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Living Arrangements of the Unemployed Across Europe: How Households Protect Us From Vulnerability

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How Households Protect Us From Vulnerability

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Luna ve babasina..

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Introduction

Unemployment is one of the most stressful individual experiences one can go through. It has been associated with various economic and emotional costs. Individuals not only suffer the immediate consequences of unemployment such as reduced income and consumption, but also lower future earnings and an increased probability of unstable jobs in the longer term[1]. Unemployment is found to be related to health problems[2] and to have detrimental effects on the psychological well-being of the unemployed and their families.[3] It can also increase depression, anxiety and may cause loss of identity and low self-esteem (Liem and Liem, 1988; Fielden and Davidson, 1999; Krueger and Mueller, 2011).

Unemployment is measured at the individual level, but it is indeed a joint family experience. At least it acquires a household dimension as long as unemployed individuals live with others. Co-residing household members share the short and long-term costs of unemployment, however, they

[1]For the scarring effect of unemployment on future earnings and future employment see: Arulampalam (2001); Kletzer (1998); Davis and von Wachter (2011); Gangl (2006); Cooper (2014).

[2]See for example: Korpi (2001). However, the evidence for a causal link between unemployment and ill health is very mixed. For instance, Browning et al. (2003) do not find any impact of displacement on ill health in Denmark.

[3]There is a big amount of literature accumulated on the impacts of unemployment on psychological well-being of unemployed individuals. See for example: Clark and Oswald (1994) and Winkelmann and Winkelmann (1998). For its adverse consequences on family members see Bubonya et al. (2014), Westman et al. (2004) and Ström (2003).

can also provide support to soften the pressures put on unemployed individuals. Besides providing income, household members actively participating in the labour market can provide the networks to maintain the connection to the labour market, helping to prevent social isolation and exclusion. Unemployed individuals living in jobless households (in which everyone is out of the labour market) are likely to lack access to the necessary resources to improve the adverse effects of unemployment.

The shift towards household level employment measures can be traced back to the 90s. Increasing number of jobless households in periods of stable employment rates have revealed the importance of household level joblessness, underlining the fact that individual and household level measures of unemployment can tell different stories. Gregg and Wadsworth (1994, 1998) were first to show that increasing employment levels were paradoxically accompanied with increasing numbers of households where no one was working. They found that in Britain, between 1975 and 1990, while the number of jobless households doubled, the aggregate employment rate remained unchanged, which they explained as a consequence of the uneven distribution of employment and the concentration of jobs in certain type of households. More precisely their findings revealed that while the number of households in which nobody was employed and the number of households in which everyone was employed increased, households containing a mixture of working and non-working individuals had declined.

The high unemployment rates reached as a consequence of the recent economic crisis amplified the concerns regarding the increasing numbers of individuals living in households in which there is no-one in work and brought jobless households to the center of the European agenda. Household level joblessness is among the core social inclusion indicators of the EU and it has been incorporated into its headline indicator to monitor the

EU 2020 poverty target: At Risk of Poverty or Social Exclusion (AROPE), which refers to the situation of individuals either at risk of poverty or severely materially deprived or living in households with very low work intensity.

Individuals living in a jobless household are surrounded by a high concentration of unemployment or inactivity, which generates negative feedbacks that can worsen the above mentioned adverse circumstances that they face. Living in a jobless household is associated with an increased risk of poverty, deprivation and social exclusion and has severe implications for children (Ellwood et al., 2004; Nickell, 2004; Whiteford and Adema, 2007). It increases the intergenerational transmission of poverty, the likelihood of poorer education and the risk of subsequent unemployment (de Graaf-Zijl and Nolan, 2011). Living in a jobless household during childhood is found to be associated with poorer outcomes for young adults later in life (Ermisch et al., 2004). Children living with jobless parents during childhood are found to be more likely to have poorer educational attainment and are more likely to live in jobless households themselves later in life (Headey and Verick, 2006).

This thesis focuses on unemployed individuals and their living arrangements across Europe. We explore how their co-residence patterns[4] can serve as a support mechanism to keep them out of jobless[5] and poor[6] house-

[4]We basically focus on parental, spousal and filial co-residence.

[5]Joblessness is defined in two different ways by Eurostat. According to the first definition, which is based on the EU LFS data, jobless households are households in which there is no one in work and being in work is determined according to the labour status during the reference week. We used this definition in the first two chapters. The second definition, based on the EU SILC data, is related to work intensity over the last year of the whole household and commonly referred to as quasi-joblessness. In the third chapter we incorporated this second definition.

[6]We use the headline indicator of the EU to monitor the EU 2020 poverty target: At Risk of Poverty or Social Exclusion (AROPE), which refers to the situation of individuals either at risk of poverty or severely materially deprived or living in a household with a

holds. The thesis is structured in three chapters, the first two focusing on jobless households and the third one on poverty and social exclusion across Europe.

We exploited the extensive regional detail provided by the European Union Labour Force Survey (EU-LFS) data in the first two chapters to examine household joblessness across European countries and regions. In the third chapter, we used the European Union Statistics on Income and Living Conditions (EU-SILC) data to explore poverty and social exclusion across European countries. EU-LFS provides comprehensive regional information while regional detail provided by EU-SILC is limited, due to smaller sample sizes, although, it provides detailed income information and data on poverty and living conditions of households.

EU-LFS is one of the largest and most comparable surveys of European households. It includes demographic information on all persons within households and detailed labour market participation data for the population of individuals aged 15 and over. EU-LFS data allows all individuals co-residing in the same household to be linked via family interrelationship variables indicating mother's, father's, and spouse's location in the household. Likewise, EU-SILC enables identification of co-residence patterns through the mother, father and spouse identification variables. EU-SILC is the main source of information for income distribution, poverty and social exclusion statistics in Europe. It provides comparable data across Europe on total disposable household income before and after transfers.

We used the EU-LFS data for the year 2011 in the first chapter while in the second chapter we exploited the data for 2012 to take advantage of the most recent data available at the time of the analysis. We decided to use the 2013 EU-SILC data in the third chapter with the same reasoning, to

very low work intensity.

benefit from the most up to date data available at the time. Thus, the data used in the successive chapters are in line with the evolution of the thesis throughout the years.

Preliminary analysis we conducted at the macro level did not show enough variance in parental co-residence patterns over the last decade. For instance, while Spain experienced one of the biggest increases in unemployment rates, the proportion of individuals co-residing with parents has remained stable. We are aware that the evidence at the micro level, mostly from the US, points in a different direction. Shared living arrangements and particularly returns to the parental home have been used as coping mechanisms after employment losses (Mykyta and Macartney, 2011; Kaplan, 2012; Taylor et al., 2011). Indeed, individuals who become unemployed are found to be three times more likely to move into shared living arrangements in the US (Wiemers, 2014). These results are not necessarily contradictory as we know that macro level dynamics are not necessarily reflected at the micro level.

Based on the lack of preliminary evidence of strong macro level changes over time we decided to focus on the explanation of variance across countries instead. Our intention is providing a large scale picture of European countries, thus we opted for an analysis that privileges a cross sectional comparative perspective rather than detailed longitudinal analysis of the consequences of the economic recession. Nevertheless, the strategies of individuals regarding living arrangements in times of economic hardship, particularly doubling-up or returning to parental home, are a central and interesting dimension of the processes we analyze here, a dimension we would like to explore in more detail in future analysis.

Throughout the different chapters we maintain a comparative approach,

an approach that was guided by the objective of having a large territorial coverage in order to contrast the situation of countries and regions with different co-residence patterns. The dataset used in the first two chapters is comprised of 24 European countries providing household-level information in the EU-LFS database[7]. We were able to incorporate Nordic European countries into our analysis in the third chapter using EU-SILC data and expand our analysis to 32 countries[8].

The first chapter, "The Family Context of the Unemployed in Europe: Implications for Household Joblessness" seeks to address two main questions: At which ages unemployed individuals are more likely to be in jobless households? What is the role of varying living arrangements across Europe to protect the unemployed from being in jobless households? Throughout this chapter, we mainly investigate the prevailing co-residence patterns of unemployed populations across Europe and their impact on their probabilities of being in jobless households. In addition to the descriptive findings presented, in this chapter we ran various multilevel logistic regression models, two-level random intercept models, allowing the overall probability of co-residence in a jobless household for unemployed individuals to vary across countries. We explore how this probability changes by age and scrutinize the role of different household members to help them stay out of jobless households in different stages of their lives. We focus on the age-specific effects and changing importance of parental, spousal and filial co-residence across Europe.

One of the main findings of this chapter is that European youth, hav-

[7] Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Germany, Estonia, France, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, the Slovak Republic, Spain, and the United Kingdom.

[8] In the third chapter, Denmark, Finland, Iceland, Norway, Sweden, Switzerland, Croatia and Serbia are added into our analysis.

ing the highest unemployment rates of all age groups, are the least likely to be in jobless households, which paved the way to the second chapter: "Living Arrangements of the Young Across European Regions: Implications for Household Joblessness". The target group of this chapter is the young unemployed populations across Europe. We find focusing on young unemployed particularly important since most of the critical events of an individual's life time take place in these ages, during the years of transition to adulthood. Patterns of transition to adulthood are highly heterogeneous across Europe (Buchmann and Kriesi, 2011; Sobotka and Toulemon, 2008) revealing the importance of living arrangements of young unemployed populations in explaining their varying risks of being in jobless households across Europe. For instance, in Spain, Basque Community and Navarre are the two regions with the lowest youth unemployment rates, around 13 per cent; while in Germany the highest youth unemployment rate observed is around 10 per cent (Berlin and Mecklenburg-Vorpommern). However, in Germany, with the lowest youth unemployment rates across Europe, half of the young population lives in jobless households. Berlin, Sachsen-Anhalt and Thuringen have the highest shares of unemployed individuals in jobless households: over 60 per cent. Using a similar framework as in the first chapter, we explore how living arrangements of young individuals can protect them from being in jobless households, taking advantage of the regional detail provided by the EU-LFS data.

However, being in a working (not jobless) household and having some sort of earned income in the household does not guarantee immunity from poverty or material deprivation. First of all, having a job does not necessarily mean escaping poverty as it depends how much the job pays. What a poor jobless individual needs is much more than a job but a job that pays significantly more than the social benefits received (Marx et al., 2012).

Moreover, poverty is not determined solely by current earned income, individuals may bring in accumulated savings and may have other sources of unreported income like support received from family and state institutions. The well-being of unemployed individuals depends extensively on the generosity of welfare protection as well as employment policies and regulations affecting the functioning of the labour market like unemployment benefits and active employment policies (Ahn et al., 2006; Gallie et al., 2001). Unemployed in jobless households suffer less in countries with robust social protection systems with adequate income support, high coverage of unemployment and social assistance, access to enabling services and activation policies.

The overall generosity of protection provided for the unemployed varies widely across European welfare states: while Nordic and Continental Europe are characterized by relatively generous unemployment benefit systems both in terms of entitlement conditions and income support, in Southern Europe access to unemployment insurance is rather strict and generosity of the benefits varies depending on the age and contribution period. The share of individuals not receiving income support is very large in Southern European countries, signaling ineffectiveness of the benefit system to reach the most vulnerable. According to the report of the European Commission's Social Protection Committee (SPC, 2014), while more than 40 per cent of individuals living in (quasi-) jobless and poor households receive 10 per cent or less of their income from social transfers in Greece, Cyprus, Italy, Portugal and Bulgaria, this share is less than 10 per cent in Finland, Sweden, Denmark, Netherlands and France. Even though, governments provide support to the unemployed individuals via income transfers, this does not guarantee an overall improvement of living standards as jobless households face high levels of material deprivation.

Another problem related to generous unemployment benefits is that they often meet the resistance of conservative politicians and academics who argue that they might increase the attractiveness of being without work, encouraging voluntary unemployment (Clark and Oswald, 1994) and put pressure on the financial sustainability of social welfare system (NESC, 2014)[9].

On the other hand, family networks can provide supplementary support to the protection provided by the welfare state. Insurance provided by the welfare state in the form of unemployment benefits and insurance provided by the family networks in the form of intra-family transfers play interchangeable or complementary roles in different countries, the strength of one being quite influential on the extent of the other (e.g. generous welfare states of Nordic Europe accompanied by weaker family ties and strong family ties of the South by weaker welfare states)[10]. Indeed, Di Tella and MacCulloch (2002) show that generous welfare state transfers may lead to a more than one for one reduction in the amount of informal insurance provided by family networks. Extended family networks and high prevalence of multi-generational households are found to play a crucial role in reducing the cost of unemployment in Southern European countries, complementing the lack of generosity of the weak welfare systems (ineffectiveness of social protection schemes and inadequate income support) of these

[9]These neo-conservative ideas based on welfare state retrenchment and austerity have been subject to strong criticism by the left. For an overview and comparison of left and right rhetoric see Mishra (2014), for an overview of the literature on the politics of retrenchment see Starke (2006).

[10]In Southern Europe multigenerational households are common since children leave the parental home relatively late, when they get married or have their own children and elderly receive support from adult children or other family members, whereas Northern Europe is identified with individualistic values where children leave the parental home early and elderly receive help through strong welfare state institutions instead (Reher, 1998).

countries (Bentolila and Ichino, 2000).

Unemployed individuals living in jobless households may have other characteristics, like being lower educated or living together with many children, that add to their already increased poverty risk (de Graaf-Zijl and Nolan, 2011). In households in which there are many children or in which extended family members live together, one adult working may not be able to lift the household above the poverty line or provide a satisfactory standard of living alone. According to OECD (1998), the presence of at least one adult in a full-time job throughout the year is not sufficient to escape the bottom quantile of the income distribution as in many countries more than one half of low-income individuals live in working households. Hence, it is essential to distinguish between employment intensities of the working households, since it would clearly be more difficult, for individuals working only part-time to support big families.

In the third chapter "Impacts of Living Arrangements on Poverty and Social Exclusion Across Europe", we move our attention to the buffering effects of living arrangements on poverty risks of unemployed individuals across Europe. Following the earlier chapters, we address two main questions: What is the impact of varying living arrangements on the probabilities of unemployed individuals to be in poverty and social exclusion across Europe and how this probability changes by age.

In this chapter, we mainly used the At Risk of Poverty or Social Exclusion (AROPE) indicator which is the main indicator to monitor the social inclusion target of the Europe 2020 Strategy of lifting at least 20 million people out of the risk of poverty and social exclusion. We distinguished among its three sub-indicators each of which focuses on different dimensions of poverty: At Risk of Poverty (AROP), Severely Materially Deprivation (SMD) and Low Work Intensity (LWI). We present a cross-country

comparison of poverty across Europe using these three sub-indicators.

We distinguish among several household types and explore their vulnerability against poverty to shed light on the importance of various configurations of living arrangements. We also present a comparison of the percentages of total and unemployed populations in each decomposition of AROPE: suffering only from one form of poverty (e.g. being in an only income poor household), from two (e.g. being in a household which is both income poor and materially deprived) and from three forms of poverty all at the same time (e.g. being in an income poor, materially deprived and low work intensity household) across Europe. In line with the previous two chapters, we ran various multilevel logistic regression models, to examine the role of different co-residing family members to help unemployed individuals avoid different dimensions of poverty in different stages of their lives.

The notion of Europe has evolved extensively over the last decades, coming a long way from the strong sovereign nation-states to a long-standing economic, political, legal, social and cultural integration process. Contemporary Europe can be characterized with similar living arrangement patterns considering the wider world context, however significant differences are observed among European countries, particularly considering the now even wider European Union, following its expansion towards the East.

Overall, this thesis aimed at providing a complete picture of this diversity observed in living arrangements of unemployed individuals across Europe. But more importantly, it contributes to the literature on the role of families as important support mechanisms for the retreating welfare states of Europe, particularly in countries with weaker welfare state institutions. It provides useful insights regarding the co-residence strategies developed

by generations against exposure to two main situations of vulnerability: living in households in which there is no one in work and living in poverty and social exclusion.

Chapter 1

THE FAMILY CONTEXT OF THE UNEMPLOYED IN EUROPE: IMPLICATIONS FOR HOUSEHOLD JOBLESSNESS

1.1 Introduction

The growth of unemployment and of jobless households over the last years has become one of the major concerns in Europe because of its direct consequences on poverty and social exclusion. However, the relationship between unemployment and jobless households is not as straightforward as it may seem. Increasing employment levels are not always accompanied with a decline in the number of households in which no one is working Gregg and Wadsworth (1994, 1998) and countries with the highest rates of unemployment are not the ones with the highest percentages of their populations in jobless households (de Graaf-Zijl and Nolan, 2011).

In this chapter, we investigate the co-residence patterns of unemployed individuals across European households by using comparative European Union Labour Force Survey (EU-LFS) data for 24 European countries for the year 2011. The aim of this chapter is to examine at which ages and under which household circumstances the unemployed are more likely to be in jobless households. Our central hypothesis is that the risk of being in a jobless household changes by age and is largely shaped by the family context of the household in which unemployed individuals reside, which varies widely across Europe. Therefore, we also hypothesize that the likelihood of being in jobless households for unemployed individuals will be lower in societies with high levels of co-residence. We do not aim to establish any causal relationship, but to test if there is an association between household joblessness among the unemployed and their family context within the household.

This chapter addresses two main questions: At what ages and under which family circumstances are the unemployed more likely to live in jobless households? What is the age-specific effect of parental, spousal and

filial co-residence across Europe in keeping unemployed individuals from living in jobless households? By answering these questions, we will contribute to the literature on unemployment and jobless households by offering a view that takes into account the family context of the unemployed (presence of parents, spouses, children and others) and its variance across age groups and European countries. While the bulk of literature on jobless households has mainly focused on its poverty implications, the age perspective of joblessness and co-residence patterns of unemployed individuals remain understudied. Our approach will allow to assess the effect of co-residence with parents, spouses and children on the probability of being in a jobless household and to determine the extent to which Europe's diversity in family arrangements is related to less or more household joblessness among the unemployed.

1.1.1 Background

As a consequence of the recent economic crisis, unemployment rates[1] have risen drastically across Europe (from 6.6 percent to 10.8 percent for men and from 7.9 percent to 10.9 percent for women between 2007 and 2011). In 2007, Slovenia exhibited the highest level of unemployment for men in Europe with a rate of 10 percent. But only four years later, in 2011, 14 European countries had surpassed the 10 percent threshold, Spain and Greece even with rates exceeding 20 percent. Germany is the only European Union (EU) country in which unemployment did not increase between 2007 and 2011. In countries such as Austria, Luxembourg, and the Czech Republic, the rise in unemployment has been positive but modest relative to trends

[1] Unemployment rate is defined as the number of unemployed individuals as a percentage of the active population. Therefore, our unemployment definition excludes individuals who are jobless due to education, retirement or childcare reasons according to the 'actively looking for a job' criteria of the ILO definition.

observed in Ireland, Southern Europe, and a number of Eastern European countries, such as Latvia, Lithuania, Slovakia, and Slovenia. Unemployment trends of women have followed similar temporal and spatial patterns similar to that of men. However, the rise in unemployment has been lower for women compared to men, narrowing the unemployment gender gap (EC, 2009).

High unemployment rates intensified the concerns regarding the increasing numbers of jobless households, households in which there is no-one in work. All the members of jobless households are either unemployed or inactive[2] and thus without access to any earned income. We choose to use the term jobless households although in the literature workless household is also commonly used (Gregg et al., 2010; Härkönen, 2011). We choose jobless to avoid any confusion that may arise from 'Persons living in households with low work intensity' which is one of the three components of Europe 2020 poverty and social exclusion target. People living in households with low work intensity are defined to be in households where the members of the household worked less than 20 per cent of their potential during the previous 12 months (EC, 2010). In this chapter, instead of hours worked and work intensity, joblessness depends on the labor market status during the reference week.

Although there exists a positive correlation between non-employment rates for individuals and households, countries with the highest non-employment rates do not have the highest proportions of jobless households (OECD, 1998). Greece, Ireland, Italy, Spain have the highest shares of individuals not in work while having the same jobless household rate as Germany and the Netherlands with lower individual non-employment

[2]Inactive family members can be students, retired individuals, sick, disabled or could have other responsibilities or commitments that keep them out of work.

rates (Ibid.). Share of jobless households has even increased in periods of employment growth. Gregg and Wadsworth (1998, 1994) revealed that individual and household level measures of unemployment can tell very different stories since employment has become increasingly unevenly distributed across households in many Western societies. They showed that while the number of households in which nobody is employed and the number of households in which everyone is employed increased, households containing a mixture of working and non-working individuals have declined. Gregg et al. (2010) showed that although its incidence and magnitude varies across countries, an increase in polarization (discrepancy between individual and household level joblessness measures) was observed in every country in their analysis[3].

The increasing discrepancy between the individual level and household level unemployment measures has been related to various factors, such as the change in composition of households, caused mainly by the increase in the number of single-adult households (OECD, 1998) and the increasing number of lone-parent households, usually headed by a female (Dawkins et al., 2005). However, Gregg and Wadsworth (1998, 1994) argue that this can serve to explain only a small part of the difference and that the increasing concentration of work within household size groups is a more important factor, by which they mean an increasing number of multiple-earner households accompanied by an increasing number of single and multiple-adult households with no one in work. Comparing the actual and the counter-factual workless household rates (which would occur if work were randomly distributed), Gregg et al. (2010) attribute the increasing polarization to within-household factors and basically to labor market shifts in the concentration of employment across age, region, gender and educa-

[3]United States, Britain, Germany, Spain and Australia

tion.

Labour market positions of husbands and wifes are positively related as a consequence of educational homogamy, when one spouse is unemployed the relative probability of the other spouse to be unemployed is also high (De Graaf and Ultee, 2000)[4]. Likewise, Dawkins et al. (2005) argue that assortative mating explains a significant part of the concentration of joblessness in particular households. Moreover, since couples face the same labour market, their risks of unemployment increase in times of high unemployment (De Graaf and Ultee, 2000).

Household level joblessness depends mostly on how the new jobs created are distributed more than the number of jobs created. High levels of household joblessness mean uneven distribution of employment and concentration of jobs in certain type of households. Living in a jobless household intensifies the adverse consequences of unemployment like loss of social ties and professional contacts which affects the future employment opportunities and income. Watson et al. (2015) showed that in Ireland the chances of an individual living in a jobless household finding employment is 60 per cent lower compared to those individuals living in households with someone working. Members of jobless households, who are likely to share particular characteristics such as low levels of education, would be looking for jobs in the same labour market and the adverse impacts of a depressed labour market would be multiplied in these households (Marx et al., 2012).

Living in a jobless household increases the risk of income poverty, material deprivation and social exclusion (Ellwood et al., 2004; Nickell,

[4]De Graaf and Ultee (2000) show that this association between spouses' employment statuses is higher in countries with high female labour market participation rates and where employment of women is a part of the standard life style of couples such as Denmark and Belgium, while in Southern European countries it is relatively lower.

2004). It increases the intergenerational transmission of poverty and the likelihood of poorer educational outcomes and the risk of subsequent unemployment (de Graaf-Zijl and Nolan, 2011). Living in a jobless household during childhood is found to be associated with poorer outcomes for young adults (Ermisch et al., 2004). Child poverty rates are significantly higher for jobless families compared to those with at least one parent in employment (Whiteford and Adema, 2007; Chen and Corak, 2008). Children living with jobless parents during childhood are found to be more likely to have poorer educational outcomes and are more likely to live in jobless households themselves later in life (Headey and Verick, 2006).

The risk for unemployed persons of living in jobless households varies across Europe. Countries with the highest unemployment rates are not necessarily the ones with the highest percentages of unemployed individuals in jobless households (OECD, 1998). Indeed, relatively little difference is observed between individual and household joblessness in Southern European countries (Whiteford, 2009). In these countries with the highest unemployment rates like Spain, Greece and Italy, the impact of unemployment on the household is likely to be softened by co-residence and the protection provided by the family (OECD, 1998).

In this chapter, we explore living arrangements of unemployment individuals and their impact on the risk of being in a jobless household across European countries and different age groups. Hence, we first establish the family context of the household for each unemployed person by determining whether he or she co-resides with his or her parents, spouse or partner, children, or other relatives and non-relatives. Second, we determine whether co-resident parents, spouses, children, or other household members are employed and finally assess the impact of parental, spousal, and filial co-residence on the risk of living in a jobless household by age and

sex.

To meet our research goals, this chapter is organized as follows: First, we provide a brief overview of co-residence patterns by gender and age across Europe. Second, we present the EU-LFS data and scrutinize more in detail the concept of jobless households and the percentages of unemployed individuals co-residing in jobless households across Europe. Third, in the results section, we present the prevalence of jobless households across Europe and examine the extent to which parental, spousal, and filial factors keep unemployed individuals from living in jobless households. Fourth, we shift our attention to the age profiles of individuals living in jobless households. Fifth and final, we summarize our main results, discussing future research directions, and highlighting the policy implications.

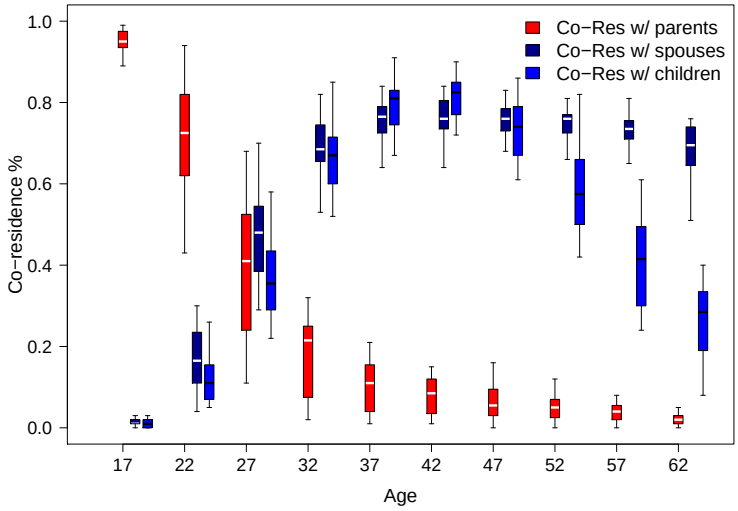
1.1.2 Intergenerational Co-residence across European Countries

A plethora of historical and anthropological literature on family, marriage, and kinship systems has shown that family systems are diverse across Europe (Hajnal, 1965; Kuijsten, 1996; Reher, 1998; Esping-Andersen, 1999). Broad variation in co-residence levels exists across European countries, particularly among young adults and the elderly. In Figure 1.1, we summarise the life-course patterns of co-residence for men and women with parents (red), spouses (dark blue), and children (light blue). The figure depicts the median and interquartile range (IQR) based on EU-LFS data for 24 countries for 2011. Rectangular bars indicate the variation across countries, and the whiskers denote the lowest and highest values within 1.5 IQR of the lower and upper quartiles.

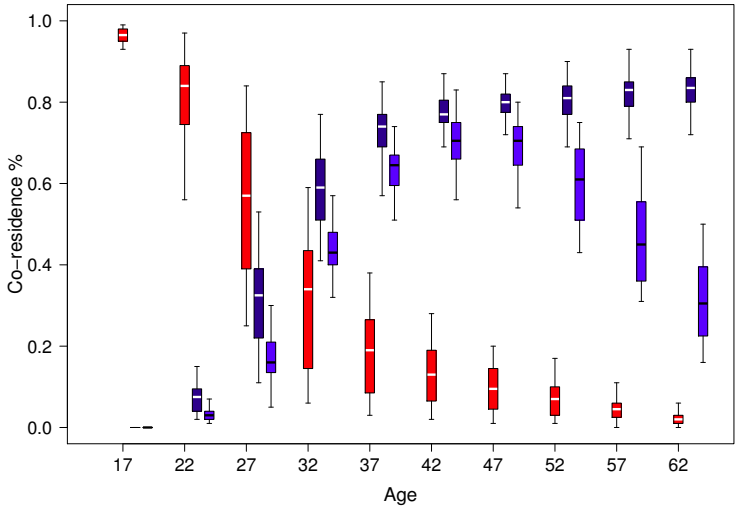
The vast majority of Europeans reside in private homes[5], commonly

[5]Persons living in collective households represent less than 1% of the European working-age population, although the percentage is higher at older ages.

Figure 1.1: Co-residence with Parents, Spouses and Children by Age and Sex, Europe, 2011.



(a) Women



(b) Men

Source: Author's own calculations based on EU-LFS data

consisting of two or more members. More than 95 percent of the working-age population co-resides with household members who are related to one another through the most common and universal types of kinship: parental, spousal, and filial. From a life-course perspective, patterns of inter-generational co-residence are similar across European countries. Co-residence with parents is highest during infancy and early childhood and then gradually decreases with age. Spousal co-residence (through married or unmarried cohabitation) begins in individuals' late teens, becomes most prevalent in individuals' early forties, and slowly declines at older ages. Co-residence with children follows a similar pattern. The early 20s mark the beginning of individuals' co-residence with children, which reaches its maximum prevalence between the ages of 35 and 49.

The age patterns of co-residence are similar between men and women; only the levels of co-residence at certain ages differ between genders. Specifically, parental co-residence declines faster for women than for men, as women are more likely to enter into their first union and leave the parental home at earlier ages compared to men. Men tend to leave the parental home after taking their first job, whereas finding a partner is a more decisive factor for women (Aassve et al., 2002). Gender differences in the transition to adulthood are not constant across countries, although they have been consistently increasing rather than decreasing across Europe over the last two decades (Toulemon, 2010). In addition, gender differences in union dissolution and re-union patterns also contribute to explain diverging co-residence levels between men and women, particularly at older ages. For instance, although women are more likely than men to co-reside with a spouse at younger ages (between 25 and 39 years of age), men are more likely than women to co-reside with a spouse at older ages (between 50 and 64 years of age). Regarding co-residence

with children, at all ages, women are more likely to co-reside with their children than men, particularly when we compare men and women aged 50 years or older.

Although the general life-course patterns of co-residence are fairly similar across European countries, the levels of co-residence vary widely (Kiernan, 1986). Such variation is evident in Figure 1.1, in which bars denoting young adults co-residing with parents show the highest degree of variation. Specifically, co-residence with parents among 20 to 24 year-old individuals ranges from less than 50 percent for women (43 percent in the United Kingdom and 45 percent in Germany) to over 90 percent for men (92 percent in Spain, 93 percent in Italy, 90 percent in Portugal, 95 percent in Slovenia, and 94 percent in Slovakia). Co-residence with parents is inherently associated with the transition to adulthood and parental home leaving in particular, which is influenced by institutional factors, welfare states, social and cultural norms (Aassve et al., 2002; Billari et al., 2001)[6]. Eastern and Southern European countries show higher levels of parental co-residence among young adults than Western and Northern European countries. A divide that matches the classical geography of 'strong' and 'weak' family ties (Alesina and Giuliano, 2010). Historically, the strong vs weak family system division explains not only the wide divergence in the patterns of parental home leaving but also the co-residence patterns of the elderly with their adult children (Hajnal, 1965; Reher, 1998).

