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**HOUSEHOLD JOBLESSNESS AND ITS IMPACT ON POVERTY
AND DEPRIVATION IN EUROPE**

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Household Joblessness and Its Impact on Poverty and Deprivation in Europe

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Table of contents

1. INTRODUCTION	9
2. BACKGROUND	11
3. THE PREVALENCE OF HOUSEHOLD JOBLESSNESS IN THE EUROPEAN UNION	15
4. THE IMPACT OF HOUSEHOLD JOBLESSNESS ON INCOME POVERTY	21
5. THE IMPACT OF HOUSEHOLD JOBLESSNESS ON MATERIAL DEPRIVATION	27
6. IMPLICATIONS FOR THE EU TARGET	31
7. CONCLUSIONS	37
REFERENCES.....	41
APPENDIX 1. DECOMPOSITION OF THE SOURCES OF VARIATION BETWEEN THE TWO MEASURES OF JOBLESSNESS.....	43
GINI DISCUSSION PAPERS	45
INFORMATION ON THE GINI PROJECT.....	47
Aims	47
Inequality Impacts and Analysis	47
Support and Activities	47



Abstract

Working-age households where no-one is in work have become an increasing focus of policy concern even before the economic crisis, and the EU has included household joblessness in its new poverty reduction target for 2020. This paper focuses on the variation across EU countries in the prevalence of household joblessness and its impact on income poverty and deprivation, and on the implications for the new EU poverty reduction target. It brings out first that there are some divergences across key data sources in the extent of joblessness. The prevalence of household joblessness varies substantially across EU countries, but there is little evidence of a consistent pattern among groupings of countries often categorised together in terms of welfare regime or geographically. In aggregate there is little association between the overall extent of household joblessness in a country and the percentage in relative income poverty or above a material deprivation threshold. At micro level, being in a jobless household has a substantial impact on the likelihood of being in relative income poverty or deprived, but the scale of these impacts is shown to be very much greater in some countries than in others, and to vary between single-adult and multiple-adult households. In most EU countries little more than half the working age adults in jobless households are either income poor or deprived, so including joblessness in the poverty reduction target does make a difference, without a clearly-articulated rationale.

Keywords: household joblessness, poverty, deprivation, EU social inclusion.



1. Introduction

Household joblessness has received a good deal of attention since Gregg and Wadsworth (1996, 1998) pointed out that jobs in many Western countries have become increasingly concentrated in certain households, so that increasing employment levels may go together with static or even increasing numbers of working-age households with no-one in work. This is feared to have a range of negative consequences, not only in terms of poverty and deprivation, but also for psychological well-being, social relations and integration into the workforce and wider society. This is why European Union (European Commission 2001; Eurostat 2003), as well as the OECD, have included household-based joblessness among their key social indicators. The impact of the economic crisis on overall unemployment levels has served to exacerbate such concerns. Indeed, in framing a poverty reduction target as part of its 2020 “strategy for growth and jobs” (see EU Commission, 2010) the EU has now included jobless households as one element of the target group, together with those falling below a relative income poverty threshold and those experiencing high levels of material deprivation. The extent of household joblessness and its relationship with income poverty and deprivation have therefore taken on a new importance, both from a research and policy perspective, and this paper focuses on how these vary across EU countries and the implications for the new EU poverty reduction target.

We start by briefly reviewing the available research on household joblessness and its effects, before turning to an examination of the extent of household joblessness across the enlarged EU and how it varies across countries. In doing so we bring out the implications of using different definitions and data sources, contrasting findings from the labour force surveys with those from EU-SILC, the key source on poverty and deprivation levels. We then use micro-data from EU-SILC to assess the impact of household joblessness on the likelihood of relative income poverty and material deprivation for the households concerned. We then discuss the limited extent of overlap between jobless households and relative income poverty or deprivation, and bring out the implications for the new EU poverty reduction target. In concluding we highlight priorities for future research in relation to the factors underpinning the patterns presented.



2. Background

Gregg and Wadsworth (1996, 1998) were the first to note that employment in many Western countries has become increasingly unevenly distributed across households, followed by a number of studies for countries such as Australia, New Zealand and the UK where household joblessness appeared to be a widespread phenomenon such as Dawkins et al. 2002 for Australia). Gregg and Wadsworth (2001) brought out the potential role of cyclical fluctuations. Gregg et al. (2010) show that in the United States, Britain, Germany, Spain and Australia there has been a growing disparity between individual and household-based worklessness measures. However, Whiteford (2009) finds there are also some OECD countries where there is little difference between family and individual joblessness - the Southern European countries (Greece, Italy, Portugal and Spain), the East Asian countries (Japan and Korea) and the low income OECD countries (Mexico and Turkey), but also a disparate group of high income OECD countries. OECD (1998) concluded that although there is a positive correlation between non-employment rates for individuals and households, the countries with the highest non-employment rates do not have the highest proportion of households without any work.

Investigation of the causes of increasing concentration of joblessness has focused on a number of different factors. Marriage/partnering behaviour could have an impact if for example those with higher individual probabilities of being jobless are less likely to find a partner with good labour market prospects, leading to joblessness being concentrated in certain households, both single and partnered. Ultee et al. (1988) for example concluded that labour market inequalities are aggravated by marriage market outcomes, but other processes taking place after marriage make also contribute for (un)employment homogamy. If these partnering and subsequent effects have become more pronounced over time, this would lead household joblessness to grow at a faster pace than individual joblessness. For example, Verbakel (2008) found for the Netherlands that educational homogamy shows an increasing association over time with (un)employment homogamy. OECD (1998) viewed changes in household structures as very important in accounting for the fact that household joblessness has grown, with the increasing number of single-adult households, for which the incidence of joblessness is highest, accounting for a large part of the growth in household non-employment rates, especially in Belgium and the United Kingdom. However, Gregg and Wadsworth (1998, 2001, 2008) found changing household size to account for only a quarter of the rise in polarisation in Britain, with labour market shifts in employment across gender, age, region and skill since the mid-seventies also making an important contribution. Dawkins et al. (2005) concluded that in Australia most of the polarisation took place within household types, and Gregg et al. (2010) have shown that in the US, Britain,

Germany Spain and Australia most of the divergence between individual and household worklessness stems from within-household factors rather than changing household composition. For Australia, Baxter (2005) emphasises that many women with not-employed husbands have low levels of education, lack recent work experience and have health barriers to their own employment. For Britain, Nickel (2004) argued that the increased inactivity of low skilled men is key to understanding the growth of household joblessness. The rise in inactivity among men is heavily concentrated among those with chronic illness, particularly if they are low skill, the fundamental economic change underlying this being the significant weakening of the low skill labour market.

Studying variation across countries should help to shed light on the potential causes of household joblessness. Whiteford (2009) has related the level of household joblessness to the overall state of the labour market, the characteristics of jobless family members (their age, level of education, the age and number of children, and the health status of adults and children), and the tax and benefit systems operating in different countries. He concluded that family values and welfare state orientation towards employment are major causes of country variation in household joblessness. Härkönen (2009) analysed the effects of childbearing on the probability that both partners of a couple are jobless in nine European countries and concluded that cross-national variation was most clearly related to public policies that support the employment of mothers. There is also evidence that the welfare system may play a role, with studies looking at the reaction of the spouse when the breadwinner loses his/her job. For the US Cullen and Gruber (2000) found that for each dollar of unemployment insurance receipt wives earn up to 73 cents less. Heydey and Verick (2006) report that in Australia that few exits from household joblessness were due to changes in a partner's labour force status, or from re-partnering which could also be discouraged by loss of means-tested benefits.

