



# GINI

## THE EU 2020 POVERTY TARGET

*Brian Nolan and Christopher T. Whelan*

GINI DISCUSSION PAPER 19  
NOVEMBER 2011

GROWING INEQUALITIES' IMPACTS

November 2011

© Brian Nolan and Christopher T. Whelan, Amsterdam

General contact: [gini@uva.nl](mailto:gini@uva.nl)

Contact author: Brian Nolan, School of Applied Social Science, UCD, Belfield, Dublin 4, Ireland

Christopher T. Whelan, School of Sociology and Geary Institute, UCD, Belfield, Dublin 4, Ireland

## **Bibliographic Information**

Nolan, B. and Whelan, C.T. (2011). The EU 2020 Poverty Target. Amsterdam, AIAS, GINI Discussion Paper 19

Information may be quoted provided the source is stated accurately and clearly.

Reproduction for own/internal use is permitted.

This paper can be downloaded from our website [www.gini-research.org](http://www.gini-research.org).



# The EU 2020 Poverty Target

Brian Nolan

*School of Applied Social Science, UCD*

Christopher T. Whelan

*b School of Sociology and Geary Institute, UCD*





# Table of contents

ABSTRACT .....	7
1. INTRODUCTION .....	9
2. THE EU'S 2020 POVERTY REDUCTION TARGET.....	11
3. THE IMPLICATIONS OF THE MULTIDIMENSIONAL APPROACH ADOPTED .....	13
4. THE IMPLICATIONS OF THE WAY MATERIAL DEPRIVATION IS MEASURED .....	19
5. A 'CONSISTENT POVERTY' APPROACH? .....	25
6. CONCLUSIONS .....	29
REFERENCES.....	31
APPENDIX .....	33
GINI DISCUSSION PAPERS .....	37
INFORMATION ON THE GINI PROJECT.....	39





# Abstract

As part of its 2020 Strategy adopted in 2010, the EU has set a number of headline targets including one for poverty reduction over the next decade. This is a major development in the role accorded to social inclusion in the EU, and thus very important at the level of principle. However, the specific way the target itself has been framed, and the implications for approaches to implementing it, also merit careful consideration. The population identified in framing the target is persons in the member states either below a country-specific relative income poverty threshold, above a material deprivation threshold, or in a “jobless” household. This paper presents an in-depth analysis and critique of the way that target is formulated on both conceptual and empirical grounds and documents the consequence for our understanding of both cross-national and socio-economic patterning of poverty. The paper concludes with a discussion of alternative approaches to combining low income and material deprivation to identify those most in need from a poverty reduction perspective.







# 1. Introduction

As part of its 2020 Strategy adopted in 2010, the EU has set a number of headline targets including one for poverty reduction over the next decade. This is a major development in the role accorded to social inclusion in the EU, and thus very important at the level of principle. However, the specific way the target itself has been framed, and the implications for approaches to implementing it, also merit careful consideration. The population identified in framing the target is persons in the member states either below a country-specific relative income poverty threshold, above a material deprivation threshold, or in a “jobless” household. This paper presents an in-depth analysis and critique of the way that target is formulated, and discusses alternative approaches to combining low income and material deprivation to identify those most in need from a poverty reduction perspective.





## 2. The EU's 2020 Poverty Reduction Target

At the European Council held in June 2010 the EU member states' endorsed a new EU strategy for jobs and smart and sustainable and inclusive growth, known as the Europe 2020 strategy. The Council confirmed five headline targets to constitute shared objectives guiding the action of member states and the Union as regards promoting employment, improving the conditions for innovation, research and development, meeting the EU climate change and energy objectives, improving educational levels, and “promoting social inclusion in particular through the reduction of poverty”. This fifth headline target focuses on lifting at least 20 million people out of risk of poverty and social exclusion. Progress vis-à-vis this target for the Union as a whole will be monitored on the basis of a measure of the target population that incorporates three indicators (at-risk-of poverty; material deprivation; and jobless household), using data from EU-SILC, but Member States are free to set national targets on the basis of the most appropriate indicators, taking into account their national circumstances and priorities. The population at risk of poverty and exclusion for the purpose of the EU target is defined on the basis of three indicators already included in the EU's social inclusion indicator set, but the precise way they are measured in the target differs in the case of material deprivation and low work intensity. More fundamentally, this is the first time these indicators have been combined to identify an overall target group “at risk of poverty and exclusion”.

Looking at each element in turn, the at-risk-of-poverty indicator distinguishes persons living in households with less than 60% of the national median (equivalised) income – in other words, it is the most widely-used of the relative income poverty measures in the Laeken set (see Atkinson *et al*, 2002 on the social inclusion indicators adopted in Laeken in 2000, and European Commission, 2009 on the amended and enhanced set currently employed in the Social Inclusion Process). The second element, material deprivation, is captured by the nine items included in the common material deprivation indicator adopted in 2009 (see Fusco *et al* 2010, Guio, 2009). Importantly though, whereas the common indicator employs a threshold of 3, this element in the target counts only those reporting at least 4 out of 9 as deprived. The component relating to household joblessness is based on the pre-existing common indicator of “work intensity”, based on the number of months spent at work over the previous 12 month period by household members aged 18 to 59 excluding students (see European Commission 2009). For the purpose of the target a threshold of 20% has been adopted to distinguish “low” work intensity, in other words those in households where (relevant) members were in work for a fifth or less of the available time in aggregate in the year.



The way these three indicators are combined to identify the target group is then that meeting *any* of the three criteria – being either below the 60% income threshold, at or above the material deprivation threshold of 4, or in a household with work intensity below the 20% threshold - suffices. In the EU as a whole, using EU-SILC data for 2008, this identifies 24.5% of the total population, or 120 million people, so the agreed target is to lift at least 20 million of these people out of “the risk of poverty and exclusion”. In terms of the individual elements, 17% of the population are at-risk-of-poverty in terms of the 60% of national median threshold, 8% are above that material deprivation threshold and a similar figure is counted by this low work intensity measure, but since a significant proportion is captured by more than one of the three indicators (as we will examine in depth below) the aggregate EU figure is a good deal less than the sum of the three indicators.

