80.5	56.5	24	0,91	1,02	1,04	1,00
Germany	24,84	75,16	53,18	21,98	26,5	73,4	53,1	20,3	1,0 7	0,98	1,00	0,92
Spain	32,76	67,26	46.26	21	34.49	63.2	48.3	14.9	1,05	0,94	1,04	0,71

Source: own elaboration with data of European Household panel (1997)

Table 77: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with full-time low-wage workers. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with full-time low-wage workers.

	Number of Earners in Households containing fulltime low wage workers					
	One Earner		Two Earners		Three or more earners	
Spain	(34.49)		(48.26)		(14.88)	
(total)	39.69	1.15	49.21	1.02	11.1	0.75
Yes-Yes	10.43	0.30	47.83	0.99	41.74	2.81
Yes-No						
UK	(19.48)		(56.60)		(24.01)	
Yes-Yes	11.54	0.59	69.23	1.22	19.23	0.80
Yes-No	13.2	0.68	43.65	0.77	43.15	1.80
Denmark	(13.42)		(68.78)		(17.8)	
Yes-Yes	-		100	1.45	-	
Yes-No	11.11	0.83	77.78	1.13	11.11	0.62
Germany	(26.5)		(53.1)		(20.3)	
Yes-Yes	31.48	1.19	53.70	1.01	14.82	0.73
Yes-No	12.21	0.46	62.79	1.18	25	1.23

Source: own elaboration with data of European Household panel (1997)

This evidence might indicate that poverty among full-time low-wage workers is highly correlated with a lack of additional household earners - in Germany and Spain - or to various sources of low-wage employment and/or to insufficient welfare benefits - in the UK and Denmark. These facts, on the one hand, point towards a strong relationship between the “rigid versus flexible” character of the labour market and the “meanness versus generousness” of the welfare state, and, on the other hand, to the overlap between full-time low-wage work and poverty. The strategy of expanding the number of multi-earner households achieved through a flexible labour market means that the UK shows comparatively high rates of low wages among its full-time workers, with moderate rates of household poverty, and a very high incidence of the “yes-no” model. This strategy of multi-earning expansion, along with generous social benefits, has resulted in a very low percentage of low wages among full-timers, very low rates of household poverty and a very high capacity for household protection.

II.15. The Overlap between Low Wages and Household Poverty among Part-time Workers

In the section I present the percentage of low-wage part-timer workers living in poor households (yes-yes), and the percentages of low wage part-time workers living in non poor households (yes-no).

Table 78: Percentages of low-wage workers in part-time employment. Percentages of low-wage workers in part-time employment living in poor households

	Percentages of Part-time Low wage workers	% of Part-time workers on a low wage living in poor households
Denmark	30.98	1.6
Germany	51.00	7.1
Spain	65.45	12.1
UK	74.13	10.3

Source: own elaboration with data of European Household panel (1997)

Although most part-time workers are on low pay in the UK, Spain and Germany, the risk of household poverty is low. The probability of combining low wages with household poverty is comparatively high amongst part-time workers in Spain and the UK (both countries tend towards part-time work of the “bad” type). The same figures are moderate in Germany (which has more “good” part-time than the UK and Spain) and are insignificant in Denmark (also a with high rates of “good” part-time work). Less than 2% of Danish part-time workers live in poor households, as opposed to the 12,1% in Spain and the 10,3% in the UK. The upshot of this is that Denmark combines the lowest rate of low wages amongst part-time workers with greatest capacity for household protection. Germany combines a moderate rate of low wages and a high capacity for household protection. Spain combines high rates of low wages with the lowest capacity for household protection. Meanwhile the UK combines the highest rates of low wages with a lower capacity for household protection than either Denmark or Germany .

When applying these results to the entire part-time working population the following combinations were found:

Table 79: Percentages of low-wage workers in part-time employment living in poor households (yes-yes) with respect to the total part-time population. Percentages of low-wage workers in part-time employment living in non-poor households (yes-no) with respect to the total part-time population. Percentages of non-low-wage workers in part-time employment living in poor households (no-yes) with respect to the total part-time population. Percentages of non low-wage workers in part-time employment living in non poor households (no-no)with respect to the total part-time population.

Denmark <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,5 30,4 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> - 69,1	Germany <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 3,6 47,4 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,8 48,2	UK <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 7,7 66,5 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,4 25,5
	Spain <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 7,9 57,6 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,6 33,9	

Source: own elaboration with data of European Household panel (1997)

Differences become apparent when this table is compared with the similar one constructed for full-time workers. Even though the risk of household poverty among part-time workers is low, it is still higher than that among full-timers. The percentage of low-wage part-time workers living in poor households (yes-yes) is higher than amongst full-time workers and the percentage of low-wage part-time workers who live in non-poor households, (yes-no) is much higher. This last result indicates that most part-time workers live in non-poor households. These findings support the results above, which suggest that part-time workers tend to be secondary earners in households with primary earners or additional benefits.

Once again the “British particularity” is apparent. The UK has the highest percentage of low-wage workers living in non-poor households (yes-no) which reinforces the idea of a relationship between a high percentage of “yes-no” and the UK’s strategy of multi-earning diffusion. Although the UK’s capacity for household protection (89,7%) is lower than that showed by Denmark (98,4%) and Germany (92,9%), the volume of people in category of “yes-no” is the highest.

Denmark represents the opposite case validating its strategy of multi-earning diffusion and strong welfare support. The “Danish particularity” is once again reinforced with the lowest percentage of “yes-yes” and the highest capacity for households to shelter low-wage part-time workers (yes-no).

II.16. Household Economic Structure

In this section, as in previous chapters, I measure the over or under representation of different economic household structures (single, dual and multi-earner household). Column 2 shows the number of earners per household (total number of households). Column 3 focuses exclusively on households with at least one part-time low-wage worker. Column 4 seeks to measure over/under-representation.

Table 80: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with full-time low wage workers.

	A- Number of earners per Household (total)				B- Number of Earners in Households with low wage part-timers				B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14.02	86	66.22	19.76	15.82	84.2	63.9	20.3	1.13	0.98	0.96	1.03
UK	21.31	78.7	54.58	24.11	15.85	84.2	65.3	18.9	0.74	1.07	1.20	0.78
Germany	24.84	75.16	53.18	21.98	14.14	85.8	63.7	22.1	0.57	1.14	1.20	1.01
Spain	32.76	67.26	46.26	21	19.08	80.9	59.2	21.7	0.58	1.20	1.28	1.03

Source: own elaboration with data of European Household panel (1997)

Although a huge majority of households containing low wage part-time workers are made up of various earners (84,2% in Denmark; 84,2% in the UK; 85,8% in Germany and 80,9% in Spain), the over-representation of single earners occurs in Denmark, while under-representation occurs in the other three countries. This is due to the abundance of single earner households in Denmark (one person without dependents or single parents). The fact that there is only a single earner on a low wage does not automatically mean that a household is poor. The Danish welfare state plays a vital role in alleviating situations of low wage (see above). In order to verify this possibility the next table shows the percentages of single and dual-earners in households of the “yes-yes” and “yes-no” type.

Table 81: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with full-time low-wage workers. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with full-time low-wage workers.

	Number of Earners in Households containing low wage part-time workers					
	One Earner		Two Earners		Three or more earners	
Spain (total)	(19.08)		(59.21)		(21.71)	
Yes-Yes	31.03	1,63	41.38	0,70	27.59	1,27
Yes-No	15.28	0,80	58.33	0,99	26.39	1,2
UK	(15.85)		(65.31)		(18.87)	
Yes-Yes	30.23	1,91	60.47	0,93	9.31	0,49
Yes-No	15.10	0,95	64.77	0,99	20.13	1,07
Denmark	(15.82)		(63.92)		(20.26)	
Yes-Yes	-		100	1,56	-	
Yes-No	25.00	1,58	47.73	0,75	27.28	1,35
Germany	(14.14)		(63.7)		(22,1)	
Yes-Yes	30.56	2,16	69.44	1,09	-	-
Yes-No	7.11	0,50	63.51	1,00	29,38	1,33

Source: own elaboration with data of European Household panel (1997)

Low-wage employment and household poverty among part-timers is not exclusively a problem of additional wages. In analysing the table above, it is evident that the presence of “precarious” multi-earners or the absence of social benefits can also be decisive factors in bringing about this overlap. In that sense, the pattern of over-under-representation is more homogeneous among part-time workers than it is among full-time workers. With the exception of Denmark - where the problem of

household poverty among low-wage part-time workers does not exist (yes-yes representing 0,5% of the entire part-time population) – the over-representation of single earners in the “yes-yes” model is observable in the UK, Germany and Spain. These results indicate that the lack of an additional earner is an important factor in determining whether or not a large section of low wage part-time workers live in poor households. This seems particularly true in the UK where multi-earner households are under-represented, suggesting that the problem of poverty in the “yes-yes” model is as a result of the absence of additional wages or social benefits which would otherwise push these households above the poverty line. In Spain and Germany there is an over-representation of multi-earners. They are highly likely to be workers in the unprotected segment of the labour market, therefore reinforcing the high risk of poverty among those in the periphery.

II.17. The Overlap between “Low Wage” and Household Poverty among the Self-employed.

Although the majority of “low wage” self-employed score above the low-wage threshold, the risk of household poverty among them is higher than it is among full-time and part-time workers. The insignificant probability of household poverty among those holding full-time employment and the moderate risk faced by part-time workers contrasts with the high percentages of self-employed who live in household poverty. This is true everywhere but in Germany, where the percentage is more moderate. In Denmark, Spain and the UK the household’s capacity for protection of the self-employed is very similar (around 65% of the low-wage self-employed live in non-poor households), Germany shows the highest figures (86,5%) and by extension the highest capacity for protection.

Table 82: Percentages of low-income self-employed. Percentages of low-income self-employed living in poor households.

	<i>Percentages of self-employees in low wage</i>	<i>% of self-employees in low wage living in poor households</i>
Denmark	19.2	35.9
Germany	21.40	13.5
Spain	29.1	35.1
UK	32.2	31.6

Source: own elaboration with data of European Household panel (1997)

Even though cross-national differences in the percentage of “low wage” self-employment are not particularly marked, Denmark and Germany on the one hand, and Spain and the UK on the other hand represent the two extremes. I hence conclude that similarities tend to be highest in the prevalence of “bad” self-employment and of weak low-wage alleviation by households. Germany shows the best results in this case.

When applying these findings to the entire part-time population the results confirm the patterns of similarities which are apparent from the previous table. Germany and Denmark exhibit a lower percentage of “yes-yes” than Spain and the UK. This time the German percentage is better in both sense: it points to the lowest rate of low wage self-employed living in poor households (yes-yes) and the highest capacity for household protection.

Table 83: Percentages of low-income self-employed living in poor households (yes-yes) with respect to the total self-employed population.
Percentages of low-income self-employed living in non-poor households (yes-no) with respect to the total self-employed population.
Percentages of non-low-income self-employed living in poor households (no-yes) with respect to the total self-employed population.
Percentages of non low-income self-employed living in non poor households (no-no)with respect to the total self-employed population

Denmark <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 6,9 12,3 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> - 80,8	Germany <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 2,9 18,7 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,4 78	UK <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 10,1 21,9 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,6 66,4
	Spain <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 10,2 18,9 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 3,5 67,4	

Source: own elaboration with data of European Household panel (1997)

II.18. Household Economic Structure

Column 2 shows the number of household earners in relation to the total number of households. Column 3 shows the number of earners, but focuses exclusively on households with at least one low wage self-employed member. Column 4 seeks to measure over/under representation.

Contrary to the figures for part-time workers, the pattern of over-representation among single earner households and under-representation among multi-earner households is common for the self-employed with B/A rates more consistent than those shown by low-wage workers and low-wage workers in full-time, indicating more pronounced under/over-representation effects. With the exception of Denmark, which shows under-representation in both single and multi-earners households, the other countries have an identical tendency for over-representation of single earner households and the under-representation of multi-earner households. From this one can conclude that the household structure that is predominant among low-wage self-employed is of the single earner type.

B/A rates of over-representation among single earner models are very similar. As far as the under-representation of multi-earners is concerned the rates are also quite similar, with the four countries very close to 1 (equilibrium). Once again these results provide interesting food for thought: the traditional models of single earner households (it is important to note that single member households have been excluded) are a majority among those self-employed who suffer problems of low annual wage affliction. As in the case of part-timers the absence of an additional earner constitutes a real problem for certain types of self-employed workers whose net incomes cannot place them above the low annual wage threshold.

Table 84: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with low-income self-employed.