Turning to the impact of household joblessness, studies have investigated a range of potential negative effects from an inter-generational perspective, though causal effects are difficult to identify with any precision. Siedler (2004) for instance found for Germany that parental welfare receipt during late childhood years (ages 13-16) increases the probability and expected duration of social assistance receipt in later life. Headey and Verick (2006) found that people whose parents were not working when they were about 14 years old were more likely to be in jobless households themselves. However, Ekhaugen (2009) has tried to extract the causal component from the intergenerational correlation in unemployment and has concluded that the correlation between parents' and children's future individual unemployment is largely due to observed and unobserved heterogeneity. Cusworth (2006) found that young British people living in a currently workless household were more likely to have poorer educational outcomes (truancy, leaving school at age 16). The influence of parental employment patterns on the



formation of educational attitudes and expectations appeared to operate through cultural norms and expectations (cultural capital). Also for Britain, Ermisch *et al.* (2004) found that being in a single-parent family and with jobless parents during childhood are usually associated with poorer outcomes for young adults. However, the effect of family structure is in general significantly greater than that of parental worklessness, and most of the unfavourable outcomes are linked to early family disruption; the timing of parental joblessness during childhood has more complex effects, with different outcomes being more strongly influenced by parental worklessness at different ages of the child.

Focusing on more current effects, Scutella and Wooden's (2005) Australian study found individual joblessness to be associated with lower levels of psychological well-being, but very little additional disadvantage stems from living in a jobless household (except for women in home production). Similarly, Dawkins *et al.* (2008) found unemployment to be associated with lower levels of mental health, but with no evidence for any additional disadvantage from living in a jobless household.

The impact of household joblessness on poverty has also been investigated. OECD (1998, 2001, 2009b) found that individuals living in jobless households had far greater probability of low income (the bottom quintile of household annual income distribution) compared to those living in households with some work, especially in Australia, Finland, Ireland and the UK. Members of jobless households with children were particularly exposed to the risk of low income. Whiteford and Adema (2007) assessed the extent to which child poverty is associated with the work status of parents and found that in nearly all OECD countries child poverty rates are significantly higher for jobless families than for families with at least one parent in employment. As far as overall income inequality is concerned, OECD (2009a) have suggested that household joblessness plays an important role in understanding the relationship between income and earnings inequality, and Esping-Andersen (2005) has argued that the joint effect of rising marital homogamy in terms of human capital and labour supply contributes to a widening income gap between households. However, empirical evidence on the relationship between household joblessness and overall income inequality is scarce, with most attention focused on poverty.



3. The prevalence of household joblessness in the European Union

We now turn to the empirical evidence on the prevalence of household joblessness across the enlarged EU. Data on the extent of household joblessness are available from a number of sources - OECD, Eurostat, and at country level – with different definitions and data sources. Here we focus on two sets of figures produced by Eurostat, both for the year 2006 but using different definitions and data sources. One, drawn from the labour force surveys (LFS) carried out in each member state in a harmonised fashion, is the joblessness/work intensity indicator produced on an on-going basis by Eurostat to form part of the set of social indicators for the EU’s social inclusion process. The second, drawn from data produced by the EU-SILC data-gathering framework, forms the joblessness component of the new EU poverty reduction target. As we will bring out, these differ for a number of reasons, and it is very important that these differences are unpicked and understood, since each will play an important role in the monitoring, analysis and targeting of household joblessness in the EU. Having described these series and why they differ in terms of definition, we then analyse micro-data from EU-SILC in order to pin down the extent to which these differences in definition – rather than simply the fact that the figures come from different data sources - actually account for divergences between them.

We start by setting out in Table 1 the Eurostat measures for individuals living in jobless households, both for the year 2006, drawn from the LFS and EU-SILC respectively. We see that for some countries (Czech Republic, Germany, Denmark, Lithuania) the two are very similar; for others “LFS” is higher (Austria, Belgium, Cyprus, Estonia, Spain, Finland, France, Greece, Hungary, Italy, Luxembourg, Latvia, Poland, Portugal, Slovenia and Slovakia), whereas for the remainder “Poverty target-EU-SILC” is higher (Ireland, Netherlands, UK). Despite the sometimes considerable divergences at country level, the two figures for the EU-wide average are very similar.

Table 1. Alternative Eurostat figures for the percentage of individuals living in jobless household in 2006

Country	LFS Measure (%)	EU-SILC Measure (%)
Austria	7.6	6.3
Belgium	13.6	11.5
Cyprus	5.2	3.2
Czech Republic	7.2	7.1
Germany	10.5	10.1
Denmark	7.7	7.8
Estonia	6.6	5.5
Spain	6.3	5.1
Finland	9.5	7.0
France	10.5	7.3
Greece	8.1	6.3
Hungary	11.8	10.4
Ireland	7.8	10.8
Italy	9.5	8.2
Lithuania	6.9	6.6
Luxembourg	7.1	4.2
Latvia	6.7	5.5
Netherlands	7.4	9.3
Poland	13.2	12.9
Portugal	5.8	5.1
Slovenia	7.4	5.5
Slovakia	9.5	5.2
UK	10.8	13.3
EU	9.7	9.1

Sources: Figures for the LFS measure were downloaded from the Eurostat website <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsisc090> on July 1st 2010. The figures for the EU-SILC measure were supplied by the Eurostat EU-SILC team in July 2010.

Why are there such divergences between these two sets of figures? Table 2 highlights that they differ not just in data source but also in the population covered and in the way joblessness is defined and measured. The LFS-based measure focuses on working age adults living in a household where no-one is at work; Eurostat also produces a separate series (not shown here) for children living in such households. This reflects the core underlying concern, which relates to whether working-age adults are in work and the implications for their children, not to older persons. The SILC-based measure, on the other hand, arises in the first place because household joblessness has been incorporated in the new poverty target and thus has to cover individuals of all ages, including the elderly. The figure shown is therefore the percentage of persons of any age living in a jobless household. (In constructing this measure, anyone aged 60 years or over is counted as not being in a jobless household, irrespective of the household situation.)

Secondly, the way joblessness is defined and measured is different. The LFS series is based on the Labour Force Survey definition of current labour force status: a person is considered in work if performing work during the reference week, even for just one hour a week, for pay, profit or family gain, or not performing work but having a job or business from which they were temporarily absent because of, e.g., illness, holidays, industrial dispute



or education and training. The EU-SILC-based measure on the other hand is based on what is described in the social inclusion indicators context as work intensity over the year, calculated on the basis of the hours and months worked by all working-age adults in the household. A household is regarded as jobless if the total time in work over the year reported by all the working-age adults (excluding students) falls below a threshold of 20 percent of their potential working time.