[6]Other factors affecting home leaving decisions of young people include parental income, child's own income and educational level (Goldscheider and DaVanzo, 1985), or tight housing markets and the high housing costs (Börsch-Supan, 1986; Ermisch, 1999).

1.2 Data and Methodology

We use yearly harmonized micro data drawn from the EU-LFS, which are disseminated through Eurostat(EUROSTAT, 2008). The EU-LFS is one of the largest and most comparable surveys of European households and it is the main data source for the employment/unemployment database of Eurostat. The survey includes demographic information on all persons within households and labour market participation data for the population of individuals aged 15 and over.

Our dataset includes 24 countries providing household-level information for the year 2011: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Germany, Estonia, France, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, the Slovak Republic, Spain, and the United Kingdom. The dataset includes over 2.5 million individual records and 1.2 million household records.

The EU-LFS data allow all individuals co-residing in the same household to be linked via family interrelationship variables indicating the mother's, father's, and spouse's (or partner's) location in the household. Children location variables are not available in the original EU-LFS data, however we reconstructed a variable indicating whether an individual co-resides with his or her own children. Based on these family interrelationship variables, we know for every person whether he or she is co-residing with parent, spouse, children, or other individuals.

We also determined the employment status of each co-resident household member. We distinguished between employed and not employed individuals. The latter category includes unemployed and inactive individuals. We use this distinction to produce various descriptive results, however the

final dataset we used for the analysis included only unemployed individuals and their basic demographic (e.g., age and sex), social (e.g., education), and co-residential characteristics.

We ran various multi-level logistic regression models to predict the probability of living in jobless households for unemployed individuals. These models include individual and country level variables. We fitted a two-level random intercept model, which allows the overall probability of co-residence in a jobless household for unemployed individuals to vary across countries. The intercept consists of two terms: a fixed component and a country-specific component. The country-specific effects are assumed to follow a normal distribution with a mean of zero. We also estimated country specific effects. Larger variance among the country-specific effects indicates greater country-specific departure from the country's mean. Data were drawn from the EU-LFS for 24 European countries for the year 2011. We ran separate models for men and women. Table 1.2 reports the estimates for the various models.

Our dependent variable is a binary variable: being in a jobless household or not. Our independent variables are age, education and co-residence. We also controlled for the unemployment rate at the country level, however we do not present this model since we did not observe a significant effect of it on the probability to be in jobless households. We used five-year age groups (between 15 and 65) as EU-LFS does not provide data for each individual age. Education was classified into three categories: lower (lower secondary or less), medium (upper secondary), and high (tertiary). We analyze the effect of living arrangements by including three dummy variables: living vs not living with a parent, living vs not living with a spouse and living vs not living with a child. Although these three variables are not mutually exclusive, living with a parent and a spouse in the same household

is a relatively rare situation in contemporary Europe[7]. Taking this into account, we interpret the estimates from these variables as the contributions of parents and spouses in keeping individuals out of jobless households. The interpretation of the dummy variable related to co-residence with children becomes more interesting in its interaction with age.

1.3 Results

1.3.1 Unemployment in Jobless Households Rate

By definition, unemployed individuals living in jobless households do not reside with any employed person in the same household either because they live alone or only co-reside with unemployed or inactive household members. We created a dummy variable to distinguish between unemployed individuals living in jobless households and unemployed individuals living in households in which there is at least one employed person in the household.

We computed a slightly modified version of the unemployment rate that we named unemployment in jobless households rate which is the number of unemployed individuals living in jobless households divided by the active population, in order to assess the effects of parental, spousal, and filial co-residence in reducing the unemployment in jobless households rate.

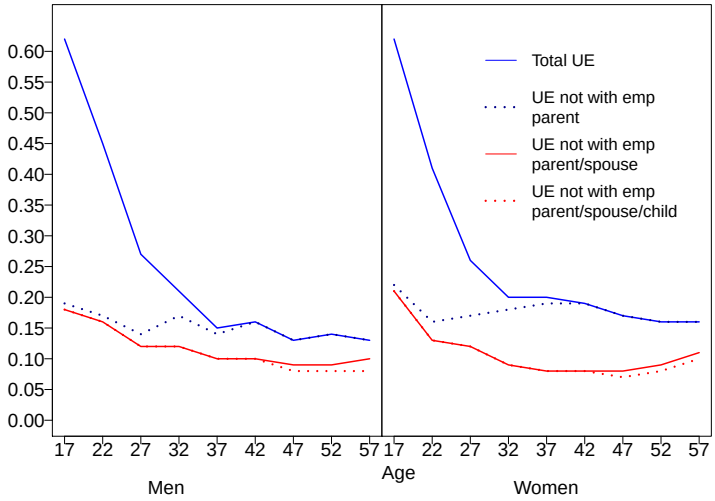
In Figure 1.2, we graphically illustrate the stepwise calculation of the unemployment in jobless households rate by age. As an example, we use data for Spain (Figure 1.2a) and the United Kingdom (Figure 1.2b) for men and women in 2011. The uppermost blue curve shows the unem-

[7]With the exception of some Eastern European countries. Esxtended households are still present in countries like Bulgaria and Romania (Kuhar and Reiter, 1989; Ahmed and Jean Emigh, 2005), where young people may enter into first union when they are still in the parental home and continue living there with their partners (Billari et al., 2001).

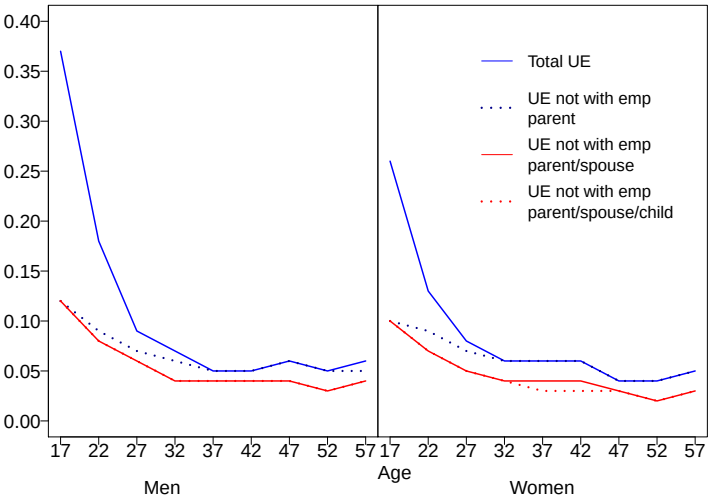
ployment rate by age, which is calculated by dividing the total number of unemployed individuals for each age group by the size of the active population for the same age group. The pattern of unemployment is similar across ages for men and women between Spain and the United Kingdom; however, the levels of unemployment differ between men and women and between Spain and the United Kingdom. Specifically, women exhibit higher rates of unemployment than men, and Spain exhibits higher levels of unemployment than the United Kingdom. In both countries, unemployment rates are the highest among younger individuals and then stabilize among those aged 30 years and older.

The curves below the standard unemployment rate in Figure 1.2 depict adjusted rates of unemployment for which the unemployed co-residing with employed parents, spouses, and children are sequentially excluded from the numerator. Co-residence with other relatives or non-relatives was not considered because they do not reflect a significant amount of cases. The blue dotted curve shows the unemployment rate excluding unemployed individuals co-residing with an employed parent (i.e., father, mother or both). By definition, the new unemployment rate will be either equal to or lower than the total unemployment rate (blue line). The difference between these two unemployment rates reflects the importance of parental employment in keeping unemployed individuals from being in jobless households. As expected, the impact of parental co-residence is stronger among young individuals and becomes negligible among persons in their late 30s and older. In Spain, the unemployment rate for men aged 20-24 years is 45 percent; however, when we exclude unemployed persons co-residing with employed parents, the rate declines to 17 percent. In other words, more than 50 percent of unemployed young adults in Spain co-reside with an employed parent. The same pattern holds for women

Figure 1.2: Unemployment Rates by Age, Sex, and Type of Co-Residence, Spain and the United Kingdom, 2011.



(a) Spain



(b) United Kingdom

Source: Author's own calculations based on EU-LFS data

in Spain and for men and women in the United Kingdom. A comparison between Spain and the United Kingdom shows that parental co-residence has a stronger impact in Spain than in the United Kingdom among young adults.

The red line shows the adjusted unemployment rate for which we exclude unemployed persons who co-reside either with an employed parent or a spouse from the numerator[8]. The effect of spousal employment on reducing the number of unemployed individuals in jobless households is more evident among women than men and among individuals in their late 20s and older. Unemployed women are more likely to co-reside with employed spouses compared to unemployed men.

Finally, the red dotted line denotes the unemployment rate for unemployed persons who co-reside with an employed parent, spouse, or child. Co-residence with employed children has an additional impact on reducing the number of unemployed in jobless households, basically for older unemployed individuals when children are old enough to participate in the labour force and support their parents.

1.3.2 Joblessness across Europe

Table 1.1 shows figures for unemployment rates, unemployment in jobless households rates, and the percentage of unemployed individuals in jobless households for 24 European countries in 2011. By definition, the unemployment rates and the unemployment in jobless households rates (which is the number of unemployed individuals residing in jobless households divided by the active population) are highly correlated, the latter being considerably lower than the former. Therefore, countries with high unem-

[8]Note that the categories 'co-residing with an employed parent', 'co-residing with an employed spouse', and 'co-residing with an employed child' are not mutually exclusive.

ployment rates also have high unemployment in jobless households rates (e.g., Spain, Greece, Ireland, Lithuania, Latvia, and Slovakia). Further, while in 10 of the 24 countries unemployment rates are higher for women compared to men; the unemployment in jobless households rate is lower for women than for men in all the 24 countries. This indicates that unemployed women are less likely to be in jobless households compared to men, even though in some countries women are more likely be unemployed than men.

The last two columns of Table 1.1 show the percentages of unemployed men and women who reside in jobless households. As we have already mentioned, women are less likely to be in jobless households with the exception of Lithuania and the United Kingdom. The percentage of unemployed men in jobless households varies from approximately 30 percent in Cyprus and Luxembourg to 65 percent in Germany. And it is not correlated with the unemployment rate. For example, Germany has the lowest levels of unemployment in Europe but the highest share of unemployed in jobless households. By contrast, Spain and Greece have the highest unemployment rates for men in Europe, but average percentages of unemployed men co-residing in jobless households (48 percent in Spain and 55 percent in Greece). For women, the percent of unemployed women in jobless households varies from 26 percent in Cyprus and Luxembourg to 57 percent in Germany. The percentage of Spanish and Greek unemployed women residing in jobless households reaches approximately 39 percent.

The difference between the unemployment rate and the unemployment in jobless households rate varies widely across Europe and it mainly depends on the structure of living arrangements. Our data allow us to decompose the influence of co-residence with employed household members into co-residence with an employed parent, with an employed spouse and with

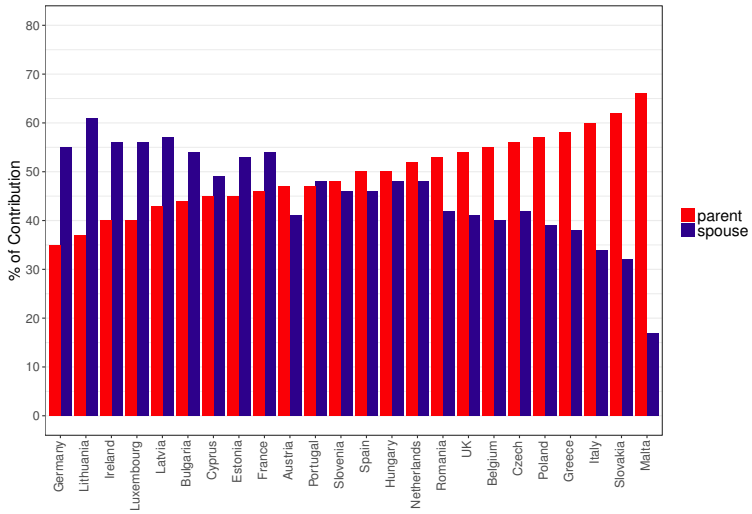
Table 1.1: Unemployment Rate, Unemployment in Jobless Households Rate, and Percentage of Unemployed Individuals in Jobless Households, Europe, 2011.

	Unemployement Rate		Unemployment in Jobless Households Rate		% of Unemployed Individuals in Jobless Households	
Countries	Men	Women	Men	Women	Men	Women
Austria	3.5	4	1.7	1.4	49.6	35.2
Belgium	7	7.1	4.5	3.8	63.4	52.9
Bulgaria	11.6	10.1	5.9	4.5	50.8	45.1
Cyprus	7.9	7.4	2.5	1.9	31.4	26
Czech Republic	6.9	8.5	3.1	3	44.7	35.7
Estonia	13	11.7	4.7	3.6	36.2	30.6
France	8.9	9.7	4.7	4.6	53.4	47.4
Germany	6.1	5.6	3.9	3.2	64.7	57.4
Greece	14.5	20.9	7.9	8.2	55	39.4
Hungary	12.4	11.9	6.6	5.3	53.5	44.6
Ireland	18	10.9	9.2	5.4	51	49.3
Italy	7.7	9.4	4	3.6	52.6	38.2
Latvia	18.5	13.2	8.6	6.1	46.3	45.9
Lithuania	17	13	7.3	6.3	43	48.1
Luxembourg	3.9	5.7	1.3	1.5	33.3	26.1
Malta	6	7.2	2.9	1.9	49.6	27.6
Netherlands	4.5	4.8	1.5	1.4	33.6	28.8
Poland	9.4	10.6	3.9	3.5	42.7	32.9
Portugal	13.7	13.6	5.1	4.4	37	32.7
Romania	7.9	6.6	3.9	2.2	49.4	33.9
Slovakia	13.7	13.3	6.4	4.4	46.8	33.1
Slovenia	8.2	8.4	3	2.6	36.6	31.4
Spain	19.3	20.8	9.2	8.1	47.8	38.8
United Kingdom	8.4	6.7	4.3	3.5	51.4	51.6

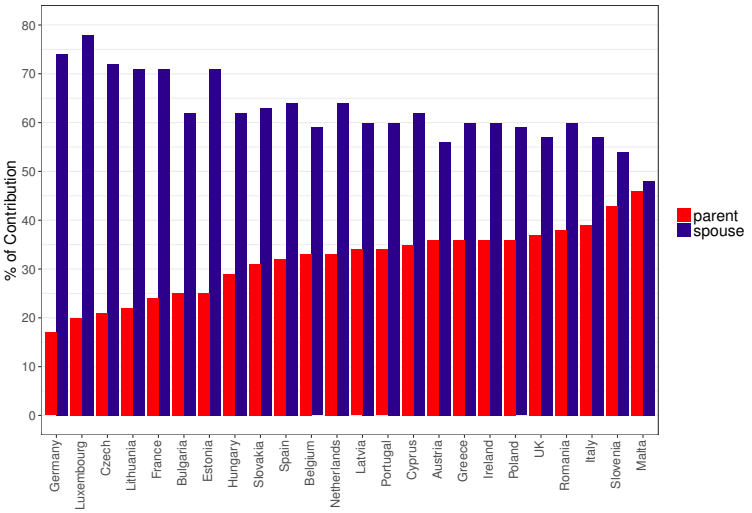
an employed child. In Figure 1.3, we illustrate the contribution of parental and spousal co-residence to keep unemployed from being in jobless households. Employed parents and spouses are the household members that most commonly keep the unemployed from being in a jobless household. These contributions are measured in percentage points and indicate the percent of unemployed individuals that co-reside with an employed parent or spouse. Contribution of parents (spouses) is simply the proportion of unemployed individuals living with an employed parent (spouse) to the total number of unemployed individuals living with an employed household member. The 24 European countries listed along the horizontal axis are ordered from left to right on the importance of parental co-residence in keeping the unemployed from being in jobless households.

A negative or a compensating relationship exists between the parental and the spousal contributions to keep the unemployed from being in jobless households. Parental and spousal contributions significantly differ between men and women. Unemployed men are more likely than unemployed women to reside with an employed parent. In contrast, the spousal contribution is greater for unemployed women compared to unemployed men, indicating that unemployed women are more likely than unemployed men to co-reside with an employed spouse. In all countries, women are more likely to be co-residing with employed spouses and less with employed parents. For women, the spousal contribution ranges from 50 percent in Malta to 80 percent in Luxembourg. For men, Lithuania exhibits the highest spousal contribution: 60 percent of unemployed men are not living in jobless households owing to their employed wives. With respect to the parental contribution, values range between 35 per cent in Germany and 65 percent in Malta for men and between 18 percent in Germany and 45 percent in Malta for women.

Figure 1.3: Parental and Spousal Role (%) in Diminishing the Risk of Living in a Jobless Household among the Unemployed by Gender, Europe, 2011



(a) Men



(b) Women

Source: Author's own calculations based on EU-LFS data

1.3.3 Multi-level Logistic Regression Models

Model 1 is a two-level random intercept model in which the probability of being in a jobless household depends only on age. Among unemployed men, the probability of being in a jobless household by age follows an inverted U shape. Unemployed men who are younger than 30 years are the least likely to be in a jobless household. Men aged between 35 and 44 years are most likely to be in a jobless household. From age 44 onwards, probability of being in a jobless household decreases with age and peaks again at 60-65 years of age. Women follow a similar age pattern: however, the probability of co-residence in a jobless household is the highest at older ages, while younger unemployed women are the least likely to be in jobless households. Cross-national differences are larger among unemployed women than among unemployed men.

Model 2 includes educational attainment. We find that education reduces the probability of being in jobless households. Higher education not only enhances individuals' own labour market opportunities through increased productivity and motivation to work, better knowledge of labour market and enhanced capacity to look for jobs, but also provides resources for other individuals close to these people (De Graaf and Ultee, 2000). Moreover, higher educated men are more likely to have less strong norms against working women and mothers which is crucial for the labour market participation of women as well (Ibid.).

Model 3, which controls for different forms of co-residence, yields statically significant estimates for the three types of co-residence both for unemployed men and women. Co-residence with parents, spouses and children decreases the probability of being in a jobless household. Co-residence with a spouse has the greatest negative effect on the probability

for both men and women to be in a jobless household. Unemployed men co-residing with a spouse are 7.7 times less likely (1/0.13) to be in a jobless household than men without a spouse. Unemployed women who co-reside with a spouse are 16.6 times less likely (1/0.06) to be in a jobless household than women without a spouse. Parental co-residence is the second most important factor after spousal co-residence. Co-residence with children also has a negative effect on the probability of co-residence in a jobless household, but the magnitude is smaller than that of spousal co-residence.

Co-residence plays a bigger role for unemployed women compared to unemployed men. Unemployed women are less likely to be in jobless households because they are more likely than men to live with someone employed. As can be seen in Model 3, the effects of parental, spousal and filial co-residence on the likelihood of being in jobless household are larger for unemployed women than for unemployed men.

We did not observe a significant effect of the unemployment rate, although when included in the model we observe a reduction in the variance of the probability of being in jobless households across countries. However, the reduction of this variance associated with the inclusion of co-residence variables is significantly larger, suggesting that living arrangements are the key to understand the cross-country differences in the probability of being in jobless households[9].

1.3.4 Probability of Being in Jobless Households

Model 4 lists interactions between age and parental, spousal and filial co-residence to account for variation in the impact of the three types of co-

[9]Diverging (effective) retirement ages and generosity of the retirement incomes across Europe are very important to explain a part of the high levels of co-residence in jobless households at certain ages in countries where effective retirement age is low. However, early retirement dimension is left for further research.

Table 1.2: Multi-level Model Results for Co-residence in a Jobless HH by Sex, 2011

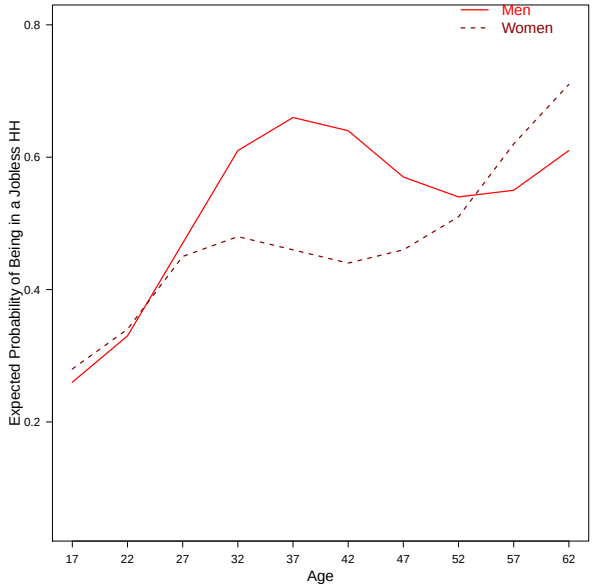
	MEN				WOMEN			
	m1	m2	m3	m4	m1	m2	m3	m4
Agegroup								
15-19	0.39 ***	0.34 ***	0.32 ***	0.50 *	0.51 ***	0.41 ***	0.30 ***	0.36 *
20-24	0.58 ***	0.54 ***	0.50 ***	1.12	0.71 ***	0.68 ***	0.52 ***	0.79
25-29 (Ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30-34	1.57 ***	1.57 ***	1.92 ***	1.42	1.13	1.09	1.48 ***	1.12
35-39	2.08 ***	1.99 ***	2.69 ***	2.03 **	1.13	1.07	1.57 ***	1.65
40-44	1.92 ***	1.84 ***	2.48 ***	3.53 **	1.06	0.98	1.30 *	1.51
45-49	1.58 ***	1.46 ***	1.86 ***	2.46 **	1.15	1.04	1.30 *	1.97 *
50-54	1.40 ***	1.32 **	1.63 ***	3.60 **	1.38 **	1.25 *	1.45 **	1.65 *
55-59	1.39 ***	1.32 *	1.67 ***	3.78 **	2.10 ***	1.86 ***	2.05 ***	2.23 *
60-64	1.80 ***	1.75 ***	2.32 ***	2.92 **	3.10 ***	2.86 ***	3.03 ***	3.25 *
Education								
Low (Ref.)		1.00	1.00	1.00		1.00	1.00	1.00
Medium		0.68 ***	0.61 ***	0.62 ***		0.68 ***	0.58 ***	0.59 ***
High		0.53 ***	0.44 ***	0.48 ***		0.54 ***	0.41 ***	0.46 ***
Coresidence with								
Parents			0.23 ***				0.16 ***	
Spouses			0.13 ***				0.06 ***	
Children			0.81 ***				0.61 ***	
Interactions								
Co-residence (with parents, spouses,	Model 4 (with the interactions) Results are displayed in Figure 4							
Intercept	0.83 *	1.14	5.26 ***	4.41 **	1.14 ***	0.92	8.17 ***	7.77 ***
Country level variance	0.07 **	0.08 **	0.05 **	0.06 **	0.10 **	0.11 **	0.05 *	0.04

residence over age. In Figure 1.4, we show the expected probabilities of being in jobless households for unemployed individuals by age. These probabilities are computed from Model 4. For both unemployed men and women, the probability of living in a jobless household increases with age, reaches its highest level during middle ages and then starts to decline again. Unemployed youths are the least likely to live in jobless households, despite showing the highest levels of unemployment: less than 30 percent of the unemployed men younger than 25 years are likely to live in a jobless household. This probability doubles and exceeds 60 percent for the unemployed individuals aged between 30 and 44 years, decreases to 50 percent for the unemployed aged 45 to 60 years, and peaks again to nearly 60 percent for those unemployed aged 60-64 years.

The probability of being in a jobless household for unemployed women follows a similar pattern, although unemployed women experience the highest probability of being in a jobless household at later ages (between 40 and 55 years of age). Differences between men and women are primarily attributable to co-residence with spouses: women enter in union at younger ages than men but they are less likely than men to co-reside with a spouse at older ages because of divorce and widowhood.

Figure 1.5 presents age-specific model results (odd ratios) for the impact of co-residence with parents, spouses, and children on the probability of residing in a jobless household for unemployed men and women across Europe in 2011. These results are drawn from the interactions included in model 4. Values smaller than one indicate a decrease in the likelihood of co-residence in a jobless household, while values greater than one indicate an increase. Co-residence with parents has a significantly negative (diminishing) effect on the levels of co-residence in a jobless household of unemployed men and women until the age of 40. Co-residence with a

Figure 1.4: Expected Probability of Co-residence in a Jobless Household for Unemployed Individuals by Age, Europe, 2011



Source: Author's own calculations based on EU-LFS data

spouse decreases the probability of residing in a jobless household for all ages, although the effect is larger for women than for men. Co-residence with children first increases this probability, typically because children are still young and, therefore, not working. From age 45 onwards, the effect of co-residence with children on the probability of the unemployed co-residing in a jobless household becomes negative. Moreover, this effect is stronger for women than for men.

Figure 1.5: Effect of Parental, Spousal, and Filial Co-residence on the Likelihood of Co-residence in a Jobless Household for Unemployed Individuals by Age and Sex, Europe, 2011

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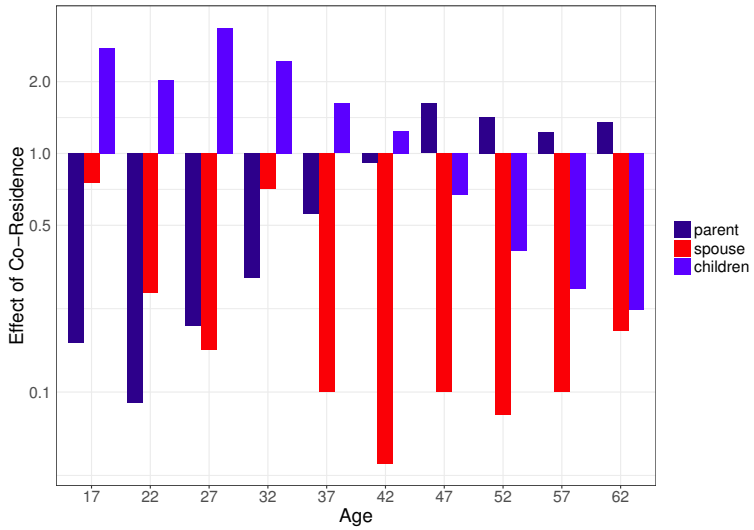
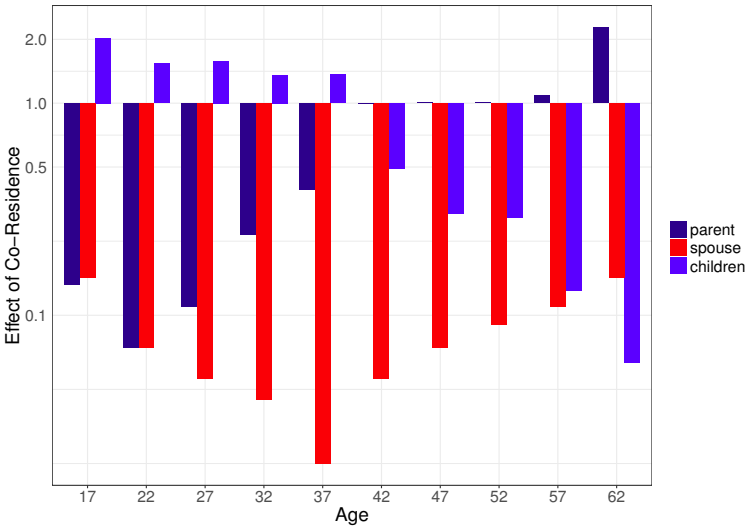


(a) Men



(b) Women

Source: Author's own calculations based on EU-LFS data

1.4 Conclusions

Unemployment rates have risen sharply across Europe with the recent economic crisis, intensifying the debates and concerns regarding jobless households. Jobless households are more likely than other types of households to experience material deprivation and fall under the poverty line (de Graaf-Zijl and Nolan, 2011). However, the relationship between unemployment and jobless households is not as straightforward as it may seem and not all unemployed individuals are equally likely to live in jobless households. Living in a jobless household is largely dependent on the co-residence patterns or the living arrangements. In this chapter, we examined the prevalence of jobless households across Europe and the impact of different co-residence patterns on keeping unemployed individuals from living in jobless households.

We found no correlation between unemployment rates and the percentage of unemployed individuals in jobless households. For instance, Spain and Greece with the highest levels of unemployment in Europe have lower shares of unemployed individuals in jobless households than Germany and Austria, which have the lowest unemployment rates in Europe. This finding indicates that an unemployed person in Spain is less likely to live in a jobless household than an unemployed person in Germany.

Unemployed men are more likely to live in jobless households compared to unemployed women. While the percentage of unemployed men living in jobless households varies from 30 to 65 percent, the percentage of such women varies from 26 to 57 percent across Europe. Women are less likely to live in jobless households than men because they are more likely to co-reside with someone who is employed. In all 24 countries, men play a stronger role in keeping their partners from being in jobless

households compared to women, an unsurprising finding which is a result of lower female market participation rates. For unemployed men, however, co-residence with parents is more important than co-residence with spouses in keeping them from being in jobless households.

To further explore the heterogeneity across Europe, we ran several two-level (individuals and countries) random intercept models to predict the probability of co-residence in jobless household for the unemployed men and women. As the main independent variables, the models included age, education and co-residence with parents, spouses and children. Cross-national differences were measured as the variance in the country-specific deviation from the country's mean.

An important conclusion to be drawn from our analysis is that the cross-national differences observed in our data in the propensity to be in a jobless household can be mostly explained by living arrangements. In other words, if European countries exhibited the same levels of parental, spousal, and filial co-residence, the risk of being in a jobless household for the unemployed would be more similar across countries.

Unemployed men between the ages 30 and 44 and unemployed women between the ages 40 and 54 have the highest risk of residing in a jobless household. Young unemployed populations of Europe, having the highest unemployment rates of all age groups, are the least likely to live in jobless households. Co-residence prevents more than half of unemployed youths from being in jobless households.

Co-residence with parents reduces the probability of being in a jobless household primarily before the age of 30; after age 30, spouses overtake the parental role. At all ages, the effect of spousal co-residence on the reduction of the risk of being in a jobless household is stronger for unemployed women than for unemployed men. Co-residence with children increases

the probability of living in a jobless household for the unemployed until their late 40s. At older ages, this type of co-residence has a negative but modest impact. This result suggests that employed children may also prevent older unemployed (and particularly women) individuals from living in jobless households.

To summarize, in this chapter we have shown that household context plays an important role in keeping the unemployed persons from living in jobless households. All forms of co-residence decrease the probability of being in a jobless household, and countries with dense co-residence patterns are thus likely to have fewer unemployed individuals living in jobless households. Once the particular living arrangements were taken into account, large differences across European countries almost disappeared, suggesting that the risk of being in jobless households is highly determined by the structure of their living arrangements.

This chapter has contributed to the literature by developing an analytical strategy that allows measuring the importance of parents, spouses and children to keep the unemployed from being in jobless households. We have implemented this strategy to 24 European countries in 2011. However, we are aware of the limitations of our approach. First, jobless households are not necessarily bereft of economic resources. Investigating the association between being in a jobless household and the two other components of EU's poverty reduction target (income poverty and material deprivation), de Graaf-Zijl and Nolan (2011) underline the big variance across Europe and show that while in some countries people in jobless households are neither income poor or deprived, in some they are both income poor and deprived, in others they are income poor but not deprived or the other way around. Instead, they point at particular household types which are more likely to be in income poverty and material deprivation like single adult or

single parent households. Their findings emphasize the crucial importance of better understanding the cross country variation across Europe to better frame the EU's poverty target. With this in mind, in Chapter 3, we explore the poverty risks of unemployed individuals across Europe.