	A- Number of earners per Household (all households)				B- Number of Earners in Households with self-employees				B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14.02	86	66.22	19.76	12.77	83.7	68.1	15.6	0.91	0.97	1.03	0.79
UK	21.31	78.7	54.58	24.11	25.69	67.9	51.4	16.5	1.21	0.86	0.94	0.68
Germany	24.84	75.16	53.18	21.98	28.50	71.5	56.1	15.4	1.15	0.95	1.05	0.70
Spain	32.76	67.26	46.26	21	40.93	59.1	45.3	13.8	1.25	0.88	0.98	0.66

Source: own elaboration with data of European Household panel (1997)

It follows from these results that an important section of those low-wage who combine low wages and household poverty (yes-yes) are likely to be in a single earner household. The problem of poverty among low-income self-employed is a question of lack of additional earners or additional welfare benefits that are sufficient to push households out of poverty. The next table help us to know more about the economic context of those groups of low-income self-employed who live in poor and non-poor households (yes-yes; yes-no) in order to verify the validity of the household contexts discussed above.

Table 85: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with low-income self-employed. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with low-income self-employed .

	Number of Earners in Self-employees ' Households					
	One Earner		Two Earners		Three or more earners	
Spain (total)	(40.93)		(45.31)		(13.76)	
Yes-Yes	49.01	1.20	39.74	0.88	11.26	0.82
Yes-No	11.90	0.29	67.86	1.50	20.23	1.47
UK	(25.69)		(51.37)		(16.48)	
Yes-Yes	42.55	1.66	38.30	0.75	19.15	1.16
Yes-No	27.08	1.05	57.29	1.12	15.63	0.95
Denmark	(12.77)		(68.09)		(15.6)	
Yes-Yes	18.18	1.42	63.64	0.93	18.18	1.17
Yes-No	20.00	1.57	60.00	0.88	20.00	1.28
Germany	(28.50)		(56.1)		(15.4)	
Yes-Yes	39.13	1.37	60.87	1.09	-	-
Yes-No	17.57	0.62	58.11	1.04	24.32	1.58

Source: own elaboration with data of European Household panel (1997)

The table above reinforces my initial perception that the problem of low wages leading to household poverty among the self-employed is highly related to the lack of additional wages. “Yes-yes” models are without exception over-represented among single-earner households in all the countries examined. Over-representation in dual and multi-earners models is also observable in the UK and Denmark. In these countries the low-wage self-employed who live in poor households are a result of not only the absence of additional earners but also sufficient incomes even when an additional income is available.

As to the low-income self-employed living in non-poor household (yes-no), the UK and Denmark show over-representation in dual and/or multi-earners households and under-representation in single earner households, which suggest that multi-earner households constitute a safety net against poverty for the low-income self-employed.

APPENDIX (III): THE EUROPEAN COMMUNITY HOUSEHOLD PANEL

The European Community Household Panel is a standardised longitudinal survey at the European Union level. It is a very useful tool for socio-economic research that allows comparative analyses based upon a wide range of socio-economic information. A common questionnaire has been adopted. This focuses on household and personal income (earnings, public transfers and other private forms of income), along with detailed information on demographic features and employment status.

In Germany and the UK, the first three waves (1994-95-96) coexisted with existing panels (the German socio-economic panel and the British households Panel Survey). From the fourth wave (1997) onward it was decided to merge the ECHP into these national panels.

III.1. Size of Sample and Problems of Non-response

A detailed description indicates that the sample base of individual's and households (defined by the same criteria of "sharing the same dwelling and common living arrangements"), is the following for my case study - apart from the loss of an item due to non-response-: Germany: 12059 (individuals) and 6163 (households); Denmark: 4628 (i) and 2745 (h); the UK: 8932 (i) and 4965 (h); Spain: 14819 (i) and 5794 (h).

The following tables show the sample ratio between a wave in year "t" and the previous wave "t-1". According to Verma (1999:10), with sample sizes so large, the sampling error tends to be slight. The standard error is larger for variables defined over only a part of the sample, e.g. the relative standard error for the variable mean household income tend to be around 1-2% higher. Only in a few cases is the relative error very high. For example, for minor income components such as "the amount of housing

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assistance received”, a relative error of 20% or higher is often encountered.

Table 86: Number of Individuals in the ECHP. Different waves in the countries selected

	Wave 1 1994	Wave 2 1995	Wave 3 1996	Wave 4 1997	Ratio Wave2/Wave1	Ratio Wave3/Wave2	Ratio Wave4/Wave3
Denmark	5903	5503	4994	4628	.93	.91	.93
Germany	9490	9002	8746	12059	.94	.97	1.37
The UK	10517	8386	6940	8932	.79	.83	1.28
Spain	17893	16263	15640	14819	.91	.96	.94

Source: Own elaboration with data from the ECHP.

Table 87: Number of households in the ECHP. Different waves in the countries selected

	Wave 1 1994	Wave 2 1995	Wave 3 1996	Wave 4 1997	Ratio Wave2/Wave1	Ratio Wave3/Wave2	Ratio Wave4/Wave3
Denmark	3482	3225	2956	2745	.93	.92	.93
Germany	5054	4753	4654	6162	.93	.98	1.32
The UK	5779	4548	3775	4965	.79	.83	1.31
Spain	7206	6521	6277	5794	.91	.96	.92

Source: Eurostat. Doc PAN 92/97 and own elaboration with data from the ECHP

The ratio Wave 4/Wave 3 - regarding the ratio W3/W2- is highest in Denmark, Germany and the UK , and lower in Spain. But the sample size is above 92% in all the cases. Wave 1 is the least suitable wave for analyses, not only because its sample size ratio regarding wave 2 is the smallest for Germany, the UK and Spain, but also because the highest rates of attrition and non-response are found with respect to adults who failed to complete an individual interview in Wave 1 or who had changed their address (Verma, 1999). For this author, the relative attrition rate is 12% higher for individuals in poor households in Wave1 (Verma, 1999:12). For that reason I choose Wage 4 as the wage of reference for most of the results presented here.

III.2. Attrition and the Groups more likely to Fall into Low-wage Employment

The degree of failure found in interviewing the same sets of units over time (attrition), varied at the household level between

8% in Germany and 23% in the UK, although ten of the twelve countries range from 5% to 12% between the second and the third wave. Household attrition rates between the third and the fourth waves tend to be rather similar in Denmark, although they fall significantly in Germany, the UK and Spain.

Table 88: Attrition rates in four waves of the ECHP

	Attrition rate W2 to W3	Attrition rate W3 to W4
Denmark	14%	14,5%
Germany	8%	2,6%
The UK	23%	18%
Spain	12%	9%

Source: Eurostat. Doc PAN 92/97

On the whole, attrition is smaller in the countries observed in this research for waves 3 and 4, especially when comparing these results with those shown by other data base at the national levels. Peracchi (2002) has compared household attrition rates within the ECHP, the German Social Economic Panel (GSOEP), the British households Panel Survey (BHPS), the Luxembourg's Social Economic Panel (PSELL) and the Panel Study of Income Dynamic (PSID). In general, i) the ECHP attrition rates are lower although ii) the number of cases, the household and personal response rate and the household and personal ratio between waves of the ECHP are higher than the other surveys .

Given that the probability of a low-wage is higher for certain groups (women, young workers, low skilled), it is vital to check how many of those leaving or entering the sample accrues to these groups. If the characteristics of those leaving the sample are not sufficiently compensated by new entries, the sample might exhibit a strong bias. This is what the following tables seek to test. The results provided by these tables have been obtained as follows, - starting with the degree of over/under-representation according to criteria of gender-: first I calculate the distribution of men and women in the four waves of the panel (column 1) and secondly I subtracte the number of men and women leaving the sample from the number of men and women entering (column 2).

A positive sign indicates that the number of men or women leaving the sample is higher than the number of men or women entering. A negative sign indicated the opposite, namely that the number of men or women leaving the sample is smaller than the number of those entering. If the percentage of men and women in the sample and the percentage in the “spare group” – the result of subtracting those leaving from those entering the sample- were identically distributed, the percentage of column 1 and column 2 would be identical. However this is unlikely to occur. Column 3 therefore seeks to measure the relative weight of men and women in the “spare group” with respect to the total male and female population in the sample. The same applies for the other categories such as levels of education and age. Figures above value 1 in column 3 indicate over-representation, whereas figures below 1 denote under-representation.

In summary, I observe an over-representation of women and low-skilled workers in the “spare group” in Spain. Since women and the low-skilled are expected to correlate highly with low-wage employment and poverty, the over-representation may indicate that the “real” percentage of low-wage employment and poverty may be higher than that indicate in this research. However, the distribution of men and women, alongside the distribution of levels of education among the total population in the sample, (column 1 table A.3 and table A.4) are quite similar, with no significant variation. This evidence suggests a quite constant distribution in the four waves that is not expected to alter significantly the percentages of low wage and poverty found in this research.

What I consider to be a problem of sample-bias, is the distribution of age in Spain, Denmark and to a lesser extent in Germany. Since the youngest groups are under-represented among those leaving the sample, the remaining groups of those aged 15/31 tend to increase in the sample. As a result, the higher percentages recorded among the youngest groups – who are more likely to hold low-paid jobs or live in poor households- could bring about higher percentages of low-wage employment and

poverty. For that reason the results observed in Spain and Denmark may well be lower.

Table 89: Sample degree of over/under-representation according to criteria of gender

Spain	1 Gender (total sample)		2 Gender (spare group)		3 Degree of over/under-representation	
	Men	Women	Men	Women	Men	Women
Wave 1	48.16	51.84				
Wave 2	48.13	51.87	49,4	50,6	1,0	1,0
Wave 3	48.11	51.89	44,6	55,4	0,9	1,1
Wave 4	48.43	51.57	39,4	60,6	0,8	1,2

UK	1 Gender (total sample)		2 Gender		3 Degree of over/under-representation	
	Men	Women	Men	Women	Men	Women
Wave 1	46.17	53.83				
Wave 2	45.84	54.16	86,5	13,5	1,9	0,2
Wave 3	46.07	53.93	70,0	30,0	1,5	0,6
Wave 4	46.38	53.62	-52,4	152,4	-1,1	2,8

Germany	1 Gender (total sample)		2 Gender		3 Degree of over/under-representation	
	Men	Women	Men	Women	Men	Women
Wave 1	48.12	51.88				
Wave 2	48.20	51.80	83,2	16,8	1,7	0,3
Wave 3	48.12	51.88	39,4	60,6	0,8	1,2
Wave 4	48.25	51.75	40,9	59,1	0,8	1,1

Denmark	1 Gender (total sample)		2 Gender		3 Degree of over/under-representation	
	Men	Women	Men	Women	Men	Women
Wave 1	48.28	51.72				
Wave 2	48.68	51.32	33,0	67,0	0,7	1,3
Wave 3	49.10	50.90	46,9	53,1	1,0	1,0
Wave 4	48.73	51.27	51,9	48,1	1,1	0,9

Source: Own elaboration with data from the ECHP.

Table 90: Sample degree of over/under-representation according to criteria of education

Spain	Levels of education (total sample) %			Level of education			Degree of over/under- representation		
	University	Secondary	Elementary	University	Secondary	Elementary	University	Secondary	Elementary
Wave 1	14.22	17.18	68.61						
Wave 2	13.84	17.92	68.24	14	13	72	1,01	0,73	1,06
Wave 3	13.80	18.50	67.70	10	7	83	0,72	0,38	1,23
Wave 4	13.38	18.78	67.84	14	10	76	1,05	0,53	1,12

UK	Levels of education (total sample)			Level of education			Degree of over/under- representation		
	University	Secondary	Elementary	University	Secondary	Elementary	University	Secondary	Elementary
Wave 1	37.87	18.48	43.65						
Wave 2	39.06	17.32	43.62	-83	148	34,6	-2,12	8,55	0,79
Wave 3	39.93	16.46	43.61	304	-223	19,2	7,61	-13,55	0,44
Wave 4	40.49	15.94	43.58	-86	159	27,6	-2,12	9,95	0,63

Germany	Levels of education (total sample)			Level of education			Degree of over/under- representation		
	University	Secondary	Elementary	University	Secondary	Elementary	University	Secondary	Elementary
Wave 1	22.33	57.92	19.75						
Wave 2	22.57	56.65	20.78	-301	238	163	-13,34	4,20	7,84
Wave 3	22.32	55.72	21.96	14	56	30	0,63	1,01	1,37
Wave 4	22.22	54.40	23.38	10	68	22	0,45	1,25	0,94

Denmark	Levels of education (total sample)			Level of education			Degree of over/under- representation		
	University	Secondary	Elementary	University	Secondary	Elementary	University	Secondary	Elementary
Wave 1	28.22	37.44	34.33						
Wave 2	28.83	36.50	34.67	18	60	22	0,62	1,64	0,63
Wave 3	28.93	36.51	34.56	26	30	44	0,90	0,82	1,27
Wave 4	29.28	36.98	33.74	24	22	55	0,82	0,59	1,63

Source: Own elaboration with data from the ECHP.