Table 2. Two measures of joblessness produced by Eurostat

	Measure 1	Measure 2
What does it measure?	Share of working age adults (18–59) living in jobless households	Share of individuals (0–) living in jobless households
What is the definition of joblessness?	Joblessness based on current labour force status	Joblessness based on work intensity over the year, with people 60 or over not jobless.
What data source is used?	ELFS	EU-SILC

Given the fact that the measures differ in these significant respects it is hardly surprising that they produce different figures. However, it is important to know which of these sources of difference account for the observed divergences, since the two are to be used alongside each other. We investigate this by re-calculating the figures from EU-SILC with alternative measures and definitions, moving successively closer to those employed in the LFS-based series. The results are shown in Table 3. This first reproduces the LFS and EU-SILC-based series produced by Eurostat from Table 1, in columns (1) and (2) respectively. Column (3) shows the same measure as column (2) that we produced ourselves from EU-SILC micro-data; the figures are very similar, providing reassurance that we are indeed able to reproduce the same point of departure in terms of this measure based on annual work intensity.

Column (4) then retains this annual measure of joblessness, but confines the calculation to the working age population only, so the focus narrows to the share of working age adults (18–59) living in jobless households. We see that this leads to substantially higher numbers compared to column (3), but not equally so for all countries. For Ireland, for instance, it matters relatively little, whereas it makes a very substantial difference for Italy and Denmark.

Column (5) then changes the definition of joblessness, to one based on current labour force status rather than work intensity over the year. For most countries, the difference between columns (4) and (5) is small, though Germany, Finland, the Netherlands, Poland and the UK are exceptions. In most of those cases the annual work

intensity-based measure is higher than the current labour force status measure, which may reflect the importance of small part-time jobs.

Since column (5) has aligned both coverage and the definition/measurement of joblessness in EU-SILC with the original LFS measure (with both covering only 18-59 year olds and based on current joblessness), any remaining differences between columns (1) and (5) reflect differences between the data sources themselves.¹ It is a matter of concern that these differences are in some instances quite substantial. In Denmark, Ireland, Portugal, the Netherlands, Finland and Estonia the percentage of adults living in jobless households is at least 20 percent higher when the figures are based on EU-SILC instead of the LFS, whereas in Slovakia, Luxembourg and Cyprus it is at least 10 percent lower. Divergence on this scale merits in-depth investigation by Eurostat. The LFS has much larger sample sizes than EU-SILC in most countries, and is dedicated to measurement of labour force activity, and might thus be expected to be the more reliable source in capturing joblessness at the individual level. However, since the labour force surveys do not obtain the required information on incomes and deprivation levels, EU-SILC is the only data source from which the core indicators of income poverty and deprivation can be derived, and will thus continue to provide data for monitoring the overall poverty reduction target where these are combined with household joblessness.

¹ Appendix 1 shows the contribution of differences in coverage, definition/measure and data source to the overall difference between the original LFS and EU-SILC measures, i.e. Columns (1) and (2), for each country.



Table 3 Share of individuals living in jobless households calculated in various ways

	(1)	(2)	(3)	(4)	(5)
Data Source	LFS	EU-SILC	EU-SILC	EU-SILC	EU-SILC
Definition of joblessness	Current labour force status	Annual work intensity	Annual work intensity	Annual work intensity	Current labour force status
Population covered	Working age	All	All	Working age	Working age
	%	%	%	%	%
Austria	7.6	6.3	6.1	8.2	8.5
Belgium	13.6	11.5	11.0	14.5	13.8
Cyprus	5.2	3.2	3.1	4.1	4.5
Czech Republic	7.2	7.1	7.0	8.7	9.9
Germany	10.5	10.1	10.2	14.6	11.2
Denmark	7.7	7.8	7.7	11.4	11.6
Estonia	6.6	5.5	5.8	7.8	8.1
Spain	6.3	5.1	6.2	8.6	8.9
Finland	9.5	7.0	7.0	10.0	12.0
France	10.5	7.3	7.2	10.1	9.9
Greece	8.1	6.3	6.3	9.6	9.4
Hungary	11.8	10.4	10.2	12.6	11.1
Ireland	7.8	10.8	10.8	11.8	11.2
Italy	9.5	8.2	7.7	11.4	10.7
Lithuania	6.9	6.6	6.5	8.5	7.4
Luxembourg	7.1	4.2	4.1	5.8	6.0
Latvia	6.7	5.5	5.8	7.5	8.2
Netherlands	7.4	9.3	9.0	12.2	9.4
Poland	13.2	12.9	12.5	16.6	15.2
Portugal	5.8	5.1	5.0	7.2	7.7
Slovenia	7.4	5.5	5.3	7.7	8.7
Slovakia	9.5	5.2	5.2	6.9	7.0
UK	10.8	13.3	13.2	15.7	11.1

Sources (1) Eurostat website; (2) Supplied directly to authors by Eurostat; (3)-(5) Own calculations from EU-SILC 2006 microdata.

Looking at the prevalence of household joblessness across countries, then, the original LFS series shows that the percentage of working-age persons in such households varies from 5% in Cyprus up to 13% in Poland; other countries towards the bottom of the range include Estonia, Spain, Latvia and Portugal, while Belgium, Germany, France, Hungary and the UK are towards the upper end. The EU-SILC figures we derived on the same basis show a generally similar pattern, but Denmark, Finland and Ireland are now among those with relatively high joblessness rates. In both cases there is little evidence of a consistent pattern among groupings of countries often categorised together in terms of welfare regime or geographically – within the Nordic countries, the corporatist countries, the Southern European and the Eastern European countries, for example, there is considerable variation in household joblessness levels.



4. The impact of household joblessness on income poverty

Household joblessness is generally assumed to be highly related to income poverty. As noted in Section 2, a series of OECD studies (1998, 2001, 2009b) has found that individuals living in jobless households have a greater probability of being in the bottom quintile of the household annual income distribution than those living in households with some work. However, little attention has been paid to how this relationship varies across countries, or to pinning down the incremental effect for persons not at work of being in a household where no-one else is in paid work either. In this section we investigate the relationship between household joblessness and the individual probability of being income poor and how that differs across the 26 EU or associate countries for which data are available.

The measure of income poverty we employ for this purpose is the one most widely used in European comparative research, where a household is counted as poor when its equivalised disposable income is below a threshold set at 60 percent of the median income in the country in question. “Equivalising” income adjusts for differences across households in size and composition, and for this purpose once again we follow common practice in employing what is known as the “modified OECD” equivalence scale. This assigns a value of 1 to the first adult in the household, 0.5 to each additional adult, and 0.3 to each child in calculating the number of “adult equivalents” it contains. A household comprising a couple with two children, for example, is then assigned a value of $(1+0.5+0.3+0.3) = 2.1$, and income is divided by that figure to produce equivalised income. This measure of relative income poverty is prominent among the indicators of social inclusion currently used by the EU, where it is described as capturing the “risk of poverty” – on the basis that everyone below such a threshold may not necessarily be poor but they are certainly at a much higher risk of being so than those on higher incomes. (The EU, like many academic studies, also employs alternative thresholds such as 50% of median income; the general pattern of our findings is unaffected when that threshold is used).