Chapter 2

LIVING ARRANGEMENTS OF THE YOUNG ACROSS EUROPEAN REGIONS: IMPLICATIONS FOR HOUSEHOLD JOBLESSNESS

2.1 Introduction

In the first chapter, we showed that living arrangements are crucial to better understand the prevalence of jobless households. This is particularly the case for the young who experience their transitions to adulthood very differently across Europe. In this chapter, we focus on this particularly vulnerable group who experience the uncertainties of the labour market more directly and who are more reliant on basic benefits provided by the welfare state or support provided by their families since they lack accumulated work history and savings. While in some countries completing high school means leaving the parental home to live alone and be independent, in others even after entering into the labor market or forming the first union and having children, young people continue living with their parents. We believe that this variation in living arrangements of young people serves to explain a substantial part of the discrepancy in the prevalence of jobless households across Europe.

The first goal of this chapter is to present a detailed description of the diverse living arrangements of the European youth. We differentiate between different labor market statuses to shed light on how living arrangements of unemployed young individuals diverge from that of employed and inactive young individuals. Following the first chapter, we run various multi-level logistic regressions to predict the probability of young unemployed individuals across European regions to be in jobless households. We then look at the contribution of parental and spousal co-residence to keep them from being in jobless households. The main contribution of this chapter to the literature on jobless households is its focus on young individuals and their diverse living arrangements and its comparative perspective which is based on 24 European countries and 184 regions.

This chapter is organized as follows: In Section 2.2 we describe the data. We present the diverging living arrangements of the young across European regions taking into account their labor market statuses in Section 2.3. Then we move to the main focus of the chapter in Section 2.4, unemployed youth in jobless households. In Section 2.5, we show the implications of co-residence patterns for diminishing the likelihood of being in a jobless household for the unemployed young populations across Europe. We examine the contributions of parents and spouses in Section 2.6. In Section 2.7, we end this chapter with some concluding remarks.

2.2 Data

In this chapter, we continue exploiting the EU-LFS micro data. We choose to present our results for the most recent year, 2012, as our analysis for alternative years yielded similar results. Our dataset is reorganized in a similar manner to that of the first chapter. It brings together the basic demographic and social (e.g. age, sex education and immigration status) information with the co-residence characteristics of each unemployed individual.

It includes 679901 individual records from 24 countries (Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Germany, Estonia, France, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, the Slovak Republic, Spain, and the United Kingdom) and 184 regions across Europe providing household-level information. Regional detail provided by each country is represented in the Appendix at the end of the chapter.

International Labor Organization (ILO) defines those above the minimum school-leaving age and less than 25 as young people or 'youth' and

those between the ages 25 and 30 as 'young adults' (ILO, 2014). We chose to expand this definition and focus on unemployed individuals who are between 15 and 30 years old, incorporating young adults, since major life decisions in transition to adulthood are taken at these ages.

2.3 Living Arrangements of the European Youth

Living arrangements of young individuals and their transitions to adulthood are closely intertwined. They complete their transitions to adulthood through various critical events like completing school, leaving parental home, entering into labor market, forming their first union or having children. The timing and the sequencing of these events diverge widely in Europe (Billari et al., 2001; Buchmann and Kriesi, 2011; Sobotka and Toulemon, 2008).

Family systems in Europe have attracted considerable amount of academic attention. In his famous North-South typology, Reher (1998) identifies North Europe with "weak" family ties and early home leaving and South Europe with "strong" family ties and late home leaving in the form of co-residence of adult children to provide support for their parents when they become older.

Although cohabitation and shared living arrangements have been gaining ground for a number of years, parental home leaving in Southern Europe is more identified with direct transitions to marriage and parenthood compared to Northern and Nordic European countries (Avery et al., 1992). The nuclear family is the major provider of financial assistance, housing, emotional support as well as being a major channel of the socialization process (Chtouris et al., 2006). Transmission of this strong familistic way of living generations to generations in Southern Europe is an important fac-

tor to explain the divergence between the North and the South of Europe (Dalla Zuanna, 2004).

On the other hand, Western and Northern Europe are characterized with early home leaving to live alone or to cohabit with a partner. Scandinavian countries exhibit the extreme case of high non-marital cohabitation and early parental home leaving (Iacovou, 2001; Van de Kaa, 1987). In Scandiavian countries, traditionally family provides support to the young until age 18, after which high proportions of young individuals can rely on social transfers from the government (Biggart and Kovacheva, 2006).

Eastern Europe has been characterized by near universal and early marriage and low proportions of individuals remaining single (Hajnal, 1965). However, following the collapse of communist regimes, several of the main indicators of the Second Demographic Transition quickly emerged such as the rise in premarital cohabitation rates and extramarital births together with increased ages at first marriage and postponement of fertility (Lesthaeghe, 2010). In addition, major changes occurred in the household structures of Eastern European countries. With a sharp decline in support provided by the state, family gained more importance as a support mechanism for young individuals during their transitions to adulthood. Although prolonged co-residence with parents and extended households are still among the main characteristics of Eastern European living arrangements (Kuhar and Reiter, 1989; Ahmed and Jean Emigh, 2005), Eastern Europe is very heterogeneous in itself, some countries having commonalities with Southern Europe, others with Northern and Western Europe (Iacovou and Skew, 2010; Puur et al., 2012).

Generosity of different welfare systems is an important factor used to explain the divergent home living decisions of young individuals. While youth in Scandinavian countries enjoy very generous welfare systems and

high levels of state support, family compensates the lack of state support in Southern Europe. In Scandinavian countries, dependence on family and market is avoided by high state support and with emphasis on individual independence (Esping-Andersen, 1999). On the other hand, limited development of youth emancipation support policies in Southern Europe helps to explain the dependence on intergenerational solidarity as a protective mechanism in these countries (Moreno, 2012).

Aassve et al. (2002) show that employment and household income have very different effects on parental home leaving decisions of the young under different welfare regimes of Europe. While both income and employment are very influential on home leaving decisions of young people in weak Southern Europe welfare regime, Aassve and colleagues (2002) do not find a significant effect of either income or employment in generous Social Democratic welfare regimes. Guilló et al. (2000) also show that young people leave the parental home only if they have sufficiently high wages in Spain. On the other hand, Giuliano (2007) puts more emphasis on culture showing that second generation European immigrants in the US replicate the European pattern of living arrangements in this neutral environment in terms of welfare system and economic conditions.

Additionally, tight housing markets and high housing prices are found to be influential on home leaving and household formation decisions of the young individuals (Börsch-Supan, 1986; Ermisch, 1999). Together with the dynamics of the housing market, cultural aspects of property ownership in the form of strong preferences towards owned property are found to add to the delayed periods spent in the parental home in Southern Europe (Moreno, 2012).

Economic hardship and spells of unemployment may also have an impact on transition processes of young individuals to adulthood, particularly

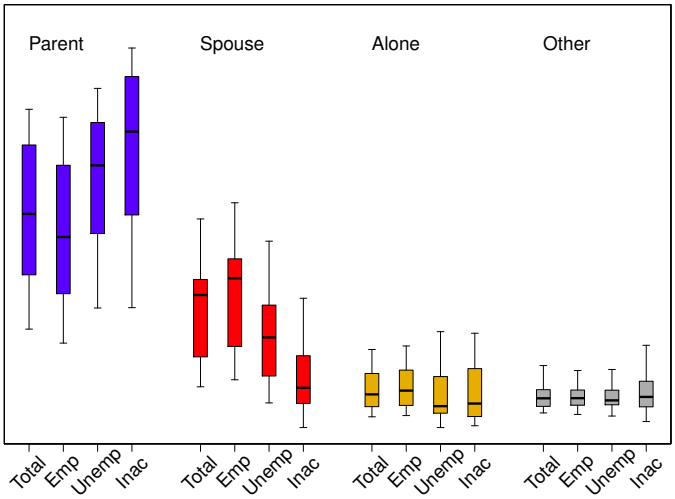
through delays in parental home leaving (Aassve et al., 2013). Alternatively, after leaving the parental home, young people may have to "double up", move in with other people in order to endure spells of unemployment (Wiemers, 2014; Mykyta and Macartney, 2011; Kaplan et al., 2009). During periods of low earnings, parents can provide support to their children either in the form of financial transfers or shared co-residence (Rosenzweig and Wolpin, 1993).

In this section we focus on the age group 25-29 as the majority of the young live with their parents at younger ages. In Figure 2.1, percentages living with a parent, living with a spouse, living alone and living with another household member are displayed in four panels. The category parent (spouse) represents those who are living with a parent (spouse) but not with a spouse (parent). Alone category comprises young individuals who do not co-reside with any other household member, having household size of one. The other category represents the rest of the individuals with living arrangements different than these three categories.

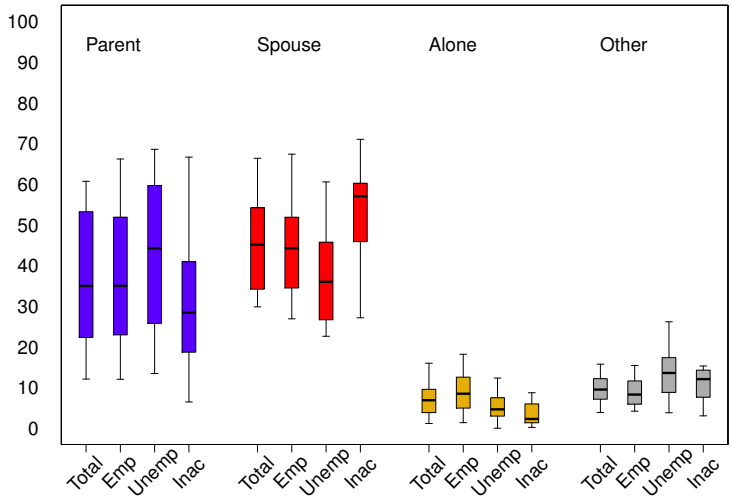
We present our results comparatively for the total and the three subpopulations according to employment status: employed, unemployed and inactive. The figure depicts the median and interquartile range (IQR) based on EU-LFS data for 24 countries for 2012. Rectangular bars indicate the variation across countries, and the whiskers denote the lowest and highest values within 1.5 IQR of the lower and upper quartiles.

The biggest variation is observed in co-residence with parents. While there are countries with almost 80 per cent of the unemployed young men living with a parent, this percentage is as low as 25 per cent in others. For men, countries with the highest levels of parental co-residence are Eastern and Southern European countries: Malta, Slovenia (with almost 80 per cent for men and over 60 per cent for women) followed by Portugal,

Figure 2.1: Living Arrangements of the Youth (25-29) by Labour Market Status and Sex, Europe, 2012



(a) Men



(b) Women

Source: Author's own calculations based on EU-LFS data

Greece, Slovakia, Spain and Italy (over 70 per cent for men and over 50 for women). Parental co-residence is lower for women. Percentages of young women living with a parent vary between 15 and 60 per cent. Percentages of women living with a parent are lower compared to those of men as women leave parental home earlier than men (Billari et al., 2001; Goldscheider and DaVanzo, 1985). The lowest levels of parental co-residence are observed in the UK, Germany, Netherlands and France with less than 30 per cent for men and less than 15 per cent for women.

Levels of co-residence with a spouse are relatively lower for men. On the other hand, young women have high levels of co-residence with a spouse. Indeed, percentage of women co-residing with a spouse is even slightly higher than the percentage co-residing with a parent. This is first because men are more likely to stay longer in the parental home compared to women and second because men tend to marry younger women and women enter into first union at younger ages compared to men. Therefore, a higher proportion of women are likely to have already left the parental home to live with a spouse in this age group. For men, co-residence with a spouse varies between 15 and 50 per cent while for women between 30 per cent and 60 per cent. The UK and Netherlands with very low levels of parental co-residence both for men and women have the highest levels of spousal co-residence, around 50 per cent for men and over 60 per cent for women. Countries like Slovenia, Spain, Malta, Portugal, Greece, Italy and Slovakia have the lowest levels of co-residence with a spouse around 30-35 per cent for women. Less than 15 per cent of young men are co-residing with a spouse in Bulgaria, Greece, Slovenia, Italia, Romania and Malta.

Living arrangements of young men and women vary further when we take into account their labor market statuses. One of the first elements that catch our attention in the figure is that while inactive men have very high

levels of parental co-residence, inactive women have very low levels of parental co-residence. As expected, inactive women have very high levels of spousal co-residence while inactive men have very low levels. This can be first due to the fact that women at this age group are more likely to become inactive after giving birth to a child. According to our data, around 55 per cent of the inactive women in this age group are already with a child, while it is only 8 per cent for inactive men[1]. Percentages of both unemployed men and women living in the parental home are higher compared to employed men and women. And percentages of employed men and women living with a spouse are higher compared to unemployed men and women which reflects the fact that home leaving decisions of both men and women are affected by their employment statuses.

Similarly, the prevalence of living alone varies across Europe. Overall, a slightly greater percentage of young men live alone compared to young women. In Germany more than 30 per cent of young men (25 per cent of young women) in this age group are living alone. In Austria, France, Netherlands more than 15 per cent of young men and women are also living alone. On the other hand, living alone does not appear to be a common experience in Southern and Eastern Europe. Less than 5 per cent of young men live alone in Spain, Portugal, Slovenia, Slovakia, Poland, Malta and young women in Spain, Portugal, Slovenia, Slovakia, Poland, Malta, Bulgaria and Hungary. Ireland also has one of the lowest percentages of young men and women living alone.

In most of the countries the percentage of employed men living alone is higher than the percentage of unemployed or inactive men living alone. However, in some countries, like Bulgaria, Cyprus, Greece and the UK

[1]More than 80 per cent of the inactive women in this age group have a child in Czech Republic and Estonia.

percentage of the inactive young men living alone is the highest and in some countries like Germany, Belgium and the Netherlands percentage of the unemployed men living alone is the highest. The high percentages of unemployed men living alone in these countries can be a consequence of earlier parental home leave in these countries and a job loss experienced after moving out of the parental home. On the other hand, in the case of women, it is always the employed women with the highest percentages of living alone[2].

Young people with other living arrangements can be living with friends or with other relatives. Young people co-residing with a parent and a spouse at the same time are under this category as well, although it is not a common practice in contemporary Europe. Indeed, it is only in Eastern Europe where this type of living arrangement is observed. In Eastern Europe, young people may enter into first unions when they are in the parental home and continue living there with their partners (Billari et al., 2001). According to our data, Bulgaria and Romania are the two countries with the highest percentages of men co-residing both with a parent and a spouse in the same household (around 10 per cent). Eastern European countries (Estonia, Latvia, Poland, and Slovakia around 5 per cent) are followed by Southern European countries around 1.5-3 per cent. On the other extreme, countries like Belgium, Germany, France or Ireland have less than 1 per cent of young men in this type of living arrangement. Therefore, in most Eastern European countries, most of the young people categorized under the ”other” category are the ones co-residing with a parent and a spouse at the same time (more than 50 per cent). As expected in countries like Germany or Ireland only 5 per cent of the young individuals under the “other”

[2]Only with the exception of Belgium where the percentage of unemployed young women living alone is the highest.

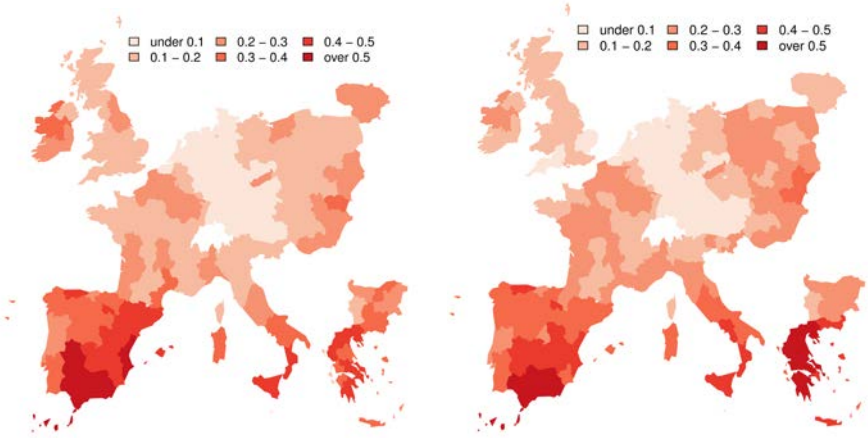
category are living both with a parent and spouse. In Western Europe, we expect this category to be mostly made up of young individuals living with their friends as co-residence with other family members is not a very common arrangement (Arundel and Ronald, 2016).

2.4 Unemployed Youth in Jobless Households

Aggregate and household level employment measures can provide very different signals about the performance of the labor markets as it was discussed in Chapter 1. We aim to present two very different pictures of Europe in terms of youth unemployment rates and percentages of the young living in jobless households in Figure 2.2 and Figure 2.3.

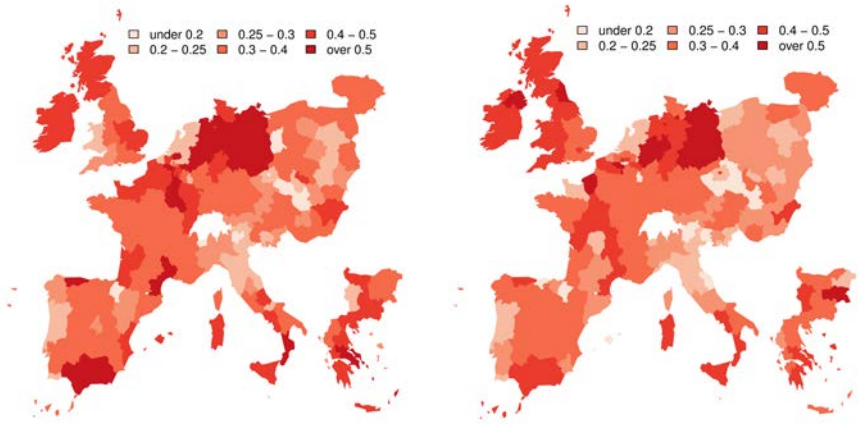
In Figure 2.2 we see Spain and Greece colored the reddest, with the highest youth unemployment rates in Europe. Youth unemployment rates for men exceed 30 per cent in Ceuta, Andalusia and Extremadura and 25 per cent in Castile-La Mancha, Valencian Community, Region of Murcia and Melilla. Greece follows Spain with various regions over 25 per cent: Kentriki Makedonia, Strea Ellada and Attiki.

Figure 2.2: Unemployment Rate (< 30) by Sex, Europe, 2012



(a) Men (b) Women

Figure 2.3: Percentage of the the Unemployed (< 30) in Jobless Households by Sex, Europe, 2012



(a) Men (b) Women

Source: Author's own calculations based on EU-LFS data

However, redness spreads towards the north when we look at the Figure 2.3, with very high percentages of young unemployed individuals in jobless households in countries like Germany and the UK. Countries with very high unemployment rates like Spain, Portugal, Italy and Greece have relatively lower percentages of young men and women living in jobless households compared to Germany and Belgium with very low levels of youth unemployment rates. Cyprus, Estonia and Slovenia also have low percentages of young men and women in jobless households.

Basque Community and Navarre are the two regions in Spain with the lowest youth unemployment rates for men with 13-14 per cent. In Germany, the regions with the highest unemployment rates do not even reach this level. Berlin and Mecklenburg-Vorpommern are the two regions in Germany with the highest youth unemployment rates, 10 and 11 per cent respectively. In Germany, with the lowest youth unemployment rates across Europe, half of the young population lives in jobless households. Berlin, Sachsen-Anhalt and Thuringen have the highest shares of unemployed individuals in jobless households: over 60 per cent.

Several regions in Belgium (Antwerpen, Hainout), France (Champagne-Ardenne, Picardie, Nord-Pas-de-Calais, Aquitaine, Languedoc-Roussillon) and the UK (Scotland, East Midlands) with relatively lower youth unemployment rates also have more than 40 per cent of unemployed young men in jobless households. Although percentages of young population in jobless households vary between 20 per cent to 50 per cent across Europe both for men and women, in the majority of the countries percentages of young unemployed women living in jobless households are lower compared to young unemployed men.

2.5 Probability of Being in Jobless Households

We ran five multi-level logistic regression models to predict the probability of young unemployed individuals to be in jobless households. We fitted a three-level random intercept model, which allows the overall probability of co-residence in a jobless household for unemployed individuals to vary across countries and regions. Larger variance among the region (country) specific effects indicates greater region (country) specific departure from the region (country) mean. The intercept consists of three terms: a fixed component, a country specific and a region specific component. The country specific and region specific effects are assumed to follow a normal distribution with a mean of zero. We ran separate models for men and women. Our population of interest is the unemployed men and women who are below the age of 30. The results from these five models are presented in Table 2.1.

Model 1 is our empty model. We can see that probability of being in a jobless household varies significantly across countries both for young unemployed men and women while the regional variance is significant only for unemployed men.

In model 2, we only control for age. We have three age groups: 15-19, 20-24 and 25-29 which is the reference category. Both young unemployed men and women are more likely to live in jobless households at older ages. A 17 year old is less likely to live in a jobless household compared to a 22 year old and a 22 year old is less likely to be in a jobless household compared to a 27 year old.

We control for educational attainment and immigration in Model 3. Higher educational attainment decreases the probability of being in a jobless household both for young unemployed men and women. Higher ed-

Table 2.1: Multi-level Model: Prob. of Living in Jobless HHs for the Unemployed (Age <30), 2012.

	MEN					WOMEN				
	m1	m2	m3	m4	m5	m1	m2	m3	m4	m5
Age										
15-19		0.38 ***	0.32 ***	0.33 ***	0.48 ***		0.46 ***	0.35 ***	0.36 ***	0.48 ***
20-24		0.56 ***	0.52 ***	0.52 ***	0.64 ***		0.75 ***	0.69 ***	0.70 ***	0.70 ***
25-29 (ref)		1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
Education										
Higher			0.44 ***	0.44 ***	0.45 ***			0.43 ***	0.43 ***	0.41 ***
Middle			0.58 ***	0.59 ***	0.57 ***			0.58 ***	0.58 ***	0.54 ***
Lower (ref)			1.00	1.00	1.00			1.00	1.00	1.00
Immigration										
Came after 15			1.40 *	1.45 *	0.75			0.87	0.92	0.93
Came before 15			1.00	1.04	0.91			1.16	1.23	1.20
Born in the country			1.00	1.00	1.00			1.00	1.00	1.00
Unemployment Rate				1.07 ***	1.07 ***				1.07 ***	1.07 ***
Co-residence with										
Parents					0.11 ***					0.08 ***
Spouses					0.20 ***					0.06 ***
Children					2.15 ***					1.38
Intercept	-0.53 ***	-0.14	0.27 *	-0.37 *	1.37 ***	-0.65 ***	-0.42 **	0.12	-0.53 *	1.60 ***
Region level variance	0.02 *	0.03 *	0.02 *	0.00 *	0.00	0.01	0.01	0.01	0.00	0.00
Country level variance	0.07 *	0.07 *	0.07 *	0.10 *	0.04	0.08 *	0.09 *	0.08 *	0.11 *	0.02

*** p<0,0001, ** p<0,001,* p<0,05

ucated young unemployed men and women are less likely to be in jobless households compared to middle educated while middle educated are less likely to live in jobless households compared to lower educated ones. This can be explained by the intergenerational transmission of education, the fact that educational attainment of children is affected by the education levels of their parents (Black et al., 2003). Higher educated children are more likely to have higher educated parents who are also less likely to be unemployed as higher levels of education lead to lower risks of unemployment. In the case of co-residence with a partner the situation is similar; employment statuses of spouses are closely associated which we can attribute to educational homogamy and assortative mating[3]. A highly educated individual is more likely to form a partnership with an individual with a similar level of educational attainment, which as mentioned in the previous chapter is one of the main causes of concentration of employment in some households.

We introduced the variable regarding immigration in order to see if the risk of being in a jobless household is affected first by being a migrant and second by the age of arrival to the country. Thus, we created a variable with three levels: (1) native (born in the country), (2) immigrant who came to the country after the age of 15 and (3) immigrant who came to the country before the age of 15. We chose the age 15 as a threshold with the idea that 15 is officially the earliest age to enter into the labor markets. We found that immigrant unemployed men who came to the country after the age of 15 are more likely to be in jobless households compared to the natives, while we do not see any significant difference between immigrant unemployed men who came to the country before the age of 15 and the

[3]For a detailed discussion of the association between labor market positions of husbands and wives see: Verbakel et. al. (2008) and Miller (1997).

natives. Individuals who immigrated to a country before the age of 15 are likely to be dragged along by their parents who were in search for a job or who already had a job opportunity in this country. Age at arrival makes a big difference since social integration or assimilation is realized softer at younger ages. Additionally, immigrants who arrive to the country at very young ages attend to school here and enter into the labor markets of this country. We are aware of the fact that with this variable it is not possible to distinguish the years spent in the country after arrival. For instance, a 27 year old could be living in the country for more than 10 years or less than a year. However, the main purpose of having this variable is to highlight the importance of immigrant status.

When we controlled for the regional unemployment in Model 4, region level variance lost its significance for men while country level variance kept its significance both for men and women.

In Model 5 we introduced three dummy variables regarding living arrangements: Co-residence with a parent or not, co-residence with a spouse or not and co-residence with children or not. Our findings show that both unemployed men and women living together with a parent are less likely to be in jobless households compared to those who are not living with a parent. Likewise, co-residence with spouses seems to have a negative (decreasing) effect both for young unemployed men and women. On the other hand, while unemployed men living with a child are more likely to be in jobless households, we do not see any significant effect of co-residence with children on the odds of young unemployed women to be in jobless households.

After controlling for co-residence, we see that country level variance lost its significance in line with our findings from Chapter 1, since living arrangements serve to explain most of the divergence across Europe.

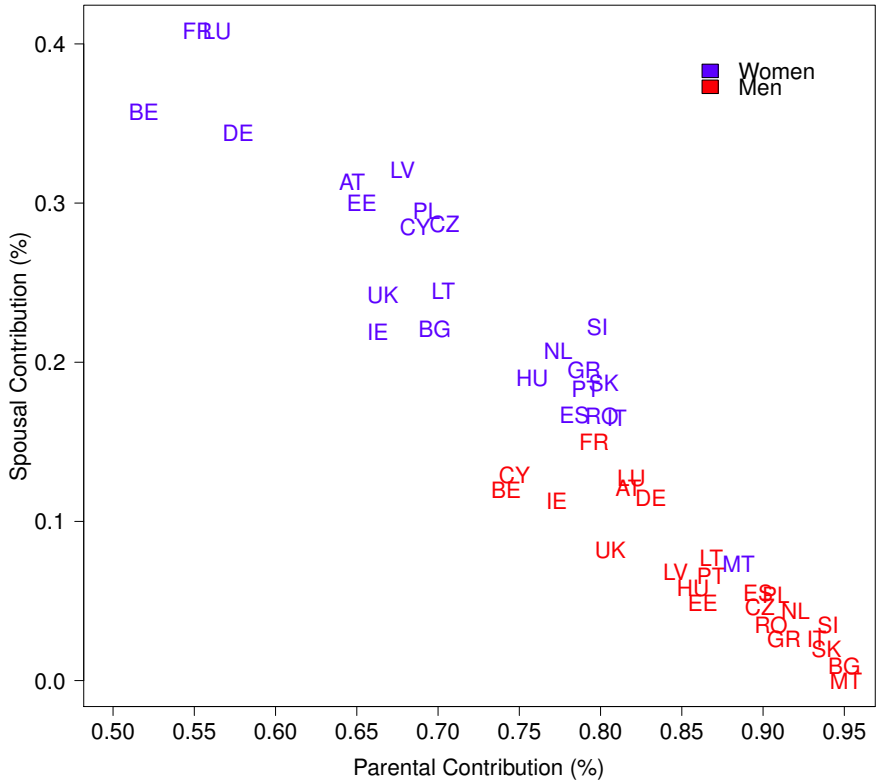
2.6 Who Contributes More to Keep the Unemployed Young Out of Jobless Households: Parents or Spouses?

As we have shown in the previous section, parents and spouses play an essential role in keeping unemployed young from being in jobless households. In this section, we look at the diverging contributions of parental and spousal co-residence across Europe. Figure 2.4 demonstrates the contributions of parents and spouses to reduce the number of unemployed young men and women in jobless households. Contribution of parents (spouses) is calculated in the same way as in Chapter 1, it basically refers to the proportion of unemployed individuals living with an employed parent (spouse) over the total number of unemployed individuals living with an employed household member. Countries in blue represent the parental and spousal contributions for young unemployed women and countries in red for young unemployed men.

We can see that parental contribution is higher for the unemployed young men compared to young unemployed women in all 24 countries we have in our sample. For men, parental contribution ranges from 75 per cent to 96 per cent while it is between 50 to 89 per cent for women. In contrast, the spousal contribution is greater for women. While spousal contribution is between 3 to 12 per cent for unemployed men, it is between 7 and 40 per cent for women. In all countries, women avoid co-residing in jobless households mostly by co-residing with employed spouses and less by co-residing with employed parents.

Importance of parental and spousal contribution varies across European countries. Overall, countries with a high parental (spousal) contribution have low spousal (parental) contribution. At the bottom right side of the

Figure 2.4: Percentages of Parental and Spousal Contributions(<30), by Sex, Europe, 2012



Source: Author's own calculations based on EU-LFS data

scatterplot for men, we see Bulgaria and Malta with the highest parental contributions (around 95 per cent) and the lowest spousal contributions (almost 0). Malta is at the most right bottom also for women with the highest parental contribution and the lowest spousal contribution. However, it is different for young unemployed women in Bulgaria with relatively lower parental contribution levels as unemployed young women seem to live more with an employed spouse compared to Bulgarian unemployed young men. Countries like Slovakia, Slovenia, Italy, Greece, Romania and the Netherlands have very high levels of parental contributions and very low levels of spousal contributions. Among the Southern European countries, Italy has the highest levels of parental contribution and the lowest levels of spousal contribution both for men and women. However, all Southern European countries (Greece, Portugal and Spain) have high levels of parental contribution and low levels of spousal contribution which is more apparent in the case of women.

On the other extreme, Belgium appears with the lowest levels of parental contribution both for men (74 per cent) and women (52 per cent). Cyprus is another country in the very extreme, with very low parental contribution accompanied with very high spousal contribution. France, Ireland, Luxembourg, Austria and Germany are among the European countries with high levels of spousal contribution and low levels of parental contribution.

2.7 Conclusions

Unemployment rates for young individuals are the highest of all age groups across Europe. Young individuals are particularly vulnerable against labour market uncertainties since they are unlikely to have enough

savings to sustain their standard of living in times of job losses and neither do they qualify for generous unemployment benefits[4]. They are very likely to live together with some other people helping them escape the negative consequences of unemployment, especially in countries where the support provided by the welfare state is restricted. Our main objective in this chapter was to investigate the divergent living arrangements of unemployed young individuals in order to explain their varying probabilities of being in jobless households across Europe.