Table 91: Sample degree of over/under-representation according to criteria of age

Spain	Age (total sample)				Age (spare group)				Degree of over/under- representation			
	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +
Wave 1	29.30	30.00	23.04	17.66								
Wave 2	30.48	29.51	21.75	18.25	-5,6	37,3	36,7	31,5	-0,18	1,26	1,69	1,73
Wave 3	30.64	29.36	21.05	18.96	-15,1	37,2	30,8	47,1	-0,49	1,27	1,46	2,48
Wave 4	32.06	28.72	20.09	19.13	-3,7	35,0	29,3	39,4	-0,12	1,22	1,46	2,06

UK	Age (total sample)				Age (spare group)				Degree of over/under- representation			
	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +
Wave 1	29.55	34.33	19.61	16.51								
Wave 2	29.30	34.00	19.79	16.91	-405,4	135,1	137,8	232,4	-13,8	4,0	7,0	13,7
Wave 3	29.29	34.01	20.19	16.50	348,3	-20,0	-60,0	-168,3	11,9	-0,6	-3,0	-10,2
Wave 4	28.57	33.99	20.83	16.61	-609,5	181,0	147,6	381,0	-21,3	5,3	7,1	22,9

Germany	Age (total sample)				Age (spare group)				Degree of over/under- representation			
	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +
Wave 1	30.62	33.38	24.21	11.80								
Wave 2	30.22	34.82	23.38	11.59	92,5	75,7	-15,0	-53,3	3,1	2,2	-0,6	-4,6
Wave 3	29.33	35.69	22.90	12.08	2,4	28,8	31,8	37,1	0,1	0,8	1,4	3,1
Wave 4	28.24	36.20	22.97	12.59	0,6	35,8	29,5	34,1	0,0	1,0	1,3	2,7

Denmark	Age (total sample)				Age (spare group)				Degree of over/under- representation			
	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +	15/31	32/49	50/65	65 +
Wave 1	25.83	35.23	20.93	18.00								
Wave 2	27.12	35.09	21.32	16.47	-108,2	38,1	53,6	116,5	-4,0	1,1	2,5	7,1
Wave 3	26.88	35.34	21.47	16.31	5,7	27,8	25,8	40,7	0,2	0,8	1,2	2,5
Wave 4	26.57	35.71	21.86	15.86	-2,4	36,1	27,4	38,9	-0,1	1,0	1,3	2,5

Source: Own elaboration with data from the ECHP.

In the UK, I find an educational bias. High-skilled workers are over-represented and low-skilled are under-represented in the “spare group”. These tendencies result in a significant growth in the percentage of high-skilled workers in the sample (from 37.87% to 40.49%). This may indicate that the true levels of low-wage and poverty are higher than those shown in this research. Denmark also shows a educational- oriented bias since low-skilled workers leaving the sample are under-represented in waves 3 and 4 while high skilled workers are over-represented. Once again, these patterns of representation may suggest that the “real” dimension of low-wages and household poverty may be higher than that shown in this research.

Gender:

According to the table above (A.3) Spain exhibits an over-representation of women among the “spare group” - the result of subtracting “leaves” from entries- in waves 3 and 4. The number of people leaving the sample is higher than the number of people entering (positive sign), and women are over-represented in this group. It might be thought that this over-representation would influence my results. Because women are more likely to fall into low-wage employment and poverty, an a higher number of women leaving the sample may indicate that “real” low wage and poverty figures are higher than the results shown in my research. However, the distribution of men and women in the sample (column 1) has been highly constant in the four waves, with no significant variations.

The degree of female under-representation in wave 2 and 3 – with the subsequent over-representation of men- may suggest that the “real” rate of low-wage is lower in the UK than that shown in my research. On the other hand, the significant over-representation of women in wave 4 might be compensated for by the previous under-representation. In any case, the distribution of men and women in the total population of the sample is quite homogeneous throughout the four waves (column 1). Something similar applies

in the case of Germany and Denmark. The degree of under/over-representation of women does not prevent these countries from showing a highly constant percentage of men and women in the four waves (column 1). Although women were under-represented in wave 2, over-representation is apparent in the subsequent waves in Germany and Denmark.

It follows from the preceding results, that the degree of over/under-representation in the “spare group” have not resulted in significant changes in the distribution of men and women among the total population of the sample.

Education:

Those individuals with elementary levels of education are over-represented in the four waves in Spain, whereas those with secondary levels are under-represented. Since low-skilled workers are expected to highly correlate with low wage and poverty, this under-representation may indicate that the “real” percentages of low wages and poverty might be higher than the results shown in my research.

Under-representation of the low-skilled and over-representation of the semi- and high skilled workers is clearly observable in the UK. Once again this evidence may indicate that the “real” volume of low wage and poverty might be lower than the results found in this research. The high rate of negative over-representation among high skilled workers, however, indicates that the number of high-skilled workers entering is significantly higher than the number of those leaving the sample. This influences the distribution of education among the sample population, particularly that of high-skilled workers, as column 1 shows. This group increased from 37,87% in wave 1 to the 40,49% in wave 4. The group is more abundant in wave 4 than in wave 1, whereas the semi-skilled are less abundant in wave 4 than in wave 1. This over-representation of skilled workers may indicate that the “real” figures of low-wage and poverty is higher than the percentages shown in any research.

I think, therefore, that the education-bias in the UK is highly problematic. The strong polarisation between skilled and unskilled workers in the sample may not accurately represent the “real” situation in the UK. The under-representation of un-skilled workers and the over-representation of skilled workers may indicate that the “real” percentage of low-wage and poverty are higher than those shown in this research. Particularly eye-catching are the percentages of education level among those in the “spare group” (column 2). In some cases, (wave 3), the number of high-skilled workers leaving the sample is 304% higher than the number of skilled workers entering. This huge difference is compensated for by the higher percentage of semi-skilled workers entering the sample (-223%).

Denmark exhibits an over-representation of unskilled workers leaving the sample and a under-representation of semi-and high-skilled workers in waves 3 and 4. These tendencies may indicate that the low-skilled are under-represented in the sample, while the semi and high-skilled workers are over-represented. These patterns of representation may affect the results of my study. Since low-skilled workers are more likely to be affected by low-wage employment and household poverty, the over-representation of those low-skilled leaving the sample may result in lower rates of low wage and poverty than is really the case. The over-representation of skilled workers reinforces this prescription. Finally Germany shows a more equal pattern of over-representation, except in wave 2, where the figures are rather high. In any case the stability in the distribution shown by column 1 in this country does not suggest any significant education-oriented bias in this country.

Age:

The under-representation of the young amongst those leaving the sample -which tends to be a group that is more liable to fall into low wages and poverty- and the over-representation of the other groups points towards an age-oriented bias in Spain. The fact

that an under-representation accrues to the youngest stratum has influenced the distribution of age among the sample population (column 1). The number of individuals aged 15 to 31 has grown from 29,3%, wave 1, to 32,6%, wave 4, which means that the youngest individuals remain in the sample at a higher rate than other groups. As a result, it is likely that in Spain low-wage employment and poverty rates are lower than those show by my results. Something similar happens in Denmark and to a certain extent in Germany. The under-representation of the youngest group leaving the sample brings about an increase in the percentage of those aged 15 to 31 who remain in the sample. Since the youngest workers are most likely to hold low-wage jobs, the figures shown in this research might be over-represented in these countries.

The case is the inversed for the UK where the over-representation of the youngest stratum is the highest among the groups observed, (those individuals aged 65 or more are not usually active workers). These huge rates of over-representation exhibit different signs. In wave 2 and 4, the number of young entering the sample is higher than the number of young leaving it. However, more individuals aged 15/31 have left the sample in wave 2. This may mean that continuous corrections lead to a very homogenous distribution along the four waves, as column 1 shows.

APPENDIX (IV): GHANGES IN EMPLOYMENT DURING THE PERIOD 1983-1997

Table 92: Employment growth (absolute figures).

	Total employment growth (%)	Percent of Perm full-time employment growth	Percent of Part-time employment growth	Percent of Temporary employment growth	Percent of Self-employment growth
Italy	-0,8	-405,3	218,2	64,00	23,1
Portugal	6,5	85,8	14,9	-4,98	4,3
Denmark	8,8	72,8	43,4	0,43	-16,6
France	9,8	-96,0	130,2	80,78	-14,9
Greece	12,3	106,9	-2,6	-8,33	4,0
UK	12,3	2,3	56,2	12,21	29,3
Belgium	12,7	12,7	65,3	6,47	15,5
Spain	16,5	-17,8	19,8	85,36	12,7
Ireland	23,6	47,6	34,8	5,17	12,4
Germany	28,3	46,9	28,1	12,90	12,1
Netherlands	35,3	15,7	65,8	4,41	14,1

Source: own elaboration with data of Eurostat (Labour Force Survey)

IV.1. Typical employment (Permanent full-time) in Europe

Table 93: Permanent Full-time employment as a percent of total employment by countries.

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)	1983	1985	1987	1989	1991	1993	1995	1996	1997
Greece	44,7	16,3	40,7	39,2	42,0	43,0	46,0	48,1	49,0	48,9	49,3
Spain	49,8	-19,5			57,1	51,9	49,4	48,3	46,5	47,6	47,8
Netherland	57	-30,7	66,7*	64,4	59,2	57,7	57,5	55,6	52,0	50,8	51,1
Portugal	60,6	4,3		58,8**	56,5	57,2	58,5	65,1	63,8	62,7	61,5
Denmark	60,8	2,1	60,4	58	59,2	60,9	60,7	61,0	62,2	62,9	61,7
EU	63,2	- 10,8	67,9	67,2	64,8	64,0	63,7	63,0	61,4	61,2	60,6
UK	64,4	-14,0	67,6	66,8	65,0	64,8	64,7	62,4	61,5	61,2	61,3
Italy	65,4	-4,9	66,2	66,8	66,2	65,5	66,7	65,6	63,6	63,4	63,0
Ireland	67,3	-5,4	69,5	68,8	67,4	67,0	67,9	65,8	65,2	67,2	66,4
Germany	67,7	-5,7	69,7	69,2	68,1	68,3	69,3	67,8	66,8	65,8	64,4
France	68,3	-14,0	72,4	71,5	69,6	68,7	67,5	67,0	65,2	65,2	64,2
Belgium	68,6	-10,0	70,2	69,1	70,0	68,9	69,3	67,7	66,7	66,0	65,6

Source: own elaboration with data of Eurostat (Labour Force Survey)

IV.2. Part-time Jobs

Table 94: Part-time employment as a percent of total employment by countries

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)		1984	1985	1987	1989	1991	1993	1995	1996	1997
Greece	2	-28,1		2,1	2,2	2,0	1,9	1,5	1,9	1,9	2,1	1,9
Portugal	3	22,4			2,7	3,0	2,6	2,5	3,1	3,1	3,4	3,8
Italy	3,6	50,6		2,9	3,1	3,3	3,7	3,6	3,6	4,4	4,7	5,0
Spain	4,2	45,6				3,3	3,0	3,1	4,3	5,3	5,7	6,2
Ireland	7,1	61,0		4,1	4,3	5,4	6,0	7,0	9,0	10,5	10,3	11,0
Belgium	10,2	51,5		6,8	7,4	9,0	9,4	11,0	11,9	12,7	13,1	13,9
France	11	52,1		7,9	8,7	9,6	10,2	10,4	12,3	14,0	14,5	15,3
Mean	12,3	36,3			9,9	10,2	10,5	10,9	11,9	12,7	13	13,5
Germany	12,5	32,9		10,3	10,8	10,8	11,6	12,5	13,3	14,6	14,8	15,6
UK	19,4	22,4		18,3	18,4	19,3	18,6	19,3	20,0	20,7	21,3	21,5
Denmark	21,2	6,9		19,0	22,1	22,4	21,6	21,3	21,3	20,3	20,2	21,3
Netherlan	28	45,6		18,3	19,8	24,6	27,1	28,2	30,7	32,6	33,8	33,6

Source: own elaboration with data of Eurostat (Labour Force Survey)

IV.3. Temporary work

Table 95: Temporary employment as a percent of total employment by countries

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)									
			1984	1985	1987	1989	1991	1993	1995	1996	1997
UK	2,4	33,8	2,6	2,0	2,1	1,7	1,6	2,6	3,2	3,3	3,4
Italy	2,7	19,3	1,7	1,5	1,8	2,5	2,0	3,1	3,7	3,8	4,2
Belgium	3,1	12,4	3,4	3,9	2,9	2,7	2,7	2,8	3,0	3,3	3,5
Netherlan	3,2	18,6	2,6*	3,6	3,7	3,6	3,2	2,5	3,2	3,4	3,2
Ireland	3,5	19,8	3,2	3,6	4,0	3,8	3,3	3,5	3,7	2,9	3,1
France	5,4	67,0	2,3	3,1	4,4	5,6	6,4	6,2	7,1	7,1	7,4
EU	6,5	35,6		5,2	5,7	6,7	6,8	6,3	6,7	6,7	7
Greece	6,5	-31,2	8,0	9,3	7,3	7,8	7,0	4,7	4,6	5,0	5,1
Denmark	7,8	-8,5	8,4	8,4	7,6	7,0	7,9	7,6	8,2	7,7	7,7
Germany	8,3	17,3	7,5	7,8	9,3	8,6	7,8	8,0	7,8	8,7	9,1
Portugal	9,3	-9,9		9,3	10,7	12,4	10,9	7,1	6,9	7,2	8,5
Spain	19,7	57,1			9,5	17,8	22,4	21,2	23,0	21,9	22,2

Source: own elaboration with data of Eurostat (Labour Force Survey)

IV.4. Self-employment

Table 96: Non agricultural Self-employment as a percent of total employment .