This way of identifying the population “at risk” has major implications, and it is worth noting that when the idea of a poverty reduction target was first mooted in concrete form by the President of the European Commission earlier in 2010, the focus was on those “at risk of poverty” as captured simply by the relative income poverty measure. This has been the most prominent among the Social Inclusion Process indicators since they were adopted in Laeken, and indeed had been previously used at EU level as a basis for the most widely-quoted headline numbers on poverty in the EU. With 80 million people in the European Union “at risk of poverty” on this basis in 2008, the initial proposal was for a target of reducing this by one-fifth, or 20 million persons. However, various member states were not satisfied with that initial proposal, and the formulation eventually agreed is significantly different. Most obviously, the size of the target group is 50% greater but the reduction in numbers to be aimed for is still 20 million, so the target is much less ambitious in that sense – involving a reduction of one-sixth rather than one-quarter in the number at risk of poverty and exclusion. In addition, though, expanding the indicators beyond the relative income poverty to include material deprivation and household joblessness has a significant impact on which persons and types of person are to be included in the target group. Countries are free to make use of national indicators and to take national priorities into account in designing their own targets and policies, but have to be in a position to demonstrate how these will contribute to the achievement of the overall EU-wide target. The way the target population is identified thus potentially has major implications for the policies and strategies implemented at national and EU level, and merits serious consideration.



### 3. The Implications of the Multidimensional Approach Adopted

Combining these three distinct indicators represents a multidimensional approach to identifying the target population, and the move away from reliance on a single indicator such as low income for this purpose is potentially an important step forward.

However, as Nolan and Whelan (2007, 2010) have argued the value of any particular movement from a unidimensional to a multidimensional approach has to be argued rather than assumed and in the case of the EU approach the expansion of the indicators employed has major implications which need to be fully thought through. We now proceed to explore these implications in some detail, and provide an assessment on both conceptual and empirical grounds, of the advantages and limitations of identifying the target population in this way. The elements requiring consideration in this context are the choice of indicators, the way each is framed, and the manner in which they are then combined to produce a single poverty (risk) measure. It is worth noting in that regard that no explicit rationale has been advanced at EU level for either the indicators employed or the way they have been adapted and combined. On specific details, the use of a threshold of 4 rather than 3 on the material deprivation element and the selection of a 20% threshold on the work intensity element seem to have been designed to produce a total that was acceptable from a political perspective. More broadly, arguments for combining a country-specific relative income measure with a deprivation standard that is common across countries, for combining these with an indicator of household joblessness, and for counting in the target group anyone who meets just one of the criteria rather than two or all three, have to be inferred rather than drawn from official EU documents or statements.

A recent consideration by Whelan and Maître (2010a) of the implications of choosing to focus on national or EU thresholds suggest that the combination of national income poverty line with an EU common deprivation threshold could be seen as a way of capturing the dual elements highlighted in the EU discussion of poverty measurement (European Commission, 2004). In terms of Townsend's 1979 classic definition, the approach can be seen as seeking to capture "exclusion from customary EU living patterns due to lack of resources at the national level". The income threshold can be seen as fulfilling the resource criterion while the deprivation stipulation seeks to capture the extent to which individuals in the EU are excluded from having in the benefits of high average prosperity.<sup>1</sup>

---

<sup>1</sup> However, as Whelan and Maître (2010a) note the complexities of the issues raised by the measurement of poverty and social exclusion in the enlarged EU are such no one definition of poverty is likely to equip us to grapple with them.



In assessing how well the EU poverty target proposals enable us to achieve this objective it is worth emphasizing that not only would we expect a satisfactory measure of poverty to identify a group in each society experiencing exclusion from customary living standards due to lack of resources but, in addition, we might also expect that poverty levels should vary across countries in a manner consistent with our knowledge of standards of living in such countries. Taking into account both patterns of cross-national and socio-economic differentiation, a poverty measure should then vary across such units and categories in a manner consistent with one's theoretical understanding of the underlying concept of poverty.

We now proceed to investigate such variation with respect to the target population underlying the EU target and its component parts, using data from EU-SILC 2008 which have been taken as the point of reference in setting the target.<sup>2</sup> (France is excluded for the analysis because data was not included in the EU-SILC dataset to which researchers have been given access). We start in Table 1 by presenting the percentage in each country 'at-risk-of-poverty' in the sense of being below the 60% of median relative income threshold. This gives a picture familiar from the many academic studies and EU documents adopting this approach: the highest rates (of 20-25%) are seen in some of the New Member States including Latvia, Romania, Bulgaria and Estonia, the next highest levels are observed for the southern European countries, and at the other end of the spectrum the Scandinavian countries have relatively low rates of 10-12 per cent. However, the overall extent of cross-national variation is relatively modest, and the association between the poverty indicator and average national levels of prosperity (such as income per head) is rather weak.

The second column of Table 1 shows the impact on the size of the target population of adding the material deprivation element – which entails adding to column (1) those who are deprived on 4 or more items on the 9-item material deprivation scale but who are not below the 60% income threshold. We see that in the Scandinavian countries, Germany, Luxembourg, the Netherlands and the UK this adds no more than 2 per cent to the target population, whereas at the other extreme in Romania, Bulgaria and Hungary the target population is approximately doubled. The combined rate for relative income poverty or material deprivation ranges from a low of 11 per cent in the Netherlands to a high of 42 per cent in Romania. The addition of the deprivation criterion thus produces much sharper variation across countries than seen with relative income poverty alone, but this mainly involves a much sharper contrast between a sub-set of New Member States and the remaining countries rather than a generally more graduated pattern of differentiation. This outcome is a consequence of the high level of the deprivation threshold

---

2 While the target has been set in 2010 for 2020, the lag in availability of data means that the EU-SILC data for 2008 and 2018 are apparently to be used as the start and end-points in monitoring success.

and the extremely low levels of deprivation on some of the constituent items. In reality, in a number of countries, in order to be located above the deprivation threshold, individuals must report enforced deprivation on four out of 6 of the items on which non-negligible levels of deprivation are observed.