Our findings revealed that larger percentages of unemployed young men and women are in the parental home compared to employed young men and women. Conversely, larger percentages of employed men and women are living with a spouse. Home leaving decisions of both men and women seem to be affected by their employment statuses. Although wide cross-country differences are observed, we find that parental co-residence is more common among young men and spousal co-residence among young women. Living alone is the most common among employed men. Living both with a parent and a spouse is not a common practice in Europe; it is only the Eastern European countries where this type of living arrangement can be observed.

Our findings revealed the fact that countries with the highest youth unemployment rates are not the ones with the highest percentages of young unemployed in jobless households. Indeed, countries with very high youth unemployment rates like Spain, Portugal, Italy and Greece have relatively low percentages of young men and women in jobless households compared to Germany and Belgium with very low levels of youth unemployment. This can be explained mostly by late parental home leaving and

[4]However, the extent of unemployment benefits available for young unemployed populations vary widely across Europe.

more years of parental support in Southern Europe. Although there is a high variation, in the majority of countries percentages of young women in jobless households are lower compared to men.

We also showed that both unemployed young men and women are more likely to live in jobless households at older ages. Higher educational attainment appeared to decrease the probability of being in a jobless household both for unemployed young men and women. We found that immigrant young unemployed men who came to the country after the age of 15 are more likely to be in jobless households compared to the natives, while we do not see any significant difference between immigrant men who came to the country before the age of 15 and the natives. On the other hand, we did not find any significant effect associated with being an immigrant for women.

Our results reveal that living arrangements of young individuals play a major role to explain the cross-country and regional diversity in the prevalence of jobless households in Europe. We find that although their importance varies extensively across Europe parents and spouses play an essential role to take the young people out of jobless households. Both young unemployed men and women living together with a parent are less likely to be in jobless households compared to those who are not living with a parent. Likewise, co-residence with a spouse seems to have a negative effect. Both young unemployed men and women living with a spouse are less likely to be in jobless households.

Unemployed men living with children are more likely to be in jobless households, since following birth, women tend to drop out of the labor force to take care of their children as a consequence of gendered patterns of division of labour. On the other hand, we do not see any significant effect of co-residence with children on the probabilities of young unemployed

women to be in jobless households. Employment statuses of men do not seem to be affected by having children, while childbearing has a direct negative impact on the labour market participation of women.

Children can increase the risk of dual joblessness however, their effect is mostly shaped by social policy and labour market institutions such as employment protection regulations, financial support for families and institutional support to promote mothers' work such as maternal leave, affordable high-quality childcare (Härkönen, 2011). For instance, it is easier for Nordic women in comparison with Continental or Southern European women to combine work and family life by means of paid parental leave, reasonably priced day care and free and school meals (Maajama, 2011).

Our results also reveal that parental and spousal contributions tend to compensate each other: Countries with high levels of parental (spousal) contribution appear to have lower spousal (parental) contributions.

Appendix

Table 2.2: Regional Detail (NUTS levels) Provided by Each Country in the EU-LFS data

Country	NUTS level	Regions
Austria	NUTS 1	Ostosterreich, Sudosterreich, Westosterreich
Belgium	NUTS 2	Région de Bruxelles-Capitale, Antwerpen, Limburg, Oost-Vlaanderen, Vlaams-Brabant, West-Vlaanderen, Brabant Wallon, Hainaut, Liège, Luxembourg (BE), Namur
Bulgaria	NUTS 2	Severozapaden, Severen tsentralen, Severoiztochen, Yugoiztochen, Yugozapaden, Yuzhen tsentralen
Cyprus	NUTS 1	Cyprus
Czech Republic	NUTS 2	Praha, Střední Čechy, Jihozápad, Severozápad, Severovýchod, Jihovýchod, Střední Morava, Moravskoslezsko
Germany	NUTS 1	Baden-Württemberg, Bayern, Berlin, Brandenburg, Bremen, Hamburg, Hessen, Mecklenburg-Vorpommern, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Saarland, Sachsen, Sachsen-Anhalt, Schleswig-Holstein, Thüringen
Estonia	NUTS 1	Estonia
Greece	NUTS 2	Attiki, Voreio Aigaio, Notio Aigaio, Kriti, Anatoliki Makedonia-Thraki, Kentriki Makedonia, Dytiki Makedonia, Thessalia, Ionia Nisia, Dytiki Ellada, Sterea Ellada, Peloponnisos
Spain	NUTS 2	Galicia, Principado de Asturias, Cantabria, Pais Vasco, Comunidad Foral de Navarra, La Rioja, Aragón, Comunidad de Madrid, Castilla y León, Castilla-La Mancha, Extramadura, Cataluña, Comunidad Valenciana, Illes Balears, Andalucia, Región de Murcia, Ciudad Autónoma de Ceuta, Ciudad Autónoma de Melilla, Canarias
France	NUTS 2	Île de France, Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Basse-Normandie, Bourgogne, Nord - Pas-de-Calais, Lorraine, Alsace, Franche-Comté, Pays de la Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-Pyrénées, Limousin, Rhône-Alpes, Auvergne, Languedoc-Roussillon, Provence-Alpes-Côte d'Azur, Corse
Hungary	NUTS 2	Közép-Magyarország, Közép-Dunántúl, Nyugat-Dunántúl, Dél-Dunántúl, Észak-Magyarország,Észak-Alföld, Dél-Alföld
Ireland	NUTS 2	Border-Midland and Western, Southern and Eastern
Italy	NUTS 2	Piemonte, Valle d'Aosta/Vallée d'Aoste, Liguria,Lombardia, Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna, Provincia Autonoma di Bolzano/Bozen, Provincia Autonoma di Trento, Friuli-Venezia Giulia, Emilia-Romagna, Toscana, Umbria, Marche, Lazio
Lithuania	NUTS 1	Lithuania
Luxembourg	NUTS 1	Luxembourg
Latvia	NUTS 1	Latvia
Malta	NUTS 1	Malta
Netherlands	NUTS 0	Netherlands
Poland	NUTS 2	Łódzkie, Mazowieckie, Małopolskie, Śląskie, Lubelskie, Podkarpackie, Świętokrzyskie, Podlaskie, Wielkopolskie, Zachodniopomorskie, Lubuskie, Dolnośląskie, Opolskie, Kujawsko-pomorskie, Warmińsko-mazurskie, Pomorskie
Portugal	NUTS 2	Norte, Algarve, Centro, Área Metropolitana de Lisboa, Alentejo, Região Autónoma dos Açores, Região Autónoma da Madeira
Romania	NUTS 2	Nord-Vest, Centru, Nord-Est, Sud-Est, Sud - Muntenia, Bucureşti - Ilfov, Sud-Vest Oltenia, Vest
Slovenia	NUTS 2	Vzhodna Slovenija, Zahodna Slovenija
Slovakia	NUTS 2	Bratislavský kraj, Západné Slovensko, Stredné Slovensko, Východné Slovensko
United Kingdom	NUTS 1	North East, North West, Yorkshire and the Humber, East Midlands, West Midlands, East of England, London, South East, South West, Wales, Scotland, Northern Irelad

Source: http://ec.europa.eu/eurostat/web/nuts/nuts-maps-.pdf-

Source: Eurostat

Chapter 3

IMPACT OF LIVING ARRANGEMENTS ON POVERTY AND SOCIAL EXCLUSION ACROSS EUROPE

3.1 Introduction

The previous two chapters of this thesis have focused on living arrangements of unemployed individuals across Europe within the context of household level joblessness. Albeit being closely intertwined, household level joblessness does not necessarily cause the household to be in income poverty, material deprivation or social exclusion, since jobless households are not necessarily deprived of economic resources. Indeed, household joblessness does not provide information regarding the total resources available to the household or actual living standards experienced by the household members. Also, it is possible that all household members of a jobless household were unemployed only temporarily at the time of the interview and some working households may include employed individuals but with very low work intensities. Besides, resources available to the household are not limited to current income, the income that would be received in case of employment, since individuals may bring in accumulated savings or may have some other unreported income. Depending on the strength of the welfare state, unemployed individuals may be receiving generous benefits enabling them to have an acceptable standard of living not very different from the rest of the society in which they live. Moreover, the support received by households from their networks usually goes beyond the members of the household.

In the previous two chapters, we exploited the EU-LFS data, which provides thorough employment information and broad regional detail, but lacks information regarding income which is crucial for poverty analysis. In this chapter, we take a step forward from the jobless households and examine poverty and social exclusion across Europe exploiting the European Union Statistics on Income and Living Conditions (EU-SILC) data,

which enables us to incorporate detailed income information into the analysis. The main contribution of this chapter is to reveal the impact of diverse living arrangements on the poverty experience of unemployed individuals across Europe and the changing importance of household context by age to help unemployed escape poverty and social exclusion.

We use the main indicator of the social inclusion target of the Europe 2020 Strategy throughout this chapter: At Risk of Poverty or Social Exclusion (AROPE). We believe that AROPE is a valuable tool for incorporating a subtler perception of poverty, bringing together three dimensions: income poverty, material deprivation and low work intensity. Despite the differences with the household joblessness measure we used in the previous chapters, with the third dimension of low work intensity, joblessness is also incorporated into the AROPE indicator. Details of the three dimensions of AROPE will be discussed in more detail throughout the chapter.

We present most of our results at the country level and use four country groups in some sections to reduce the complexity in presentation, nevertheless we provide detailed country level information at the end of the chapter in the Appendices. Our analyses are restricted to the country level due to the lack of regional detail in EU-SILC for most of the countries.

In the next section, we present a brief review of the two main approaches used to measure poverty: input and output approaches and in Section 3.3 we explain the EU-SILC data. In Section 3.4 we investigate unemployed individuals in jobless households across Europe using this new data source to validate our results from the first chapter. In Section 3.5 we explore the EUROPE 2020 Headline Indicators and the three components of the AROPE indicator, in three sub-sections. In sub-section 3.5.1 we also present a critique to the traditional relative income poverty measure used by EUROSTAT which is based on a relative income poverty thresh-

old and fails to be a coherent indicator in times of economic contraction or expansion. We propose an alternative measure to relative income poverty rates: anchored poverty rates. We explore the evolution of relative income poverty rates and anchored poverty rates across Europe during the last decade, highlighting the different picture presented by these two measures. Section 3.6 focuses on poverty experienced by different household types, in order to review the household characteristics of the most vulnerable groups against poverty. In Section 3.7 we move our attention back to the main focus of this thesis: unemployed individuals and explore the impacts of their living arrangements on their poverty experiences, focusing on poverty measured by the three main components of the AROPE indicator. Following our analysis from the first two chapters, we first explore the implications of living arrangements for the probability of unemployed individuals to be in poverty and social exclusion in a cross-national perspective and second how this probability changes by age. Finally, in the last section we discuss the limitations of this thesis, present some concluding remarks and plans for future research.

3.2 Measuring Poverty

The definition of poverty has evolved over the years, and the approaches used to measure it have been surrounded by significant controversy. The current definition of poverty is much broader than it was a few decades ago, going beyond absolute poverty and the achievement of basic human needs and incorporating important notions like active economic, social, political or cultural participation and inclusion in the society. In this thesis, we adopt a conceptualization of poverty in relative terms, which is defined depending on the living standards of the rest of the society. The concept of

exclusion from a minimum acceptable standard of living of the society in which individuals live was introduced by Townsend (1979). His definition is considered as one of the first definitions of poverty in relative terms:

"Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the type of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged, or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities."

Townsend's conception of relative deprivation is not restricted to material deprivation but incorporates social deprivation as well. Likewise, the European Council of Ministers defines as poor the "persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live", incorporating the concept of exclusion from the society (Council, 1985).

Advocating the superiority of a poverty measure over the others is not the purpose of this section. Here, we rather focus on two of the main approaches of poverty measurement: The income or input approach, which highlights the monetary dimension of poverty and the outcome approach which focuses on actually achieved living standards.

The income approach is considered to be an indirect approach to poverty, as it puts emphasis on financial resources available to individuals to achieve minimum living standards, rather than the actual outcomes realized. It highlights the inequalities of opportunity and "potential exclusion" from the society due to lack of economic resources rather than measuring the actual consumption levels achieved (Perry, 2002). Relative

poverty measures are used in countries with high income levels where achieving a minimum absolute level of living is less of a concern (Foster et al., 2013).

According to this approach, poverty is determined relative to the income level of the whole society. Current income is commonly used to determine if an individual has less than others. An individual is identified to be poor if his/her current income is below the country threshold. The country threshold is defined as a percentage of the median or mean national income of the country. Eurostat uses 60 per cent of the median national income as the national poverty threshold for European countries in a given year. This understanding of poverty as a discrete condition, determined solely by crossing a particular income threshold, has been criticized for its arbitrariness[1].

On the other hand, the longstanding official poverty measure of the U.S. relies on a poverty threshold estimated in 1960s, which is adjusted by price changes for the following years. The poverty threshold used in this measure, which was developed by Orshansky (1965), is three times the cost of minimum food diet in 1963 and it is updated by various consumer price indices every year. Here, first a minimum of basic needs (food, clothing, housing, etc.) is defined and then a low income level to meet these basic needs is estimated[2]. Clearly, what constitutes basic needs and the

[1]For example, Watts (1968) proposed a scale that enables to compare individuals according to their proportional distances from the poverty thresholds by a ratio of permanent income to the poverty threshold instead. An economic distance approach was used by Förster (1994) which defines poverty as a fraction of the median disposable income, but using low-income bands instead of a single cut-off line. See also Atkinson (1987) on the choice of poverty line and poverty measure and relationship between poverty and inequality. See Deleeck and Van den Bosch (1992) for a comparison of various poverty lines in seven European countries.

[2]This approach to poverty measurement is sometimes referred to as absolute approach since it defines an absolute subsistence minimum of basic needs and the low-income line is determined depending on the cost of these basic needs (Förster, 1994).

estimation of the low income level to meet them are debatable issues. The relevance of an item may change and disappear over time and it would be unrealistic to assume that basic needs are the same across countries. An outdated item in the European context, could still be used as a relevant item in less-developed countries, making it difficult to meaningfully compare countries in a wider context. While this measure allows to monitor long term trends, it is criticized for becoming obsolete with time[3].

The outcome approach, on the other hand, is based on non-monetary indicators of material deprivation. The main focus of this approach is the actual outcomes realized rather than the potential satisfaction of needs, such as possession of particular items or consumption of certain goods and services.

Deprivation can be defined as insufficient standards of living and these minimum standards of living can be defined based on external or internal methods. External methods are based on the judgements or external visions of experts, while internal methods are based on the judgements of individuals to define their own needs (Dickes et al., 2010). In their influential paper analyzing 35 items Mack et al. (1985) recognize an item as necessary only if it is supported by at least 50 per cent of the interviewees. Their analysis based on consensual judgements of individuals, distinguishing between enforced lack of items and lack of items due to people's preferences has been an important reference point for the material deprivation measure-

[3]These criticisms led the U.S Census Bureau to release a number of new poverty measures using different thresholds and data sources. Such as the Supplemental Poverty Measure and experimental National Academy of Sciences Measures which are based on thresholds (quasi-relative poverty thresholds) that are determined by consumer spending behaviour on a core basket of goods and services annually (hence vary over time) and change in the same direction with the relative income. For more information on different U.S. poverty measures see: Johnson and Smeeding (2012) or Income & Poverty section of the U.S. Census Bureau website: `https://www.census.gov/topics/income-poverty.html`

ment. This distinction is important, since lack of an item due to financial constraints and due to specific life style choices mean very different things about the living standards of the individuals. Individuals may decide not to possess particular items finding them not necessary for their particular life styles, even if they have the means to own them. Alternatively, an individual may be accustomed to the absence of an item with time or not even aware of its absence or embarrassed to acknowledge it (Perry, 2002). The EU adopts this concept of enforced lack of items and the EU indicator on material deprivation defines people living in households lacking (based on the enforced lack criteria) at least 3 of the 9 items on material living conditions as materially deprived.

The mismatch between poverty measured using the income approach and the material deprivation has long been in the centre of the poverty literature. Combinations of the direct and indirect approaches to produce more reliable estimates of poverty have been proposed by many authors (Halleröd, 1995; Nolan and Whelan, 1996; Ringen, 1988). The main idea here is that relative living standards of a household clearly depend on its consumption power. However, consumption does not only depend on current reported income, but also on permanent income of the household, longer term accumulation and deterioration of resources (Perry, 2002).

A household with over average living standards can be experiencing a shortage of current income only temporarily. A temporary shortage of current income does not always lead to a change in consumption behaviour or living standards of individuals. Current consumption depends on many other factors like accumulated savings, unreported income, availability of support networks especially in times of economic hardship or non-cash income, household production. (Perry, 2002). Moreover, individuals with identical resources could be experiencing very different living conditions

due to their varying abilities to transform income into living standards (Sen, 1983).

Persistent poverty measures, income poverty measured over a number of years, are proposed to overcome the shortfalls of poverty measures based on cross-sectional income (Layte et al., 2000; Whelan et al., 2003). Alternatively, combining the income approach with the material deprivation can serve to overcome their individual shortcomings. For instance, Halleröd (1995) proposes a combination of the two approaches for Sweden, defining "truly poor" as those who are identified as poor by both approaches, having incomes under the poverty line and deprived in terms of actual consumption of goods and services at the same time. Similarly, Nolan and Whelan (1996) adopting a combination of income and deprivation information identify those experiencing exclusion from the life of the society due to lack of resources, using Irish data. While Halleröd (1995) uses Consensual Income Poverty Lines (relying on responses to a minimum income question) and a proportional deprivation index (items weighted to reflect their necessity), Nolan and Whelan (1996) choose to use relative income poverty lines (proportions of average household income) and a core set of items relating to basic deprivation, basic aspects of current living standards. In the same line, Ringen (1988) puts emphasis on the dual importance of low standards of consumption and low levels of income. He highlights the importance of one's savings and dependence on someone else's income in times of low income to avoid a change of life style. On the other hand, he criticizes the sole reliance on the outcome indicators, pointing out to the division between lack of means and personal preferences since a person could be living like poor without really being poor not because he/she does not have the means to improve his/her living standards. In line with these, the EU adopts a multidimensional approach to the measurement of

poverty. The main indicator of the social inclusion target of the EU 2020 Strategy (AROPE) brings together income poverty, material deprivation and low work intensity, which will be explained in detail throughout this chapter.

3.3 Data

In this chapter, we exploit the European Union Statistics on Income and Living Conditions (EU-SILC) data which is the main source of information for income distribution, poverty and social exclusion statistics in Europe. It is used for policy monitoring within the framework of 'Open Method of Coordination' (OMC)[4]. EU-SILC replaced the European Community Household Panel (ECHP) in 2004 which ran between 1994 and 2001. EU-SILC serves to provide a harmonized data framework by a flexible survey design, rather than common questionnaires in all countries, which was the case for the ECHP. It is based on a common ex ante framework defining common guidelines, concepts and classifications and harmonised target variables to be sent to Eurostat by each country.

EU-SILC data is released in longitudinal and cross-sectional files. We use the Release 2013-3 of the cross-sectional data for the purpose of this chapter. In our analysis we include 32 countries for the year 2013[5]. Our

[4]OMC is a framework developed to facilitate cooperation between EU member states, defining the objectives to be achieved, establishing measuring instruments and monitoring the country performances. For more information on OMC see: `http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Open_method_of_coordination_(OMC)`

[5]Austria (AT), Belgium (BE), Bulgaria (BG), Croatia (HR), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (EL), Hungary (HU), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Serbia (RS), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), Switzerland (CH) and United Kingdom (UK).

dataset is composed of around 615000 observations. Personal cross sectional weights are used to reach each country's population of private households. Individuals living in institutional settings are not included in the EU-SILC.

EU-SILC data provides limited amount of regional detail. Czech Republic, Finland, France and Spain are the only countries which provide NUTS 2[6] level regional information. While, Germany, Netherlands, Portugal, Serbia and Slovenia do not provide any regional detail, the rest of the countries included in our dataset only provide NUTS 1 level information[7]. As a result, our analysis in this chapter is restricted to country level.

EU-SILC does not provide a full household grid. It allows us to identify individuals living with their fathers, mothers, spouses and children using the mother, father and spouse identification variables. However, we are not able to identify the rest of the possible relationships like co-residence with friends or other relatives.

3.4 Unemployed in Jobless Households across Europe

In this section, we run the similar multi-level logistic regression models to the ones used in Chapter 1 to predict the probability of co-residence in a jobless household for unemployed individuals. In Chapter 1 we used EU-LFS data and here we use EU-SILC data to confirm our previous findings. We fit two-level random intercept models[8], allowing the overall probability of co-residence in jobless households for unemployed individuals to vary

[6]Nomenclature of territorial units for statistics (NUTS) classification is a hierarchical system (NUTS1, NUTS2, NUTS3) used to divide territories of Europe into regions. See: `http://ec.europa.eu/eurostat/web/nuts/overview`

[7]For more information on EU-SILC, see for example Wolff et al. (2010)

[8]More detailed description of the models has been presented in Chapter 1, Section 1.3.3 .

across 32 countries for the year 2013. To determine our target population (unemployed individuals), we used the variable RB210 (Basic Activity Status) which provides information on all current household members of all ages as being: at work, unemployed, in retirement or early retirement and other inactive person. Results of these models are presented in Table 3.1.

Model 1 is our initial, two-level random intercept model in which we do not include any controls. We observe a high variation in the probability of being in jobless households across countries and this variation is substantially higher for unemployed women in comparison with unemployed men.

In Model 2 we control only for age. The probability of being in a jobless household first increases and then decreases with age, following an inverted U shape for unemployed men. Unemployed men who are younger than 25 years of age are the least likely to be in a jobless household, while unemployed men aged between 40 and 44 years are the most likely. From age 44 onwards, probability of being in a jobless household starts decreasing with age. For unemployed women, probability of being in a jobless household is higher at older ages. Younger unemployed women are the least likely to be in jobless households, whereas older women are the most likely.

Table 3.1: Multi-level Model Results (Odd-ratios) for the Probability of Being in Jobless Households for the Unemployed (18-60) by Sex, Europe, 2013

	MEN						WOMEN					
	m1	m2	m3	m4	m5	m6	m1	m2	m3	m4	m5	m6
Agegroup												
18-24		0.24 ***	0.23 ***	0.23 ***	0.19 ***	0.46 ***		0.45 ***	0.45 ***	0.45 ***	0.25 ***	0.24 ***
25-29		0.44 ***	0.46 ***	0.46 ***	0.35 ***	0.44 ***		0.63 ***	0.66 ***	0.66 ***	0.44 ***	0.54 ***
30-34		0.78 ***	0.82 ***	0.82 ***	0.72 ***	0.80 ***		0.83 ***	0.87 ***	0.87 ***	0.73 ***	0.71 ***
35-39		0.95 ***	0.96 ***	0.96 ***	0.93 ***	0.86 ***		0.85 ***	0.86 ***	0.86 ***	0.89 ***	0.85 ***
40-44 (Ref.)		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .
45-49		0.90 ***	0.89 ***	0.89 ***	0.86 ***	1.16 ***		0.89 ***	0.88 ***	0.88 ***	0.72 ***	0.67 ***
50-54		0.89 ***	0.85 ***	0.85 ***	0.76 ***	1.39 ***		1.09 ***	1.04 ***	1.04 ***	0.77 ***	0.79 ***
55-59		0.82 ***	0.76 ***	0.76 ***	0.68 ***	1.27 ***		1.69 ***	1.62 ***	1.62 ***	1.27 ***	0.93 ***
Education												
Low (Ref.)			1.00 .	1.00 .	1.00 .	1.00 .			1.00 .	1.00 .	1.00 .	1.00 .
Medium			0.63 ***	0.63 ***	0.56 ***	0.57 ***			0.59 ***	0.59 ***	0.51 ***	0.51 ***
High			0.55 ***	0.55 ***	0.46 ***	0.48 ***			0.54 ***	0.54 ***	0.38 ***	0.41 ***
European												
European (Ref.)			1.00 .	1.00 .	1.00 .				1.00 .	1.00 .	1.00 .	
Immigrant			0.84 ***	0.84 ***	0.98 ***				1.05 ***	1.05 ***	1.23 ***	
Unemployment Rate				0.99						1.00		
Coresidence with												
Parents					0.19 ***						0.16 ***	
Spouses					0.13 ***						0.07 ***	
Children					0.84 ***						0.52 ***	
Interactions												
Co-residence (with parents, spouses, children) and Age												
Intercept	0.05	0.51 ***	0.27 *	0.44 *	1.88 ***	1.68 ***	-0.37 *	-0.20	-0.42 **	-0.46 *	1.80 ***	2.04 ***
Country level variance	0.19 ***	0.17 ***	0.20 ***	0.19 ***	0.12 ***	0.11 ***	0.37 **	0.39 ***	0.39 ***	0.40 ***	0.28	0.00

*** p<0,0001, ** p<0,001,* p<0,05

Two individual level variables, education and immigration are included in Model 3. The education variable has three categories: Low (Less than secondary education), Medium (Secondary and post-secondary education) and High (Tertiary) education. The education variable is created from the variable PE040 (Highest ISCED level attained), which is available for all current household members aged 16 and over. Low (Less than secondary education) is comprised of pre-primary, primary and lower-secondary education. The Medium (Secondary and post-secondary education) category brings together (upper) secondary and post-secondary non tertiary education and High (Tertiary) education includes first and second stages of tertiary education.

We treated the immigration variable as either being an immigrant or not, dropping the distinction we used in the second chapter, regarding the age at arrival to the country of residence, due to the small sample sizes of the EU-SILC data. We used the variable PB210 (Country of Birth) to construct this new immigration variable which provides information for all current household members aged 16 and over and is defined as the country of residence of the mother at the time of birth. It has three categories: Born in the same country as the country of residence, born in any other European country except the country of residence and born in any other country (which is not a European country). Our definition of being an immigrant or not is based on being European or not[9]. We constructed the immigration variable defining those who are born in any other country (which is not a European country) as immigrant (not european) and grouping together the individuals born in the country of residence and individuals born in other European countries under the category european (not immigrant).

[9]Here, the definition of being European does not go beyond being born in a European country.

Our findings from Model 3 show that both unemployed men and women with medium levels of education are more likely to be in jobless households compared to highly educated unemployed men and women and that those unemployed with lower levels of education are the ones with the highest probabilities of being in jobless households. These findings support our findings from the first chapter. While immigrant unemployed men are less likely to be in jobless households compared to european unemployed men; immigrant unemployed women are more likely to be in jobless households compared to european unemployed women.

In Model 4, we control for national unemployment rates which do not seem to have any significant effect on the probabilities of the unemployed to be in jobless households, neither for unemployed men nor for unemployed women, which is in line with our findings from the first chapter.

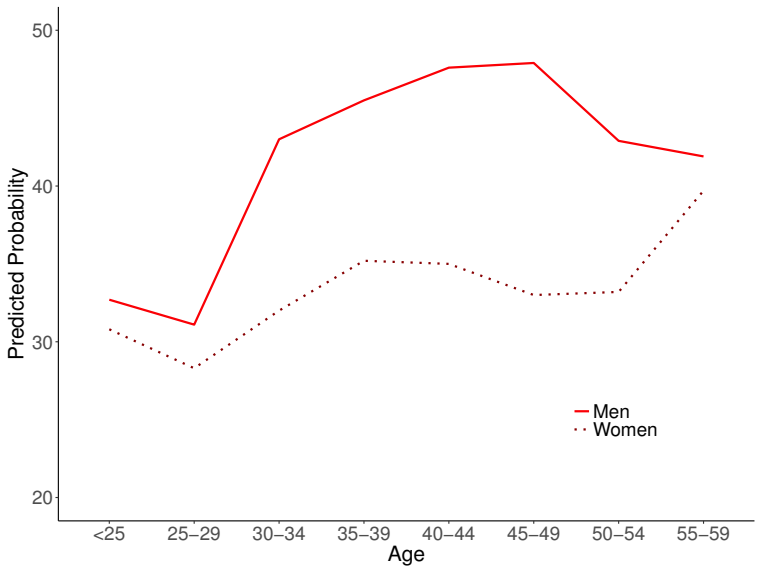
Co-residence variables are incorporated in Model 5. All three types of co-residence (co-residence with parents, spouses and children) are found to be significantly decreasing the probabilities of being in jobless households both for unemployed men and women. Co-residence with a spouse appears to have the greatest negative effect both for unemployed men and women, followed by parental co-residence. The diminishing effect of co-residence with children is the smallest in magnitude. The diminishing effects of the co-residence variables are greater for the unemployed women, also in line with our findings from Chapter 1.

We see that country level variance decreases drastically both for unemployed men and women when we control for co-residence. This means that co-residence arrangements of unemployed individuals serve to explain most of the variation in their probabilities of living in jobless households across Europe. This was what we have also observed with the EU-LFS data in Chapter 1.

In Model 6, we introduce the interactions between age groups and co-residence patterns. Living arrangements change with age, mainly high parental co-residence observed at younger ages is later replaced by spousal co-residence accompanied by co-residence with children, although timing of these transitions vary across countries. Expected probabilities, obtained from this model, of being in jobless households for unemployed men and women, are presented in Figure 3.1.

We can see that unemployed young individuals are the least likely to be living in jobless households, both in the case of unemployed men and women. For the unemployed men, the probability of living in a jobless household increases with age, reaches its highest around late 30s, early 40s and then starts to decline again. In the case of unemployed women, the probability of living in jobless households modestly increases until the early 30s then slightly declines during the 40s and starts to increase again at older ages. The expected probability of being in a jobless household is the highest at older ages for unemployed women. These findings are supporting our findings from Chapter 1.

Figure 3.1: Expected Probability of Being in a Jobless Household for Unemployed Men and Women by age, 2013, EU-SILC



Source: Author's own calculations based on EU-SILC data

3.5 At Risk of Poverty or Social Exclusion (AROPE) across Europe

The Europe 2020 Strategy was adopted in 2010 by the European Council[10], following its predecessor Lisbon Strategy. It is the common strategy of the EU for the current decade, defining where it wants to be by 2020 and it is defined by (EUROSTAT, 2015) as:

"Europe 2020 is the EU's growth and jobs strategy for the current decade, striving to pave the way to a smart, sustainable and inclusive future. The strategy envisages measures to overcome the economic crisis and move beyond it by addressing the structural weaknesses in the European economic model."

Headline targets established with the EUROPE 2020 Strategy are:

- Increasing the employment rate of the population aged 20-64 to at least 75%
- Increasing combined public and private investment in R&D to 3% of GDP
- Climate change and energy targets: Reducing greenhouse gas emissions by at least 20% compared to 1990 levels, increasing the share of renewable energy in final energy consumption to 20% and moving towards a 20% increase in energy efficiency
- Reducing school drop-out rates to less than 10% and increasing the share of the population aged 30-34 having completed tertiary education to at least 40%

[10]European Council conclusions, 17 June 2010, EUCO 13/10, Brussels, 2010 available at: `http://ec.europa.eu/eu2020/pdf/council_conclusion_17_june_en.pdf`

- Lifting at least 20 million people out of the risk of poverty and social exclusion[11]

These goals are translated into national targets for each EU country to set their own national targets. Annual reports are presented by each country and the progress made is monitored by Eurostat via regularly published progress reports for each country[12].