EU-SILC is the core data source for these measures of income poverty in the EU, and Table 4 presents the overall levels of relative income poverty vis-à-vis the 60% threshold for the working-age population across the 25 EU countries, together with the household joblessness rates drawn from the LFS and EU-SILC respectively as described in the previous section.² There are several countries where both poverty and household joblessness are high – notably Poland and the UK – and others where both are low – such as the Czech Republic and the Nether-

² The age band distinguished in the poverty rates published by Eurostat that most closely approximates to the working age definition used in measuring joblessness is 25-54.

lands; however, the countries with the highest poverty rates (Greece, Latvia and Lithuania) have below average household joblessness rates. Overall there is no strong relationship between the two, with the correlation being positive but less than 0.1. (This remains the case whether the LFS-based or EU-SILC-based joblessness rates are used.)

Table 4 Income poverty and household joblessness in the EU, 2006

Country	Income poverty rate, working agea	Prevalence household joblessness LFSb	Prevalence household joblessness EU-SILCb
	%	%	%
Austria	11.1	7.6	8.5
Belgium	11.1	13.6	13.8
Cyprus	10.0	5.2	4.5
Czech Republic	9.3	7.2	9.9
Germany	11.7	10.5	11.2
Denmark	8.8	7.7	11.6
Estonia	14.7	6.6	8.1
Spain	15.4	6.3	8.9
Finland	9.0	9.5	12.0
France	10.7	10.5	9.9
Greece	17.3	8.1	9.4
Hungary	15.1	11.8	11.1
Ireland	13.4	7.8	11.2
Iceland	8.4		
Italy	17.4	9.5	10.7
Lithuania	17.7	6.9	7.4
Luxembourg	13.6	7.1	6.0
Latvia	19.2	6.7	8.2
Netherlands	8.2	7.4	9.4
Norway	9.0		
Poland	19.3	13.2	15.2
Portugal	14.8	5.8	7.7
Sweden	9.9		
Slovenia	9.2	7.4	8.7
Slovakia	11.1	9.5	7.0
UK	14.1	10.8	11.1

Source: a Eurostat website

http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/data/main_tables b See Table 3.

The fact that the relationship between poverty and joblessness is modest at aggregate level, while of substantive interest, does not mean that the same applies at micro level. SILC microdata allow us to investigate the relationship between being in a joblessness household and being below the relative income poverty threshold, and how that varies across EU countries. We look first at the extent to which being in a jobless household increases the likelihood of being in poverty, where the comparison is simply between those who are and are not in a jobless



household. We then go on to take into account the fact that those in jobless households may have other characteristics that make them more likely to be in poverty anyway, such as relatively low levels of education, which may account for some of their enhanced poverty risk.

A convenient way to summarise how the likelihood of being poor is affected by being in a jobless household is to express that in terms of odds ratios: that is, we compare the odds of someone in a jobless household being poor with the corresponding odds for someone living in a household where at least one person is in work. If the poverty rate for someone in a jobless household is 25%, their odds of being poor versus non-poor are $(0.25/0.75)$; if the poverty rate for someone in a “working” household is 10%, their odds of being poor are $(0.10/0.90)$. The ratio between these odds is then $0.33/0.11 = 3$. The first column of results in Table 5 shows these odds ratios calculated for working-age persons in versus not in a jobless household in each country. We see that they are everywhere substantial – the lowest is 2.5 – so being in a jobless household is associated with a substantially enhanced risk of poverty in all the countries covered. More striking, though, is the variation across countries: while the lowest odds ratio of 2.5 is found in Greece and Poland, at the other end of the spectrum we see 11-13 in Belgium, Denmark, Estonia and Slovenia, almost 16 in the UK, and 22 in Ireland.

Looking at conventional groupings of countries, being in a jobless household has only a modest impact on poverty risk in the Mediterranean countries – Cyprus, Spain, Greece, Italy and Portugal. There is wide variation across the formerly communist countries of eastern Europe, some displaying very small and others very large effects. Ireland and the UK, with their Anglo-Saxon welfare states, are where the impact of being in a jobless household is greatest, which might fit with preconceptions. However, there is considerable variation across both the Scandinavian countries (with Denmark high, Finland intermediate and Sweden low) and the corporatist countries (with Belgium high, Germany and France lower and Austria and the Netherlands low). The impact of household joblessness on the individual probability of being poor is also not strongly related to either the prevalence of household joblessness or the overall poverty rate for the working-age population. The correlation between the prevalence of household joblessness and its impact on the individual probability of being poor is only 0.1: countries where household joblessness is considered to be a major problem because of its high incidence are not generally the ones where it has the most severe impact on the household’s (relative) risk of income poverty.

Table 5 Relationship between poverty and household joblessness (year=2006)

Country	Impact of household joblessness on individual's probability of income poverty	
	<i>Odds</i>	<i>Corrected Odds</i>
Austria	5.54	5.82
Belgium	13.15	12.96
Cyprus	6.47	5.71
Czech Republic	10.28	11.93
Germany	9.46	7.80
Denmark	10.66	10.39
Estonia	11.79	11.12
Spain	4.09	5.18
Finland	8.23	6.59
France	7.38	7.10
Greece	2.43	2.71
Hungary	7.61	7.15
Ireland	22.15	17.15
Iceland	3.65	2.98
Italy	5.07	6.51
Lithuania	7.77	6.26
Luxembourg	4.08	7.07
Latvia	9.29	7.95
Netherlands	6.63	6.90
Norway	7.72	7.33
Poland	2.53	2.92
Portugal	3.40	3.68
Sweden	5.73	4.49
Slovenia	11.24	11.46
Slovakia	7.30	9.36
UK	15.57	14.40

As we noted, persons living in jobless households may have other characteristics that contribute to their enhanced poverty risk – they may be young or have limited education, so that even if they were living in a household where someone was in work, their risk of poverty would be above average. The same may be true of their household – there may be many children, for example, often associated with a high poverty risk even where there is income from work. To take this into account we estimate a logistic regression for each country where the dependent variable is whether the person is in a household below the 60% relative income threshold, and the explanatory variables are their age group, gender, ethnicity and educational level, and the number of children, students and adults in the household. The aim is to hone in on the impact of the household being jobless compared to working, for a similar person/household. The second column of results in Table 5 shows the “corrected” odds ratios estimated in this way.³ We see first that these are lower than the “raw” or uncorrected odds in a majority of countries – that is,

³ Full results of the regressions from which these are drawn are available from the authors on request.



other characteristics of jobless households do contribute to their enhanced poverty risk, so the effect of joblessness *per se* is less than it might appear at first sight. However, in 11 countries this is not the case, with the corrected odds being noticeably greater than the raw odds in Spain, Italy and Slovakia in particular. Overall, though, taking these individual and household characteristics into account has a rather limited impact: the cross-country pattern for the impact of household joblessness is quite similar whether one “corrects” for them in this way or not.