In column (3) we add those living in households where the level of work intensity is less than 0.20 and who have not already been captured by the relative income and material deprivation criteria. In general, this produces only modest increases in the size of the target population, of less than 3 percentage points, with the largest increases being 7 per cent for the UK and 5 per cent for Hungary, Poland and Ireland. The overall variation in the size of the target population is now from 15 per cent in the Netherlands to 44 per cent in Romania – a smaller range than in column (2). Introducing the work intensity criterion thus produces less rather than more differentiation of countries in terms of the overall number at risk of poverty and social exclusion.

*Table 1: Elements of EU Target by Country*

	BELOW 60% OF MEDIAN INCOME	BELOW 60% OF MEDIAN OR ABOVE DEPRIVATION THRESHOLD 4+	BELOW 60% OF MEDIAN OR ABOVE DEPRIVATION THRESHOLD 4+ OR BELOW WORK INTENSITY THRESHOLD 0.2
	%	%	%
AUSTRIA	12.4	16.1	18.5
BELGIUM	14.7	17.1	20.6
BULGARIA	21.4	37.5	38.2
CYPRUS	16.3	21.1	22.2
CZECH REPUBLIC	9.1	13.1	15.2
GERMANY	15.3	17.5	20.3
DENMARK	11.8	13.1	16.4
ESTONIA	19.5	21.2	22.0
SPAIN	19.6	20.8	23.1
FINLAND	13.6	15.4	17.4
GREECE	20.1	25.0	28.1
HUNGARY	12.3	24.8	29.5
IRELAND	15.5	18.9	23.7
ICELAND	10.1	10.5	12.1
ITALY	18.7	22.2	25.0
LITHUANIA	20.0	28.2	29.6
LUXEMBOURG	13.4	13.6	15.4
LATVIA	25.6	33.3	33.9
NETHERLANDS	10.6	11.1	14.8
NORWAY	10.6	12.6	15.5
POLAND	11.5	28.1	33.1
PORTUGAL	16.9	23.8	25.9
ROMANIA	23.4	42.2	44.3
SWEDEN	12.2	13.0	15.4
SLOVENIA	11.6	15.7	17.9
SLOVAKIA	10.9	19.1	20.5
UK	19.0	21.3	28.3
EU 27 COUNTRIES (WEIGHTED)	15.7	20.6	23.5

Netherlands to 44 per cent in Romania – a smaller range than in column (2). Introducing the work intensity criterion thus produces less rather than more differentiation of countries in terms of the overall number at risk of poverty and social exclusion.

It is also helpful to look at the impact of adding each criterion on the profile of the target population. Here we focus on social class composition measured using the European Socio-economic Classification (ESeC) (Rose and Harrison, 2010). As Goldthorpe (2002:213) observes one of the primary objectives of schemas such as ESeC is to bring out the degree of security, stability and prospects associated with different class positions and the manner in which this is reflected in long-term command over resources. If poverty is understood as exclusion from customary standards of living due to lack of resources, one would expect to observe an unambiguous relationship between social class and poverty (Whelan and Maître, 2008).

Since country-by-country analysis produces a profusion of figures, we look at this in Table 2 for the EU as a whole. This shows first the social class profile of those below the 60% relative income threshold. We see that over 50 per cent are drawn from the working class, while a further 26 per cent are in the farming and petit bourgeois classes, with only 10 per cent in the professional and managerial classes. Focusing then in column (2) on those added to the target population because they are above the deprivation threshold (though not below the income threshold), we see a somewhat different pattern. The percentage in the working class is substantially higher at 64 per cent, while the farming/petit bourgeoisie now comprise only 12 per cent. Thus the hierarchical dimension of class stratification is more important for this group, while membership of the classes comprising small property owners is less common. This group thus appear, on this evidence, a valuable addition to the target population. By contrast, when we focus in column (3) on those added by the work intensity criterion we see a social class distribution that contrasts quite sharply with each of the other two groups. In this case 27 per cent are drawn from the professional and managerial classes, almost three times higher than in either column (1) or (2), while only 43 per cent are drawn from the working class. This group is substantially less differentiated in social class terms than either of the other two: while the adding the deprivation criterion sharpens the overall pattern of class differentiation in the target group, inclusion of the work intensity criterion dilutes it.



Table 2: Social Class Composition of Elements of EU Poverty Target Group (population weighted)

	BELOW 60% OF MEDIAN INCOME	ABOVE DEPRIVATION THRESHOLD 4+ BUT NOT BELOW 60% OF MEDIAN INCOME	WORK INTENSITY < 0.20 BUT NOT ABOVE DEPRIVATION THRESHOLD 4+ OR BELOW 60% OF MEDIAN INCOME
	%	%	%
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	4.6	3.8	13.5
LOWER SALARIAT (ESEC CLASS 2)	5.8	7.0	13.9
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	12.6	13.2	20.7
PETIT BOURGEOISIE (ESEC CLASS 4)	15.3	5.4	6.1
FARMERS (ESEC CLASS 5)	10.5	6.8	2.4
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	26.2	33.7	24.0
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	26.1	30.1	19.4
TOTAL	100	100	100

As well as looking at the profile of the population groups they identify, the value of including each of the EU target indicators (and of taking the overlaps between them into account) can also be assessed by looking at how much they help predict or explain outcomes that one would expect to be associated with poverty and exclusion. We illustrate this by focusing on levels of self-assessed economic stress, using responses in EU-SILC to construct a variable distinguishing those in households reporting ‘great difficulty’ or ‘difficulty’ in making ends meet as opposed to no such difficulty. In Table 3 we look at the incremental impact of the three EU target poverty and exclusion indicators on this economic stress measure via a stepwise regression conducted at the overall EU level. Focusing first on the net odds ratios, we see that the net coefficient for material deprivation is 13.1, much greater than the figures of only 2.5 for relative income poverty and 1.7 for low work intensity. Looking at the explanatory power of the equation in terms of the proportion of variance explained, entering the relative income poverty indicator as the first step produces a value of 0.072 for the Nagelkerke  $R^2$ , a widely-used measure of explanatory power. The addition of the material deprivation indicator distinguishing between those with scores of 4+ and others increases this measure very substantially, to 0.208. However, adding the low work intensity indicator then produces only a modest further increase to 0.211. (Allowing for all possible 2-way and 3-way interactions between relative income poverty, material deprivation and low work intensity further increases the Nagelkerke  $R^2$  only marginally, and a similar pattern was observed when each of the welfare regimes was analysed separately). Thus both the magnitude of the odds ratios and the levels of variance explanation indicate that the material deprivation indicator is by far the most important in accounting for levels of self-reported economic stress.