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)									
			1984	1985	1987	1989	1991	1993	1995	1996	1997
Denmark	6,7	-17,7	7,2	6,8	6,4	6,5	6,6	6,7	6,6	6,8	6,8
Germany	7,8	22,5	7,5	7,4	7,5	7,8	7,2	7,9	8,4	8,8	9,1
Netherla	7,8	19,6	6,7	6,4	7,7	7,7	7,7	7,9	9,0	8,3	8,3
France	8,7	3,1	8,4	8,2	8,4	8,4	9,0	8,7	8,9	8,7	8,6
Ireland	11,2	21,5	9,8	10,3	10,6	11,2	11,5	12,5	12,2	11,8	11,9
UK	11,4	22,4	10,1	10,5	11,5	12,3	11,9	11,6	12,1	11,8	11,8
EU	12,7	17,5		11,4	12,2	12,5	12,7	13,2	13,6	13,6	13,4
Belgium	13,5	5,7	13,6	13,7	13,3	13,9	13,2	13,8	13,8	13,8	13,3
Portugal	15,3	27,0			12,6	13,4	15,0	16,4	17,8	18,4	17,4
Spain	16,2	10,8			16,2	15,4	15,4	16,6	17,1	17,0	16,8
Italy	20,2	14,3	19,1	19,0	19,5	20,5	20,5	20,6	21,4	21,8	21,5
Greece	21,6	8,3	20,1	20,1	21,0	20,9	22,5	22,9	22,8	22,7	22,4

Source: own elaboration with data of Eurostat (Labour Force Survey)

IV.5. Unemployment and Active Population

Table 97: Levels of Unemployment

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)										
			1983	1985	1987	1989	1991	1993	1995	1996	1997	

Portugal	6,1	-25,3			8,9	7,6	5,3	4,1	5,3	7,1	7,2	6,7
Germany	6,9	57,8		6,2	6,8	6,8	5,7	5,3	7,7	8,2	8,8	9,8
Netherlan	7,6	-56,7		11,7	10,3	9,6	8,5	7,0	5,5	6,7	6,0	5,1
Denmark	7,8	-34,8		8,3	7,7	6,1	8,2	9,2	10,8	7,0	6,8	5,4
Greece	8,3	21,7		8,1	8,0	7,5	7,6	7,8	8,8	9,3	9,9	9,8
UK	9,4	-35,9		11,1	11,3	10,8	7,4	8,6	10,4	8,8	8,3	7,1
Belgium	9,5	-23,1		11,7	11,3	11,2	8,3	7,0	8,1	9,4	9,5	9,0
EU	10,2	-11,6			11,2	10,9	9,5	9	10,6	10,4	10,5	9,9
France	10,4	62,1		7,8	10,1	10,5	9,4	9,0	11,3	11,9	12,4	12,6
Italy	10,4	49,2		8,3	9,3	10,6	10,9	10,0	10,3	11,8	12,2	12,4
Ireland	15,3	-32,6		15,1	18,2	18,4	16,4	16,0	15,6	11,9	11,7	10,2
Spain	20,2	-1,4			21,3	20,8	17,4	16,0	22,4	22,9	22,4	21,0

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 98: Rates of Active Population

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)										
			1983	1985	1987	1989	1991	1993	1995	1996	1997	
Italy	58,7	-2,4	59,1	58,8	59,5	60	60,3	57,8	57,3	57,7	57,7	
Spain	58,7	8,1		55,9*	57,2	58,2	58,6	58,9	59,5	60	60,8	
Greece	59,5	1,6	59,8	60	59,2	59,8	57,6	58,7	60,1	61	60,8	
Belgium	60,3	4,0	60,1	59,6	59	58,7	60,1	60,9	62,1	62,2	62,6	
Ireland	61,2	1,1	62,2	60,9	61,1	60,3	60,9	60,9	61,6	62,3	62,9	
EU	65,8	4,2	:	64,4	65,4	65,8	66,5	66,1	66,3	66,7	67,1	
France	67,6	-0,6	68,4	67,6	67,7	67,3	66,7	67,2	67,6	68,2	68	
Portugal	68,3	0,9	:	67,6*	68	68,8	70,5	68,1	67,4	67,5	68,2	
Germany	68,7	9,2	64,1	66,2	67	68,1	71,7	70,5	70,5	70,4	70,6	
Netheland	66	22,4	:	58,4	64,7	64,8	67	67,8	69,2	69,9	71,5	
UK	74,6	5,5	70,9	73,6	74,5	76,2	76,1	75,2	74,7	74,9	75	
Denmark	80,6	2,3	78	80,3	81,1	82	82,2	81,2	79,5	79,5	79,8	

Source: own elaboration with data of Eurostat (Labour Force Survey)

- **Female labour participation**

Table 99: Growth of labour activity by gender during the period 1983-1997

	A <i>Female labour activity growth (%)</i>	B <i>Male labour activity growth (%)</i>	C <i>Differences (A-B)</i>
Denmark	7.7	7.0	0.7
France	19.2	3.0	16.2
Italy	13.3	-3.8	17.1
UK	20.5	2.1	18.3
Portugal	14.4	-4.9	19.3
Belgium	24.1	0.5	23.6
Germany	57.0	31.9	25.2
EU	31.9	6.2	25.8
Greece	29.9	4.0	25.9
Ireland	47.6	4.4	43.2
Spain	48.5	3.9	44.7
Netherlands	68.5	18.2	50.3

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 100: Female Active population with respect to total active population

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)										
			1983	1985	1987	1989	1991	1993	1995	1996	1997	
Ireland	34,8	20,0	31,6	31,6	33,2	33,5	34,6	37,0	38,1	38,7	39,4	
Spain	35,7	20,8			32,8	34,5	35,3	36,6	38,2	38,5	38,8	
Italy	36,4	9,9	34,4	34,6	35,7	36,8	37,2	36,8	37,4	37,9	38,1	
Netherlan	36,5	19,7		35,0	37,8	38,5	39,6	40,8	41,5	42,0	42,2	
Greece	36,8	13,1	34,7	35,6	36,0	37,2	35,9	37,2	38,2	38,9	39,3	
Belgium	39,6	12,0	37,6	37,9	38,5	38,8	40,0	41,2	41,4	41,5	41,9	
EU	40,7	6,8	38,4	39,4	39,4	40,1	40,7	41,2	41,6	42,1	42,3	
Germany	41,2	9,8	39,3	39,7	39,5	39,8	42,5	42,5	43,0	43,2	43,3	
UK	42,8	9,1	41,1	41,5	42,3	43,1	43,3	43,8	43,9	44,1	44,3	
Portugal	44	9,8			42,0	42,9	44,2	45,0	45,3	45,6	45,8	
France	44,1	7,9	42,5	42,7	43,4	43,8	44,4	45,1	45,5	45,6	45,5	
Denmark	46,3	0,4	46,2	46,2	46,4	46,1	47,0	47,1	45,6	45,8	46,1	

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 101: Female unemployment with respect to the total unemployment.

Countries	Average in the period 1983-97 (%)		Variation										
	F	M		1984	1985	1987	1989	1991	1993	1995	1996	1997	
Ireland	35,5	64,5	12,19	32,9	33,8	34,6	33,7	35,7	36,5	37,7	38,2	38,2	
UK	37,1	62,9	3,03	37,6	39,5	39,7	41,6	37,5	32,7	34,8	34,0	36,4	
Spain	48,7	51,3	30,58			44,5	50,4	51,5	47,0	51,0	51,0	52,1	
EU	49,1	50,9	-0,03		48,5	48,4	52,4	51,0	46,4	48,2	48,0	48,5	
Germany	49,7	50,3	2,19	48,5	49,0	45,8	52,2	52,1	51,7	50,7	47,0	46,6	
Netherla	50,8	49,2	29,23		41,2	52,9	52,0	53,8	51,3	49,7	53,2	55,1	
Denmark	52,8	47,2	12,41	52,8	55,8	53,9	50,2	51,3	48,2	56,2	56,0	55,0	
France	54,4	45,6	-6,50	54,1	52,7	54,5	57,5	56,4	53,2	54,1	53,4	52,2	
Italy	55,1	44,9	-10,37	55,9	56,1	55,3	57,9	58,0	52,7	51,3	51,3	51,4	
Portugal	55,1	44,9	-5,34			54,4	60,9	62,6	52,9	49,5	52,0	51,6	
Belgium	57,7	42,3	-4,13	57,8	59,6	60,3	60,9	61,0	55,0	54,1	54,3	54,1	
Greece	57,8	42,2	15,95	51,9	53,3	55,1	61,4	59,9	58,5	57,6	61,9	60,5	

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 102: Employment growth in absolute terms (%) during the period 1983-1997

	<i>Employment Growth (%)</i>	<i>Female employment growth as a percent of total employment growth (%)</i>	<i>Male employment growth as a percent of total employment growth (%)</i>
Italy	-0.8	-	-
Portugal	6.5	136.3	- 36,3
Denmark	8.8	28.9	71,1
France	9.8	101.1	- 1,1
Greece	12.3	86.0	14,0
UK	12.3	77.4	22,6
Belgium	12.7	89.2	10,8
Spain	16.5	66.0	34,0
Ireland	23.6	69.9	30,1
Germany	28.3	55.9	44,1
Netherlands	35.3	60.6	39,4

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 103: Female permanent full-timers with respect to total permanent full-time employment

Countries	Average	Variati									
			1984	1985	1987	1989	1991	1993	1995	1996	1997
Netherlan	21,4	1,8	20,6	21,2	20,7	21,4	22,4	21,9	21,0	20,5	21,0
Spain	29,1	20,3			26,0	27,4	27,9	29,7	31,2	31,9	32,6
Belgium	30,2	10,8	28,3	28,5	29,1	29,7	30,7	31,8	31,4	31,6	31,7
Germany	32,1	9,9	30,3	30,7	30,7	30,4	34,0	33,3	33,4	34,1	33,6
UK	33,4	13,1	30,7	30,9	31,9	33,4	34,2	35,4	35,5	35,2	35,4
EU	33,5	7,6	31,1	32,0	32,1	32,7	33,4	34,1	34,4	34,7	34,6
Italy	33,8	12,1	31,5	31,8	33,0	33,8	34,6	34,7	35,1	35,9	35,9
Greece	33,9	20,2	30,1	31,1	31,6	34,1	34,4	35,4	36,6	36,8	37,6
Ireland	35,9	14,4	33,5	32,3	34,9	35,2	35,6	37,8	38,5	38,7	39,1
Denmark	37	4,6	37,2	33,8	35,5	36,7	38,0	38,4	37,1	38,0	39,0
France	37,9	1,8	37,4	37,5	37,7	37,6	38,1	38,4	38,4	38,4	38,1
Portugal	40,7	17,3		36,2	37,1	38,2	39,9	42,6	44,2	44,2	43,7

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 104: Female and male Permanent full-timers with respect to the total female and male employment

Countries	Average Female	Averag Male	Rates of permanent full-time employment in the period 1984-1997 (%)											
			1984		1987		1989		1991		1994		1997	
			F	M	F	M	F	M	F	M	F	M	F	M
Netherla	32,2	72,6	34	73,4	34,0	73,4	33,2	72,3	33,6	72,5	26,7	69,4	25,8	69,0
Greece	43,5	45,3	36,9	42,5	38,6	43,8	41,6	43,7	46,8	45,6	49,5	48,6	50,2	48,8
Spain	44,2	52,5	50,3	60,5	50,0	60,2	45,6	54,8	42,8	52,5	42,2	48,8	44,3	49,7
Denmark	49,1	70,6	49,3	69,7	45,9	70,6	48,8	71,2	49,5	70,3	51,4	70,9	52,8	69,2
UK	49,4	75,8	50,1	80,0	48,8	77,1	50,1	75,9	50,4	75,8	48,6	71,9	48,3	72,0
EU	53	70	53,4	68,6	54,3	71,3	53,8	70,4	53,5	70,4	51,5	68,4	50,6	67,8
Germany	53,4	77,5	54,7	79,1	53,5	77,5	53,2	77,9	56,1	78,8	52,8	77,0	50,4	74,8
Belgium	55,1	76,8	56,9	77,4	57,0	77,2	55,5	76,6	55,3	78,0	52,3	76,4	51,0	75,6
Portugal	57	63,2	51	60,3	51,1	60,1	52,1	60,8	53,7	62,2	62,6	64,8	59,3	63,3
France	60,4	74,2	65,5	77,3	62,5	74,8	61,0	74,4	59,6	73,5	56,5	72,1	54,9	71,7
Italy	64,7	65,8	64,9	66,9	65,4	66,6	64,6	65,9	66,2	66,9	62,8	64,1	62,4	63,3
Ireland	69,9	66	74,3	67,3	71,6	65,5	70,6	65,1	70,6	66,5	65,8	64,8	65,8	66,7

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 105: Female Part-timers with respect to total part-time employment

Countries	Average in the period 1983-97 (%)		1983	1985	1987	1989	1991	1993	1995	1996	1997
	Fema	Male									
Greece	60	40	56	60	65,7	62,3	61,5	59,7	60,9	57,1	67,1
Italy	70,7	29,3	65,2	65,2	64,9	70,1	70,4	76,6	75,4	73,9	74,8
Netherlan	73,7	26,3	79	78,2	70,3	70,4	70,7	75,2	74,5	75,1	75,1
Ireland	75,1	24,9	76,7	77,8	75,4	75,0	75,3	75,2	74,4	75,0	75,5
Denmark	78,4	21,6	80,3	82,5	80,4	79,7	77,1	76,5	74,6	73,2	71,4
Spain	80,1	19,9			76,2	83,0	82,3	80,1	80,7	78,1	77,1
Portugal	80,4	19,6			78,9	85,8	75,9	80,3	81,7	81,7	82,2
France	84,9	15,1	86,6	85,4	84,4	84,9	85,8	84,7	83,3	83,1	82,9
EU	79,4	20,6	79,8	80,2	78,8	80,5	79,2	79,8	79	78,2	78,8
Belgium	88,6	11,4	89,7	88,0	88,1	90,2	90,2	89,9	88,3	88,4	87,8
UK	89,3	10,7	92,2	91,7	89,6	91,2	89,8	88,5	86,2	85,6	84,0
Germany	92	8	92,4	93,6	93,8	92,4	92,2	91,1	89,8	89,3	88,7

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 106: Female and male part-timers with respect to the total female/male employment.