The fifth of these above mentioned targets, lifting at least 20 million people out of the risk of poverty and social exclusion by 2020 is generally referred to as the social inclusion target of the Europe 2020 Strategy and AROPE is the main indicator used to monitor it. AROPE is comprised of three sub-indicators each of which focuses on different dimensions of poverty: At Risk of Poverty (AROP), Severely Materially Deprivation (SMD) and Low Work Intensity (LWI). An individual is considered to be AROPE if he/she is either in an AROP or SMD or LWI household. AROP, SMD, LWI and AROPE figures of the 32 countries included in our dataset for the year 2013 are presented in Table 3.2[13].

3.5.1 At Risk of Poverty (AROP) across Europe

In EU-SILC, the income reference period is a fixed 12 months period, which is the calendar year prior to the year of data collection in most coun-

[11]For more detailed information regarding EUROPE 2020 Headline Indicators, see Eurostat dedicated section: `http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy`

[12]More information regarding country profiles can be found here: `http://ec.europa.eu/eurostat/documents/3217494/7566774/KS-EZ-16-001-EN-N.pdf/ac04885c-cfff-4f9c-9f30-c9337ba929aa`

[13]Our estimations show 0.07 percentage difference on average from the official figures of EUROSTAT for income poverty and material deprivation. We observed slightly more difference in low work intensity: still less than 0.8 percent on average.

Table 3.2: AROP, SMD, LWI and AROPE across Europe, 2013

Country	At Risk of Poverty	Severe Material Deprivation	Low Work Intensity	AROPE
Iceland	9.3	1.9	5.8	13.5
Norway	11.0	2.0	6.1	14.7
Czech Republic	8.6	6.6	6.9	15.5
Netherlands	10.4	2.5	8.5	16.1
Finland	11.8	2.5	8.5	16.7
Sweden	14.8	1.4	6.6	16.8
Switzerland	14.5	0.7	5.4	17.8
France	13.7	5.1	7.1	18.8
Denmark	12.3	3.8	12.0	19.4
Austria	14.4	4.2	7.2	19.6
Luxembourg	15.9	1.8	6.0	20.0
Germany	16.1	5.4	9.3	20.6
Slovakia	12.8	10.2	7.5	20.7
Slovenia	14.5	6.7	7.9	21.6
Belgium	15.1	5.1	13.4	21.7
Estonia	18.6	7.6	8.0	24.2
United Kingdom	15.9	8.3	12.0	25.2
Malta	15.7	9.5	9.1	25.4
Poland	17.3	11.9	9.5	28.3
Cyprus	15.3	16.1	7.1	28.6
Portugal	18.7	10.9	11.7	28.9
Spain	20.4	6.2	15.2	29.4
Ireland	14.1	9.9	20.3	29.6
Italy	19.1	12.4	10.6	30.1
Croatia	19.5	14.7	14.7	31.3
Lithuania	20.6	16.0	10.5	31.6
Hungary	14.3	26.8	12.2	34.8
Latvia	19.4	24.0	9.8	36.0
Greece	23.1	20.3	17.1	38.0
Romania	22.4	28.7	6.4	41.3
Serbia	24.5	26.9	17.3	43.6
Bulgaria	21.0	43.0	12.2	48.4

Source:Author's own calculations from EU-SILC data

tries[14]. The Equivalised Disposable Household Income (EDHI) is defined as[15]:

$$\text{EDHI}=\frac{\text{Total Disposable HH Income} * \text{Within HH Non Response Inflation Factor}}{\text{Equivalised Household size}}$$

Total Disposable Household Income: Gross personal income components of all household members (gross employee cash or near cash income; gross non-cash employee income; gross cash benefits or losses from self-employment; unemployment benefits; old-age benefits; survivor benefits; sickness benefits; disability benefits; education-related allowances)

+ Gross income components at household level (income from rental of a property or land; family/children related allowances; social exclusion not elsewhere classified; housing allowances; regular inter-household cash transfers received; interests, dividends, profit from capital investments in unincorporated business; income received by people aged under 16)

- Tax on income and social insurance contributions

Within-Household Non-Response Inflation Factor: The total Disposable Household Income is multiplied with this factor to compensate the non-response in individual questionnaires, in order to correct for the income of individuals not interviewed into the household income[16].

Equivalised Household Size: An equivalence scale, called modified OECD scale[17], is used to take into account household size and

[14]In the United Kingdom it is the period around the date of interview and in Ireland 12 months prior to the interview.

[15]For more information on the EU-SILC variables used, see: `http://www.forschungsdatenzentrum.de/bestand/eu-silc/fdz_eu-silc_eurostat_engl_nutzerdatensatz_2007-01.pdf`

[16]While some countries use this within-household non-response inflation factor, some impute missing personal interviews instead.

[17]See `https://www.oecd.org/eco/growth/`

composition. Using this scale basically enables us to take into account the economies of scale and differentiate between adults and children. According to this, the first adult is assigned the weight 1 and each other adult a weight of 0.5, while children under the age of 14 are assigned 0.3. For instance, the equivalised household size of a couple with 3 children under 14 will be 2.4 (1+0.5+0.3+0.3+0.3), while it will be 1.5 (1+0.5) for a couple without any children.

If these two households both have annual total disposable household incomes of 10000€ then the equivalised disposable household income of the couple with 3 children will be 4167€ (10000/2.4) for each 5 members while it will be 6667€ for the couple without any children. Therefore, total resources of a household (here total disposable household income) is more meaningful when measured in terms of equivalised household size, since the resources are shared among the members depending on this equivalised household size[18]. Clearly, a household with a high equivalised household size (e.g. an extended family with many children or with grandparents) will have to share these resources among all its members. Therefore, living together can both cause per-capita living incomes of household members to increase or decrease, depending on the characteristics of the household members and the resources they bring in.

Individuals who are living in income poor households are defined as living in households whose Equivalised Disposable Household Income is below the poverty threshold set for this country (officially 60 per cent of the median national income is used by Eurostat for the AROP calculations). In Table 3.2, AROP rates and national poverty thresholds adjusted by Purchasing Power Standards (PPS) are presented for the 32 countries

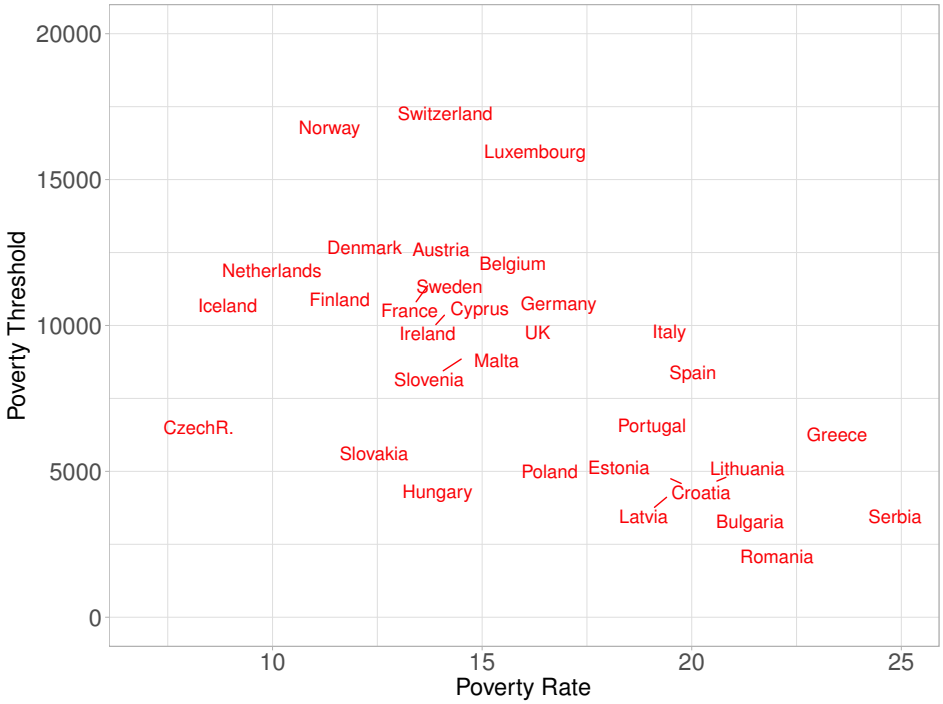
OECD-Note-EquivalenceScales.pdf

[18]Here we follow the unrealistic but standard assumption that resources are shared equally among household members.

for 2013.

As shown in Figure 3.2, AROP rates range between around 9 per cent (Czech Republic) to 24 per cent (Serbia) in Europe. Following Czech Republic; Iceland (12 per cent), Ireland (13 per cent), Norway (13 per cent) are the countries with the lowest percentages of their population in income poor households. Hungary and Slovakia follow as the two Eastern European countries with very low income poverty rates (both around 13 per cent).

Figure 3.2: At Risk of Poverty Rates and Poverty Thresholds across Europe (in PPS), 2013



Source: Author's own calculations based on EU-SILC data

At the bottom of the list we see Serbia with the highest percentage of its population in income poor households (around 24 per cent). Greece,

Romania, Italy and Spain are among the countries with the highest income poverty rates.

In Figure 3.2, we can also see the national poverty thresholds expressed in PPS for the Gross Domestic Product[19]. Our hypothetical household made up of a couple with no children (with equivalised disposable household income of 6667€) will not be poor if they were living in Hungary, Slovakia, Poland, Estonia, Latvia, Portugal, Croatia, Bulgaria, Lithuania, Romania, Greece or Serbia; while our other hypothetical household made up of a couple with 3 children (with equivalised disposable household income of 4167€) will not be poor only if they were to live in Latvia, Bulgaria, Romania or Serbia. The same equivalised disposable household income will mean very different things in different countries in terms of relative income poverty as it means something when compared to national poverty thresholds, which is dependent on how income is distributed in each country. An individual's relative situation in the income distribution of a given society depends on incomes of other individuals living in this country. Therefore, the very low income level of an individual not allowing him/her to afford the necessities of life in one country may indeed be considered a high income level in another country. For instance, as we can see in Figure 3.2, poverty thresholds in Switzerland (16856), Luxembourg (16391) and Norway (16338) are more than 5 times higher than the poverty thresholds in Romania (2504) and Serbia (3068)[20]. AROP is a measure of poverty in rel-

[19]Purchasing Power Parity is the expression of national currencies in terms of an artificial common currency. It refers to the purchasing power of currencies, the quantity of currency required to purchase a given basket of goods and services in different countries, allowing a meaningful comparison among countries taking into account different costs of living and inflation.

[20]However, it is not possible to talk about a direct correlation between poverty thresholds and poverty rates. For instance, while Spain (8829) has more or less the same poverty threshold with Slovenia (8847), AROP rate is 21 per cent in Spain while it is around 16 per cent in Slovenia. Similarly, Lithuania and Hungary having very low poverty thresh-

ative and national terms: the poor in the least wealthy EU member states live in very different living conditions from the poor in more wealthy member states (Goedemé and Rottiers, 2011).

Prior to the crisis, in Europe, an expansion of income was observed in all countries but Iceland and the UK. This expansion was then followed by a contraction in most of the countries in the post-crisis period, with almost 40 per cent in Greece. Percentage changes observed in median incomes[21] from 2005 to 2009 and 2009 to 2014 across Europe are presented in the Appendix[22]. Despite the crisis, Norway and Sweden are the two countries standing out with significant income expansions in the post-crisis period as well, around 20 per cent. Denmark and Finland experienced more moderate increases. These increases in median incomes are also reflected in the rightward shifts of density functions of income distributions[23] of these countries. Iceland is the only country which experienced drastic falls in its median income in the Nordic group: a drop of more than 30 per cent in the first period was followed by a 20 per cent fall in the second period.

North-Western Europe experienced more moderate changes in their median incomes. In Germany, median income rose around 6 per cent be-

olds (less than 5000 both) have very different AROP rates: 21 per cent in Lithuania and 13 per cent in Hungary.

[21]Median Incomes are adjusted for Harmonized Index of Consumer Prices (HCIP). HICP measure the change of the prices of consumer goods and services by households over time and provides comparable measures across countries. For more information, see: `http://ec.europa.eu/eurostat/cache/metadata/en/prc_hicp_esms.htm`

[22]The year 2009 is suitable to distinguish between before and after crisis in this context since median income reaches its maximum in 2009 in most of the countries and then starts to decline.

[23]Density functions of income distributions of 26 countries for the years 2005, 2009 and 2014 are demonstrated in the Appendix to present the changes observed in income distributions following the crisis. Density functions of income distributions show us the percentages of the total population within each income range and the total area under each density function is 100 per cent as it is the sum of incomes of the entire population of the country.

tween 2005 and 2009 and fell only 2 per cent from 2009 to 2014. Luxembourg and Netherlands also experienced moderate falls in their median incomes after 2009, while Austria and Belgium experienced slight increases after the crisis, closer to the experience of Nordic countries, which is reflected in their density functions with rightward shifts. Ireland stands out as the only country in the North-Western group with a drop of 15 per cent in its median income following the crisis. The UK, exceptionally, experienced a drastic drop in its median income in both periods.

On the other hand, the adverse effect of the recession is very clear in the case of Southern European countries. We see that the boom period was followed by a contraction of overall incomes in all countries. Greece experienced the highest fall in its median income after the crisis around 40 per cent, which was followed by Cyprus with a fall of 20 per cent and Spain around 18 per cent[24]. Portugal and Italy had relatively moderate contractions of median income.

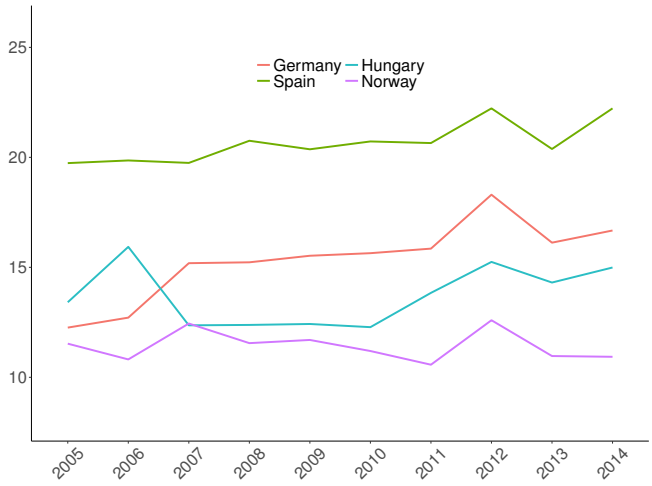
While all Eastern European countries experienced an expansion of income in the pre-crisis period, a more heterogeneous picture is observed in the post-crisis period. The biggest contraction of income is observed in Hungary, almost 20 per cent. Slovenia, Latvia, Lithuania, Poland and Czech Republic all experienced moderate contractions of median income following the huge income expansions that they went through prior to the crisis. Indeed, Slovakia is the only country with an expansion of median income in the post-crisis periiod, around 9 per cent.

However, the above mentioned changes observed in the income distributions and median incomes cannot really be traced back in the official poverty measures. In Figure 3.3. relative poverty rates (AROP), from

[24]For a more detailed analysis on Spain, see Permanyer Ugartemendia and Köksel (2017).

2005 to 2014 are presented for Germany, Norway, Spain and Hungary, according to which poverty remained almost stable over the last decade, following similar patterns in these four countries. While in Spain, relative poverty rates seem to recover slightly after having a peak in 2012, in Germany, they keep on increasing since the beginning of the period; reaching over 18 per cent in 2012 and somewhat recovering afterwards. We see a very clear recovery in the case of Hungary and Norway as well.

Figure 3.3: Relative Poverty Rates: Germany, Norway, Spain, Hungary, 2005-2014



Source: Author's own calculations based on EU-SILC data

The stable pattern relative poverty rates follow over time, the fact that they appear to be unaffected from general contractions and expansions of income, puts into question their reliability. This drawback is a natural consequence of the way these measures are calculated. An individual is defined to be poor if his/her equivalized household disposable income falls below the threshold of the country he/she resides in, in a given year. There are two main points criticized in this definition. The first is the fact that this threshold is set arbitrarily and that poverty rate changes significantly depending on its value. The second issue is related to the discussion above, that the definition of poor is based on an individual's position in the income distribution. This relative measure does not take into account individuals' absolute income levels, which makes it insensitive to the periods of generalized economic expansion and contraction.

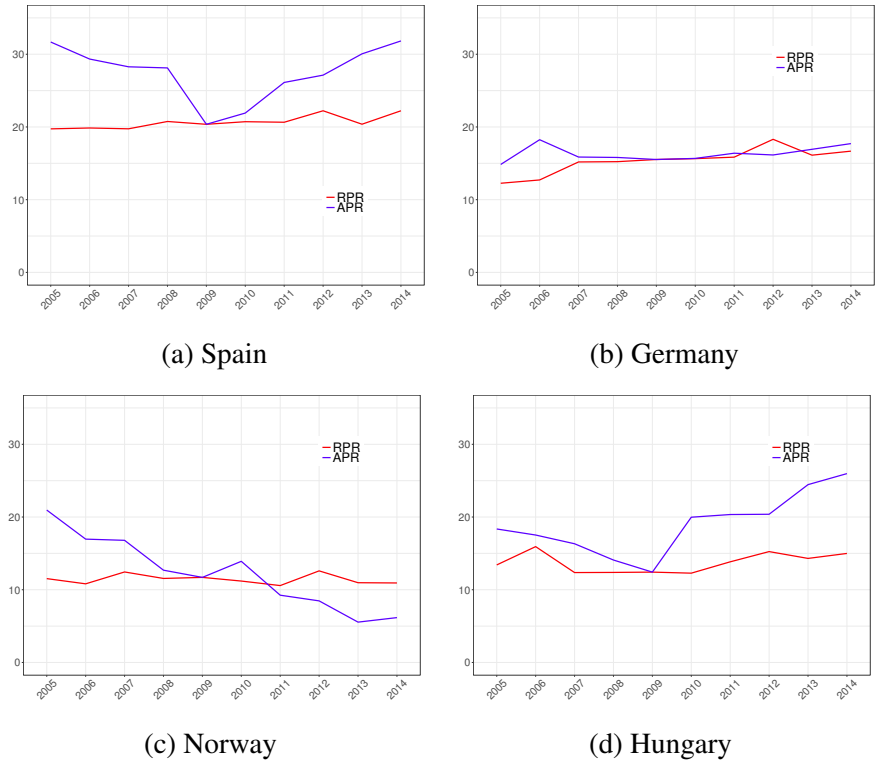
In a period of generalized contraction of the economy, relative poverty measures can fail to reflect the real changes. An individual whose income deteriorated drastically can still be above the poverty threshold if her position remains to be relatively better in comparison to the rest of the society, which is now made up of poorer individuals. Additionally, different income sources are not affected simultaneously. While work incomes rapidly fall, pensions and social benefits take longer time to adjust, therefore individuals like pensioners who were previously slightly below the poverty line may move above the line although their actual situation is not affected at all or worsened but less than others (EC, 2017).

As a response to the shortcomings of the AROP at times of variability in the economic cycle, anchored poverty rates are proposed as alternative measures (Morelli et al., 2014). Anchored poverty rates require fixing the poverty threshold in one year and monitoring the evolution of poverty based on this threshold for all the years, also taking into account

the changes in overall price levels. The starting point of the anchored poverty rates is the same as the relative poverty rates. Poverty is measured in a given year using a relative poverty threshold (e.g. 60 per cent of median income), and then for the following years this same poverty threshold is used, only adjusting it for inflation.

Figure 3.4 shows the evolution of relative and anchored poverty rates from 2005 to 2014, for Germany, Norway, Spain and Hungary. In all four countries while relative poverty rates follow a very stable pattern as we have discussed earlier, anchored poverty rates reveal bigger fluctuations. It is only in Germany that the difference between relative and anchored poverty rates is relatively small. In Norway, anchored poverty rates present even a more positive picture compared to relative poverty rates. Poverty has been going down steadily in Norway during the last decade if measured using anchored poverty rates. On the contrary, in Spain and Hungary, according to the anchored poverty rates, poverty has been declining before the crisis and has been on a rise afterwards. The Appendix displays relative and anchored poverty rates for all the countries in our dataset.

Figure 3.4: Relative vs. Anchored Poverty Rates: Germany, Norway, Spain, Hungary, 2005-2014



(a) Spain

(b) Germany

(c) Norway

(d) Hungary

Source: Author's own calculations based on EU-SILC data

3.5.2 Severe Material Deprivation (SMD) across Europe

The validity of income based poverty measures to sufficiently reflect the diversity of living conditions in Europe has been increasingly questioned, particularly within the context of the enlarged EU. Material deprivation, in this context, started to attract more policy attention (Goedemé and Rottiers, 2011). Incorporation of material deprivation into the social inclusion indicators of the EU in 2009 has been an important step towards the multi-

dimensional measurement of poverty in Europe (Fusco et al., 2011)[25].

The material deprivation indicator of the EU aggregates information on various key aspects of material living conditions of households. Individuals in households which cannot afford at least 3 of the following 9 items, first proposed by Guio (2009), are considered to be Materially Deprived (MD): 1) coping with unexpected expenses; 2) one-week annual holiday away from home; 3) avoiding arrears (in mortgage or rent, utility bills or hire purchase instalments); 4) a meal with meat, chicken, fish or vegetarian equivalent every second day; 5) keeping the home adequately warm; 6) a washing machine; 7) a colour TV; 8) a telephone; 9) a personal car. If an individual cannot afford at least 4 out of these 9 items, then they are considered to be Severely Materially Deprived (SMD).

EU adopts the enforced lack of items criteria proposed by Mack et al. (1985) which is based on the distinction between people's preferences and constraints. In this definition only enforced lacks are considered, which means that a person is considered to be lacking an item only if he/she desires the item but cannot afford it due to insufficient resources. Therefore, lacks resulting from lifestyle choices, such as not owning a television for other reasons (e.g. do not think that it necessary, do not want to spend a lot of time in front of television, etc.) is not considered relevant in terms of material deprivation.

Income poverty and material deprivation are two concepts very much related to each other. However, it is not really possible to talk about a causal or a linear relationship between the two. Although consumption power of a household is affected by the amount of income at the household level, as discussed before, possession of goods does not only depend on

[25]Two indicators on material deprivation are incorporated: Deprivation rate and intensity of deprivation.

current income. Needs of each household are different and income may fail to measure the resources available to each household as it does not capture savings, debts or subsidized public goods and services available to the household (Fusco et al., 2011). Current consumption depends on many other factors like accumulated savings of the household, availability of support networks from family or friends, household production, unreported income, etc.

Table 3.2 reveals the substantial heterogeneity observed in income poverty, material deprivation and low work intensity across Europe. It is important to highlight especially the higher variation observed in material deprivation compared to income poverty. While income poverty ranges between 9 per cent and 24 per cent, SMD ranges between 1 per cent and 43 per cent, owing especially to the high levels observed in Eastern European countries. Therefore, SMD is a crucial indicator to reflect the diversity observed in Europe in terms of living conditions, especially after the recent enlargement of the EU.

Countries with the highest SMD rates also have very high income poverty rates. For instance, Bulgaria with the highest SMD rate of 43 per cent also has around 19 per cent of its population in income poverty. Similarly, Romania and Serbia with very high SMD rates also have very high income poverty rates. Czech Republic with the lowest income poverty rate in Europe, has around 7 per cent of its population in SMD households, however it is far from being on the extreme side of the material deprivation indicator where mostly Eastern European countries are concentrated. On the other side, countries with lower SMD rates appear to have lower income poverty such as Iceland, Norway and Sweden. Switzerland has the lowest SMD rate, less than 1 per cent, followed by Sweden, Luxembourg, Iceland and Norway with less than 2 per cent. Luxembourg, having one of

the lowest SMD rates has a relatively high income poverty rate of around 18 per cent.

When we have a look at the Mediterranean countries, we see that Spain with very high income poverty rates (21 per cent) has very low percentage of its population in SMD households (6 per cent). On the other hand, Greece also with very high income poverty rates (23 per cent) has more than 20 per cent of its population in SMD households. Portugal and Italy appear to be somewhere in between these two.

As shown in Table 3.3, not only the percentages of populations in SMD households varies across Europe but also the severity of their deprivation. We measure the severity of deprivation as the mean number of items lacked by people who are in SMD households. We see that severity of deprivation ranges from 4.2 in Switzerland, Finland, and Netherlands to 5.1 in Bulgaria.

In Table 3.3 we can also see the mean number of items lacked by individuals living in income poor and non-income poor households. As expected, the mean number of items lacked in income poor households is higher compared to the mean number of items lacked in non-poor households in all countries. However, in some countries like Switzerland, Sweden and Luxembourg, the mean number of items lacked by individuals in income poor households is much lower than the mean number of items lacked in not poor households in countries like Bulgaria, Romania and Serbia which is in line with the earlier findings of similar studies like Guio et al (2009). For instance, while the mean number of items lacked by individuals in income poor households is less than 1 per cent in Switzerland, the mean number of lacked items by those in non-income poor households in Bulgaria is as high as 2.6 and over 2 in Latvia, Hungary, Serbia and Romania.

Table 3.3: Severe Material Deprivation Rates, Severity of Deprivation and Mean Numbers of Lacked Items by Poor and Non-poor across Europe, 2013

Country	Severe Material Deprivation Rate	Severity of Deprivation	Mean Number of Lacked Items by Poor	Mean Number of Lacked Items by Non-poor
Switzerland	0.7	4.2	0.8	0.3
Sweden	1.4	4.3	1.3	0.2
Luxembourg	1.8	4.4	1.5	0.3
Iceland	1.9	4.4	1.2	0.6
Norway	2.0	4.3	1.2	0.2
Finland	2.5	4.2	1.5	0.4
Netherlands	2.5	4.2	1.4	0.3
Denmark	3.6	4.4	1.2	0.4
Austria	4.2	4.4	1.4	0.5
France	4.9	4.4	2.2	0.7
Belgium	5.1	4.6	2.2	0.5
Germany	5.4	4.3	2.0	0.5
Spain	6.2	4.4	2.2	0.9
Czech Republic	6.6	4.4	2.6	1.0
Slovenia	6.7	4.4	2.2	1.0
Estonia	7.6	4.5	2.3	1.1
United Kingdom	8.3	4.5	2.0	1.0
Malta	9.5	4.4	2.2	1.2
Ireland	9.9	4.4	2.3	1.4
Slovakia	10.2	4.5	2.8	1.2
Portugal	10.9	4.4	2.6	1.4
Poland	11.9	4.5	2.8	1.4
Italy	12.3	4.4	2.5	1.0
Croatia	14.7	4.6	3.2	1.8
Lithuania	16.0	4.5	2.9	1.6
Cyprus	16.1	4.3	2.9	1.6
Greece	20.3	4.7	3.4	1.5
Latvia	24.0	4.8	3.6	2.0
Hungary	26.8	4.8	4.3	2.2
Serbia	26.9	4.8	3.6	2.0
Romania	28.7	4.9	3.7	2.1
Bulgaria	43.0	5.1	4.9	2.6

Source:Author's own calculations from EU-SILC data

An alternative material deprivation indicator to replace the current 9-item indicator was proposed by Guio et al. (2012). Using the thematic module of EU-SILC 2009 on material deprivation they were able to test many different items and come up with an optimal list[26] of material deprivation items. This new list keeps 6 of the items from the current 9-item indicator and incorporates 7 new items which are capturing the social deprivation dimension[27]. According to this 13-item indicator, individuals in households which cannot afford at least 5 of the following 13 items are considered to be MD and those who cannot afford 7 out of these 13 items are considered to be in SMD[28]. This new version of the SMD indicator will only be incorporated after the end of the Europe 2020 Strategy.

[26]Detailed explanation of the four aspects considered for the robust selection of the MD items (suitability of the items, validity of the items, the reliability of the MD scale and additivity of the items) can be found in Guio et al. (2012).

[27]1. coping with unexpected expenses; 2. one week annual holiday away from home; 3. avoiding arrears (in mortgage or rent, utility bills or hire purchase instalments); 4. a meal with meat, chicken, fish or vegetarian equivalent every second day; 5. keeping the home adequately warm; 6. a personal car; 7. replace worn-out clothes by some new ones; 8. have two pairs of properly fitting shoes; 9. spend a small amount of money each week on him/herself; 10. have regular leisure activities; 11. get together with friends/family for a drink/meal at least monthly; 12. replacing worn-out furniture; 13. both a computer and an internet connection.

[28]Detailed analysis of the impacts (on the EU2020 target on social inclusion and in terms of the size and the composition of the populations considered as deprived) of a move from the current MD indicator to this alternative MD indicator can be found in Guio and Marlier (2014).

3.5.3 Low Work Intensity (LWI) across Europe

LWI households are households in which members of working age worked less than 20 per cent of their total potential during the previous 12 months. It is defined by Eurostat as "the ratio of the total number of months that all working-age household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period" [29]. Working-age household members are defined as individuals aged between 18 and 59[30]. Students between 18 to 24 years old and households made up only of children are excluded as well as elderly aged 60 and more. The indicator is calculated for individuals aged between 0 and 59.

LWI indicator takes values between 0 and 1. While 0 refers to the households in which none of the working-age adults are working and therefore it is equivalent to the joblessness definition we used in the previous chapters, 1 refers to the households in which all working-age adults are working full-available time.

The EU-SILC based LWI indicator differs from the EU-LFS based joblessness indicator not only by the data source used but also by the way joblessness is defined and measured. The EU-LFS based joblessness measure is focused on working age and its main concern is whether working age adults are in work and its implications for their children, while EU-SILC measure covers individuals of all ages (de Graaf-Zijl and Nolan, 2011). Therefore, although they present relatively similar patterns across Europe,

[29] See: `http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Persons_living_in_households_with_low_work_intensity`

[30] Since increasing number of people remain in employment after the age of 59 and also in order to make it consistent with the employment target of the European 2020 strategy, extension of the working age to 64 for has been suggested by Ward et al. (2013).

some differences are observed at the country level. While in the majority of countries the EU-LFS based joblessness measure is higher, in some the EU-SILC LWI indicator is higher. For some countries like Slovenia and Latvia the difference between the two measures is very small (Ward et al., 2013). The discrepancy between the two measures is estimated to be the highest in Ireland with 7.7 per cent while the EU average is only 1.7 per cent (Watson et al., 2015).

Percentages in LWI households range between 5 to 20 per cent across Europe. Switzerland and Iceland have less than 6 per cent of their populations in LWI households. Luxembourg, Norway and Sweden also have very low percentages in LWI households. Romania with both one of the highest income poverty and SMD rates has very low percentage of its population in LWI households, around 6 per cent. Ireland has the highest percentage of LWI households with around 20 per cent. Serbia, Greece, Spain and Croatia follow with more than 15 per cent.