At this point, then, we can put forward two important conclusions about the way the EU target population is identified in the 2020 target. The first is that serious questions have to be asked about the value of including the household joblessness/low work intensity element, not merely in its present form but at all. At a conceptual level, the argument for including in the target population persons living in households that are jobless but are neither on low income (relative to their own country’s median income) nor materially deprived (relative to a common EU-wide standard) is unclear. Joblessness might be better thought of as a factor leading to income poverty or material deprivation than as an indicator of poverty. Empirical analysis then shows that the group added to the target population by the inclusion of the joblessness/low work intensity criterion has a relatively high proportion from the professional and managerial classes and a relatively low proportion from the working class, and that being in this group is not associated with high levels of economic stress.

*Table 3: Stepwise Logistic Regression of Economic Stress on Relative Income Poverty, Material Deprivation and Low Work Intensity*

	ODDS RATIO	ODDS RATIO	ODDS RATIO
INCOME POVERTY AT 60% MEDIAN	3.638	2.648	2.458
EU DEPRIVATION INDEX 4 +		13.638	13.149
WORK INTENSITY < 0.20			1.651
NAGELKERKE R <sup>2</sup>	0.072	0.208	0.211
N	536,853		
*ALL COEFFICIENTS ARE SIGNIFICANT AT THE 0.001 LEVEL			

The second conclusion is that, by contrast, the addition of a material deprivation element substantially strengthens the target group identification procedure, with the social class profile of those it adds being heavily weighted towards the working class and with being above the deprivation threshold being particularly important in accounting for levels of self-reported economic stress. Furthermore, the addition of the deprivation criterion produces more variation across countries than seen with relative income poverty alone: more of the target group is then located in countries with relatively low average income, which many would regard as a move in the right direction.

## 4. The Implications of the Way Material Deprivation is Measured

While the inclusion of the material deprivation element improves the identification of the target group, this occurs despite the fact that the specific material deprivation measure used has several weaknesses. The first relates to the inclusion in the 9-item index of several items relating to housing facilities where the numbers deprived approach zero in the more affluent countries and as a consequence cannot contribute in a satisfactory fashion to national indices and ensure that certain aspects of cross-national differences are inevitable consequences of the items employed. A further weakness arises from the fact that a threshold of 4 has been used for the purpose of identifying the target population, rather than the threshold of 3 or more used in the EU's own material deprivation indicator. These features contribute to limiting the variability in measured deprivation within and across countries. It is thus worth exploring whether alternative material deprivation indicator/threshold which seeks to avoid such limitations could do an even better job.

We explore this with reference to a 7-item consumption deprivation index that we have employed in previous work (see for example Nolan and Whelan, 2010, Whelan and Maître, 2007, 2010), also based on data from EU-SILC. This uses 6 of the items in the EU 9-item material deprivation scale, plus enforced absence of a PC; it omits three items included in the EU 9-item index, namely enforced absence of a phone, a washing machine and a colour TV. This index has been shown to have a satisfactory level of statistical reliability (for details see Whelan, Nolan and Maître, 2008), with a value for Cronbach's alpha of 0.74. Our first approach to illustrating the extent to which this alternative deprivation measure (with a threshold of 3 or more) may prove to be more appropriate involves adding the consumption deprivation measure to the equation predicting economic stress and including the 3 EU target indicators as explanatory variables, which was shown in Table 3. This addition would increase the Nagelkerke  $R^2$  for the estimated equation from 0.211 to 0.314, while the estimated odds ratio for the consumption deprivation variable is close to 8 and that on the EU deprivation index falls to 2.5. So even when the EU measure of material deprivation is already included, adding the consumption deprivation indicator adds considerably to the ability to predict economic stress.

This issue is explored further in Table 4 by distinguishing four groups and comparing their social class profiles:

1. Those neither in the EU target group nor above the threshold on our consumption deprivation measure;
2. Those identified as being in the target group by the 3 EU indicators but not above the threshold on our consumption deprivation measure;
3. Those above the threshold on our consumption deprivation index but not in the EU target group;
4. Those both in the EU target group and above our consumption deprivation threshold.

The size of these groups is noteworthy: while 70 per cent of the EU sample are neither in the EU target group nor above our consumption deprivation threshold, only 12 per cent are both in the target group and above our deprivation threshold. This leaves two substantial groups of particular interest: 11 per cent of the sample who are in the EU target group but below our consumption deprivation threshold, and 7 per cent who are above our consumption deprivation threshold but are not captured by any of the three EU target indicators. This means, strikingly, that about half those in the EU target population are not above our consumption deprivation threshold, while two-fifths of those above our deprivation threshold are not in the EU target population.

Looking at the social class composition of these groups in Table 4, we see that there is, as one would expect, a very sharp contrast between those in groups (1) and (4) – that is, between those not in the EU target group or above our deprivation threshold compared with those in the target group and above that threshold.

*Table 4: Social Class Composition for Groups Classified by 3 EU Target Indicators and Consumption Deprivation (population weighted)*

	NOT IN EU TARGET GROUP AND CONSUMPTION DEPRIVATION BELOW 3+	IN EU TARGET GROUP BUT CONSUMPTION DEPRIVATION BELOW 3+	CONSUMPTION DEPRIVATION 3+ BUT NOT IN EU TARGET GROUP	BOTH IN EU TARGET GROUP AND CONSUMPTION DEPRIVATION 3+
	%	%	%	%
<i>HRP SOCIAL CLASS</i>				
HIGHER SALARIAT (ESeC CLASS 1) REFERENCE CATEGORY	18.2	8.5	5.0	2.7
LOWER SALARIAT (ESeC CLASS 2)	18.4	9.0	8.6	5.1
HIGHER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 3 & 6)	20.4	15.9	16.1	11.7
PETIT BOURGEOISIE (ESeC CLASS 4)	8.8	17.0	6.5	7.4
FARMERS (ESeC CLASS 5)	2.6	7.5	5.0	10.1
LOWER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 7 & 8)	17.4	21.9	32.6	31.5
SEMI & NON-SKILLED WORKERS (ESeC CLASS 9)	14.2	20.3	26.3	31.5
TOTAL	100	100	100	100
% OF EU-27 POPULATION	70.0	11.1	7.0	11.9
DISSIMILARITY INDEX	38.3	24.5	12.3	0.0