In assessing the impact of household joblessness, an important distinction may be drawn between households that contain only one adult and households that contain more than one. For an adult living in a one-adult household, individual joblessness obviously equates to household joblessness; the phenomenon of jobless individuals being clustered together in a household is a distinct one, though each gives rise to a jobless household. It is therefore of interest to distinguish single-adult from multiple-adult households, and in assessing the impact of joblessness to compare single adult jobless households to single-adult households where that adult is in work, and compare multiple-adult jobless households with multiple-adult households where at least one of the adults is in work. The odds ratios for the likelihood of being in relative income poverty derived in this fashion are shown in Table 6, both “raw” and “corrected” in the way already described. We see that, unsurprisingly, the impact of joblessness in a given country is generally much greater for multiple-adult households than for single-adult ones; whereas single-adult jobless households are being compared with households where that single adult is in work, multiple adult households where no-one is in work are being compared with ones where there may often be 2 adults, and sometimes 3, 4 or more, at work. It is noteworthy though that this does not apply in Spain, Greece, Italy and Portugal, or in Poland: the countries where the overall impact of household joblessness is least also have little or no difference in impact between single-adult and multiple-adult households. In terms of country rankings, the general pattern we saw earlier for the overall impact of joblessness is seen once again for the impact on each of these household types. The correction for individual and household characteristics again has only a limited impact on the estimated impact of joblessness and the pattern of country rankings.

Table 6 Relationship between poverty and household joblessness, one-adult and multiple-adult households (year=2006)

Country	Impact of household joblessness on individual's probability of income poverty			
	<i>One-adult Households</i>		<i>Multiple Adult Households</i>	
	<i>Odds</i>	<i>Corrected odds</i>	<i>Odds</i>	<i>Corrected odds</i>
Austria	3.10	3.79	8.20	8.11
Belgium	8.88	10.90	16.73	14.57
Cyprus	2.14	3.17	9.12	8.42
Czech Republic	5.32	7.89	14.13	14.69
Germany	4.53	4.95	11.86	11.01
Denmark	4.31	4.66	15.29	14.78
Estonia	6.32	8.00	17.76	16.28
Spain	4.01	4.02	4.83	5.57
Finland	4.03	4.62	9.07	8.00
France	5.14	6.72	9.79	8.27
Greece	3.38	3.01	2.67	3.00
Hungary	4.13	4.00	11.45	8.94
Ireland	15.78	15.17	26.29	20.23
Iceland	2.13	1.81	3.53	2.89
Italy	5.58	6.61	5.51	6.88
Lithuania	5.51	5.54	9.62	8.59
Luxembourg	3.40	6.09	5.02	7.92
Latvia	5.69	4.82	11.87	10.71
Netherlands	2.43	3.03	11.27	13.82
Norway	3.55	3.49	10.05	6.53
Poland	2.85	3.10	2.78	3.17
Portugal	3.34	4.01	3.43	3.69
Sweden	2.44	2.58	8.20	6.05
Slovenia	5.65	6.77	14.04	13.75
Slovakia	4.03	8.40	12.64	11.98
UK	10.42	8.58	21.89	22.07



5. The impact of household joblessness on material deprivation

We now turn from income poverty to material deprivation. A substantial research literature employing non-monetary deprivation indicators has grown up in Europe in recent years, focused on individual countries or on comparative analysis across the Union (for reviews see Boarina and Mira d'Ercole, 2007; Nolan and Whelan, 2010)). The EU has itself incorporated a measure of material deprivation into its set of social inclusion indicators, and this forms one element – together with relative income poverty and household joblessness - in the poverty target adopted in 2010 as part of its 2020 “strategy for growth and jobs” (see EU Commission, 2010). The core notion underpinning this interest, both among researchers and policy-makers, is that income on its own has various limitations in seeking to capture poverty within and across countries, and that direct measures of deprivation may help to address these limitations.

While various ways of constructing such an indicator have been investigated, analysis of the measure being employed at EU level is of particular interest. This is based on a nine-item deprivation scale, with items measuring whether someone is in arrears on rent/mortgage or loans or utility bills, cannot afford one week annual holiday away from home, cannot afford meal with meat/fish/vegetarian equivalent every second day, cannot meet unexpected financial burdens, does not own telephone, does not own colour TV, does not own washing machine, does not own car or cannot afford to keep home warm.⁴ The same items are used in each country, and the level of deprivation is in effect measured against a common standard, in contrast to the relative income poverty measure where the reference point is median income in the country itself. (Studies have also analysed patterns of deprivation vis-à-vis country-specific benchmarks, and that would also be valuable in future research on the impact of joblessness, but here we confine ourselves to the EU measure.) While the “material deprivation” indicator included in the EU’s set of social inclusion indicators employs a threshold of 3 in distinguishing persons to be counted as materially deprived, for reasons that are unclear the poverty target uses a threshold of at least four; while the pattern of our results is not substantially affected, here we report results based on the threshold of 4 aligned with the target.

Table 7 first presents country level deprivation and joblessness rates, The cross-country rankings in terms of deprivation are unsurprisingly different from relative income poverty rates, with Eastern European countries having the highest deprivation rates, and the variation across countries is much more pronounced, from a low of 3%

⁴ One could also simply analyse scores on the index without imposing a threshold, but here we are particularly interested in the relationship between joblessness and the other elements of the EU target..

in Denmark up to a high of 31% in Latvia. The extent of material deprivation is essentially uncorrelated with the overall level of household joblessness.

Table 7. Relationship between material deprivation and household joblessness (year=2006)

Country	Deprivation rate (%)	Prevalence household joblessness (%)	Impact of household joblessness on material deprivation	
			Raw odds	Corrected odds
Austria	3.6	7.6	6.36	5.94
Belgium	6.4	13.6	11.89	9.15
Cyprus	12.6	5.2	2.65	2.21
Czech Republic	9.6	7.2	5.98	4.11
Germany	4.5	10.5	7.26	5.14
Denmark	3.0	7.7	25.36	13.80
Estonia	7.0	6.6	7.38	5.21
Spain	3.3	6.3	3.72	3.07
Finland	3.3	9.5	12.68	7.70
France	4.9	10.5	5.51	3.90
Greece	11.5	8.1	2.50	2.33
Hungary	20.9	11.8	4.57	2.97
Ireland	4.7	7.8	16.61	8.65
Iceland	2.0		4.48	2.94
Italy	6.3	9.5	3.96	3.35
Lithuania	25.2	6.9	5.31	3.15
Luxembourg	1.1	7.1	11.48	11.07
Latvia	30.6	6.7	5.27	3.75
Netherlands	2.3	7.4	11.16	5.28
Norway	2.5		11.29	8.67
Poland	27.6	13.2	2.86	2.53
Portugal	9.1	5.8	3.52	3.29
Sweden	1.9		18.71	10.39
Slovenia	5.1	7.4	4.19	2.96
Slovakia	18.2	9.5	3.61	2.77
UK	4.5	10.8	9.47	6.17

Source : Own calculations from EU-SILC data 2006.