3.5.4 At Risk of Poverty or Social Exclusion (AROPE) across Europe

AROPE refers to the situation of being either in an AROP or SMD or LWI household. It brings together three dimensions of poverty: monetary poverty measured by relative national thresholds, material deprivation measured as the lack of certain resources in the household and exclusion from the labour market.

As mentioned before one of the key objectives of the Europe 2020 Strategy is to lift at least 20 million people out of poverty and social exclusion by 2020. National targets were set for each country considering the high heterogeneity across Europe. We can see in Table 3.2 that while Nordic countries have relatively lower percentages of their populations in AROPE households, some Eastern European countries have very high per-

centages. Iceland and Norway are the two countries with the lowest percentages of their populations in AROPE households (14 and 15 per cent respectively). Czech Republic with only around 16 per cent of its population in AROPE households is the only Eastern European country doing almost as good as the Scandinavian countries, owing mostly to its very low income poverty rates. Netherlands, Finland, Sweden and Switzerland also have relatively low percentages in AROPE households. On the other hand, Bulgaria, Serbia and Romania are the worst performers with over 40 per cent of their populations in AROPE households, followed by Greece, Latvia and Hungary with over 35 per cent.

While some of these individuals in AROPE households are suffering only from one dimension of poverty, some are suffering from two dimensions and some from all three dimensions at the same time. Therefore, a high AROPE rate can be due to high AROP, high SMD, high LWI or various combinations of these three components.

Specifically, person in AROPE can be in one of the following 7 possible scenarios:

(1) only in AROP (neither in SMD nor LWI) households

(2) only in SMD (neither in AROP nor LWI) households

(3) only in LWI (neither in AROP nor SMD) households

(4) in AROP and SMD at the same time (but not in LWI)

(5) in AROP and LWI at the same time (but not in SMD)

(6) in SMD and LWI at the same time (but not in AROP)

(7) in AROP, SMD and LWI all at the same time

We present our results in four country groups: North-Western, Southern, Nordic and Eastern European. The North-Western group is comprised of Austria, Belgium, Germany, Switzerland, France, Ireland, Luxembourg, Netherlands and United Kingdom; The Southern Group is made up of

Greece, Spain, Portugal, Italy, Malta and Cyprus; The Nordic Group includes Norway, Sweden, Denmark, Finland and Iceland; while The Eastern Group contains Bulgaria, Czech Republic, Hungary, Lithuania, Latvia, Poland, Romania, Serbia, Slovenia, Slovakia, Croatia and Estonia. Throughout the chapter, we follow this country grouping borrowing from Iacovou and Skew (2010) whose starting point is the typological grouping proposed by Esping-Andersen (1990) which was later extended by Ferrera (1996) to include the Southern European countries and which groups together the Eastern European countries that joined the EU after 2005. In this paper, we chose to group all new member states of the EU as Eastern Europe as well[31].

Figure 3.5 demonstrates the percentages of the AROPE populations in each 7 possible decompositions of AROPE. It shows what percentage of the populations in AROPE households are considered to be in AROPE due to suffering from only one, two or all three forms of poverty. To put more emphasis on these three dimensions of poverty, we grouped these 7 decompositions of AROPE into 3 categories. The first category is composed of those individuals who suffer only from one form of poverty: who are either only in AROP (1), only in SMD (2) and only in LWI (3) households, the second category are those individuals who suffer from two forms of poverty at the same time: in AROP and SMD at the same time (4), in AROP and LWI at the same time (5) and in SMD and LWI at the same time (6) and the third category is composed of individuals who are in households

[31] Iacovou and Skew (2010) present a very detailed analysis of the prevailing household structures in the old and new member states of the EU. They present the big heterogeneity among the new EU member countries: while Bulgaria, Romania, Slovakia, Slovenia and Poland having the largest household sizes and high prevalence of extended families with rare occurrence of lone parent families, stand closer to the Southern Europe; Czech Republic and Hungary with smaller household sizes and less common extended families are considered to be closer to the North-Western cluster and the Baltic countries lie somewhere in between, combining characteristics of the two clusters.

which are AROP, SMD and LWI all at the same time (7).

Nevertheless, we are aware of the fact that it is difficult to draw conclusions regarding the severity of poverty depending only on the number of dimensions affecting the household. It is not easy to compare an individual who is just below the poverty threshold of its country and therefore categorized as income poor and also considered as in SMD for lacking 4 out of 9 SMD items with another individual who is just above the poverty threshold of the same country, therefore categorized as not income poor but lacking 7 out of 9 SMD items and therefore considered as SMD. It is not possible to conclude that the second individual who is not in income poverty but in SMD is doing better that the first individual who is both in income poverty and SMD. However, it would still be safe to say that those individuals who are in AROP, SMD and LWI households all at the same time (7) are the ones who are worse off in the sense that they are affected by all dimensions of poverty at the same time.

In all country groups, but Eastern Europe, income poverty is the most common form of poverty. Indeed, more than 50 per cent of the Nordic populations are categorized to be in AROPE households because they are only suffering from income poverty. Percentage suffering from only income poverty is also high in North-Western Europe, around 45 per cent. Percentages of AROPE populations suffering from a form of income poverty is around 75 per cent in Nordic Europe and 70 per cent in North-Western Europe. Percentages of AROPE populations suffering only from income poverty are relatively lower in Southern Europe (33 per cent) and the lowest in Eastern Europe (24 per cent).

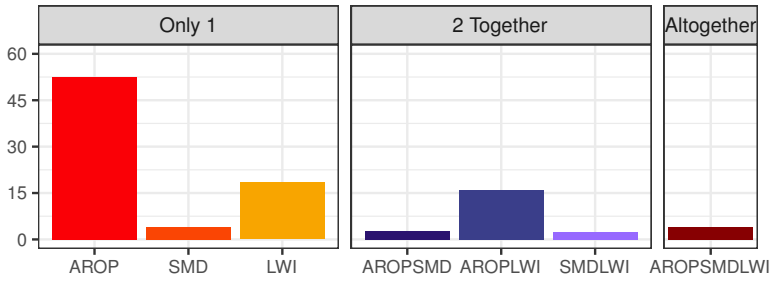
As discussed in the previous sections, in Eastern Europe SMD is the most common form of poverty. Around 30 per cent of the Eastern European populations in AROPE households are suffering only from SMD. On

the other hand, SMD is as low as 4 per cent in Nordic Europe, 10 per cent in North-Western Europe and 14 per cent in Southern Europe. In Eastern Europe, around 60 per cent of the populations in AROPE households are suffering from a form of SMD. On the other extreme, in Nordic Europe only 13 per cent of the populations in AROPE are suffering from a form of SMD.

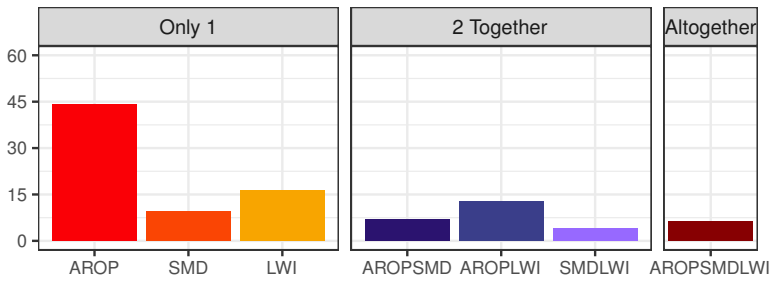
LWI seems to be a significant form of poverty in Nordic, North-Western and Southern Europe. More than 15 per cent of the populations in AROPE households in these countries are considered to be in AROPE households only due to LWI, while it is the lowest in Eastern Europe, with around 10 per cent.

In Eastern Europe, 9 per cent of the populations in AROPE households are suffering from all three types poverty at the same time. Eastern Europe is followed by Southern Europe (8 per cent), North-Western Europe (6 per cent) and Nordic Europe (4 per cent).

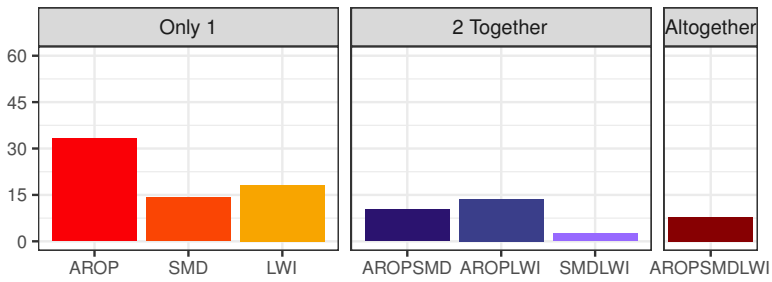
Figure 3.5: Decomposition of North-Western, Southern, Nordic and Eastern European Populations in AROPE Households, EU-SILC, 2013



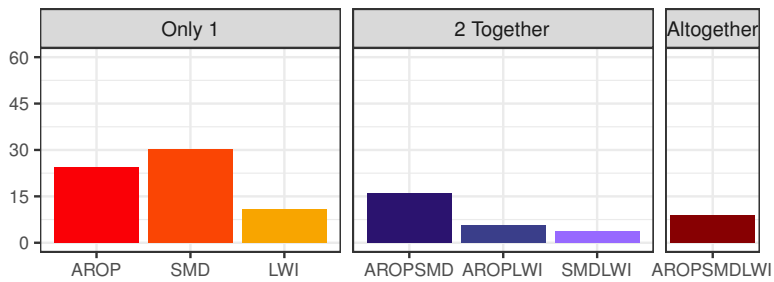
(a) Nordic Countries



(b) North-Western Europe



(c) Southern-Europe



(d) Eastern European Countries

Source: Author's own calculations based on EU-SILC data

3.6 Poverty by Household Types

Poverty is measured at the household level, taking into account all the resources brought into the household and it is assumed that these resources are shared equally among the household members. The risk of being in income poverty of a middle aged employed woman living together with her employed husband would be quite different than that of an employed lone mother with the same characteristics but living together with her three dependent children.

In this section, we find it necessary to present a brief overview of the living arrangements of the households which are the most vulnerable against poverty, before we put back our attention on the unemployed individuals across Europe in the next section. We define nine household types following the typology used in Iacovou and Skew (2010):

1. Single person households under age 65
2. Single person households over 65
3. Couples without children
4. Couples with only dependent children
5. Couples with at least one adult child
6. Lone parents with only dependent children
7. Lone parents with at least one adult child
8. Extended families
9. Other households

Iacovou and Skew (2010) define all children younger than 18 as dependent children. We extend this definition of dependent children to include individuals between 18 and 24 years of age who are students. Subsequently, our adult children definition refers to all children older than 24 plus children between 18 and 24 years of age who are not students. We de-

fine extended families as households in which two or more different mothers or fathers are co-residing. Additionally, couples living with some other household members in addition to their dependent and/or adult children are classified under this category. Therefore, while a couple living with an adult child is classified under the category 5, a couple living with an adult child and the spouse of this adult child is classified as extended family, under the category 8. Other households, category 9, comprises households where it is impossible to define how some household members are related to each other, such as couples living together with undefined household member/s, two individuals living together where it is impossible to identify their relationship (for instance a young individual with an elderly, one adult with an elderly, etc.), two or more unrelated couples living together, etc. Therefore, some forms of extended families are categorized under this category, like co-residence with aunts, uncles or cousins, since it is not possible to identify these relationships.

We ran three separate regressions for each country group to see the impact of household type on the experience of poverty. These are simple logistic regressions where we control only for the household type, our binary dependent variables being in an income poor household or not, being in a SMD household or not and being in a LWI household or not. Figure 3.6 and Figure 3.7 present the odd-ratios of being in AROP, SMD and LWI households for each household type by country group for the year 2013.

We see that a very similar pattern is observed across country groups. Lone parents with dependent children, followed by singles stand out with the highest likelihoods of being in income poverty in all country groups. Indeed, lone parents with dependent children appear to be the most vulnerable to poverty among all household types, while couples with no children and couples with adult children are the least vulnerable. Couples with no

children is the most common form of living arrangement in all country groups. Over 30 per cent of the population is made up of couples living with dependent children in North-West and Southern Europe. The percentage is even higher in Nordic Europe, more than 35 per cent and smallest in East Europe, but still around 28 per cent.

Lone parents with dependent children are very likely to be in income poverty in all country groups. This is not an unexpected finding considering the fact that dependent children do not contribute to the household income while they add to the equivalised household size. There is only one potential source of income brought into the household by the lone parent and it is shared among the household members, divided by a number greater than one depending on the number of children. At least shares of lone parents with dependent children in total population is relatively low, particularly in Southern and Eastern Europe, 3 and 2 per cent respectively (See Appendix). Singles (both <65 and $65+$) also have high likelihoods of being in income poor households. In Nordic Europe, singles younger than 65 are the most likely to be income poor households.

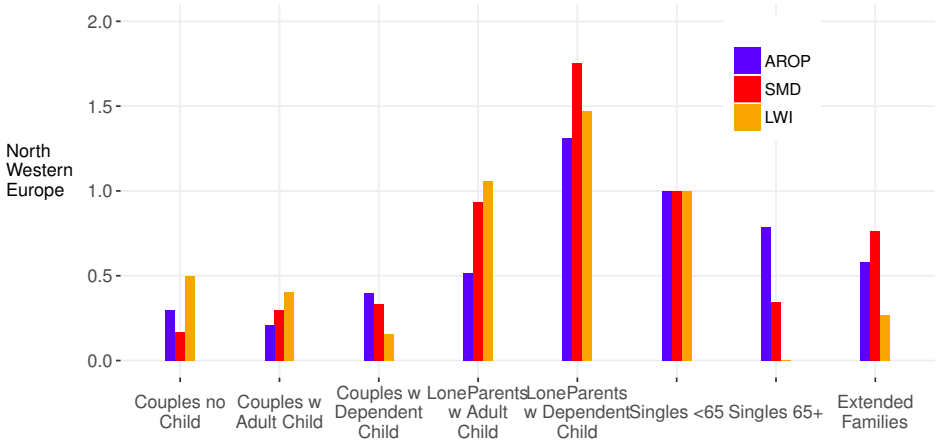
In Southern Europe, extended families are also be characterized by a high likelihood of being in income poverty, which is an important finding since extended families are common household types in Southern Europe (13 per cent) compared to North-Western and Nordic Europe (7 and 4 per cent respectively).

Lone parents with dependent children are also the most likely to be in SMD households in all country groups. Likelihood of being in a SMD household is also high for lone parents with adult children and young singles. Lone parents with adult children is not a very common household type, only around 2.5 per cent of the total populations of North-Western Europe and around 1 per cent of the total populations of Nordic Europe are

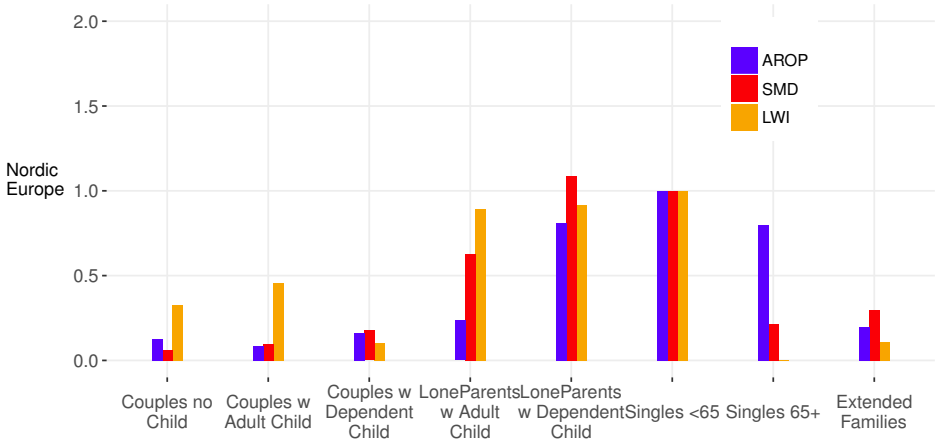
in this type of households. In Southern Europe, odds of being in a SMD household appears to be high also for extended families. Couples without children are the least likely to be in SMD households.

Odds of being in a LWI household is relatively high for lone parents with dependent children, lone parents with adult children and young singles. While odds of being in a LWI household is relatively high for couples with no children in Southern and Eastern Europe, it is much lower in North-West and Nordic Europe.

Figure 3.6: Odd-ratios of Being in AROP, SMD and LWI Households in Four Country Groups, by Household Type, 2013 (I)

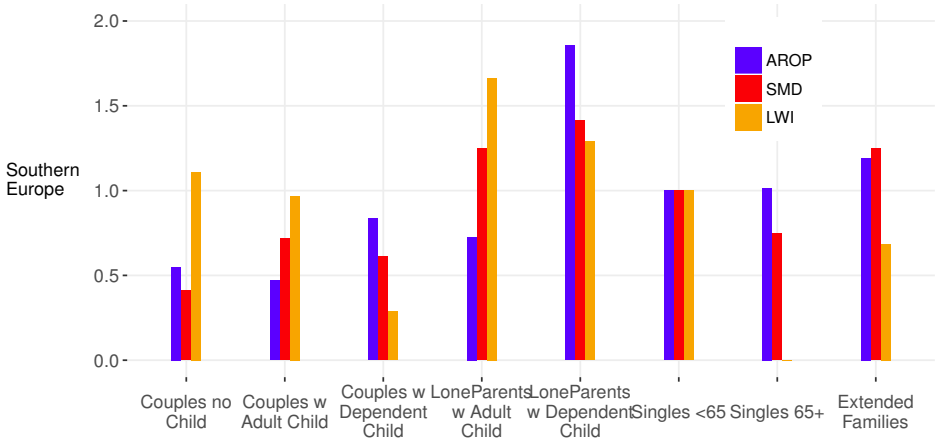


(a) North-Western Europe

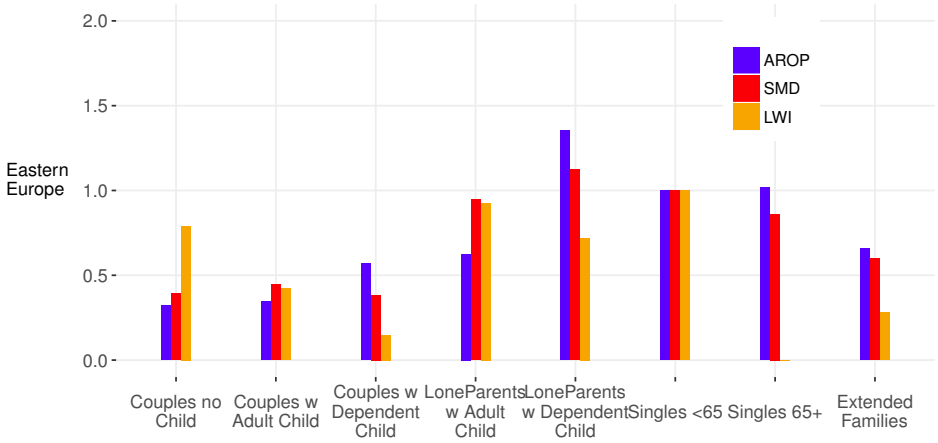


(b) Nordic Countries

Figure 3.7: Odd-ratios of Being in AROP, SMD and LWI Households in Four Country Groups, by Household Type, 2013 (II)



(a) Southern-Europe



(b) Eastern Europe

Source: Author's own calculations based on EU-SILC data

3.7 Unemployed Populations in Poverty

This section takes our attention back to unemployed individuals across Europe and focuses on their poverty experience. Unemployed individuals are of crucial importance within the context of poverty analysis since unemployment is associated with an increased risk of poverty. However, the relationship between unemployment and poverty is not as straightforward as it may seem. Previous literature has revealed that rising unemployment does not necessarily cause rising poverty and increasing employment will not always serve to reduce poverty in societies (Marx et al., 2012; Cantillon, 2011).

This is first related to the definition of poverty. Even the income poverty definition alone[32] goes beyond the current earned income and includes also accumulated savings and other forms of support received from the welfare state and safety nets. Second, employment does not necessarily guarantee a sufficient amount of income earned. Besides, an individual can be part-time or full-time employed in a very low paying job. Third, while labour market status is measured at the individual level, poverty is measured at the household level where resources of all household members are pooled and then shared among them. Hence, an unemployed individual living with an employed individual may or may not be in poverty depending not only on the sufficiency of the current earned income brought into the household by the employed individual but also on the levels of protection provided by different institutional factors and welfare policies of the countries[33] (Gallie

[32]It would be far more complex to associate a more multidimensional perception of poverty with the employment status of the individuals.

[33]While, Nordic Europe is characterized by generous unemployment benefit systems with prominent role played by activation and active labour market policies, in Anglo-Saxon countries unemployment benefit systems play a rather modest role while unemployment assistance has a major role. Job search conditionality is strict in both group of countries. On the other hand, Southern and Eastern Europe have tighter unemploy-

et al., 2003; Hauser et al., 2000) as well as accumulated savings they both might bring in and support they might be receiving from their families and networks.

The way income is distributed in the society is an important factor, since an individual is categorized as poor or not poor depending on the median income of the society he/she is living in. In times of doubling unemployment rates, poverty can even decline as a result of falling poverty threshold along with median income which is directly affected by the overall inequality of the societies and generosity of the welfare systems (Saunders et al., 2002).

In this section, we focus on unemployed populations across European countries and try to better understand the importance of living arrangements for their experiences of poverty. We raise two main questions following the earlier chapters: What is the impact of varying living arrangements on the probabilities of unemployed individuals to be in poverty and social exclusion across Europe and how this probability changes by age. We explore separately the expected probability of an unemployed individual to be in an AROP household in Section 3.7.1, in a SMD household in Section 3.7.2, in a LWI household in Section 3.7.3 and in an AROPE household in Section 3.7.4. We run separate models for unemployed men and women. Our binary dependent variables are AROPE and the three dimensions of AROPE: whether the unemployed individual is in an AROP/SMD/LWI/AROPE household or not.

Repeating the same structure of the multi-level regression models used so far in this thesis, we run six models in each of these sections: Model 1 is our empty model where we can observe the cross-national variation

ment benefit systems, in Southern Europe benefit generosity depending highly on age and contribution period (SPC, 2014).

before we introduce our control variables. Model 2 controls only for age. We use five-year age groups for the ages between 18 and 59. Model 3 controls for education and immigration. The education variable has three categories: Low (Less than secondary education), Medium (Secondary and post-secondary education) and High (Tertiary) education. Individuals who are born in any other country which is not a European country are grouped together as immigrant (not european), while individuals born in the country of residence or in other European countries are under the category european (not immigrant). Model 4 controls for the country level unemployment rates. In Model 5, co-residence variables are introduced: co-residence with parents, spouses and children. Model 6 incorporates the interactions between age and co-residence to account for the variation in the impact of the three types of co-residence by age, results of which are presented in Section 3.7.5.

3.7.1 Unemployed in AROP Households across Europe

In this section, we explore the expected probability of being in an income poor household for unemployed individuals across Europe. Our binary dependent variable is whether the unemployed individual is in an income poor household or not. Our results are presented in Table 3.4.

From Model 1, a high variation across Europe can be observed in the probabilities of being in an income poor household both for unemployed men and women, which is substantially higher for women. We find that both unemployed men and women who are between the ages of 25 and 29 are the least likely to be in income poor households, while unemployed men and women aged between 40 and 44 years are the most likely. From age 44 onwards, the probability starts to decline.

We find education to have a diminishing effect. Unemployed men and

women with higher levels of education are less likely to be in income poor households, which was also the case for the probability of being in a jobless household. We find that both immigrant unemployed men and women are more likely to be in income poor households compared to european unemployed men and women. European unemployed are more likely to be enjoying safety nets and support from their families or friends, while immigrants in general lack this support. Moreover, immigrants are more likely to be living with other immigrants who are also more likely to be unemployed or inactive compared to Europeans, such as the household of an immigrant man living with his inactive or unemployed wife and children.

We do not find any significant effect of unemployment rates on the probability of being in income poor households neither for unemployed men nor for unemployed women.

Both co-residence with a parent and a spouse have negative effects both for unemployed men and women, while co-residence with a parent has the greatest negative effect. On the other hand, co-residence with a child increases the probability of being in income poor households, which is in line with the previous literature on the negative impact of childbearing on economic well-being (Aassve et al., 2005)[34].

We see that the probability of being in an AROP household varies across Europe, more for unemployed women compared to unemployed men and when we control for the living arrangements these differences become even more apparent.

[34]Impact of childbearing on well-being varies across Europe depending on the generosity of state welfare in terms of child benefits and child services and on the structure of the labour market in terms of promotion of labour market participation of women through flexible working hours and part-time work(Aassve et al., 2005).

Table 3.4: Multi-level Model Results (Odd-ratios) for the Probability of Being in AROP Households for the Unemployed (18-60) by Sex, Europe, 2013

	MEN						WOMEN					
	m1	m2	m3	m4	m5	m6	m1	m2	m3	m4	m5	m6
Agegroup												
18-24		0.54 ***	0.55 ***	0.55 ***	0.56 ***	0.90 ***		0.93 ***	0.94 ***	0.94 ***	0.81 ***	0.50 ***
25-29		0.48 ***	0.53 ***	0.53 ***	0.52 ***	0.40 ***		0.73 ***	0.82 ***	0.82 ***	0.75 ***	0.40 ***
30-34		0.75 ***	0.84 ***	0.84 ***	0.84 ***	0.64 ***		0.81 ***	0.90 ***	0.90 ***	0.87 ***	0.45 ***
35-39		0.91 ***	0.94 ***	0.94 ***	0.95 ***	1.04 ***		0.93 ***	1.01 *	1.01 *	1.07 ***	0.81 ***
40-44 (Ref.)		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .
45-49		0.95 ***	0.98 ***	0.98 ***	0.97 ***	0.86 ***		0.97 ***	0.95 ***	0.95 ***	0.89 ***	0.92 ***
50-54		0.89 ***	0.86 ***	0.86 ***	0.81 ***	1.04 ***		1.07 ***	0.98 ***	0.98 ***	0.90 ***	1.03 ***
55-59		0.85 ***	0.82 ***	0.82 ***	0.81 ***	1.22 ***		1.43 ***	1.32 ***	1.32 ***	1.26 ***	1.13 ***
Education												
Low (Ref.)			1.00 .	1.00 .	1.00 .	1.00 .			1.00 .	1.00 .	1.00 .	1.00 .
Medium			0.53 ***	0.53 ***	0.51 ***	0.51 ***			0.51 ***	0.51 ***	0.49 ***	0.50 ***
High			0.34 ***	0.34 ***	0.31 ***	0.32 ***			0.27 ***	0.27 ***	0.23 ***	0.24 ***
European												
European (Ref.)			1.00 .	1.00 .	1.00 .				1.00 .	1.00 .	1.00 .	
Immigrant			1.63 ***	1.63 ***	1.81 ***				1.66 ***	1.66 ***	1.86 ***	
Unemployment Rate				1.02						1.02		
Coresidence with												
Parents					0.38 ***						0.37 ***	
Spouses					0.28 ***						0.19 ***	
Children					1.20 ***						1.05 ***	
Interactions												
Co-residence (with parents, spouses, children) and Age												
Intercept	0.40 **	0.70 ***	0.03	-0.23	0.82 ***	0.91 ***	0.09	0.15	-0.63 ***	-0.97 ***	0.43 *	0.83 ***
Country level variance	0.33 ***	0.35 ***	0.31 ***	0.30 ***	0.46 ***	0.47 ***	0.42 ***	0.42 ***	0.44 ***	0.41 ***	0.47 ***	0.44 ***

*** p<0,0001, ** p<0,001,* p<0,05

3.7.2 Unemployed in SMD Households across Europe

In this section, we explore the expected probability of being in a SMD household for the unemployed individuals. Our binary dependent variable is whether the unemployed individual is in a SMD household or not. Our results are presented in Table 3.5. A very high variation across Europe is observed in the probabilities of being in SMD households both for unemployed men and women, more than what we have observed for the probabilities of being in AROP households.

We find that unemployed men at younger ages are the least likely to be in SMD households, while unemployed men aged between 35 and 39 are the most likely. From age 40 onwards, the probability starts to decrease. The probability of being in a SMD household for unemployed women does not seem to fluctuate much with age, still being the highest, between the ages 35 and 39 as it was the case for the unemployed men.

Education decreases the probability of being in SMD households: Unemployed men and women with higher levels of education are less likely to be in SMD households. We find that both immigrant unemployed men and women are more likely to be in SMD households compared to european unemployed men and women.

Both unemployed men and women living in countries with high unemployment rates appear to have higher probabilities of being in SMD households.

Among the co-residence variables, co-residence with a parent has the greatest negative effect for unemployed men. Co-residence with a spouse also diminishes the probability, while co-residence with a child seems to increase it. In the case of unemployed women, co-residence with a spouse has the greatest negative effect. Co-residence with a parent also diminishes

the probability of unemployed women to be in SMD households, while co-residence with a child does not seem to have a significant effect. The probability of being in SMD households varies greatly across European countries (compared to the probability of being in AROP households, both for unemployed men and women).

Table 3.5: Multi-level Model Results (Odd-ratios) for the Probability of Being in SMD Households for the Unemployed (18-60) by Sex, Europe, 2013

	MEN						WOMEN					
	m1	m2	m3	m4	m5	m6	m1	m2	m3	m4	m5	m6
Agegroup												
18-24		0.72 ***	0.78 ***	0.78 ***	1.06 ***	0.55 ***		1.12 ***	1.16 ***	1.16 ***	1.21 ***	0.51 ***
25-29		0.68 ***	0.82 ***	0.82 ***	0.98 ***	0.67 ***		0.95 ***	1.08 ***	1.08 ***	1.10 ***	0.86 ***
30-34		0.96 ***	1.13 ***	1.13 ***	1.27 ***	0.78 ***		0.94 ***	1.05 ***	1.05 ***	1.06 ***	0.61 ***
35-39		1.14 ***	1.28 ***	1.28 ***	1.36 ***	1.79 ***		1.20 ***	1.22 ***	1.22 ***	1.30 ***	0.99
40-44 (Ref.)		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .
45-49		1.03 ***	1.13 ***	1.13 ***	1.10 ***	0.90 ***		1.13 ***	1.11 ***	1.11 ***	1.08 ***	0.95 ***
50-54		1.02 ***	1.04 ***	1.04 ***	0.96 ***	0.98 ***		1.12 ***	1.03 ***	1.03 ***	0.95 ***	0.75 ***
55-59		1.00	1.09 ***	1.09 ***	1.00	0.81 ***		1.07 ***	0.98 ***	0.98 ***	0.91 ***	0.77 ***
Education												
Low (Ref.)			1.00 .	1.00 .	1.00 .	1.00 .			1.00 .	1.00 .	1.00 .	1.00 .
Medium			0.51 ***	0.51 ***	0.49 ***	0.50 ***			0.50 ***	0.50 ***	0.50 ***	0.50 ***
High			0.24 ***	0.24 ***	0.22 ***	0.23 ***			0.21 ***	0.21 ***	0.20 ***	0.21 ***
European												
European (Ref.)			1.00 .	1.00 .	1.00 .				1.00 .	1.00 .	1.00 .	
Immigrant			1.63 ***	1.63 ***	1.66 ***				1.76 ***	1.76 ***	1.79 ***	
Unemployment Rate				1.07 *						1.07		
Coresidence with												
Parents					0.35 ***						0.46 ***	
Spouses					0.45 ***						0.35 ***	
Children					1.04 ***						1.00	
Interactions												
Co-residence (with parents, spouses, children) and Age												
Intercept	-1.28 ***	-1.18 ***	-2.26 ***	-3.23 ***	-2.86 ***	-1.45 ***	-1.45 ***	-1.51 ***	-2.55 ***	-3.48 ***	-2.93 ***	-1.50 ***
Country level variance	2.24 **	2.29 **	2.19 **	1.89 **	2.17 **	2.75 ***	1.86 **	1.87 **	1.95 **	1.68 **	1.67 **	1.98 **

*** p<0,0001, ** p<0,001,* p<0,05

3.7.3 Unemployed in LWI Households across Europe

In this section, we explore the expected probabilities of being in a LWI household for the unemployed individuals. Our binary dependent variable is whether the unemployed individual is in a LWI household or not. Our results are presented in Table 3.6. Large variation is observed across Europe also in the probabilities of being in a LWI household both of unemployed men and women. Both unemployed men and women are the least likely to be in LWI households at younger ages, while they are the most likely at older ages.