Only 32 per cent of the former are from the working class versus 63 per cent of the latter, and almost 60 per cent are from the white collar classes versus 20 per cent. Those in group (2), in the EU target group but below

our consumption deprivation threshold, have a rather mixed class composition with 41 per cent working class, 33 per cent white collar and 8 per cent farmers. In contrast group (3), who are above our consumption deprivation threshold but not in the EU target group, look very much more like group (4), who are both in the EU target group and above our deprivation threshold. These comparisons can be summarised using an index of dissimilarity, shown in the final row of Table 4, calculated for each of the remaining categories. This indicates the proportion of cases that would have to be moved to a different class in order to reproduce the composition of group (4). Not surprisingly this is very high for group (1), at 40. For those in the EU target group but below the consumption deprivation threshold the contrast is somewhat less sharp but the index of dissimilarity still reaches 25, whereas for those above the consumption deprivation threshold but not in the EU target group it is only 12.

This contrast between these groups is brought out by looking at how social class predicts which group a person falls into. Table 5 shows the results of a multinomial regression which takes group (1), those not in the EU target group or above our consumption deprivation threshold, as reference category. The estimated odds ratios then quantify the impact of social class on the odds on being in each of the three remaining groups relative to that benchmark category. A number of features may be noted. If we look in the first column at the likelihood of being both in the EU target group and above our consumption deprivation threshold rather than in the reference category, we see a strong hierarchical class effect: as one moves from the higher professional managerial class to the semi and non-skilled manual class, the odds ratio rises gradually from 1 to 13 and farmers have a particularly high value of 18. When we focus in the second column on those above our consumption deprivation threshold but not in the EU target group, we observe a weaker but still marked class hierarchy effect, with the odds ratio gradually rising to 6 for the non-skilled class. In the final column, we see a much weaker class hierarchy effect for those in the EU target group but below our consumption deprivation threshold, peaking at only 3, whereas both of the propertied classes (petit bourgeois and farmers) are particularly likely to be found in this group.

Table 5: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class: Entire Sample

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<i>HRP SOCIAL CLASS</i>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESEC CLASS 2)	1.764	1.673	1.183
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	3.334	2.612	1.819
PETIT BOURGEOISIE (ESEC CLASS 4)	4.471	2.386	4.293
FARMERS (ESEC CLASS 5)	18.522	5.380	7.132
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	9.987	5.669	3.019
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	13.301	6.095	3.305
NAGELKERKE <sup>2</sup>	0.116		
REDUCTION IN LOG LIKELIHOOD	4.672		
DEGREES OF FREEDOM	18		
N	453,598		

Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold

These conclusions relate to the sample as a whole. Analysis at welfare regime level reveals some interesting variation across regimes. Countries are grouped into welfare regimes, using the categorisation of EU member states into regimes conventionally distinguished in such analyses (see for example Bukodi and Róbert, 2007) and treating Bulgaria and Romania as comprising a “residual regime”.<sup>3</sup>Detailed findings are set out in the Appendix in Tables A1a to A1g

Comparing across welfare regimes, in terms of the results relating to the likelihood of being both in the EU target group and above our consumption deprivation threshold in contrast with fulfilling these conditions, the analysis reveals that in the Social Democratic, Corporatism and Liberal welfare regimes the increase in this likelihood for farmers, though substantial - with odds ratios of 5-8 - is much lower than for most of the other regimes. The strength of the hierarchical class effect also varies substantially across regimes, with the coefficient for the semi- and non-skilled an class rising gradually from 8.4 to 12.9 and finally 22.7 as one moves from the Social Democratic to the Liberal regime, with proportionate increases being observed across the class spectrum. The Southern European regime is characterised by substantial effects for both farming and class hierarchy, with odds ratios of 19 being observed both for farmers and the semi-skilled and non-skilled class. The post-socialist corporatist regime looks quite similar to its corporatist counterpart except that the farming coefficient is much larger. For the post-socialist liberal regime the class gradient effect is relatively weak, perhaps reflecting the scale of change

3 Detailed discussion of welfare regime classifications and theoretical expectations relating to variation in levels of poverty and social exclusion see Whelan and Maître (2010b).

in economic organisation in these countries. However, the sharpest contrast occurs for the residual regime where the anticipated class gradient effect is overshadowed by a much larger effect for farming with the odds ratio reaching 40.5.

Focusing on the likelihood of being above our consumption deprivation threshold but not in the EU target group, the overall pattern of class differentiation is a good deal less pronounced, and variation across welfare regimes is relatively modest in relation to this category – although there are stronger class hierarchy effects in Southern Europe and stronger farming effects in the remaining regimes. Finally the likelihood of being in the EU target group but below our deprivation threshold is generally relatively high for both the petty bourgeoisie and farmers. Otherwise, only rather weak hierarchical effects are seen across the various welfare regimes, with the impact of being in farming emerging as distinctively high in the post-socialist liberal and residual welfare regimes.

The key overall finding, which holds across regimes (and indeed countries), is that including our consumption deprivation criterion in identifying the group of interest leads to more pronounced hierarchical effects of social class on the likelihood of being in that group; by contrast, being in the propertied classes is a strong predictor of the likelihood of being in the EU target group but not meeting that deprivation criterion. In addition to these general effects we observe variation in class hierarchy effects consistent with our understanding of the nature of such regimes and in the impact of farming related to the levels and technical sophistication of agricultural activity in the countries comprising these regimes.