Countries	Average Female	Average Male	Rates of part-time employment in the period 1984-1997(%)											
			1984		1987		1989		1991		1993		1997	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Greece	3,4	1,2	3,5	1,4	3,9	1,1	3,4	1,1	2,7	0,9	3,2	1,2	3,4	1
Portugal	5,6	1,1	5,4**	0,9**	5,7	1,1	5,3	0,6	4,4	1	5,6	1,1	6,9	1,2
Italy	7,5	1,6	5,8	1,5	6,4	1,7	7,5	1,7	7,4	1,7	7,9	1,3	10,4	2
Spain	10,1	1,3			8,6	1,1	7,9	0,7	7,9	0,8	10,3	1,3	13,5	2,2
Ireland	15,1	2,8	10,0	1,4	12,5	2,1	13,6	2,3	15,4	2,5	18,3	3,5	21,0	4,4
France	21,5	3	16,6	1,8	19,3	2,6	20,5	2,7	20,7	2,6	23,7	3,4	28,5	4,7
Belgium	23,8	1,9	17,4	1	22,1	1,7	23,1	1,4	25,8	1,8	26,8	2	30,0	2,9
EU	26,1	3,1	19,1	2,5	23,7	2,5	24,2	2,5	25,0	2,8	26,8	3,1	29,4	4,3
Germany	28,1	1,8	24,6	1,3	25,9	1,1	27,4	1,4	27,4	1,7	29,1	2	32,2	3,1
Denmark	36,2	8,4	33,5	6,9	39,3	8,1	37,5	8,2	35,4	9	34,7	9,4	33,3	11,2
UK	39,8	3,7	40,6	2,4	40,7	3,5	39,3	2,9	39,4	3,5	39,3	4,2	40,3	6,3
Netherlands	53,3	12,1	43,6	6,6*	48,0	11,4	51,3	12,8	51,8	13,4	57,4	12,7	60,9	14,3

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 107: Female temporary workers with respect to total temporary employment

Countries	Average in the period 1983-97 (%)	Variation in the period 1983-1997 (%)									
			1984	1985	1987	1989	1991	1993	1995	1996	1997
Greece	34	34.1	28	29,7	29,2	31,1	34,4	38,5	41,3	40,9	42,5
Spain	37,7	12.6			33,9	36,3	38,3	39,4	38,6	39,3	38,8
Germany	44,6	2.0	44,4	43,6	43,2	44,0	46,2	44,9	46,1	44,3	45,3
EU	46,1	6.3	46,5	47,7	46,5	48,7	50,8	51,2	49,5	49,3	49,6
Portugal	47,4	12.6		42,2	40,2	46,4	47,6	50,2	51,3	48,5	48,3
France	48,4	16.1	42,2	47,1	46,3	48,4	52,6	53,7	49,9	50,9	50,3
Italy	48,9	-8.5	49,7	49,5	49,1	50,4	52,9	48,9	48,1	45,8	45,8
Denmark	50,6	2.6	48,1	52,1	49,8	48,5	52,2	55,4	51,8	49,2	49,4
Ireland	53,1	12.9	50,0	50,7	53,6	54,3	54,9	54,9	52,0	55,8	57,4
Netherlan	53,7	9.9			50,3	50,4	53,0	59,4	54,1	56,3	55,8
UK	57,7	-4.6	57,0	55,9	57,5	64,0	62,6	56,5	53,9	55,8	54,5
Belgium	58,6	7.3	53,1	59,1	58,0	62,2	64,1	61,5	57,0	55,7	57,3

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 108: Female and male temporary workers with respect to the total female-male employees.

Countries	Average Female	Average Male												
			1984		1987		1989		1991		1994		1997	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
UK	2,2	2,5	2,4	2,7	1,9	2,2	1,8	1,7	1,6	1,6	2,9	3,5	3,1	3,7
Netherla	3	3,3	3,5	3,7	3,7	3,8	3,3	3,7	3,2	3,2	2,7	3,5	2,8	3,5
Italy	3,3	2,4	2,1	1,6	2,3	1,6	3,2	2,2	2,7	1,6	4,4	3,3	4,7	3,9
Belgium	4,1	2,5	4,5	2,8	3,9	2,4	4,0	2,0	3,7	2,0	3,7	2,5	4,2	3,0
Ireland	4,5	3	4,2	2,8	5,5	3,3	5,1	3,1	4,5	2,8	4,5	3,3	4,0	2,6
France	5,2	5,5	2,2	2,4	4,3	4,6	5,5	5,6	6,9	6,1	6,4	7,6	6,8	8,0
Greece	5,7	7	6,4	8,8	5,5	8,3	6,2	8,7	6,5	7,2	4,9	4,5	5,4	4,9
EU	6	6,3	5,1	5	5,2	5,4	6,2	6,2	6,4	6,3	6,3	7,1	6,7	7,6
Denmark	8	7,7	8,3	8,6	7,4	7,9	6,9	7,1	8,2	7,7	8,6	8,0	8,0	7,6
Germany	8,3	8,3	7,8	7,3	9,5	9,2	8,9	8,5	7,7	7,8	7,6	7,9	8,8	9,3
Portugal	9,7	9	9,2	9,3	9,9	11,3	12,9	12,0	11,5	10,4	7,6	6,4	8,7	8,3
Spain	20	19,6			9,0	9,6	18,3	17,5	24,3	21,5	22,1	23,4	21,2	22,7

Source: own elaboration with data of Eurostat (Labour Force Survey)

Table 109: Female Self-employment

Countries	Average in the period 1983-97 (%)		1984	1985	1987	1989	1991	1993	1995	1996	1997
Ireland	12.8		10.6	10.2	10.4	11.1	12.3	14.7	14.4	16.2	15.6
Denmark	18.1		12.6	16	15	15.7	18	18.8	22	23.8	21
Greece	19.6		17.2	19.1	18.9	19.2	19.4	20.1	20.4	21.3	21
Italy	23.3		21.8	21.3	22.5	23.5	24.3	23.2	24.3	24.5	24.8
France	23.9		20.7	20.6	22	23.8	25.3	25.1	26.3	25.6	25.7
EU	24.3		18.8	19.3	26.2	23.7	24.9	25.1	25.9	26.3	26.3
UK	24.6		23.5	25.1	25.2	23.6	24.2	24.9	24.2	25	25.8
Germany	24.9		22.6	22.2	23.4	23.8	25.6	26	26.5	27.1	27.7
Spain	25.3			23.8	24.2	24	24.4	25	26.7	26.8	26.4
Belgium	25.8		24.3	23.9	23.4	24.6	26.3	27	28.3	27.1	27.4
Netherland	27.4		16.7	16.1	31.5	28.2	31.1	28.7	32	31	31
Portugal	42.4			43.2	43.4	43.3	44	42.2	40.2	41.2	42.9

Source: own elaboration with data of Eurostat (Labour Force Survey).

APPENDIX (V): LOW-WAGE EMPLOYMENT WORKING-POOR HOUSEHOLD AND THE OVERLAP BETWEEN LOW-WAGES AND WORKING-POOR HOUSEHOLDS IN ELEVEN EUROPEAN COUNTRIES: AN OVERVIEW

International Differences in the Incidence of Low-Wage employment

Table 110: Percentages of low-wage employment, Average Low wage gap and Gini Coefficient. Total annual earning. All employee categories

	LWE I (2/3 income from work)	LWE III (½ income from work)	Average Low Wage Gap	Gini Coefficient
Denmark	14	9,3	0.25	0.30
Germany	16,53	9,95	0.19	0.26
Belgium	18,09	11,07	0.22	0.29
France	20,08	13,81	0.23	0.29
Portugal	20,16	14,9	0.43	0.42
Italy	20,72	14,42	0.36	0.40
Greece	22,51	13,93	0.21	0.28
Spain	22,84	16,1	0.31	0.34
Ireland	23,46	16,67	0.27	0.29
UK	25,94	17,13	0.23	0.28

Source: own elaboration with data of European Household panel (1997)

Stepping Stone or Durable Trap?

Table 111: Percentage of workers in low wage during one year (1995), percentage of workers in low wage during two years (1995-1996), percentages of workers in low wage during three years (1995-1996-1997) and percentage of workers combining low-wage employment and unemployment during the period (1995-1997)

	Months in LWE during 1995-1996-1997				Workers combining LWE and unemployment (1995-1997)
	1-12	13-24	25-36		
Denmark	53,83	36,76	9,41		22,4
Germany	48,85	43,03	7,12		29,7
Belgium	24,91	64,77	10,32		20,7
France	67,35	29,85	2,8		29,7
Portugal	14,04	68,34	17,62		15,5
Italy	20,49	61,05	18,46		34,5
Greece	17,50	64,07	18,43		24,6
Spain	36,09	54,24	9,67		47,1
Ireland	27,30	66,01	6,69		25,1
UK	40,69	54,31	4,96		24,8

Source: own elaboration with data of European Household panel (1997)

Who are the Low-Wage Workers?

Table 112: Degree of over/under representation in low-wage workers by gender and educational attainment

Low Wage Workers (LWW)																	
	Volume		Gender						Education*								
			Male-female workers (%)		Male-female LWW (%)		B/A		A Levels of education among workers			B Levels of education among LWW			B/A		
			Male	Fem	Male	Fem	M	F	1	2	3	1	2	3	1	2	3
Denmark	14,4		55.60	44.40	41.2	58.8	0.74	1.32	20.4	40.3	39.3	33.3	45.6	21.1	1.63	1.13	0.54
Germany	16.53		59.43	40.57	29.9	70.1	0.50	1.73	11.7	57.9	30.4	20.6	62.9	16.6	1.76	1.09	0.55
Belgium	18.09		57.67	42.33	34.6	65.4	0.60	1.55	21.7	34.7	43.6	30.7	40.9	28.4	1.41	1.18	0.65
France	20.08		61.01	39	52.6	47.4	0.86	1.22	30	46.3	23.7	43	48.7	8.3	1.43	1.05	0.35
Portugal	20.16		60.62	39.38	45.4	54.6	0.75	1.39	81.8	12	6.15	92.4	6.08	1.52	1.13	0.51	0.25
Italy	20.72		65.39	34.61	63.6	36.4	0.97	1.05	46.2	43.9	9.9	60.4	34.4	5.2	1.31	0.78	0.53
Greece	22.51		70.25	29.75	58.8	41.2	0.84	1.38	46.4	29	24.6	66.4	23.6	10	1.43	0.81	0.41
Spain	22.8		68.55	31.45	55.2	44.8	0.81	1.42	53.1	20.5	26.4	63.3	22.7	14	1.19	1.11	0.53
Ireland	23.46		66.14	33.86	46.1	53.9	0.70	1.59	39.9	39.5	20.6	54	37.3	8.7	1.35	0.94	0.42
UK	25.94		54.06	45.94	29.6	70.4	0.55	1.53	33	16.2	50.8	47	17.9	35	1.42	1.10	0.69

Source: own elaboration with data of European Household panel (1997)

*Highest level of education completed

1=Less than second stage of secondary education (ISCED 0-2)

2= Second stage of secondary level education (ISCED 3)

3= Third level education (ISCED 5-7)

Table 113: Degree of over/under representation in low wage workers by occupation

Low Wage Workers																	
	Occupation										B/A						
	A- Occupation among Workers					B- Occupation among Low Wage Workers											
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
Denmark	10.39	10.80	36.99	19.74	22.08	18.51	10.68	46.26	13.52	11.03	1.78	0.99	1.25	0.68	0.50		
Germany	8.00	11.74	43.79	18.44	18.03	16.95	9.67	50.19	13.60	9.58	2.12	0.82	1.15	0.74	0.53		
Belgium	8.23	5.94	40.60	16.74	28.48	14.10	5.71	49.90	14.48	15.81	1.71	0.96	1.23	0.86	0.56		
France	5.32	18.25	36.84	16.51	16.16	11.48	33.90	42.69	5.56	6.37	2.16	1.86	1.16	0.34	0.39		
Portugal	14.11	19.76	46.14	8.68	11.31	20.57	32.93	38.13	2.26	6.10	1.46	1.67	0.83	0.26	0.54		
Italy	11.41	14.12	49.14	11.61	13.72	22.67	21.14	41.93	7.01	7.24	1.99	1.50	0.85	0.60	0.53		
Greece	6.07	24.57	37.70	4.94	26.72	7.00	40.89	31.72	2.37	18.02	1.15	1.66	0.84	0.48	0.67		
Spain	13.62	12.82	39.60	10.39	23.57	26.77	12.84	37.45	5.59	17.35	1.97	1.00	0.95	0.54	0.74		
Ireland	7.47	25.74	33.39	9.66	23.73	11.99	24.97	44.99	6.67	11.37	1.61	0.97	1.35	0.69	0.48		
UK	6.19	9.76	40.25	13.07	30.73	11.52	8.51	54.74	9.19	16.04	1.86	0.87	1.36	0.70	0.52		

Source: own elaboration with data of European Household panel (1997)

Occupation: 1= Elementary occupations

2= Semi skilled occupations (Skilled agricultural and fishery. Plant and machine operators and assemblers)

3= Skilled occupations (Clerks, Services workers and shop sales workers. Craft and related trades workers)

4= Semi high skilled occupations (Technicians and associate professional)

5= High skilled occupations (Legislators, senior officials and managers, Professionals)

Table 114: Degree of over/under representation in low wage workers by age.