Education decreases the probability of being in LWI households both for unemployed men and women: Unemployed men and women with higher levels of education are less likely to be in LWI households. We find that immigrant unemployed men are less likely to be in LWI households compared to european unemployed men; while immigrant unemployed women are more likely to be in LWI households compared to european unemployed women. This can be due to the fact that unemployed immigrant men are more likely to be living in other living arrangements compared to unemployed immigrant women, like in households with other immigrants in which it is more likely that there is at least one immigrant who is employed. On the other hand, unemployed immigrant women are more likely to be living with their husbands who are more likely to be unemployed compared to european men.

Unemployment rates do not appear to have any significant effect on the probabilities of being in a LWI household neither for unemployed men nor women.

All three co-residence variables seem to have a diminishing effect on the probability of being in LWI households, both in the case of unemployed

men and women. Co-residence with a spouse has the greatest negative effect both for unemployed men and women. Co-residence with a parent comes the second, followed by co-residence with children. When we control for co-residence patterns country-level variation in the probabilities of being in a LWI household even increases more for unemployed men while it slightly goes down for unemployed women.

Table 3.6: Multi-level Model Results (Odd-ratios) for the Probability of Being in LWI Households for the Unemployed (18-60) by Sex, Europe, 2013

	MEN						WOMEN					
	m1	m2	m3	m4	m5	m6	m1	m2	m3	m4	m5	m6
Agegroup												
18-24		0.50 ***	0.47 ***	0.47 ***	0.34 ***	0.68 ***		0.59 ***	0.59 ***	0.59 ***	0.33 ***	0.29 ***
25-29		0.64 ***	0.65 ***	0.65 ***	0.49 ***	0.63 ***		0.67 ***	0.70 ***	0.70 ***	0.50 ***	0.42 ***
30-34		1.04 ***	1.06 ***	1.06 ***	0.92 ***	0.88 ***		0.79 ***	0.83 ***	0.83 ***	0.71 ***	0.45 ***
35-39		1.10 ***	1.08 ***	1.08 ***	1.03 ***	0.97 ***		0.84 ***	0.88 ***	0.88 ***	0.89 ***	0.72 ***
40-44 (Ref.)		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .
45-49		1.16 ***	1.12 ***	1.12 ***	1.12 ***	1.07 ***		0.95 ***	0.93 ***	0.93 ***	0.85 ***	0.78 ***
50-54		1.21 ***	1.10 ***	1.10 ***	1.07 ***	1.40 ***		1.21 ***	1.13 ***	1.13 ***	1.00	0.87 ***
55-59		1.23 ***	1.10 ***	1.10 ***	1.11 ***	1.37 ***		2.05 ***	1.93 ***	1.93 ***	1.78 ***	1.08 ***
Education												
Low (Ref.)			1.00 .	1.00 .	1.00 .	1.00 .			1.00 .	1.00 .	1.00 .	1.00 .
Medium			0.60 ***	0.60 ***	0.55 ***	0.57 ***			0.59 ***	0.59 ***	0.56 ***	0.56 ***
High			0.55 ***	0.55 ***	0.50 ***	0.51 ***			0.43 ***	0.43 ***	0.35 ***	0.37 ***
European												
European (Ref.)			1.00 .	1.00 .	1.00 .				1.00 .	1.00 .	1.00 .	
Immigrant			0.77 ***	0.77 ***	0.89 ***				1.09 ***	1.09 ***	1.25 ***	
Unemployment Rate				1.04						1.05		
Coresidence with												
Parents					0.56 ***						0.63 ***	
Spouses					0.27 ***						0.21 ***	
Children					0.93 ***						0.77 ***	
Interactions												
Co-residence (with parents, spouses, children) and Age												
Intercept	-0.76 *	-0.69 ***	-0.84 **	-1.43 *	-0.04	-0.13	-1.05 ***	-0.97 **	-1.39 ***	-2.01 ***	-1.34	-0.06
Country level variance	1.66 **	1.72 **	1.65 **	1.58 **	1.87 **	1.85 **	1.65 **	1.75 **	1.74 **	1.7 **	1.66 **	1.61 **

*** p<0,0001, ** p<0,001,* p<0,05

3.7.4 Unemployed in AROPE Households across Europe

In this section, we explore the expected probability of being in an AROPE household for unemployed individuals. Our binary dependent variable is whether an unemployed individual is in an AROPE household or not. Our results are presented in Table 3.7. Probabilities of being in an AROPE household significantly vary across Europe both for unemployed men and women.

Unemployed men at younger ages are the least likely to be in AROPE households, while unemployed men aged between 40 and 44 are the most likely. From age 44 onwards, the probability starts to decline. Unemployed women have higher probabilities of being in AROPE households at all ages compared to unemployed men, reaching its maximum at the oldest ages.

Education decreases the probability of being in AROPE households: Both unemployed men and women with higher levels of education are less likely to be in AROPE households. We also see that both immigrant unemployed men and women are more likely to be in AROPE households compared to european unemployed men and women.

We find no significant effect of unemployment rates on the probabilities of being in AROPE households neither for unemployed men nor for unemployed women.

Co-residence with a spouse has the greatest negative effect both for unemployed men and women. Co-residence with a parent also diminishes the probability of being in AROPE households, while co-residence with children seems to increase this probability. When we control for co-residence patterns, country-level variation observed in the probabilities of being in AROPE households increases more both for unemployed men and women, the increase being relatively higher for men.

Table 3.7: Multi-level Model Results (Odd-ratios) for the Probability of Being in AROPE Households for the Unemployed (18-60) by Sex, Europe, 2013

	MEN						WOMEN					
	m1	m2	m3	m4	m5	m6	m1	m2	m3	m4	m5	m6
Agegroup												
18-24		0.54 ***	0.55 ***	0.55 ***	0.56 ***	0.90 ***		0.93 ***	0.94 ***	0.94 ***	0.81 ***	0.50 ***
25-29		0.48 ***	0.53 ***	0.53 ***	0.52 ***	0.40 ***		0.73 ***	0.82 ***	0.82 ***	0.75 ***	0.40 ***
30-34		0.75 ***	0.84 ***	0.84 ***	0.84 ***	0.64 ***		0.81 ***	0.90 ***	0.90 ***	0.87 ***	0.45 ***
35-39		0.91 ***	0.94 ***	0.94 ***	0.95 ***	1.04 ***		0.93 ***	1.01 *	1.01 *	1.07 ***	0.81 ***
40-44 (Ref.)		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .		1.00 .	1.00 .	1.00 .	1.00 .	1.00 .
45-49		0.95 ***	0.98 ***	0.98 ***	0.97 ***	0.86 ***		0.97 ***	0.95 ***	0.95 ***	0.89 ***	0.92 ***
50-54		0.89 ***	0.86 ***	0.86 ***	0.81 ***	1.04 ***		1.07 ***	0.98 ***	0.98 ***	0.90 ***	1.03 ***
55-59		0.85 ***	0.82 ***	0.82 ***	0.81 ***	1.22 ***		1.43 ***	1.32 ***	1.32 ***	1.26 ***	1.13 ***
Education												
Low (Ref.)			1.00 .	1.00 .	1.00 .	1.00 .			1.00 .	1.00 .	1.00 .	1.00 .
Medium			0.53 ***	0.53 ***	0.51 ***	0.51 ***			0.51 ***	0.51 ***	0.49 ***	0.50 ***
High			0.34 ***	0.34 ***	0.31 ***	0.32 ***			0.27 ***	0.27 ***	0.23 ***	0.24 ***
European												
European (Ref.)			1.00 .	1.00 .	1.00 .				1.00 .	1.00 .	1.00 .	
Immigrant			1.63 ***	1.63 ***	1.81 ***				1.66 ***	1.66 ***	1.86 ***	
Unemployment Rate				1.02						1.02		
Coresidence with												
Parents					0.38 ***						0.37 ***	
Spouses					0.28 ***						0.19 ***	
Children					1.20 ***						1.05 ***	
Interactions												
Co-residence (with parents, spouses, children) and Age												
Intercept	0.40 **	0.70 ***	0.03	-0.23	0.82 ***	0.91 ***	0.09	0.15	-0.63 ***	-0.97 ***	0.43 *	0.83 ***
Country level variance	0.33 ***	0.35 ***	0.31 ***	0.30 ***	0.46 ***	0.47 ***	0.42 ***	0.42 ***	0.44 ***	0.41 ***	0.47 ***	0.44 ***

*** p<0,0001, ** p<0,001,* p<0,05

We close this section with a presentation of the percentages of unemployed populations in AROPE households in each component of AROPE (Figure 3.8). We repeat the same framework of 7 categories we used for the whole population in Section 3.5.4.

When we compare the percentages of total populations and unemployed populations in each decomposition of AROPE, the first important point to highlight is the fact that unemployed populations are under the risk of facing more than one dimension of poverty compared to total populations. Second, percentages suffering from all three forms of poverty at the same time are noticeably higher for the unemployed.

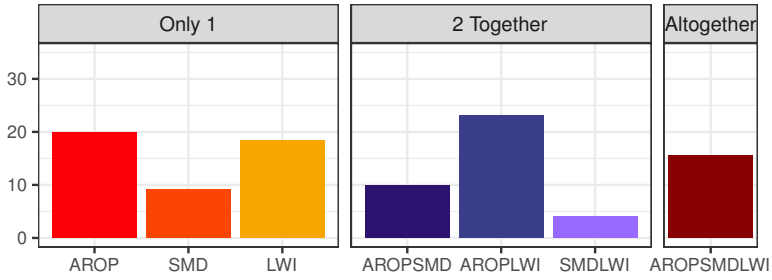
Income poverty is one of the main causes of being in an AROPE household for the unemployed populations of Europe, like it was the case for the total populations. However, we can see that percentages who are only suffering from income poverty are much lower in the case of unemployed populations. While more than 50 per cent of the total population in AROPE households in Nordic Europe are suffering only from income poverty, this percentage is around 20 per cent for the unemployed. This is due to the fact that income poverty is more likely to be accompanied with some other form of poverty in the case of unemployed populations: with LWI in Nordic, North-Western and Southern Europe and with SMD in Eastern Europe.

Low Work Intensity is a prominent cause of being in AROPE for the unemployed, almost competing with income poverty. Indeed, in Nordic Europe, more than 70 per cent of the unemployed population is suffering from LWI. We can see that it is more likely to be accompanied with income poverty. This is due to the fact that unemployed individuals themselves neither contribute to the total actual number of months worked during the income reference year, nor to the household income. In all country groups, but Eastern Europe, unemployed individuals in AROPE households are

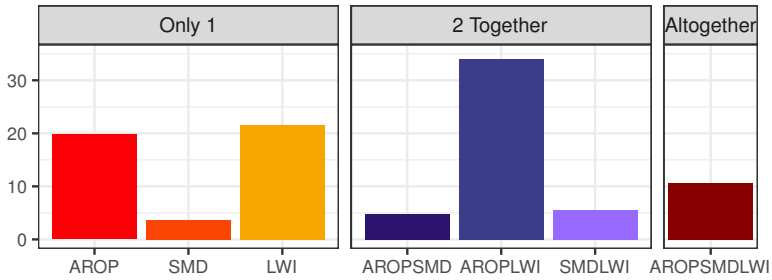
mostly in households which are both income poor and in LWI. In Nordic Europe, almost 35 per cent of the unemployed in AROPE households are suffering from both income poverty and LWI and in North-Western Europe around 26 per cent. On the other hand, it is as low as 12 per cent in Eastern Europe.

For the unemployed populations of Eastern Europe, material deprivation appears to be a central problem. Around 18 per cent of the Eastern European unemployed in AROPE households are suffering only from SMD and most of them are indeed suffering from all three types of poverty at the same time (almost 25 per cent). Material deprivation does not appear to be a significant cause of being in an AROPE household for the unemployed in Nordic Europe, around 4 per cent of the unemployed in AROPE households are categorized to be in AROPE due to only SMD.

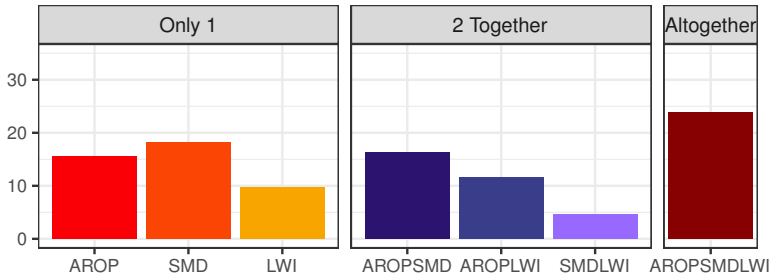
Figure 3.8: Decomposition of North-Western, Southern, Nordic and Eastern European Unemployed Populations in AROPE Households, EU-SILC, 2013



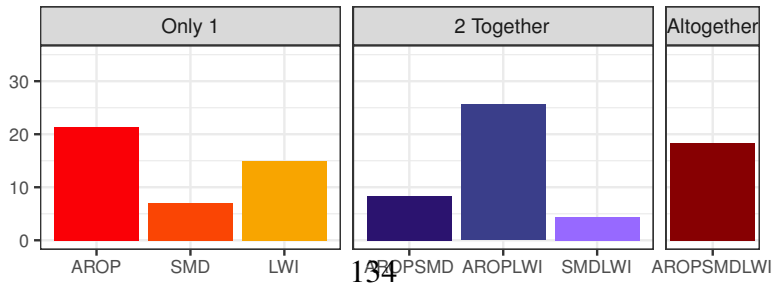
(a) Southern Europe



(b) Nordic Europe



(c) Eastern Europe



(d) North-Western Europe

3.7.5 Experience of Poverty by the Unemployed

In this section, we investigate the changing risk of being in poverty by age for unemployed individuals. In Figure 3.9 probabilities of being in a jobless, AROP, SMD, LWI and AROPE household by age are presented for unemployed men and women. These probabilities are computed from Model 6 of the previous sections including the interactions between age and co-residence (with parents, spouses and children) to account for the variation in the impact of the three types of co-residence over age.

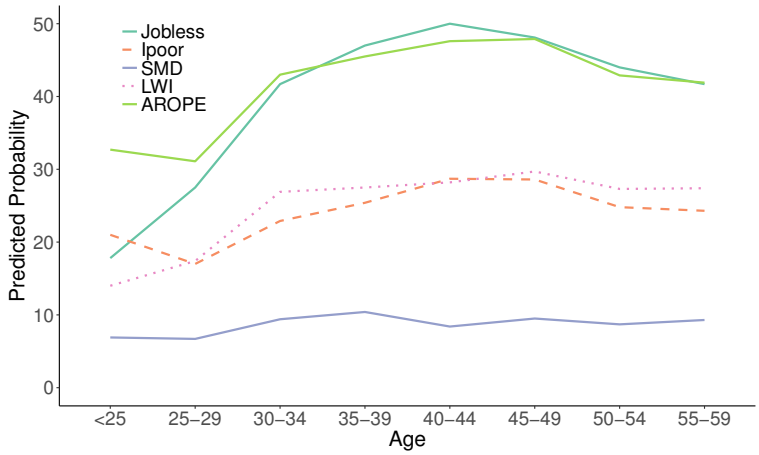
It can be seen in Figure 3.9 that unemployed youths are the least likely to live in jobless households, both in the case of unemployed men and women. The probability of living in a jobless household increases with age for the unemployed men, reaches its highest level around late 30s, early 40s and then starts to decline again. Likewise, the probability of living in a jobless household increases with age at the very young ages for unemployed women. It slightly goes down around late 30s, early 40s until it starts to increase again around late 40s. The expected probability of being in a jobless household is the highest at the oldest ages for unemployed women. These are in line with our results from Chapter 1 where we have used EU-LFS data.

The pattern followed by the expected probability of being in AROPE households is very similar to the pattern of expected probability of living in jobless households both for unemployed men and women. In the case of unemployed men, the expected probability of being in AROPE households reaches its maximum around 40s and then starts to decline, while it continues increasing at the older ages for the unemployed women. When we look at the three components of AROPE, we see that probability of being in a LWI household is the highest almost at all ages for unemployed men

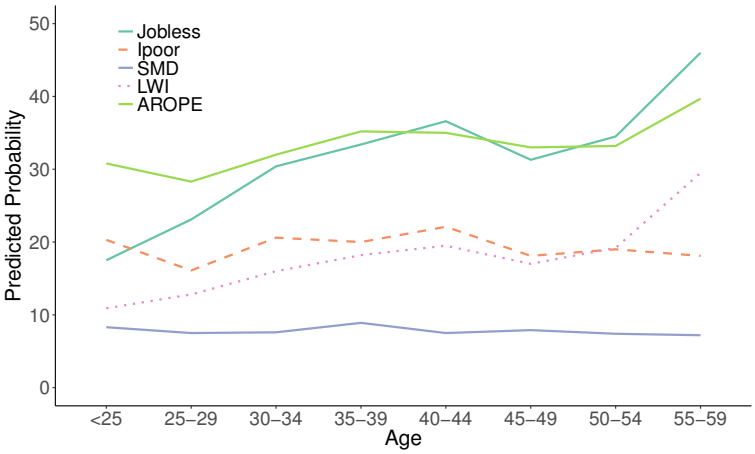
which is followed by AROP. The probability of being in a SMD household is the lowest and it follows a stable pattern throughout different age groups.

The expected probability of being in LWI households increases with age both for unemployed men and women. In the case of unemployed men, it is the highest around late 40s after which it starts declining slightly. It reaches its maximum at the oldest ages in the case of unemployed women. Compared to the probabilities of being in LWI households, probabilities of being in AROP households are slightly lower for unemployed men and slightly higher for unemployed women. Both unemployed men and women younger than 25 seem to have higher probabilities of being in AROP households compared to unemployed men and women who are between 25 and 30 years of age. However, this can be due to selection bias since there are only a few men and women younger than 25 who are unemployed. Probabilities of being in AROP households follow very similar patterns by age both for unemployed men and women, being relatively higher for unemployed men at the middle and older ages. It reaches its maximum both for unemployed men and women at their 40s, and then it starts declining for both at older ages. Expected probabilities of being in SMD households do not change much by age. Unemployed men seem to have slightly higher probabilities compared to unemployed women, except for the very young ages. Both unemployed men and women have the highest expected probability of being in SMD households at their late 30s.

Figure 3.9: Expected Probability of Being in a Jobless, AROP, SMD, LWI and AROPE Household for Unemployed Men and Women by Age, EU-SILC, 2013



(a) Men



(b) Women

Source: Author's own calculations based on EU-SILC data

3.8 Conclusions

In this chapter, we concentrated on the importance of living arrangements for explaining the diverging poverty experiences across European populations, our main focus being the unemployed individuals. We exploited the comprehensive information provided on income and material deprivation by EU-SILC which allowed us to carry our analysis a step further than the household joblessness measure we have used in the previous two chapters.

We started by repeating our analysis for the jobless households from Chapter 1 using EU-SILC data in order to confirm our findings with this new data source. Our findings verify that the expected probability of being in jobless households varies by age: Unemployed youths are the least likely to be in jobless households and the probability of being in jobless households increases with age, reaching its highest at the middle ages in the case of unemployed men and at the oldest ages in the case of unemployed women.

We explored poverty experienced across Europe using AROPE, which is the main indicator of the EU to monitor the Europe 2020 Strategy. We distinguished among the three components of it: AROP, SMD and LWI as well as 7 possible combinations of these three components. While some of the individuals in AROPE households are suffering only from one dimension of poverty, some are suffering from two dimensions and some from all three dimensions at the same time. Our results show that in all country groups but Eastern Europe, income poverty is the most prevalent form of poverty, while it is the SMD in Eastern Europe. Percentages suffering from all three forms of poverty are the highest in Eastern Europe.

We also explored the evolution of poverty during the last decade using official income poverty measures and anchored poverty rates which is

an alternative measure to be used especially at times of general economic expansion and contraction. Our findings emphasize the importance of the measures used since different measures of poverty can lead to conflicting conclusions: While relative poverty rates followed a very stable pattern over time, anchored poverty rates revealed bigger fluctuations.

We distinguished among 9 household types to underline the importance of various household characteristics to explain the variability in poverty experiences of individuals. We found that lone parents are the most vulnerable to poverty of all household types. Despite some differences among country groups, lone parents with dependent children followed by lone parents with adult children and singles have the highest risks of being in income poor, SMD and LWI households.

We then shifted our attention to the unemployed individuals who are the main focus of this thesis. We repeated the multi-level analysis from the previous chapters to explore their expected probabilities of being in income poor, SMD, LWI and AROPE households, using binary dependent variables, whether the unemployed individual is in income poor, SMD, LWI and AROPE household or not. In addition to the co-residence variables, we controlled for various individual level variables such as age, education and immigration.

We found that both unemployed men and women with higher levels of education are less likely to be in income poor, SMD, LWI and AROPE households. Unemployed immigrants appear to be more vulnerable to poverty compared to unemployed europeans. Both unemployed immigrant men and women are more likely to be in income poor, SMD and AROPE households compared to european unemployed men and women. European unemployed are more likely to be enjoying safety nets, support from their families or friends, while immigrants in general lack this support.

Moreover, immigrants are more likely to be living with other immigrants who are also more likely to be unemployed or inactive compared to Europeans. We observed a difference between unemployed men and women in the case of LWI households. While immigrant unemployed men are less likely to be in LWI households compared to european unemployed men, immigrant unemployed women are more likely to be in LWI households compared to european unemployed women. This can be due to the fact that unemployed immigrant men are more likely to be living in other living arrangements compared to unemployed immigrant women, like in households with other immigrants in which it is more likely that there is at least one immigrant who is employed. On the other hand, unemployed immigrant women are more likely to be living with their husbands who are more likely to be unemployed compared to european men.

The fact that immigrants continue to have higher probabilities of being in income poor households compared to europeans when we control for the co-residence supports the idea that immigrants are likely to be living together with other immigrants who are more likely to be unemployed compared to Europeans. Also, wages received by immigrants are in general lower than those of Europeans, most of the cases due to the lower quality jobs that they are hired for.

Both co-residence with parents and spouses diminish the probability of both unemployed men and women to be in income poverty, while co-residence with children increases it. Co-residence with parents and spouses also diminish the probability of both unemployed men and women to be in materially deprived households. While co-residence with children increases the probability of an unemployed men to be in materially deprived households, it does not seem to have a significant effect for unemployed women. All three co-residence variables seem to have a diminishing effect

on the probability of being in a low work intensity household, both in the case of unemployed men and women.

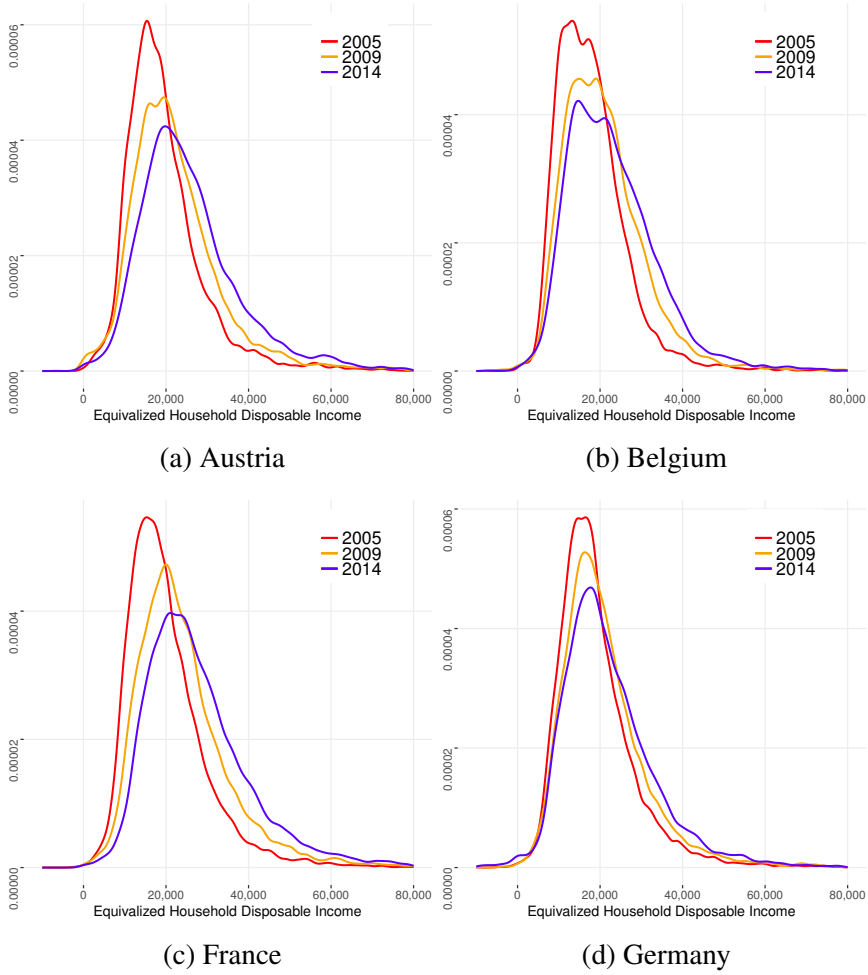
The highest country level variation is observed in the expected probability of being in SMD households, as material deprivation is a more absolute measure. When we control for co-residence, country level variance observed in the probability of being in jobless households decreases both for unemployed men and women; which means that living arrangements serve to explain some of the variation across countries. On the other hand, when we control for co-residence, differences observed across Europe in the probabilities of being in income poor, SMD, LWI and AROPE households turn out to be even more apparent. Controlling for co-residence enables us to compare the same groups, with the same living arrangements across countries, making real income differences more apparent since living arrangements may serve to soften the experience of poverty of particular groups in some countries. For instance, when we compare a 25-year-old unemployed living alone in Germany with a 25-year-old unemployed living alone in Spain, we see that the one in Spain has a higher probability of living in an AROP household. Hence, poverty comparisons of certain age groups with the same living arrangements allow us to explore further the severity of the poverty experience of these groups in some countries.

Expected probabilities of unemployed individuals to be in AROPE and jobless households follow very similar age patterns: increasing with age until the 40s and then declining at older ages for unemployed men, reaching its maximum at the oldest ages for unemployed women. When we distinguish among the components of the AROPE indicator, we see that the probabilities of being in AROP and LWI households are the highest, while probability of being in SMD households is the lowest, following a stable pattern through different ages. Probability of being in an income

poor household reaches its maximum around 40s both for unemployed men and women after which it starts declining.