Table 7 then shows the raw and corrected odds ratios for individuals in a jobless versus working household being materially deprived. We see that it is in the rich countries, with low deprivation rates, that household joblessness has the greatest impact on the probability of being materially deprived. In Denmark, Ireland and Sweden, the odds ratios are as high as 17-25. Taking individual and household characteristics into account does now reduce the odds considerably in those countries; however, it remains the case that the countries where the corrected odds are relatively high – Belgium, Denmark, Ireland, Luxembourg, Norway and Sweden – are those with high average income per head and low levels of material deprivation. There is little association between the prevalence of

household joblessness and its impact, with a correlation coefficient of only 0.067. So once again, countries where household joblessness is most common are not the ones where it has the most severe impact on the households concerned. There is some relationship across countries between the scale of the estimated impact of joblessness on material deprivation and its impact on relative income poverty, but the correlation between the two is less than 0.4.

It is again of interest to distinguish one-adult from multiple-adult households, and Table 8 shows the unadjusted and corrected odds ratios relating to material deprivation for each. We see that taking characteristics into account generally makes more difference for multiple adult households, but that the impact of joblessness is not consistently larger for such households – unlike income poverty, the impact on material deprivation is often greater for one-adult households. Indeed, the corrected odds for single-adult households are remarkably large in the case of Ireland and the UK, and are also substantial for Belgium, the Czech Republic, Denmark, Estonia, The Netherlands, Slovenia and Slovakia. For multiple adult households, the corrected odds are that large only in the case of Denmark, Luxembourg and Sweden.

Table 8. Relationship between material deprivation and household joblessness, one-adult and multiple-adult households (year=2006)

Country	Impact of household joblessness on probability of material deprivation			
	<i>One-adult Households</i>		<i>Multiple Adult Households</i>	
	<i>Odds</i>	<i>Corrected odds</i>	<i>Odds</i>	<i>Corrected odds</i>
Austria	8.20	8.11	8.12	6.91
Belgium	16.73	14.57	14.14	11.65
Cyprus	9.12	8.42	3.72	3.05
Czech Republic	14.13	14.69	8.94	5.85
Germany	11.86	11.01	8.17	7.67
Denmark	15.29	14.78	30.60	16.38
Estonia	17.76	16.28	8.43	7.02
Spain	4.83	5.57	3.94	3.27
Finland	9.07	8.00	10.38	7.58
France	9.79	8.27	5.64	3.88
Greece	2.67	3.00	2.44	2.61
Hungary	11.45	8.94	6.03	3.54
Ireland	26.29	20.23	21.41	11.47
Iceland	3.53	2.89	7.92	5.50
Italy	5.51	6.88	4.50	3.79
Lithuania	9.62	8.59	6.23	4.32
Luxembourg	5.02	7.92	14.44	15.13
Latvia	11.87	10.71	6.72	5.35
Netherlands	11.27	13.82	5.84	3.71
Norway	10.05	6.53	14.92	9.54
Poland	2.78	3.17	2.92	2.77
Portugal	3.43	3.69	3.43	3.68
Sweden	8.20	6.05	29.40	15.94
Slovenia	14.04	13.75	4.76	3.47
Slovakia	12.64	11.98	5.12	3.52
UK	21.89	22.07	8.78	6.77



6. Implications for the EU target

We have seen that the impact of household joblessness on poverty and deprivation varies very substantially across European countries; we now focus on the inter-relationship between household joblessness, income poverty and material deprivation, and the implications for the EU's recently-adopted poverty reduction target which incorporates all three of those elements. In June 2010 the European Council formally adopted the "Europe 2020" strategy for jobs and growth, intended as a coherent framework to help Europe recover from the economic crisis and introduce medium- to longer-term reforms boost competitiveness, productivity, growth potential, social cohesion and economic convergence. In doing so the Council⁵ set five EU headline targets which will constitute shared objectives guiding the action of Member States and the Union as regards

1. promoting employment;
2. improving the conditions for innovation, research and development;
3. meeting climate change and energy objectives;
4. improving education levels, and
5. "promoting social inclusion in particular through the reduction of poverty".

The poverty target relates to a 20% reduction in the numbers meeting one or more of three distinct criteria: the person is in a household that

- a. falls below the 60% of median relative income threshold,
- b. has a score of 4 or more on the 9-item material deprivation index, or
- c. contains at least one adult of working age and has no-one in work/low work intensity.⁶

Since the target group contains persons meeting any one of these criteria, strategies and policies that reduce either income poverty, material deprivation or household joblessness will make a direct contribution to the achievement of the EU target. However, it is clearly of substantive interest to know whether measures that reduce income poverty are also likely to reduce deprivation, or ones that reduce joblessness are also likely to reduce income poverty and/or deprivation. From a joblessness perspective, then, will targeting jobless households also affect income poor and/or materially deprived ones, or are these distinct groups?

To address this question, Table 9 shows the breakdown of jobless households in each country into those who are both income-poor and deprived, those who are income-poor but not materially deprived (*vis-à-vis* the threshold of 4 on the 9-item, index), those who are materially deprived but not poor, and those who are neither income

⁵ See European Council (2010).

⁶ The low work intensity threshold is 0.20, i.e. working-age household members in aggregate worked less than that percentage of their time over the previous 12 month period.

poor nor deprived. If this last group is very large, then successfully targeting jobless households will have little direct impact on poverty or deprivation – though it will still affect the poverty reduction target directly. If on the other hand this last group is small, then targeting household joblessness has at least the potential to also impact on income poverty and deprivation at the same time. (The extent to which it actually does so will then vary with the estimated impacts of joblessness on income poverty and deprivation respectively described in the previous two sections.).

We see from the final column of Table 9 that in most countries about half those in jobless households are neither income poor or deprived. The only countries where the percentage of the jobless who are neither income poor or deprived is substantially lower than 50% are Estonia, Hungary, Ireland, Lithuania, Latvia and the UK. So in most countries, targeting jobless households will not be an efficient way of also directing resources to poor or deprived ones. Including joblessness in the poverty reduction target thus has to be rationalised and justified largely in other terms – on the basis that household joblessness has undesirable consequences in and of itself. Looking at the other columns in Table 9, we see that in the richer countries most of the persons in jobless households who are income poor and/or deprived are in fact income poor but not deprived. In Eastern Europe, on the other hand, a substantial percentage are both income poor and deprived, with a substantial further proportion deprived but not income poor in Hungary, Lithuania, Latvia, Poland and Slovakia.