This could be partly because the threshold used for the EU material deprivation index in identifying the target population is 4 or above rather than 3 or above. To shed some light on whether simply using the lower threshold on the EU index would achieve as much as switching to our consumption deprivation index, Table 6 cross-classifies persons by whether they are above or below the threshold of 3 on each, and shows the class composition of each of the four categories this produces. We see that almost all those then counted as deprived on the EU index are also above the same threshold on our index. Only 0.3 per cent of the total sample are deprived on the EU index but not deprived on our index; the dissimilarity index for this group has a very high value of 20.6, reflecting the fact that a high proportion (30 per cent) are from the farming class. There remains however a not insignificant group, comprising 1.7 per cent of the population, who are deprived on our index but not on the EU one – reflecting the differences between our 7-item index and the EU's 9-item one, as described earlier. The dissimilarity index for this group, compared with those both in the target group and above our threshold, is only 2.5: they are barely distinguishable in class composition terms, which suggests that the consumption deprivation index is successfully

identifying a group appropriate for inclusion in the target population that would be missed by the EU deprivation index even with a threshold of 3.

*Table 6: Social Class Composition by EU Deprivation and Consumption Deprivation Indicator (population weighted)*

	BELOW THRESHOLD OF 3+ ON BOTH EU INDEX AND CONSUMPTION DEPRIVATION INDEX	ABOVE THRESHOLD OF 3+ ON EU INDEX BUT BELOW ON CONSUMPTION DEPRIVATION	ABOVE THRESHOLD OF 3+ ON CONSUMPTION DEPRIVATION BUT BELOW ON EU INDEX	ABOVE THRESHOLD OF 3+ ON BOTH EU INDEX AND CONSUMPTION DEPRIVATION INDEX
	%	%	%	%
<i>HRP SOCIAL CLASS</i>				
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	16.9	3.0	2.8	3.6
LOWER SALARIAT (ESEC CLASS 2)	17.1	4.9	5.6	6.5
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	19.9	9.5	12.8	13.4
PETIT BOURGEOISIE (ESEC CLASS 4)	9.9	5.1	7.1	7.0
FARMERS (ESEC CLASS 5)	3.2	28.7	8.9	8.1
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	18.0	27.4	31.6	31.9
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	15.0	21.4	31.0	29.4
TOTAL	100	100	100	100
% OF RELEVANT POPULATION	80.9	0.3	1.7	17.1
INDEX OF DISSIMILARITY	33.3	20.6	2.5	0.0

So the conclusion from this analysis of the way material deprivation is measured in producing the EU target population is that while the inclusion of this element is a valuable advance, the specifics of the deprivation measure by which this is done could be improved. This relates first to the (unexplained) use of a threshold of 4 or above on the material deprivation index: the indicator already included in the social inclusion process portfolio uses a threshold of 3 or more, and our analysis suggests this would also be preferable in identifying the target population. The second issue is the formulation of the index itself: our analysis also suggests that an index constructed somewhat differently, using some of the same but also some different indicators (also available in EU-SILC), would help improve the identification of the group appropriate for inclusion in the target population. This also highlights the importance of expanding and adapting the deprivation items available and employed for this purpose.





## 5. A 'Consistent Poverty' Approach?

As well as the three component elements of relative income poverty, material deprivation and household joblessness and the way these are framed, the other key feature of the way the EU poverty target population has been identified is that it includes all those who meet any one of the three criteria – the three criteria are linked by “or” rather than “and”.<sup>4</sup> Rather than taking the target group to be those meeting any of the three criteria, what would happen if we went to the other extreme and focused on those meeting all 3 criteria? Table 7 shows the percentage in each country below the 60% income threshold, above the material deprivation threshold, *and* in a low work intensity household, and the results suggest that this would not be a particularly fruitful approach. Where the associations between dimensions are relatively modest, observed levels of multiple deprivation will necessarily be extremely low. The highest number fulfilling all three conditions is 4 per cent (in Bulgaria), while in 23 of the 27 countries the figure is 2 per cent or less and in 9 it is less than 1 per cent. A multiple deprivation perspective involving all of these dimensions thus does not appear to have significant value in helping to understand cross-national patterns of risk of poverty and social exclusion. If one has decided to use these three criteria, then focusing on the union rather than the intersection between them seems more helpful.

Table 7: Percentage Meeting Poverty Target Criteria on All 3 Individual EU Indicators by Country

	%
AUSTRIA	1.4
BELGIUM	2.0
BULGARIA	4.2
CYPRUS	0.8
CZECH REPUBLIC	1.4
GERMANY	1.6
DENMARK	.3
ESTONIA	1.1
SPAIN	.5
FINLAND	.7
GREECE	1.1
HUNGARY	3.1
IRELAND	1.5
ICELAND	.0
ITALY	1.2
LITHUANIA	1.5
LUXEMBOURG	0.2
LATVIA	2.1
NETHERLANDS	0.5
NORWAY	0.5
POLAND	2.0
PORTUGAL	1.1
RUMANIA	2.4

<sup>4</sup> In the relevant text the phrasing is actually “and/or”, rather curiously, but in effect this has been taken to mean “or” in calculating the size of the target population referred to in EU documents.

SWEDEN	0.3
SLOVENIA	1.1
SLOVAKIA	1.3
UK	1.4
EUROPEAN UNION 27 COUNTRIES	1.8

It is far from clear why low work intensity/joblessness should be included in identifying those “at risk of poverty and social exclusion”, but combining relative income poverty and material deprivation, and focusing on the group where they overlap, is worth serious consideration. Such a measure has value either as an alternative way of identifying the overall target population in the EU target context or, perhaps more realistically now in the light of decisions already made at EU level, as a way of distinguishing a sub-set within that population which merits priority in framing anti-poverty policy. Some countries have combined national low income and deprivation indicators to identify the ‘consistently poor’, notably Ireland in setting its national anti-poverty targets (see for example Nolan and Whelan, 1996 ), and some comparative studies have combined income-based poverty measures with either relative deprivation measures or a common deprivation standard across the EU (see for example Forster, 2005, Guio, 2009, Nolan and Whelan, 2010, Whelan and Maître, 2010a). Combining the relative income poverty and material deprivation elements used in identifying the EU target population, i.e. being below the 60% relative income threshold and above the 4+ threshold on the EU material deprivation index, is one possible application of such an approach. A variant also worth exploring combines relative income poverty with an alternative common deprivation measure/threshold, namely our 7-item consumption deprivation index with a threshold of 3+. It is also useful to include in the comparison a purely national consistent poverty measure, where the deprivation element is framed in country-specific relative terms by weighting each deprivation item according to the proportion of persons having the item in the country and deriving the deprivation threshold so the number above it matches the number below the relative income poverty line.