Appendix

Figure 3.10: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (A)



(a) Austria

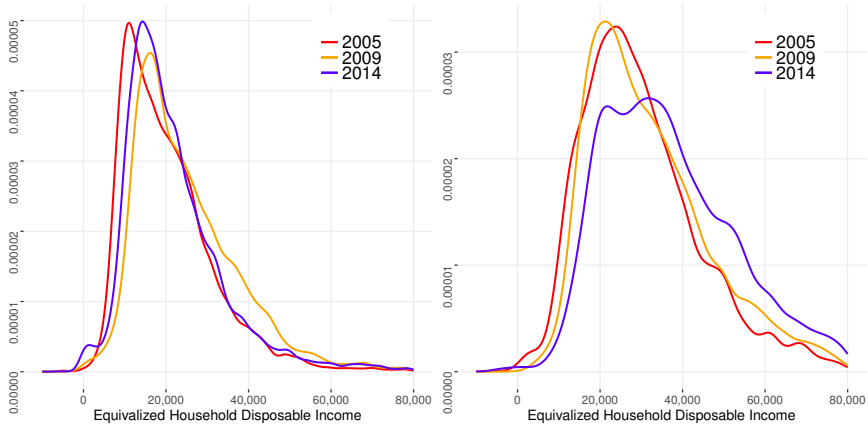
(b) Belgium

(c) France

(d) Germany

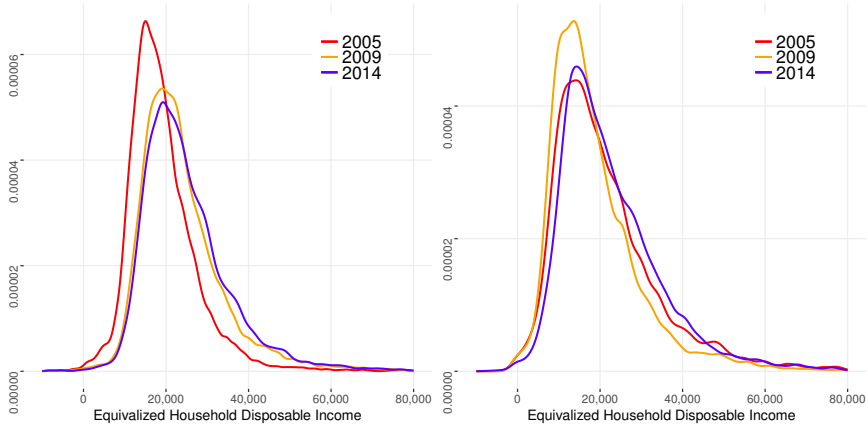
Source: Author's own calculations based on EU-SILC data

Figure 3.11: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (B)



(a) Ireland

(b) Luxembourg

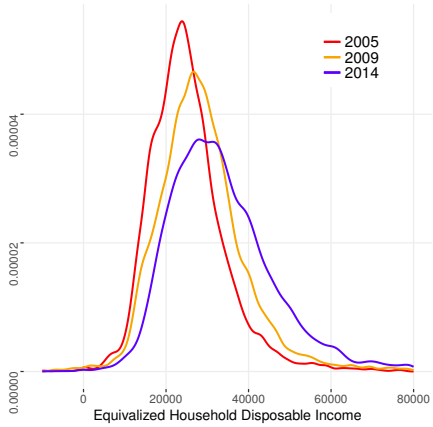


(c) Netherlands

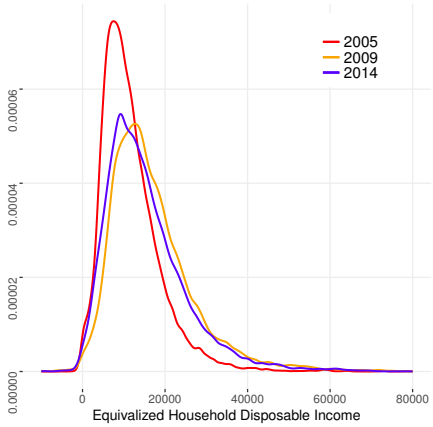
(d) United Kingdom

Source: Author's own calculations based on EU-SILC data

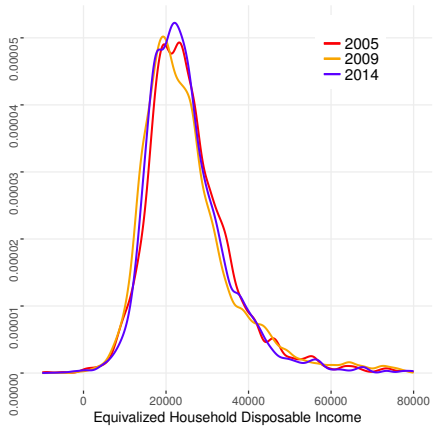
Figure 3.12: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (C)



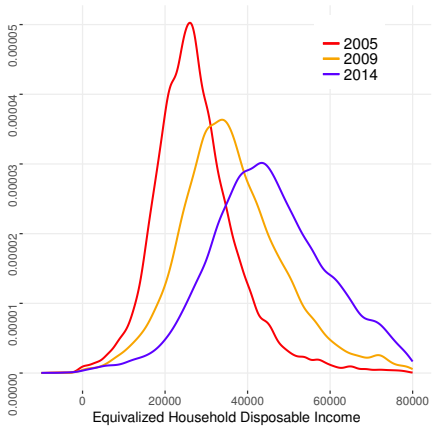
(a) Denmark



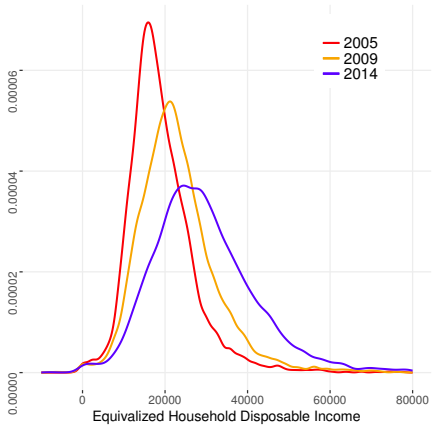
(b) Finland



(c) Iceland



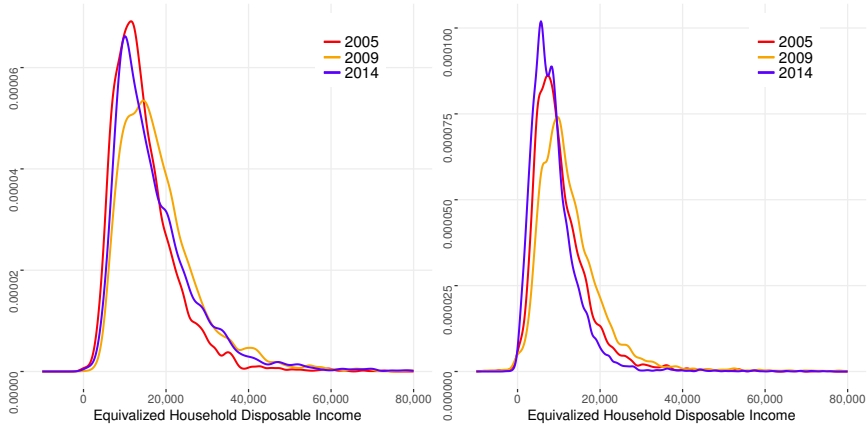
(d) Norway



(e) Sweden

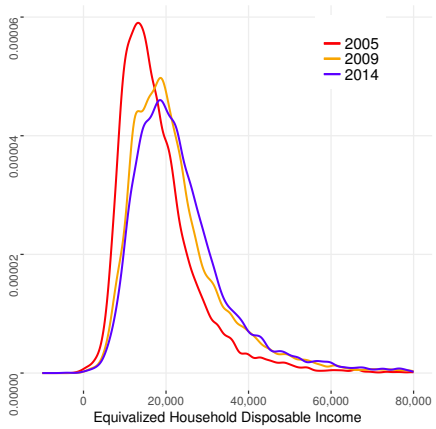
Source: Author's own calculations based on EU-SILC data

Figure 3.13: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (D)

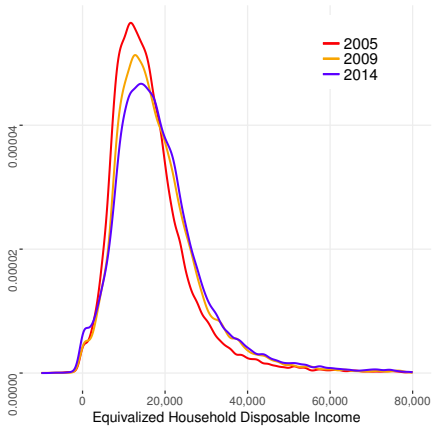


(a) Cyprus

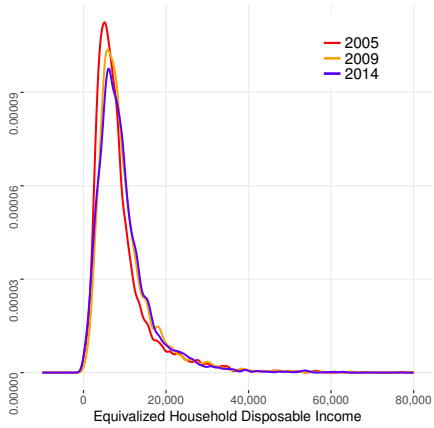
(b) Spain



(c) Greece



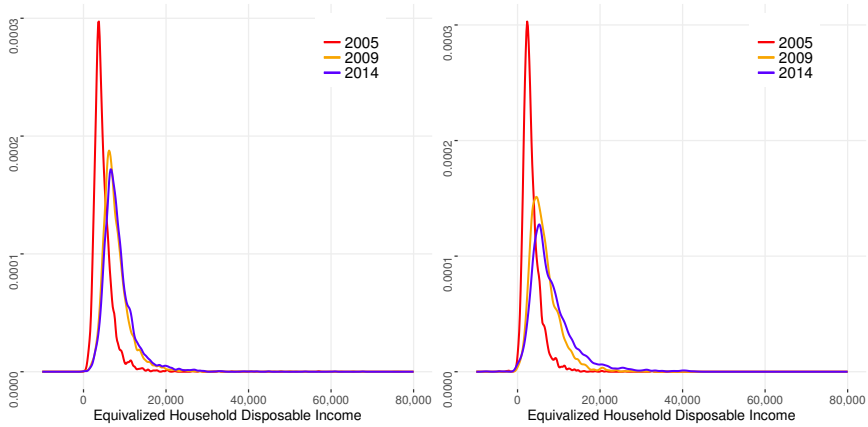
(d) Italy



(e) Portugal

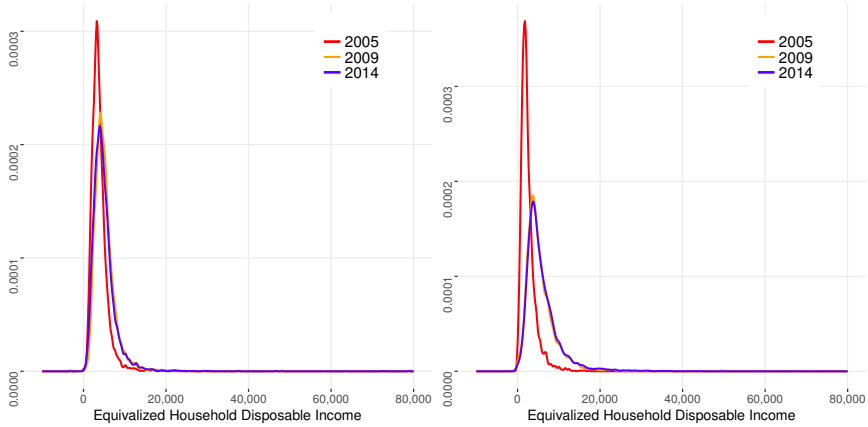
Source: Author's own calculations based on EU-SILC data

Figure 3.14: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (E)



(a) Czech Republic

(b) Estonia

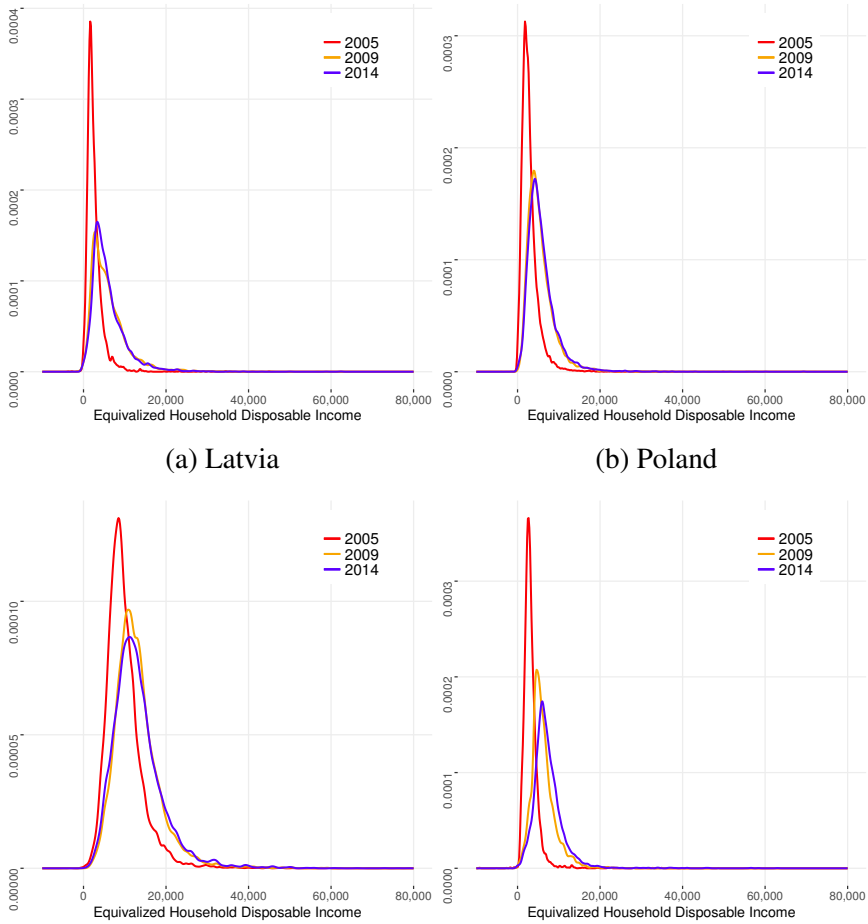


(c) Hungary

(d) Lithuania

Source: Author's own calculations based on EU-SILC data

Figure 3.15: Income Distribution Density Functions across Europe for 2005, 2009 and 2014 (F)



(a) Latvia (b) Poland

(c) Slovenia (d) Slovakia

Source: Author's own calculations based on EU-SILC data

CONCLUSIONS

The debate about the future of work and employment is currently dominated by the advance of automation[35] and the substitution of human labour by computers in an increasing number of sectors. The publication of the study by Frey and Osborne (2013) estimating that 47 per cent of jobs are going to be lost to machines in the next twenty years in the US, was followed by a number of studies trying to understand the implications of these developments on Western societies (David, 2015; Nica, 2016). These studies predict that low-skill and low-wage workers will be affected the most adversely, service occupations also being at risk of computerization in addition to transportation, logistics, office and administrative related jobs. Bowles (2014), following Frey and Osborne (2013), estimated that on average 54 per cent of jobs are at risk of computerization in the EU as well. He showed that while countries like Germany, Belgium and Sweden will be less affected, countries in the European periphery are more likely to experience considerable job losses due to their higher concentration of low-skilled work. The publication of these studies increased the public interest and media coverage of the topic. It has also forced governments and institutions [36] to acknowledge the upcoming challenges and device new strategies

[35]Different terminology has been used to refer to the concept of job automation by computer control equipment like computerization and digitalization.

[36]For example see: https://www.theguardian.com/us-news/2017/jun/26/jobs-future-automation-robots-skills-creative-health

to regulate employment conditions and redistribute income more equally in a quickly changing landscape of labor relations[37].

The skill-biased nature of technological change (Tinbergen, 1974) will continue to widen the gap among skill groups, unless it is countered by a faster increase in the rate of accumulation of human capital (Acemoglu et al., 2012). Education can play an essential equalizing role if the supply of higher skills can meet the steady increase in demand. If education can race ahead of technology, the prospects might not be so bleak for future workers (Goldin and Katz, 2009; Sauer et al., 2015). However, if that is not the case and the education system and other relevant institutions fail to quickly adapt to the new scenario, large number of countries in the world will likely witness high levels of unemployment and increasing inequality in the near future. In this context, the debate about unemployment and poverty is already being redefined and ideas that were relatively marginal in the past, such as implementation of a universal basic income, are gathering support from different ends of the ideological spectrum.

The impact of these developments will vary across countries, depending, as mentioned before, on the willingness and ability of governments and societies to adapt. Countries already disadvantaged, with a higher concentration of low-skill work are condemned to face even higher risks of increased unemployment. The already significant role of family as a support mechanism, in countries with dense co-residence patterns, will gain a new meaning especially if welfare states fail to provide a solid alternative.

In this context, it seems more relevant than ever to try to understand the

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https://www.forbes.com/sites/adigaskell/2016/12/22/automation-and-the-future-of-work/#7f7ec46971fc

[37]See the Report by the British Government's Science & Technology Select Committee on the implications of robotics and artificial intelligence on the future UK force and the Report by United Nations focusing on the disturbing effects of automation on labour markets of developing countries.

different dimensions of unemployment, poverty and social exclusion, especially those that have been less explored. With this goal in mind, this thesis aimed at shedding some light on the importance of living arrangements for unemployed populations within the context of two crucial and associated phenomena: household joblessness and poverty and social exclusion. The findings we will summarize in this chapter should be a valuable asset for the design of policies and programs as they reflect the strategies adopted by the young and old generations of Europe to protect themselves from vulnerable circumstances in different institutional contexts.

Main Findings

When we started our analysis we faced a trade-off between a longitudinal and a cross sectional perspective. We decided to adopt the second and to favor a comparative approach that included as many countries in Europe as possible, with the aim of providing a large scale picture of the issues that form the center of the thesis. This meant to somehow relegate the analysis of the evolution of household joblessness and poverty over time or the impact of important period events like the most recent economic crisis. However, we are aware of the importance of the longitudinal perspective and of how it can help illuminate other dimensions of the processes and mechanisms we study here, such as the case of adult children delaying parental home leaving or returning to the parental home following economic hardship.

In this thesis, we focused on the household context of unemployed individuals since their living arrangements provide valuable information. However, intergenerational relationship extends beyond the household. For instance, public pension transfers creates resources for the parents which

are rerouted towards their young adult children, enabling formation of new links between generations (Kohli, 1999). The fact that intergenerational transfers moves mostly downward, i.e. parents supporting their children to a larger extent than children supporting parents is particularly important within the context of poverty experienced by young populations. (Bengtson, 2001; Albertini et al., 2007; Grundy, 2005). Moreover, despite the general decline in the co-residence of the elderly with their adult children, family remains as a strong provider of everyday support via geographical proximity (Kohli et al., 2005). Parents and children who do not live in the same household, but in the same neighborhood can still maintain strong relations and easily exchange support.

Living Apart Together (LAT) which recently appeared as a new family form following the proliferation of non-marital co-habitation, is becoming promptly a more accepted social institution. LAT relationships, being the most widespread among young, never married people, is also common after separation or divorce (Ermisch and Siedler, 2009; De Jong Gierveld, 2004), as it allows couples to provide support to their elderly parents or children and maintain their own relationships with their partners, without co-residing together at the same time (Levin, 2004). Considering this dimension would have meant to work with the detailed micro level data that is only available for small number of countries or regions that would have implied a different analytical strategy than the one adopted here which is based on the comparative perspective and a large territorial coverage. However, it is definitely something that should be factored in when interpreting our results.

The first two chapters of this thesis focused on the risk of living in a jobless household, a situation that generates a serious of negative feedbacks that aggravate the predicament unemployed individuals, and their

families, usually find themselves in. Jobless households are households in which none of its members is employed, which strengthens their isolation from the labour market. Unemployed individuals living in jobless households are more likely to be at risk of poverty, deprivation and social exclusion (Ellwood et al., 2004; Nickell, 2004). Household joblessness increases the intergenerational transmission of poverty and is associated with poorer educational outcomes (de Graaf-Zijl and Nolan, 2011). It has severe implications particularly for children. Nickell (2004) showed that three out of four children in jobless households were living in poverty in Britain. Growing with jobless parents is found to be associated with numerous negative outcomes like lower educational attainment, higher risks of non-activity, psychological distress later life (Ermisch et al., 2004). At the societal level, increasing number of jobless households means an uneven distribution of employment and the concentration of jobs in certain type of households (Gregg and Wadsworth, 1994, 1998), which will in the longer term mean increasing inequality in the society.

The risk of living in a jobless household depends on many individual, societal, cyclical and structural factors and varies widely across Europe. In the first chapter, we focused on the importance of co-residence patterns for diminishing the risks of unemployed individuals to be in this kind of households. At the country level, we did not observe any correlation between high unemployment rates and percentages of unemployed individuals in jobless households, which is in line with the earlier findings of de Graaf-Zijl and Nolan (2011). Instead, countries with dense co-residence patterns are likely to have smaller shares of their unemployed populations in jobless households: Countries like Spain and Greece with very high unemployment rates have relatively lower shares of their unemployed populations living in jobless households. In countries like Germany or Belgium with

very low unemployment rates, unemployed individuals are more likely to be in jobless households. For instance, the fact that a 25-year-old unemployed man in Spain is less likely to live in a jobless household than a 25-year-old unemployed man in Germany can largely be explained by the fact that young people in Southern Europe spend a longer time of their lives living with their parents. Although intuitively one might think that the risk of being in a jobless household in a country is associated with its unemployment rate, our results revealed that co-residence patterns serve to explain the largest part of the differences observed across Europe. This means that large cross-national differences in the probabilities of unemployed individuals to live in jobless households would almost disappear, if European countries had the same co-residence patterns.

Our findings showed that unemployed men face a higher risk of living in jobless households compared to unemployed women. In Luxembourg, around 80 per cent of unemployed women are not in jobless households because they are living together with employed partners. On the other hand, parental co-residence appears to be more important for unemployed men. However, we observed a wider variation in the contribution of employed wives to keep unemployed men out of jobless households, being more significant than the contribution of employed parents in a number of countries. Interestingly, we observe this fact in a highly heterogeneous group of countries, and not exclusively in countries with more egalitarian gender relations and institutions. The protective role of women is higher than the one played by parents in Germany, Ireland, Luxembourg and France but also in Lithuania, Latvia, Bulgaria, Cyprus and Estonia, which poses an interesting research question for future studies.

When we examined the risk of being in a jobless household across the age spectrum, we found that unemployed young people face the lowest

risks despite having the highest rates of unemployment. As expected, middle aged unemployed men and women appeared to have the highest risks of all age groups. The very low risk faced by young unemployed individuals is a consequence of high parental co-residence at younger ages, primarily before the age of 30, after which spouses overtake the parental role. The role played by children unsurprisingly varies with the age of the unemployed person. Co-residence with children increases the probability of living in a jobless household for the unemployed until their late 40s, while it has a negative impact at older ages, when employed children provide for their parents and prevent older unemployed individuals (and particularly women) from living in jobless households.

One of the main findings of the first chapter, that young unemployed individuals face the lowest risks of being in jobless households, prompted us to focus on this particularly vulnerable group in the second chapter. Countries with the highest youth unemployment rates in Europe, like Spain, Portugal, Italy and Greece have relatively low percentages of young unemployed men and women living in jobless households compared to those European countries with very low youth unemployment rates, such as Germany, Belgium, France and the UK, where almost half of the young unemployed populations live in jobless households. This is largely attributed to the diverse co-residence patterns of young individuals across Europe which is mainly determined by the prevailing different patterns of parental home leaving. While more than 30 per cent of young men in Italy and around 25 per cent of young men in Spain have never left home by the age of 30, it is as low as 5 per cent in Netherlands and even lower in Sweden with 2 per cent (Aassve et al., 2002).

Employed parents and spouses appear to play an important protective role for their unemployed children. However, they seem to compensate

each other: in countries where employed parents (spouses) are the main actors to keep unemployed young out of the jobless households, employed spouses (parents) play a relatively modest role. In line with the first chapter, we found parental co-residence to be more common among young unemployed men and spouses to be more important among young unemployed women. Co-residence with children increases the probability of being in a jobless household for unemployed young men, since their partners might be out of work to take care of the children and also women who have children earlier in life are more likely to restrain from participating in the labour market at all. On the other hand, children do not seem to have a significant effect in the case of unemployed young women, since the work status of men is not as directly affected by children as women's.

As expected, education plays a determinant part of our story. Unemployed young individuals with higher education are less likely to be in jobless households. This is in part explained by the higher educational attainment of their parents, which in turn makes them less likely to be unemployed and thus a stronger source of support for their children. A similar mechanism operates in the case of co-residence with partners, higher educated unemployed are more likely to form partnerships with individuals with similar levels of educational attainment who are less likely to be unemployed themselves.

Given that young people are more likely to migrate, in the second chapter we also wanted to explore this dimension. We found that the risk of being in a jobless household is affected both by being a migrant and by the age at the time of arrival to the country of residence. Young unemployed immigrants who came to the country after the age of 15 are more likely to be in jobless households compared to unemployed europeans. However, we did not find any significant difference between unemployed immigrant

men who came to the country before the age of 15 and natives. Age at arrival appears to make an important difference. Immigrants arriving to the country before the age of 15 are likely to have been accompanied by family members who were in search for or already had a job and thus potential providers of support. Also they are more likely to have gone through a softer and easier social integration process at younger ages, by learning the language, being part of the educational system and forming their of networks compared to immigrants who arrived at older ages.

In line with Chapter 1, our results revealed that by living together with others, young unemployed individuals avoid the potential adverse consequences of being in households in which there is no one in work. Diverse living arrangements of unemployed individuals across European countries and regions served to explain most of the difference we observed in their risks of being in this kind of households and being isolated from the labour markets. This means that, for instance if our 25-year-old Spanish unemployed man left parental home as early as his German counterpart without the guarantee of a stable job, but just to seek out independence, his risk of living in a jobless household would be a lot higher.

Jobless households have been associated with an enhanced risk of poverty, deprivation and social exclusion (Ellwood et al., 2004; Nickell, 2004). However, being in a jobless household does not necessarily mean being in poverty or material deprivation. The scope and generosity of welfare state protection and the support from family members outside the household can prevent a jobless household to experience situation of vulnerability. Besides, not all jobless households are deprived from a stable source of income, as it is the case for pensioners and people receiving different kinds of allowances. For this reason, in Chapter 3, we analyzed the softening effects of co-residence patterns on poverty

experiences of unemployed individuals across Europe, together with the impacts of various individual characteristics like age, education and immigration status. We mainly used the three sub-indicators of the At Risk of Poverty or Social Exclusion (AROPE) indicator: At Risk of Poverty (AROP), Severely Materially Deprivation (SMD) and Low Work Intensity (LWI).

Income poor (AROP) households are defined as households whose equivalised disposable household income is below the poverty threshold of the country. Thus, individuals with exactly the same income levels in two countries can be subject to very different living standards since their income levels mean something only when compared to national poverty thresholds of the countries that they live in, which are dependent on how income is distributed in each country. Relative poverty measures are also criticized for being insensitive to the periods of economic expansion and contraction, when the income distribution of the whole country is affected. Anchored poverty rates are proposed as better indicators of evolution of income poverty in times of overall economic expansion and contraction (Morelli et al., 2014). We showed that the income contraction observed in various European countries, following the income expansion prior to the crisis could not be traced back using the official poverty measures. Hence, we presented a comparison of the same period, using relative poverty rates and anchored poverty rates, and revealed the bigger fluctuations observed in poverty, particularly in Southern European countries which were affected most severely by the crisis.

The second component of AROPE, material deprivation, aggregating information on various key aspects of material living conditions of households, plays a crucial role to reflect the diversity in Europe, especially after the recent enlargement of the EU. While income poverty ranges between 9

per cent and 24 per cent across Europe, SMD ranges between 1 per cent to 43 per cent. Moreover, the severity of deprivation, which is the mean number of items lacked by people who are in SMD households, varies across Europe, being the highest in Eastern European countries. In line with what we would expect, mean number of items lacked in income poor households is higher than mean number of items lacked in non-income poor households in all countries, which is also in line with the previous literature (Guio et al., 2009). The fact that the mean number of items lacked by individuals who are living in income poor households in some countries like Switzerland, Sweden and Luxembourg is much lower than those individuals who are not in poor households in countries like Bulgaria, Romania and Serbia, reveals the big variation across Europe in terms of material living conditions.

The third dimension of AROPE, low work intensity is sometimes referred to as quasi-joblessness in the literature. It ranges between 0 and 1. It is, by definition, different than the jobless household concept we have used in the previous two chapters, as it goes beyond having a job or not, but integrates the intensity of work into the definition. It incorporates the information regarding the actual hours worked by the household members with respect to the available or ideal number of hours that could have been worked. Despite some divergences at the country level, the EU-LFS based joblessness measure and the EU-SILC based LWI measure are similar at the EU level. The divergences observed in some countries are due to the differences in the way joblessness is defined and measured as well as differences in data sources and populations covered. EU-LFS can be a more reliable source of joblessness information at the individual level since it has larger sample sizes than the EU-SILC and since it is the main data source for the measurement of the labour force activity in Europe. How-

ever, EU-SILC is the only data source enabling joblessness to be combined with income and material deprivation information required to measure the poverty reduction target of the EU (de Graaf-Zijl and Nolan, 2011).

AROPE brings together the three dimensions of poverty: monetary poverty measured by relative national thresholds, material deprivation measured as the lack of certain resources in the household and exclusion from the labour market. Therefore, a high AROPE rate can be due to high AROP, high SMD, high LWI or due to a combination of these three components, whose prominence shows a big variation across Europe. In all country groups, but Eastern Europe, income poverty is the most common form of poverty, while in Eastern Europe it is material deprivation. Percentage of the AROPE populations suffering only from low work intensity is the lowest in Eastern Europe

We found that lone parents with dependent children appear to be the most vulnerable to income poverty and material deprivation among all household types, followed by singles, while couples with no children and couples with adult children are the least vulnerable. Lone parents with dependent children, lone parents with adult children and young singles are more likely to be in low work intensity households compared to other household types. Our results reveal the fact that households in which there is only one single adult (single person or lone parent), are the most likely to suffer from a form of poverty.

In line with our expectations, we found that unemployed individuals with higher levels of education are less likely to be in income poor, materially deprived and low work intensity households, which was also the case for the probability of being in jobless households. As mentioned earlier, higher educated people are more likely to form partnerships with higher educated people and children of higher educated people are more likely to

have better education themselves. Hence, a high educated unemployed is also more likely to live with some employed individuals in probably well-paying jobs which diminishes his risk of being in a poor household.

We found that unemployed immigrants are more likely to be in income poor, SMD and AROPE households compared to european unemployed individuals. This can be explained by the fact that immigrants in general lack the safety nets and support from family and friends that their european counterparts enjoy. Immigrants are also more likely to co-reside with other immigrants who are also more likely to be unemployed or inactive compared to europeans. On the other hand, immigrant unemployed men appear to be less likely to live in LWI households compared to european unemployed men, while immigrant unemployed women are more likely to be in LWI households compared to european unemployed women. This can probably be attributed to the living arrangements of immigrants as well. Unemployed immigrant men are more likely to live in other living arrangements compared to unemployed immigrant women, like in households with other immigrant men in which it is more likely that there is at least one immigrant who is employed. Moreover, immigrants are likely to work more hours compared to Europeans. On the other hand, unemployed immigrant women are more likely to live with their husbands who are also more likely to be unemployed compared to european men.

Our findings reveal that overall, living together with others diminishes the risk of being in poverty and social exclusion. Co-residence with parents and spouses diminish the risk of any kind of poverty (AROP, SMD and LWI). Co-residence with children on the other hand, decreases only the probability of living in LWI households but increases their risk of being in AROP households, as children do not contribute to the household income, but yet share a part of it. Children also increase the probability of living

in SMD for unemployed men while it does not have a significant effect in the case of unemployed women. Unemployed women with children are more likely to live with an employed partner compared to unemployed men with children first due to lower female labour market participation rates and second because women are more likely to withdraw from the labour market after giving birth for childbearing tasks.

In the first chapter, we have shown that living arrangements explained most of the variation observed in the probabilities of unemployed individuals to be in jobless households. This means that if countries had the same co-residence patterns, the risk of being in jobless households would not be very different across Europe (e.g. the risk of being in a jobless household of a 25-year-old unemployed man living alone in Spain would be less different than a 25-year-old unemployed man living alone in Germany). On the other hand, in the third chapter we showed that if countries had the same co-residence patterns, the differences in the risk of being in poor households would be even larger across Europe. If young individuals who stay in parental home longer in Southern Europe were to leave earlier like it is the case in Nordic European countries for example, they would be facing higher risks of poverty since support provided by the welfare state is more limited in these countries. (e.g. a 25-year-old unemployed man living alone in Spain would be even more likely to live in poverty compared to a 25-year-old man living alone in Germany). This finding reveals the important fact that co-residence plays an essential role to soften the risk of poverty of various groups in countries with strong family ties. In countries with weaker welfare state support, family provides for the unemployed individuals and serves to moderate the adverse consequences they face.

Well-being of unemployed individuals is determined jointly by the generosity of the welfare state, strength of the family ties and the dynamics

of the labour market. Responsibilities attributed to the welfare state and family as providers of protection and support to unemployed individuals vary substantially across Europe (Gallie and Paugam, 2000). While in the universalistic welfare regimes of Scandinavian countries, it is the responsibility of the welfare state to protect each individual irrespective of his/her family situation, in Southern Europe family plays a crucial role. However, recent literature signals the diminishing role of welfare state as the main provider of financial security even in the Nordic European countries. Most basic benefits in Nordic Europe such as unemployment benefits, student grants and child-care allowances have failed to keep up with the increasing living costs and families have started to taken more responsibility for the economic well-being of their children (Majamaa, 2011). This new trend puts the potential of the family and the intergenerational support mechanisms more in the center of the debates regarding the retreating welfare states and alternative sources of welfare for the unemployed populations across Europe.

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