	A- Groups of age					B- Groups of age among low wage orkers					B/A			
	15/31	32/49	50/65	66+		15/31	32/49	50/65	66+		15/31	32/49	50/65	66+
Denmark	23.76	52.45	22.92	0.71		52.50	31.25	14.00	1.5		2,21	0,60	0,61	2,1
Germany	25.65	52.39	21.61	0.35		32.13	48.98	17.96	0.93		1,25	0,93	0,83	2,7
Belgium	21.46	60.73	17.30	0.52		35.74	49.62	13.12	1.52		1,67	0,82	0,76	2,9
France	30.15	53.01	16.68	0.17		31.33	44.84	23.36	0.48		1,04	0,85	1,40	2,8
Greece	22.84	47.73	26.96	2.48		28.06	31.55	33.40	6.99		1,23	0,66	1,24	2,8
Italy	26.81	52.04	20.35	0.80		35.78	43.28	20.07	0.87		1,33	0,83	0,99	1,1
Portugal	28.54	44.66	23.11	3.70		33.73	28.70	27.27	10.29		1,18	0,64	1,18	2,8
Spain	31.2	48.2	20.6			50.54	34.45	15.00			1,62	0,71	0,73	
Ireland	35.11	37.95	23.51	3.42		48.58	27.56	17.18	6.67		1,38	0,73	0,73	2,0
UK	31.79	46.65	21.56			38.80	38.41	22.79			1,22	0,82	1,06	

Source: own elaboration with data of European Household panel (1997)

Table 115: Degree of over/under representation in low wage workers by sector of activity.

	Sector				Sector for LAWW						
	Agric	Indu	Service		Agric	Indu	Service		Agric	Indu	Service
Denmark	4.24	25.26	70.50		12.81	13.88	73.31		3,02	0,55	1,04
Germany*											
Belgium	2.06	25.86	72.08		4.06	18.76	77.18		1,97	0,73	1,07
France	4.22	27.18	68.61		12.37	15.49	72.14		2,93	0,57	1,05
Greece	15.96	25.47	58.57		36.90	19.22	43.88		2,31	0,75	0,75
Italy	7.04	30.02	62.94		20.20	23.18	56.63		2,87	0,77	0,90
Portugal	13.88	31.37	54.75		35.89	22.42	41.69		2,59	0,71	0,76
Spain	7.24	31.41	61.36		13.38	27.35	59.27		1,85	0,87	0,97
Ireland	14.15	28.33	57.52		18.17	22.99	58.84		1,28	0,81	1,02
UK*											

Source: own elaboration with data of European Household panel (1997)

Data not available

Separating Low Annual Wage Employment Out

Table 116: Low Annual Wage Employment Composition

	Fulltime full-year	Part-time Full-year	Temporary	Self-employees	Entry - exit	Rest
Greece	14,8	3,2	12,9	57,5 (56,2)	4,8	6,8
Spain	15,4	9	35	21,2 (29,4)	6,8	12,6
Denmark	15,8	14,3	16,2	8,5 (32,3)	16	29,2
Italy	15,8	8,9	16,9	42,8 (15,2)	5,4	10,2
Belgium	16,2	25,1	11,02	23,2 (11,5)	9,5	15,6
France	17,3	18,1	9,1	30,8 (26,1)	5,4	19,3
Ireland	18,4	13,2	9,2	18,5 (61,3)	20,1	20,6
UK	18,4	28,8	9,2	22,9 -	9,7	11,1
Portugal	21,7	7,7	14,7	33,8 (64)	10,2	11,9
Germany	22,3	23,6	14,8	9,7 -	7,5	22,1

Source: own elaboration with data of European Household panel (1997)

“Working” Poor Households

Table 117: “Working poor households, Poor household Gap, Gini Coefficient

	Poor households		Poor Household Gap	Gini Coefficient
Denmark	3,71		0.18	0.29
Germany	4,87		0.40	0.35
Belgium	5,25		0.31	0.27
Ireland	6,21		0.17	0.16
UK	8,11		0.31	0.22
France	9,92		0.29	0.20
Spain	10		0.34	0.24
Portugal	10,62		0.36	0.28
Italy	11,20		0.34	0.32
Greece	11,45		0.29	0.22

Source: own elaboration with data of European Household panel (1997)

Table 118: Proportion of households of a proposed type with respect to the total household population

	1 person without dependents			2 adults without depend			Single parents			2 adults with 1 child			2 adults with 2 o + children		
	Total	Poor	B/A	Total	Poor	B/A	Total	Poor	B/A	Total	Poor	B/A	Total	Poor	B/A
Ireland	2.80	0.53	0,19	35.48	18.78	0,53	1.08	3.44	3,19	7.48	12.17	1,63	53.2	65.1	1,22
Spain	1.86	1.19	0,64	37.1	19.9	0,54	1.15	2.47	2,15	9.66	9.72	1,01	50.2	66.7	1,33
Greece	2.27	1.49	0,66	40.46	37.36	0,92	0.87	1.19	1,37	11.17	12.59	1,13	45.2	47.4	1,05
Italy	3.19	2.61	0,82	40.77	22.27	0,55	1.17	0.82	0,70	13.45	16.49	1,23	41.4	57.8	1,40
UK	6.95	6.19	0,89	49.3	32.3	0,66	2.60	13.6	5,22	11	14.9	1,36	30.2	33	1,09
Belgium	6.71	7.33	1,09	31.50	26.29	0,83	3.79	12.93	3,41	15.59	17.67	1,13	42.4	35.8	0,84
Germany	7.23	12.09	1,67	41.8	24.4	0,58	2.34	15.4	6,57	14.8	14.5	0,98	33.8	33.6	0,99
Denmark	13.87	46.43	3,35	41.8	29.3	0,70	3.16	8.57	2,71	12.3	1.43	0,12	29	14.3	0,49
France	8.47	35.14	4,15	30.70	13.41	0,44	2.99	3.53	1,18	16.26	6.04	0,37	41.6	41.9	1,01

The Overlap between Low Annual Wage Workers and Household Poverty

Table 219: Percentages of “working” poor households. Percentages of low-wage workers. Percentages of low-wage workers living in “working” poor households. Percentages of low-wage workers living in non “working” poor households

		% of Poor Households	% of LWW		% of LWW living in poor households	% of LWW living in non poor households
Denmark		3,71	14		11.36	88.64
Germany		4,87	16,53		12.51	87.49
Belgium		5,25	18,09		14.72	85.28
Ireland		6,21	23,46		9.98	90.02
UK		8,11	25,94		17.58	82.42
France		9,92	20,08		23.91	76.09
Spain		10	22,84		21.52	78.48
Portugal		10,62	20,16		27.92	72.08
Italy		11,20	20,72		27.46	72.54
Greece		11,45	22,51		29.39	70.61

Source: own elaboration with data of European Household panel (1997)

Table 130: Tthe overlap between low wage workers in poor household according to type of households

	1 person without dependents				2 adults without depend				Single parents				2 adults with 1 child				2 adults with 2 o + children		
	Total	overl	B/		Tota	Ove	B/A		Tota	Ove	B/A		Tota	Ove	B/A		Tot	Ove	B/A
Ireland	2,80	2.53	0.90		35.5	31.6	0.89		1.08	3.80	3.52		7.48	10.1	1.35		53.2	51.9	0.98
UK	6,95	10.78	1.55		49.3	32.8	0.66		2.60	17.7	6.80		11	13.8	1.25		30.2	25	0.83
Belgium	6,71	10.53	1.57		31.5	28.9	0.92		3.79	14.5	3.82		15.6	18.4	1.18		42.4	27.6	0.65
Germany	7,23	11.94	1.65		41.8	23.9	0.57		2.34	21.6	9.25		14.8	17.2	1.16		33.8	25.4	0.75
Greece	2,27	3.99	1.76		40.5	41.3	1.02		0.87	2.17	2.49		11.2	14.1	1.26		45.2	38.4	0.85
Spain	1,86	3.94	2.12		37.1	27.6	0.74		1.15	3.94	3.43		9.66	15	1.55		50.2	49.6	0.99
Italy	3,19	8.39	2.63		40.8	29.8	0.73		1.17	2.48	2.12		13.4	17.7	1.32		41.4	41.6	1.00
Denmark	13,87	41.46	2.99		41.8	31.7	0.76		3.16	9.76	3.09		12.3	4.88	0.40		29	12.2	0.42
France	8,47	48.36	5.71		30.7	7.89	0.26		2.99	5.26	1.76		16.3	5.26	0.32		41.6	33.2	0.80

Source: own elaboration with data of European Household panel (1997)

Table 121: Low wage workers in non-poor household according to type of households

	1 person without dependents				2 adults without dependents				Single parents				2 adults with 1 child				2 adults with 2 or more children		
	Total	Over			Total	overl			Total	overl			Total	overl			Total	overl	
Spain	1.86	1.81	0.97		37.15	51.01	1.37		1.15	0.43	0.37		9.66	5.96	0.62		50.2	40.8	0.81
UK	6.95	5.85	0.84		49.28	50.38	1.02		2.60	1.60	0.62		11.00	9.06	0.82		30.2	33.1	1.10
Denmark	13.87	15.20	1.10		41.76	48.54	1.16		3.16	1.17	0.37		12.32	9.36	0.76		29	25.7	0.89
Germany	7.23	4.70	0.65		41.78	43.48	1.04		2.34	1.07	0.46		14.83	17.63	1.19		33.8	33.1	0.98
Belgium	6.71	7.14	1.06		31.50	38.48	1.22		3.79	1.84	0.49		15.59	14.06	0.90		42.4	38.5	0.91
France	8.47	1.13	0.13		30.70	42.53	1.39		2.99	1.75	0.59		16.26	19.36	1.19		41.6	35.2	0.85
Greece	2.27	5.34	2.35		40.46	53.51	1.32		0.87	-	0.00		11.17	5.64	0.50		45.2	35.5	0.79
Ireland	2.80	4.15	1.48		35.48	38.54	1.09		1.08	0.86	0.80		7.48	6.45	0.86		53.2	50.0	0.94
Italy	3.19	1.88	0.59		40.77	48.06	1.18		1.17	6.46	5.52		13.45	12.22	0.91		41.4	31.4	0.76

Source: own elaboration with data of European Household panel (1997)

Table 122: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households). Percentages of single, dual and multi-earners households of the “yes-no” type. (low-wage workers living in non poor households)

	One Earner		Two Earners		Three or more earners	
Spain (total)	(34,37)		(46,76)		(18,87)	
Yes-Yes	43.21	1,26	38.11	0,82	18.68	0,99
Yes-No	14.71	0,43	48.53	1,04	36.77	1,95
Greece	(37.79)		(46.27)		(15,94)	
Yes-Yes	49.45	1,31	37.86	0,82	12.69	0,80
Yes-No	16.50	0,44	49.00	1,06	34.5	2,16
Italy	(29.72)		(52.25)		(18.03)	
Yes-Yes	38.81	1.3	44.74	0.86	16.44	0.90
Yes-No	10.89	0.4	56.09	1.07	33.03	1.80
Portugal	(20.38)		(51.41)		(28,21)	
Yes-Yes	29.73	1,46	48.79	0,95	21.49	0,76
Yes-No	12.86	0,63	41.91	0,82	45.22	1,60
UK	(19,95)		(56,44)		(23,61)	
Yes-Yes	36.55	1,83	49.16	0,87	14.28	0,60
Yes-No	14.22	0,71	54.58	0,97	31.2	1,32
Denmark	(14,30)		(67,16)		(18,53)	
Yes-Yes	13.79	0,96	62.07	0,92	24.13	1,30
Yes-No	18.60	1,30	57.89	0,86	23.51	1,27
Ireland	(21.50)		(45.03)		(33,43)	
Yes-Yes	32.06	1,49	46.89	1,04	21.05	0,63
Yes-No	12.20	0,57	41.93	0,93	45,87	1,37
France	(24.34)		(58.55)		(17,1)	
Yes-Yes	43.65	1,79	40.48	0,69	15.88	0,93
Yes-No	19.48	0,80	54.78	0,94	25,73	1,50
Belgium	(18.58)		(69.46)		(11,96)	
Yes-Yes	31.63	1,70	56.12	0,81	12,24	1,02
Yes-No	11.94	0,64	70.00	1,01	18,06	1,51
Germany	(25,3)		(54,3)		(20,4)	
Yes-Yes	40.09	1,58	55.30	1,02	4.61	0,23
Yes-No	12.19	0,48	59.67	1,10	28,14	1,38

Source: own elaboration with data of European Household panel (1997)

Table 124: Total Assortative Mating partner. Percentages of couples showing the same levels of education (homogamy). Percentages of couples in which the wife has higher level of education than her husband (female ascendancy). Percentages of couples in which the husband has higher level of education than his wife (male ascendancy).