In Table 8 we show the level of consistent poverty in each country for each of these three variants. The version incorporating the EU material deprivation measure with a 4+ threshold produces extremely low levels in the Scandinavian countries, Netherlands and Luxembourg, the only countries above 10 per cent are Latvia, Bulgaria and Romania, and the remaining rates are concentrated in the narrow range from 1-6 per cent. These results again reflect the choice of deprivation threshold and the negligible levels of deprivation on a number of the constituent items in the more affluent countries. The variant incorporating the consumption deprivation index with a threshold of 3+ measure produces rather higher poverty rates, ranging from 1 per cent in Denmark and Sweden to 20 per cent in Bulgaria and with a significantly greater degree of differentiation across countries. Finally, when the deprivation component of the consistent poverty measure is framed in national relative terms we observe more modest

variation across countries, the range now being from 3 per cent in Slovakia up to 13 per cent in Latvia. Eighteen countries have rates in the narrow range between 3-7 per cent: as one would expect when switching from a common deprivation standard across countries to country-specific reference points, consistent poverty levels are higher in the more prosperous countries and lower in the least prosperous than in column (2).

*Table 8: Alternative Consistent Poverty Measures by Country, EU-SILC 2008*

	% CONSISTENTLY POOR		
	EU MATERIAL DEPRIVATION 4+	CONSUMPTION DEPRIVATION 3+	NATIONAL RELATIVE CONSUMPTION DEPRIVATION
AUSTRIA	2.7	5.2	5.2
BELGIUM	3.3	5.9	6.5
BULGARIA	15.4	19.8	11.2
CYPRUS	3.4	8.0	8.0
CZECH REPUBLIC	2.7	4.9	3.4
GERMANY	3.0	6.3	7.1
DENMARK	0.7	1.7	3.7
ESTONIA	3.1	7.0	8.8
SPAIN	1.4	4.6	9.4
FINLAND	1.7	4.0	5.6
GREECE	6.3	10.4	9.4
HUNGARY	5.4	8.7	4.4
IRELAND	2.1	4.9	5.3
ICELAND	0.4	1.0	2.6
ITALY	4.0	7.5	7.9
LITHUANIA	6.8	11.2	8.7
LUXEMBOURG	0.5	2.6	6.5
LATVIA	11.3	17.5	13.3
NETHERLANDS	0.8	2.3	3.9
NORWAY	0.8	1.9	4.2
POLAND	6.5	10.4	7.3
PORTUGAL	4.3	9.3	7.2
RUMANIA	14.3	18.2	9.8
SWEDEN	0.6	1.7	4.2
SLOVENIA	2.6	5.4	4.7
SLOVAKIA	3.6	5.6	3.4
UK	2.3	5.7	5.2

Table 9 brings out the patterns of variation across countries when they are grouped by welfare regime. With the consistent poverty measure incorporating the EU material deprivation index and a threshold of 4+, the social democratic regime has very low rates, the corporatist, liberal and southern European regimes are also low at 2-3 per cent, the post-socialist corporatist and liberal regimes are higher at over 5 and 7 per cent respectively, with the residual regime of Bulgaria and Romania much higher at 15 per cent. The high threshold employed and the specific items in the index mean that deprivation rates are very low rates outside the post-socialist and residual regimes. Consistent poverty rates are higher when a common consumption deprivation index with a threshold of 3 is used

instead, with a similar ranking of the regimes. Finally, substituting the country-specific relative deprivation measure leads to much less variation between the regimes, although it does still differentiate between them.

*Table 9: Consistent Poverty Indicators by Welfare Regime*

	<b>EU MATERIAL DEPRIVATION 4+</b>	<b>CONSUMPTION DEPRIVATION +3</b>	<b>NATIONAL RELATIVE WITH CONSUMPTION DEPRIVATION</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>SOCIAL DEMOCRATIC</b>	0.8	2.3	4.2
<b>CORPORATIST</b>	3.0	6.1	6.8
<b>LIBERAL</b>	2.3	5.6	8.6
<b>SOUTHERN EUROPEAN</b>	3.3	6.9	8.5
<b>POST SOCIALIST CORPORATIST</b>	5.4	8.8	5.8
<b>POST SOCIALIST LIBERAL</b>	7.5	12.5	10.2
<b>RESIDUAL</b>	14.6	18.8	10.1

Since the consistent poverty measure with the EU material deprivation indicator and a threshold of 4+ produces such very low rates outside the post-socialist and residual regimes, we restrict our attention to the two other measures in going on to examine class differentiation within regimes. Considering the dissimilarity indices in Table 10, it is clear that there is little to choose between them in the extent to which they identify consistently poor groups with class profiles sharply differentiated from the remainder of the population. This means that the consistent poverty measure combining low income with nationally relative deprivation does indeed reflect such socio-economic differentiation within countries, but the measure incorporating the consumption deprivation index across captures both such social class differentiation and substantial variation across countries and welfare regimes.

*Table 10: Dissimilarity Rates for Social Class Composition for Consistently Poor v Non-Poor by Types of Measure by Welfare Regime*

	<b>WITH COMMON CONSUMPTION DEPRIVATION, THRESHOLD 3+</b>	<b>WITH NATIONAL RELATIVE CONSUMPTION DEPRIVATION</b>
<b>SOCIAL DEMOCRATIC</b>	24.9	28.3
<b>CORPORATIST</b>	38.7	34.6
<b>LIBERAL</b>	34.8	37.9
<b>SOUTHERN EUROPEAN</b>	30.6	30.7
<b>POST SOCIALIST CORPORATIST</b>	36.4	35.2
<b>POST SOCIALIST LIBERAL</b>	29.1	29.9
<b>RESIDUAL</b>	31.7	32.2



## 6. Conclusions

The target population for the EU's central 2020 poverty reduction target is currently being identified via combining indicators of low income, deprivation, and household joblessness, and this paper has raised a number of important issues in that regard. First, the inclusion of the household joblessness/low work intensity criterion in identifying the target population is questionable. Secondly, the way the deprivation element of the target is defined could be improved. The EU has provided no explicit rationale for the key choices taken in constructing the poverty target. In this paper we have argued that, while multidimensional approaches to the measurement of poverty seem preferable to a focus solely on income, any such approach must be subject to evaluation on both conceptual and empirical grounds.