Table 9. The breakdown of jobless households by income poverty and deprivation

Country	Poor and deprived (%)	poor not deprived (%)	not poor, deprived (%)	not poor, not deprived (%)
Austria	11.9	23.6	5.3	59.2
Belgium	20.0	25.3	8.5	46.2
Cyprus	18.7	21.5	11.4	48.4
Czech Republic	23.2	17.6	9.6	49.6
Germany	12.0	33.3	7.6	47.1
Denmark	7.4	29.6	7.8	55.2
Estonia	28.8	38.6	3.2	29.4
Spain	6.0	34.8	4.5	54.8
Finland	12.0	30.8	6.7	50.4
France	12.9	23.9	7.0	56.1
Greece	13.8	18.7	8.8	58.7
Hungary	28.4	16.6	19.2	35.7
Ireland	17.5	44.9	6.4	31.2
Iceland	3.6	23.0	3.5	70.0
Italy	13.2	29.6	4.3	52.9
Lithuania	47.6	13.5	15.2	23.7
Luxembourg	6.7	32.0	2.7	58.6
Latvia	49.0	14.9	15.1	21.0
Netherlands	3.9	20.4	9.6	66.2
Norway	4.9	29.7	11.4	54.0
Poland	25.3	9.6	23.1	42.0
Portugal	15.0	21.4	8.6	55.0
Sweden	5.0	27.1	8.4	59.5
Slovenia	11.8	30.8	4.8	52.6
Slovakia	19.3	15.8	16.7	48.2
UK	14.2	45.2	6.3	34.4

Finally, it is of interest to investigate which types of jobless households are more likely to be income poor and/or deprived in a given country. We explore this via estimation of a multinomial logit model for jobless households where the dependent variable is which of these four categories – income poor and deprived, poor not deprived, deprived not poor and neither poor nor deprived – the household is in, with the last as the omitted reference category; this is related to the age and education of the household reference person, and the household's composition in terms of number of adults and children. We estimate this model pooling the data across all the countries and including a set of country dummy variables to capture country-specific effects.⁷ The results in Table 10 show for example that being in a single adult or single parent household increases the likelihood of being materially deprived but not income poor, while reducing the likelihood of being income poor but not deprived. Low levels of education are

⁷ This does not allow the estimated effects for the household characteristics to vary across countries, which would require in addition inclusion of a full set of interaction effects; here our interest is in the broad pattern across characteristics, but such an extension would be straightforward.

positively associated with being income poor, deprived or both, while high levels of education reduce the probability of being income poor, deprived or both.

Table 10. Multinomial logit for the probability that jobless households are poor and/or deprived (reference category: not poor and not deprived), N=19325

	Poor and deprived			Poor not deprived			Not poor, deprived		
Age of household reference person	-0.072	(0.012)	***	-0.089	(0.009)	***	-0.081	(0.012)	***
Age2	0.000	(0)	**	0.001	(0)	***	0.001	(0)	***
Type of household (reference: two adult with children)									
Single adult household	-0.033	(0.082)		-0.217	(0.07)	***	0.416	(0.115)	***
Single parent	-0.114	(0.095)		-0.229	(0.082)	***	0.425	(0.129)	***
Two adults only	-0.960	(0.104)	***	-0.696	(0.085)	***	-0.322	(0.135)	**
>2 adults, no children	-1.522	(0.099)	***	-1.093	(0.08)	***	-0.410	(0.125)	***
>2 adults with children	-0.548	(0.118)	***	-0.272	(0.095)	***	-0.081	(0.145)	
Highest education level attained in household (reference: (upper) secondary education)									
Pre-primary education	2.311	(0.241)	***	1.224	(0.207)	***	1.576	(0.254)	***
Primary education	1.128	(0.074)	***	0.664	(0.06)	***	0.649	(0.085)	***
Lower secondary education	0.705	(0.065)	***	0.362	(0.053)	***	0.333	(0.081)	***
Post-secondary non tertiary education	-0.301	(0.126)	**	-0.103	(0.098)		-0.140	(0.142)	
Tertiary education	-1.119	(0.099)	***	-0.457	(0.058)	***	-0.648	(0.093)	***
Country (reference: Portugal)									
Austria	-0.646	(0.255)	**	-0.035	(0.186)		-0.932	(0.324)	***
Belgium	0.401	(0.206)	*	0.194	(0.176)		0.138	(0.245)	
Cyprus	0.611	(0.268)	**	0.485	(0.224)	**	0.325	(0.308)	
Czech Republic	0.524	(0.21)	**	-0.029	(0.18)		0.353	(0.243)	
Germany	0.082	(0.208)		0.566	(0.164)	***	0.194	(0.233)	
Denmark	-1.521	(0.323)	***	-0.450	(0.203)	**	-0.278	(0.288)	
Estonia	1.796	(0.228)	***	1.577	(0.186)	***	0.170	(0.323)	
Spain	-0.699	(0.225)	***	0.665	(0.16)	***	-0.889	(0.268)	***
Finland	-0.448	(0.216)	**	0.177	(0.167)		-0.635	(0.259)	**
France	-0.164	(0.219)		0.133	(0.173)		-0.338	(0.258)	
Greece	0.199	(0.234)		0.283	(0.186)		0.299	(0.25)	
Hungary	1.490	(0.199)	***	0.422	(0.174)	**	1.462	(0.222)	***
Ireland	0.447	(0.211)	**	1.136	(0.17)	***	-0.056	(0.266)	
Iceland	-2.198	(0.649)	***	-0.655	(0.312)	**	-1.406	(0.625)	**
Italy	-0.019	(0.191)		0.493	(0.154)	***	-0.718	(0.23)	***
Lithuania	2.623	(0.227)	***	0.862	(0.22)	***	1.914	(0.26)	***
Luxembourg	-0.572	(0.261)	**	0.588	(0.178)	***	-2.034	(0.542)	***
Latvia	3.186	(0.237)	***	1.256	(0.23)	***	2.202	(0.266)	***
Netherlands	-2.354	(0.358)	***	-0.726	(0.192)	***	-0.652	(0.268)	**
Norway	-1.621	(0.335)	***	-0.177	(0.205)		-0.217	(0.289)	
Poland	1.354	(0.186)	***	-0.245	(0.164)		1.580	(0.208)	***
Sweden	-1.305	(0.295)	***	-0.176	(0.189)		-0.225	(0.276)	
Slovenia	0.151	(0.214)		0.573	(0.166)	***	-0.212	(0.253)	
Slovakia	1.153	(0.226)	***	0.208	(0.201)		1.203	(0.246)	***
UK	0.420	(0.211)	**	1.152	(0.168)	***	0.084	(0.252)	
Intercept	1.669	(0.35)	***	2.306	(0.273)	***	0.387	(0.389)	



Including those in jobless households in the way the “at risk” population or target group is defined thus has real implications for the way policy might be directed, which need to be carefully examined. It is straightforward to motivate concern about household joblessness in terms of its direct impact on poverty and deprivation, as well as the transmission of disadvantage from one generation to the next by in addition channels such as welfare dependence absence of working role models etc. It is in these terms that most of the discussion about the concentration of unemployment in certain households is couched. However, it is much less obvious why households where no-one is in work but which are not either below income poverty thresholds or experiencing material deprivation would be of such concern; that has certainly not been articulated clearly in setting the EU target itself. The danger then is that these households may not be a suitable focus for anti-poverty policy, and may distract from those most in need. This points to the need for in-depth analysis of the situation of the sub-set of jobless households which are neither income-poor nor deprived in each country – focusing for example on their level and sources of income, whether their deprivation levels are high though still below the threshold employed in the target, the labour force status of the adults involved, and their subjective assessment of their own situations in terms of for example how difficult it is to make ends meet. This would play an important role in informing the national targets and strategies which member states adopt to make their contribution to the overall EU poverty reduction target.