	Homogamy		Female Ascendancy		Male Ascendancy
Ireland					
UK	47,93		21.53		30.54
Denmark	54,23		23.42		22.35
Belgium	55,14		25.96		18.89
France	56,84		21.85		21.31
Germany	57,63		17.55		24.82
Spain	60,11		21.46		18.43
Italy	61,40		22.83		16.21
Greece	65,36		17.38		17.26
Portugal	82,32		10.94		6.74

Source: own elaboration with data of European Household panel (1997)

Table 125: Total Assortative Mating partner. Percentages of couples showing the same levels of education (homogamy). Percentages of couples in which the wife has higher level of education than her husband (female ascendancy). Percentages of couples in which the husband has higher level of education than his wife (male ascendancy).

	Household model 1 (both earning wages)			Household model 2 (both earning wages with low educational levels)			Household model 3 (both earning wages with medium educational levels)			Household model 4 (both earning wages with high educational levels)		
	Equality*	Female**	Male***	Equality	Female	Male	Equality	Female	Male	Equality	Female	Male
Ireland	7,52	16.83	75.65	2.50	15.00	82.50	10.37	11.59	78.05	10.75	17.20	72.04
UK	8,50	16.17	75.34	7.83	16.09	76.09	8.57	20.00	71.43	11.11	18.25	70.63
Germany	10,73	18.03	71.25	6.45	6.45	87.10	10.37	18.22	71.41	13.55	20.88	65.57
Belgium	11,28	17.08	71.64	6.56	13.11	80.33	10.08	17.65	72.27	17.27	12.45	70.28
France	11,86	17.96	70.17	14.29	13.19	72.53	8.70	19.42	71.88	18.26	17.35	64.38
Spain	12,34	20.53	67.14	10.72	18.23	71.05	12.50	17.19	70.31	18.81	18.32	62.87
Greece	12,84	19.82	67.34	11.11	20.37	68.52	15.52	16.38	68.10	17.65	24.60	57.75
Denmark	14,87	14.87	70.27	11.84	10.53	77.63	13.85	15.15	71.00	18.65	13.49	67.86
Italy	16,46	21.37	62.17	13.28	18.75	67.97	22.37	18.16	59.47	21.49	14.88	63.64

Source: own elaboration with data of European Household panel (1997)

* wage equality accrues to those couples earning ($\pm$ 10%) the same wages

** Female ascendancy accrues to those wives or female partners earning above 10% of their male partner wages

*** Male ascendancy accrues to those husbands or male partners earning above 10% of their female partner wages

Table 126: Dual earners households by type of employment

	1 Husband permanent full-time Wife permanent full time	2 Husband Permanent Full-time Wife part-time	3 Husband Permanent Full-time Wife Temporary/ Self- employ	4 Husband Part-time Wife Permanent Full-time	5 Husband Part- time Wife Part- time	6 Husband Part-time Wife Temporary/ Self- employ	7 Husband Temporary Wife Permanent Full-time	8 Husband Temporary Wife Part-time	9 Husband Temporary Wife Temporary / Self- employ	10 Husband Self-emp Wife Permanent Full-time	11 Husband Self- emp Wife Part- time	12 Husband Self-empl Wife Temporary/ Self- employ
Greece	10.72	1.28	2.55	1.14	0.32	0.18	2.46	0.09	1.64	8.94	0.78	69.89
Spain	15.59	3.21	7.08	2.70	0.15	1.02	6.27	1.43	3.57	7.34	1.02	50.64
Ireland	16.46	10.78	3.62	6.17	0.25	0.41	3.05	0.49	0.49	8.81	2.22	47.24
Italy	21.43	4.85	2.57	2.79	0.40	0.11	2.79	0.37	0.48	10.96	1.65	51.58
Portugal	22.13	2.01	5.84	1.49	0.24	0.24	4.27	0.56	1.49	11.53	0.59	49.60
UK	28.15	15.50	1.96	11.40	1.02	0.40	2.00	0.49	0.13	9.40	3.39	26.15
Belgium	28.68	13.57	4.16	8.87	0.31	0.85	4.09	0.46	0.77	8.48	1.62	28.14
Germany	33.56	14.38	4.25	11.74	0.68	0.94	4.85	0.89	0.89	6.93	1.70	19.18
France	40.41	9.81	4.69	7.28	0.31	0.37	4.07	0.43	0.31	7.65	1.79	22.89
Denmark	41.84	9.22	7.18	7.99	0.33	0.49	7.59	0.65	1.39	5.87	2.12	15.33

Table 127: Poor dual earners household by type of employment

Spain	0.33	1.59	1.15	4.30	33.33	24.32	6.71	7.41	11.84	6.53	20.00	11.26
UK	0.79	2.84	4.17	6.44	13.33	10.00	4.00	16.67	0	4.37	10.53	6.47
Germany	0.72	0.70	0	0.87	5.26	10.71	3.20	0	0	1.47	3.77	5.50
Denmark	0	0,86	0	0.79	0	0	1,1	0	5.26	6.25	3.85	3.13

Source: own elaboration with data of European Household panel (1997)

Table 127: 1 person without dependent households. Main characteristics

	Gender			Age				Education		
	Male	Fema		16-31	32-49	50-65 >		Less than second stage of secondary education	Second stage of secondary level education	Recognised third level education
Portugal	32,43	67.57		-	24.32	75.68		94.59	-	5.41
German y	35,59	64.41		89.83	6.78	3.39		50.00	43.75	6.2
Spain	35,71	64.29		28.57	21.43	50.00		57.14	28.57	14.29
UK	41,67	58.33		63.89	16.67	19.44		52.94	8.82	38.24
Greece	46,67	53.33		26.67	13.33	60.00		80.00	13.33	6.67
Ireland	50,00	50.00								
Belgium	52,94	47.06		41.18	47.06	11.76		46.15	46.15	7.69
Denmar k	55,38	44.62		83.08	9.23	7.69		29.03	58.06	12.9
Italy	60,53	39.47		23.68	47.37	28.95		55.56	30.56	13.89
France	65,63	34.38		35.57	37.25	27.17		40.07	50.87	9.06

Source: own elaboration with data of European Household panel (1997)

Table 128: Single member households. Main characteristics

	Gender		Age			Education		
	M	F	16-31	32-49	50-65 >	Less than second stage of secondary education	Second stage of secondary level education	Recognised third level education
Spain	31.03	68.97	41.38	51.72	6.90	53.57	25.00	21.43
UK	10.13	89.87	45.57	49.37	5.06	44.74	27.63	27.63
Denmark	25.00	75.00	41.67	50.00	8.33	50.00	33.33	16.67
Germany	18.67	81.33	40.00	54.67	5.33	29.41	69.12	1.47
Belgium	13.33	86.67	40.00	56.67	3.33	77.27	22.73	-
France	11.11	88.89	41.94	51.61	6.45	41.67	45.83	12.50
Greece	41.67	58.33	50.00	16.67	33.33	70.00	20.00	10.00
Ireland		100						
Italy	8.33	91.67	25.00	75.00	-	50.00	41.67	8.33
Portugal	9.09	90.91	56.36	38.18	5.45	92.73	3.64	3.64

Source: own elaboration with data of European Household panel (1997)

Table 129: The overlap between low-wage full-time workers and household poverty

	Percentages of full-time Low wage workers	% of full-time low wage workers living in poor households	% of full-time low wage workers living in non- poor households
Denmark	2,99	3,5	96,5
Belgium	4,26	15,8	84,2
Germany	5,03	16	84
Italy	5,19	17,4	82,6
Spain	5,56	10,7	89,3
France	6,10	15	85
Portugal	6,66	16,5	83,5
Greece	6,67	16,4	83,6
Ireland	7,38	2,8	97,2
UK	7,54	8,2	91,8

Source: own elaboration with data of European Household panel (1997)

Table 130: Percentages of low-wage workers in full-time employment living in poor households (yes-yes) with respect to the total employed population in full-time. Percentages of low-wage workers in full-time employment living in non-poor households (yes-no) with respect to the total employed population in full-time. Percentages of non-low-wage workers in full-time employment living in poor households (no-yes) with respect to the total employed population in full-time. Percentages of non low-wage workers in full-time employment living in non poor households (no-no)with respect to the total employed population in full-time.

Denmark <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,1 2,8 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,4 96,6	Germany <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,8 4,2 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,7 94,3	UK <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,6 6,7 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1 91,5
Spain <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,6 5 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,7 92,7	France <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,9 5,1 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,7 92,1	Ireland <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,2 7 <u>Low paid</u> <u>Worker</u> <u>No</u> 1,3 91,7

Source: own elaboration with data of European Household panel (1997)

Belgium <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,6 3,2 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,9 94,8	Greece <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 1,1 5,6 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 10,2 83,2	Italy <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 0,8 3,8 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,9 94,5
	Portugal <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 1,1 5,6 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 2,5 90,8	

Source: own elaboration with data of European Household panel (1997).

Table 131: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with full-time low wage workers.

	A- Number of earners per Household (total)				B- Number of Earners in Households with Full-time low wage workers				B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14,02	86	66.22	19,76	13.42	86.6	68.8	17,8	0,96	1,01	1,04	0,90
Belgium	18,39	81,61	69.16	12,45	19.65	80.3	69.4	10,9	1,07	0,98	1,00	0,88
Portugal	20,09	79,92	50.16	29,76	18.10	81.9	53	28,9	0,90	1,02	1,06	0,97
Ireland	20,81	79,19	43.96	35,23	19.38	80.6	47.4	33.2	0,93	1,02	1,08	0,94
UK	21,31	78,7	54.58	24,11	19.48	80.5	56.5	24	0,91	1,02	1,04	1,00
Germany	24,84	75,16	53,18	21,98	26,5	73,4	53,1	20,3	1,07	0,98	1,00	0,92
France	27,71	72,29	55.02	17,27	23.43	76.5	60	16,5	0,85	1,06	1,09	0,96
Italy	32,04	68	50.74	17,22	28.1	71,9	54,4	17,5	0,88	1,06	1,07	1,02
Spain	32,76	67,26	46.26	21	34.49	63.2	48.3	14.9	1,05	0,94	1,04	0,71
Greece	37,07	62,93	46.51	16,42	31.65	68.2	52	16.2	0,85	1,08	1,12	0,99

Source: own elaboration with data of European Household panel (1997)

Table 132: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with full-time low-wage workers. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with full-time low-wage workers

	Number of Earners in Households containing fulltime low wage workers					
	One Earner		Two Earners		Three or more earners	
Spain (total)	(34.49)		(48.26)		(14.88)	
Yes-Yes	39.69	1,15	49.21	1,02	11.1	0,75
Yes-No	10.43	0,30	47.83	0,99	41.74	2,81
Greece	(31.65)		(52.03)		(16.22)	
Yes-Yes	34.85	1,10	50.00	0,96	15.15	0,93
Yes-No	13.24	0,42	45.59	0,88	41.17	2,54
Italy	(28.1)		(54.4)		(17.5)	
Yes-Yes	40	1,4	44	0,81	16	0,9
Yes-No	14	0,5	53	0,97	33	1,9
Portugal	(18.10)		(53.01)		(28.89)	
Yes-Yes	29.13	1,61	49.61	0,94	21.26	0,74
Yes-No	7.69	0,42	44.44	0,84	44.44	1,54
UK	(19.48)		(56.60)		(24.01)	
Yes-Yes	11.54	0,59	69.23	1,22	19.23	0,80
Yes-No	13.2	0,68	43.65	0,77	43.15	1,80
Denmark	(13.42)		(68.78)		(17,8)	
Yes-Yes	-		100	1,45	-	
Yes-No	11.11	0,83	77.78	1,13	11.11	0,62
Ireland (total)	(19.38)		(47.43)		(33.19)	
Yes-Yes	18.52	0,96	48.15	1,02	14.81	0,45
Yes-No	13.04	0,67	35.65	0,75	40.87	1,23
France	(23.43)		(60.03)		(16,54)	
Yes-Yes	25.00	1,07	37.50	0,62	37.5	2,27
Yes-No	19.39	0,83	56.97	0,95	23.64	1,43
Belgium	(19.65)		(69.40)		(10,95)	
Yes-Yes	43.75	2,23	56.25	0,81	-	
Yes-No	6.45	0,33	75.81	1,09	17.74	1,62
Germany	(26,5)		(53,1)		(20,3)	
Yes-Yes	31.48	1,19	53.70	1,01	14,82	0,73
Yes-No	12.21	0,46	62.79	1,18	25	1,23

Source: own elaboration with data of European Household panel (1997)

The Overlap between Low Wages and Household Poverty among Part-time Workers

Table 133: Percentages of low-wage workers in part-time employment. Percentages of low-wage workers in part-time employment living in poor households.