7. Conclusions

Working-age households where no-one is in work have become an increasing focus of policy concern, associated with a range of potential negative consequences in terms of poverty and deprivation, psychological well-being, social relations and integration into society. This has been exacerbated by the economic crisis and the prospect of sustained high unemployment levels. The EU has included household-based joblessness among its core social inclusion indicators, and in the way its *2020 Strategy for growth and jobs* poverty reduction target is framed, together with relative income poverty and material deprivation. Household joblessness and its relationship with income poverty and deprivation, the topic of this paper, has thus assumed new importance.

We began by an in-depth examination of two sets of figures on persons in jobless households produced by Eurostat, the first drawn from the labour force surveys (LFS) for the EU's regular joblessness indicator and the second drawn from EU-SILC to form the joblessness component of the new EU poverty reduction target. We saw that the latter includes all ages whereas the former covers only those of working age and this make a considerable difference to the proportion in jobless households; by contrast, the fact that the LFS series measures joblessness in terms of current labour force status whereas EU-SILC does so in terms of work intensity over the year generally produces only minor differences. However, when the measures are aligned in terms of both coverage and the definition/measurement of joblessness, the figures we derived from EU-SILC diverged substantially from the LFS for some countries, reflecting differences between the data sources themselves that users should be aware of and that merit in-depth investigation by Eurostat. The prevalence of household joblessness was seen to vary substantially across EU countries, but with little evidence of a consistent pattern among groupings of countries often categorised together in terms of welfare regime or geographically – such as the Nordic countries, the corporatist countries, the Southern European and the Eastern European countries.

We then examined the relationship for persons of working age between household joblessness and the other two elements of the EU's poverty reduction target, namely relative income poverty and material deprivation. We saw that in aggregate, there was little association between the overall extent of household joblessness in the country and either the percentage in households below 60% of the country's median income or above a material deprivation threshold. At micro level, on the other hand, being in a jobless household was found to have a significant and substantial impact on the likelihood of being in relative income poverty in all countries. As well as comparing the poverty risk rate for those in jobless versus working households, we also derived estimates that corrected for the age and education level of the individual and the composition of the household, and looked separately at

households with only one adult and those containing more than one. The results showed that the impact of being in a jobless household on income poverty was very much greater in some countries than in others, and this variation was not seen to be related to the prevalence of jobless households in the country. The greatest impact for single-adult households was seen in Belgium and Ireland, whereas for multiple adult households very substantial impacts were found for Belgium, the Czech Republic, Denmark, Estonia, Ireland, the Netherlands, Slovakia, Slovenia and the UK. Spain, Greece, Iceland, Italy, Luxembourg, Poland and Portugal on the other hand had particularly low estimated impacts for both household types.

Being in a jobless household was also found to be strongly associated with the level of material deprivation reported by the household, which displays a different pattern to relative income poverty not least because it is based on a common threshold and set of deprivation items across countries rather than a country-specific standard. Once again a very wide degree of variation across countries was seen in the strength of the association with household joblessness. In this case the greatest impact for single-adult households was in Belgium, the Czech Republic, Denmark, Estonia, Ireland, the Netherlands, Slovenia, Slovakia and the UK; for multiple adult households the greatest impact was in Denmark, Ireland, Luxembourg and Sweden.

We then looked at the extent of overlap between being in a jobless household and the other two elements of the EU's poverty reduction target. This showed that in most countries about half the working age adults in jobless households are in households that are neither income poor or deprived – the exceptions being Estonia, Hungary, Ireland, Lithuania, Latvia and the UK. This means that in most countries, targeting jobless households will not be an efficient way of directing resources to poor or deprived ones. Including joblessness in the poverty reduction target thus has to be rationalised and justified largely in other terms – on the basis that household joblessness has undesirable consequences in and of itself. In the richer countries, most of the persons in jobless households who are either income poor or deprived are income poor but not deprived, whereas in Eastern Europe a substantial percentage are both income poor and deprived, with a substantial further proportion deprived but not income poor.

This investigation has served to bring out the extent to which both the prevalence of household joblessness and its impact on income poverty and deprivation vary across countries, in ways that are not strongly related to each other and do not fit easily into conventional categorisations of countries in terms of welfare regime type or geography. This can serve as motivation and foundation for further research seeking to identify the key factors underlying this cross-country variation. In addition, our findings on the relationship between household joblessness, income poverty and deprivation serve to bring out some significant implications of the way the EU's poverty reduction target has been framed; strategies relying on job creation that succeed in significantly reducing not only



individual but also household joblessness will have a direct impact on the poverty reduction target but might have a more limited influence on income poverty or deprivation.



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Appendix 1. Decomposition of the sources of variation between the two measures of joblessness

Table A1 presents a breakdown of the sources of variation between the two Eurostat measures for household joblessness. The first column shows the total difference between the two measures. The second, third and fourth column present the difference that is due to the three ways in which the measures differ. The sum of these three can be compared to column 1. The last column indicates whether there is any source of variation that we have been unable to pin down. Clearly, we have been able to determine most of the differences between the two. In some countries, such as Germany, the lack of overall difference between the two measures hides the differences from the separate causes.

Table A1. The source of variation in the (absolute) differences between the two Eurostat measures for household joblessness

country	Total difference (Measure 2 - Measure 1)	Due to unit of measurement	Due to joblessness measure	Due to data source	Part unexplained
AT	-1.3%	-2.1%	-0.1%	0.9%	0.0%
BE	-2.1%	-3.5%	0.7%	0.2%	0.5%
CY	-2.0%	-1.1%	-0.3%	-0.7%	0.0%
CZ	-0.1%	-1.7%	-1.0%	2.7%	-0.1%
DE	-0.4%	-4.4%	2.4%	0.7%	1.0%
DK	0.1%	-3.7%	-0.2%	3.9%	0.0%
EE	-1.1%	-1.9%	-0.3%	1.5%	-0.3%
ES	-1.2%	-2.5%	-0.2%	2.6%	-1.1%
FI	-2.5%	-3.0%	-1.4%	2.5%	-0.6%
FR	-3.2%	-3.0%	0.3%	-0.6%	0.1%
GR	-1.8%	-3.3%	0.1%	1.3%	0.1%
HU	-1.4%	-2.4%	1.3%	-0.7%	0.4%
IE	3.0%	-1.0%	0.5%	3.4%	0.2%
IT	-1.3%	-3.7%	0.6%	1.2%	0.7%
LT	-0.3%	-2.0%	0.9%	0.5%	0.2%
LU	-2.9%	-1.6%	-0.1%	-1.1%	-0.1%
LV	-1.2%	-1.6%	-0.5%	1.5%	-0.5%
NL	1.9%	-3.2%	2.2%	2.0%	0.9%
PL	-0.3%	-4.1%	1.1%	2.0%	0.8%
PT	-0.7%	-2.2%	-0.3%	1.9%	-0.2%
SI	-2.0%	-2.4%	-0.9%	1.3%	-0.1%
SK	-4.4%	-1.7%	0.0%	-2.5%	-0.1%
UK	2.5%	-2.5%	3.6%	0.3%	1.1%



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Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

- exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,
- elaborate on the effects of both individual distributional positions and aggregate inequalities, and
- allow for feedback from impacts to inequality in a two-way causality approach.

The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political 'distances', alienating people from politics, globalisation and European integration? Do they affect individuals' participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefits of policies limiting income inequality and its efficiency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org





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