	Percentages of Part-time Low wage workers	% of Part-time low wage workers living in poor households	% of Part-time low wage workers living in non- poor households
Denmark	30,98	1,6	98,4
Greece	40,26	19,3	80,7
Italy	46,35	10,3	89,7
Germany	51,00	7,1	92,9
Belgium	57,14	8	92
Ireland	59,44	6	94
Portugal	61,38	10,4	89,6
Spain	65,45	12,1	87,9
UK	74,13	10,3	89,7
France	74,28	11,4	88,6

Source: own elaboration with data of European Household panel (1997)

Table 134: Percentages of low-wage workers in part-time employment living in poor households (yes-yes) with respect to the total part-time population. Percentages of low-wage workers in part-time employment living in non-poor households (yes-no) with respect to the total part-time population. Percentages of non-low-wage workers in part-time employment living in poor households (no-yes) with respect to the total part-time population. Percentages of non low-wage workers in part-time employment living in non poor households (no-no)with respect to the total part-time population.

Denmark	Poor Household	
	Yes	No
Yes	0,5	30,4
Low annual Wage Worker		
No	-	69,1
Germany	Poor Household	
	Yes	No
Yes	3,6	47,4
Low annual Wage Worker		
No	0,8	48,2
UK	Poor Household	
	Yes	No
Yes	7,7	66,5
Low annual Wage Worker		
No	0,4	25,5
Spain	Poor Household	
	Yes	No
Yes	7,9	57,6
Low annual Wage Worker		
No	0,6	33,9
France	Poor Household	
	Yes	No
Yes	5,5	65,8
Low annual Wage Worker		
No		28,7
Ireland	Poor Household	
	Yes	No
Yes	3,9	55,9
Low paid Worker		
No	1,1	39,1

Source: own elaboration with data of European Household panel (1997)

Belgium	Poor Household	
	Yes	No
Yes	3,9	52,6
Low annual Wage Worker		
No	0,4	42,9
Greece	Poor Household	
	Yes	No
Yes	7,8	32,5
Low annual Wage Worker		
No	1,3	55,8
Italy	Poor Household	
	Yes	No
Yes	7,4	41,6
Low annual Wage Worker		
No	-	51,1
Portugal	Poor Household	
	Yes	No
Yes	6,9	55
Low annual Wage Worker		
No	-	38,1

Source: own elaboration with data of European Household panel (1997)

Table 135: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with full-time low wage workers.

	A- Number of earners per Household (total)				B- Number of Earners in Households with low wage part-timers				B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14,02	86	66.22	19,76	15.82	84.2	63.9	20,3	1,13	0,98	0,96	1,03
Belgium	18,39	81,61	69.16	12,45	9.76	90.3	77.6	12,7	0,53	1,11	1,12	1,02
Portugal	20,09	79,92	50.16	29,76	12.33	87.6	57.5	30,1	0,61	1,10	1,15	1,01
Ireland	20,81	79,19	43.96	35,23	12.20	87.8	58.5	29,3	0,59	1,11	1,33	0,83
UK	21,31	78,7	54.58	24,11	15.85	84.2	65.3	18.9	0,74	1,07	1,20	0,78
Germany	24,84	75,16	53,18	21,98	14.14	85,8	63.7	22,1	0,57	1,14	1,20	1,01
France	27,71	72,29	55.02	17,27	16.50	83.5	59.2	24.3	0,60	1,16	1,08	1,41
Italy	32,04	68	50.74	17,22	13,70	86,3	68,9	17,4	0,43	1,27	1,36	1,01
Spain	32,76	67,26	46.26	21	19.08	80.9	59.2	21.7	0,58	1,20	1,28	1,03
Greece	37,07	62,93	46.51	16,42	18.67	81.3	69.3	12	0,50	1,29	1,49	0,73

Source: own elaboration with data of European Household panel (1997)

Table 136: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with full-time low-wage workers. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with full-time low-wage workers.

	Number of Earners in Households containing low wage part-time workers					
	One Earner		Two Earners		Three or more earners	
Spain (total)	(19.08)		(59.21)		(21.71)	
Yes-Yes	31.03	1,63	41.38	0,70	27.59	1,27
Yes-No	15.28	0,80	58.33	0,99	26.39	1,2
Greece	(18.67)		(69.33)		(12)	
Yes-Yes	22.22	1,19	55.56	0,80	22.22	1,85
Yes-No	4.76	0,25	66.67	0,96	28.57	2,38
Italy	(13.70)		(68.95)		(17.4)	
Yes-Yes	25.81	1,9	54.84	0,8	19.35	1,1
Yes-No	8.97	0,7	69.23	1	21.8	1,3
Portugal	(12.33)		(57.53)		(30.14)	
Yes-Yes	10.26	0,83	58.97	1,03	30.77	1,02
Yes-No	16.67	1,35	40.74	0,71	40.74	1,35
UK	(15.85)		(65.31)		(18.87)	
Yes-Yes	30.23	1,91	60.47	0,93	9.31	0,49
Yes-No	15.10	0,95	64.77	0,99	20.13	1,07
Denmark	(15.82)		(63.92)		(20,26)	
Yes-Yes	-		100	1,56	-	
Yes-No	25.00	1,58	47.73	0,75	27.28	1,35
Ireland (total)	(12.20)		(58.54)		(29,26)	
Yes-Yes	20.83	1,71	62.50	1,07	16,67	0,57
Yes-No	9.46	0,78	48.65	0,83	41,89	1,43
France	(16.50)		(59.22)		(24.28)	
Yes-Yes	47.37	2,87	36.84	0,62	15.79	0,65
Yes-No	15.70	0,95	53.72	0,91	30,58	1,26
Belgium	(9.76)		(77.56)		(12,68)	
Yes-Yes	-		58.33	0,75	41,66	3,29
Yes-No	12.38	1,27	77.14	0,99	10,47	0,83
Germany	(14.14)		(63.7)		(22,1)	
Yes-Yes	30.56	2,16	69.44	1,09	-	-
Yes-No	7.11	0,50	63.51	1,00	29,38	1,33

Source: own elaboration with data of European Household panel (1997)

The Overlap between “Low Wage” and Household Poverty among Self-employees

Table 137: Percentages of low-income self-employed. Percentages of low- income self-employed living in poor households.

	Percentages of Low wage self-employees	% of low wage self-employees living in poor households	% of low wage self-employees living in non- poor households
Denmark	19,2	35,9	64,1
Germany	21,40	13,5	86,5
Spain	29,1	35,1	64,9
UK	32,2	31,6	68,4
Greece	32,84	38,1	61,9
Belgium	33,33	27	73
Portugal	36,70	46,1	53,9
Italy	38,33	35	65
France	53,60	47,1	52,9

Source: own elaboration with data of European Household panel (1997)

Table 138: Percentages of low-income self-employed living in poor households (yes-yes) with respect to the total self-employed population. Percentages of low-income self-employed living in non-poor households (yes-no) with respect to the total self-employed population. Percentages of non-low-income self-employed living in poor households (no-yes) with respect to the total self-employed population. Percentages of non low-income self-employed living in non poor households (no-no)with respect to the total self-employed population

Denmark <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 6,9 12,3 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> - 80,8	Germany <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 2,9 18,7 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,4 78	UK <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 10,1 21,9 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,6 66,4
Spain <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 10,2 18,9 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 3,5 67,4	France <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 25,2 28,3 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,2 45,2	Ireland <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>Low paid</u> <u>Worker</u> <u>No</u>

Source: own elaboration with data of European Household panel (1997)

Belgium <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 9 24,3 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 0,8 65,8	Greece <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 12,5 20,3 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 3,2 63,9	Italy <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 12,7 23,6 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 1,2 62,4
	Portugal <u>Poor Household</u> <u>Yes</u> <u>No</u> <u>Yes</u> 18 21,1 <u>Low annual</u> <u>Wage Worker</u> <u>No</u> 2,8 58	

Source: own elaboration with data of European Household panel (1997)

Table 139: Percentages of single and multi-earner households. Percentages of single and multi-earner households in household with low-income self-employed

	A- Number of earners per Household (total)				B- Number of Earners in Households with FYLASE				B/A			
	Single	Multi-earners			Single	Multi-earners			Single	Multi-earners		
		total	Two	3 o +		total	two	3 +		total	two	3 +
Denmark	14,02	86	66.22	19,76	12.77	83.7	68.1	15,6	0,91	0,97	1,03	0,79
Belgium	18,39	81,61	69.16	12,45	20.06	78.4	64.3	14,1	1,09	0,96	0,93	1,13
Portugal	20,09	79,92	50.16	29,76	26.67	65.6	42.1	23,5	1,33	0,82	0,84	0,79
UK	21,31	78,7	54.58	24,11	25.69	67.9	51.4	16,5	1,21	0,86	0,94	0,68
Germany	24,84	75,16	53,18	21,98	28.50	71,5	56.1	15,4	1,15	0,95	1,05	0,70
France	27,71	72,29	55.02	17,27	35.42	64.6	51.4	13,2	1,28	0,89	0,93	0,76
Italy	32,04	68	50.74	17,22	40,03	60	44,9	15,1	1,25	0,88	0,88	0,88
Spain	32,76	67,26	46.26	21	40.93	59.1	45.3	13.8	1,25	0,88	0,98	0,66
Greece	37,07	62,93	46.51	16,42	46.65	49.8	36.6	13,2	1,26	0,79	0,79	0,80

Source: own elaboration with data of European Household panel (1997)

Table 140: Percentages of single earner households, dual-earners households and multi-earners households (in parenthesis). Percentages of single, dual and multi-earners households of the “yes-yes” type (low-wage workers living in poor households) in household with low-income self-employed. Percentages of single, dual and multi-earners households of the “yes-no” type (low-wage workers living in non poor households) in households with low-income self-employed.

	Number of Earners in Self-employees ' Households (Single households excluded)					
	One Earner		Two Earners		Three or more earners	
Spain (total)	(40.93)		(45.31)		(13.76)	
Yes-Yes	49.01	1,20	39.74	0,88	11,26	0,82
Yes-No	11.90	0,29	67.86	1,50	20,23	1,47
Greece	(46.65)		(36.58)		(13,23)	
Yes-Yes	55.31	1,19	34.41	0,94	10.29	0,78
Yes-No	18.89	0,40	48.33	1,32	32.78	2,48
Italy	(40,03)		(44,9)		(15,1)	
Yes-Yes	40.73	1	46.18	1,03	13.09	0,9
Yes-No	11.11	0,3	60.32	1,34	28,58	1,9
Portugal	(26.67)		(42.07)		(23,51)	
Yes-Yes	36.90	1,38	44.05	1,05	19.6	0,83
Yes-No	20.00	0,75	39.00	0,93	41.00	1,74
UK	(25.69)		(51.37)		(16,48)	
Yes-Yes	42.55	1,66	38.30	0,75	19.15	1,16
Yes-No	27.08	1,05	57.29	1,12	15.63	0,95
Denmark	(12.77)		(68.09)		(15,6)	
Yes-Yes	18.18	1,42	63.64	0,93	18.18	1,17
Yes-No	20.00	1,57	60.00	0,88	20.00	1,28
France	(35.42)		(51.41)		(13,17)	
Yes-Yes	51.85	1,46	37.04	0,72	11.11	0,84
Yes-No	31.11	0,88	51.11	0,99	17.78	1,35
Belgium	(20.06)		(64.26)		(14,11)	
Yes-Yes	35.00	1,74	50.00	0,78	15	1,06
Yes-No	9.09	0,45	66.67	1,04	24.24	1,72
Germany	(28.50)		(56.1)		(15,4)	
Yes-Yes	39.13	1,37	60.87	1,09	-	-
Yes-No	17.57	0,62	58.11	1,04	24,32	1,58

Source: own elaboration with data of European Household panel (1997)

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