The decisions underlying the construction of the EU poverty target have consequences for our understanding of the distribution of poverty across countries and social classes which raise important concerns relating to the extent the current proposals for setting EU poverty targets allows to successfully capture those individuals excluded from customary EU living patterns due to lack of resources at the national level.

In the final part of this paper we have considered what consistent poverty approaches involving a conceptually combination of low income and deprivation can contribute to the development of appropriate targets. While looking at those who are either on low income or reporting significant deprivation has a value, we have argued that it would also be valuable to identify the sub-set of persons and households meeting appropriate income and deprivation criteria: this could serve to identify a priority group as countries frame their individual contributions to meeting the overall EU target.<sup>5</sup>

---

5 In Nolan and Whelan (2011) we locate the consistent poverty approach in the context of a much broader consideration of the value and limitations of multidimensional approaches to the conceptualisation and measurement of poverty and social exclusion in the EU.





## References

- Atkinson, A. B., Cantillon, B., Marlier, E., and Nolan, B. (2002) *Social Indicators: The EU and Social Inclusion*, Oxford University Press, Oxford
- Bukodi, E. and Robert, P. (2007) *Occupational Mobility in Europe*. European Foundation for the Improvement of Living and Working Conditions, Office for Official Publications of the European Communities, Luxembourg. European Commission, 2009
- Förster, M. F. (2005) 'The European Social Space Revisited: Comparing Poverty in the Enlarged European Union', *Journal of Comparative Policy Analysis*, 7: 29-48. .
- Guio, A.-C. (2009) *What can be learned from deprivation indicators in Europe?* Eurostat methodologies and working paper, Eurostat, Luxembourg.
- Fusco, A., Guio, A.-C., and Marlier, E. (2010) 'Characterising the income poor and the materially deprived in European countries', in Atkinson, A.B. and E. Marlier (eds.) *Income and Living Conditions in Europe*, Publications Office of the European Union, Luxembourg.
- Layte, R., B. Nolan and C.T. Whelan "Targeting Poverty: Lessons from Ireland's National Anti Poverty Strategy", *Journal of Social Policy*, 29 (4), 553-75, 2000.
- Nolan, B. and Whelan, C T. (2007), 'On the Multidimensionality of Poverty and Social Exclusion' in Micklewright, J. and Jenkins, S. (Eds.), *Poverty and Inequality: New Directions* , Oxford: Oxford University Press..
- Nolan, B. and Whelan, C T. (2010) 'Using Non-Monetary Deprivation Indicators to Analyse Poverty and Social Exclusion in Rich Countries: Lessons from Europe?', *Journal of Policy Analysis and Management*, 29: 305-323.
- Nolan, B. and Whelan, C. T. (2011), *Poverty and Deprivation in Europe*, Oxford: Oxford University press,
- Townsend, P. (1979) *Poverty in the United Kingdom*. Penguin, Harmondsworth..
- Whelan, C. T., Nolan B. and Maître, B. (2008) *Measuring material deprivation in the enlarged EU*, Working Paper No. 249, The Economic and Social Research Institute, Dublin.
- Whelan, C. T. and Maître, B (2010a) 'Comparing Poverty Indicators in an Enlarged EU', *European Sociological Review*, 26: 713-730.
- Whelan, C. T. and Maître, B (2010b) 'Welfare Regime and Social Class Variation in Poverty and Economic Vulnerability', *Journal of European Social Policy*, 20: 316-332.







## Appendix

*Table A1a : Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Social Democratic Regime*

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESEC CLASS 2)	1.420	1.556	1.228
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	2.871	2.978	2.073
PETIT BOURGEOISIE (ESEC CLASS 4)	3.957	1.160	3.734
FARMERS (ESEC CLASS 5)	1.159	1.227	7.285
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	6.072	4.811	2.285
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	8.385	6.322	2.904
NAGELKERKE <sup>2</sup>	0.062		
REDUCTION IN LOG LIKELIHOOD	2,467.6		
DEGREES OF FREEDOM	18		
N	57,417		

Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold

*Table A1b: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Corporatist Regime*

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESEC CLASS 2)	1.344	1.736	1.405
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	3.366	3.194	1.821
PETIT BOURGEOISIE (ESEC CLASS 4)	5.084	3.588	4.391
FARMERS (ESEC CLASS 5)	2.467	1.597	6.645
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	8.365	5.466	4.566
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	12.940	6.122	5.335
NAGELKERKE <sup>2</sup>	0.102		
REDUCTION IN LOG LIKELIHOOD	3,715.0		
DEGREES OF FREEDOM	18		
N	45,584		

Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold

Table A1c: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Liberal Regime

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESeC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESeC CLASS 2)	1.969	1.715	1.274
HIGHER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 3 & 6)	6.179	3.159	2.046
PETIT BOURGEOISIE (ESeC CLASS 4)	3.555	1.366	3.235
FARMERS (ESeC CLASS 5)	5.850	3.706	2.950
LOWER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 7 & 8)	16.957	6.291	3.355
SEMI & NON-SKILLED WORKERS (ESeC CLASS 9)	22.738	4.017	4.490
NAGELKERKE2	0.132		
REDUCTION IN LOG LIKELIHOOD	2,728.1		
DEGREES OF FREEDOM	18		
N	23,756		

Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold

Table A1d : Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Southern European Regime

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESeC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESeC CLASS 2)	1.927	1.768	0.925
HIGHER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 3 & 6)	4.989	3.798	1.651
PETIT BOURGEOISIE (ESeC CLASS 4)	9.933	4.102	4.453
FARMERS (ESeC CLASS 5)	19.104	6.879	6.440
LOWER GRADE WHITE & BLUE COLLAR (ESeC CLASSES 7 & 8)	16.455	9.343	3.094
SEMI & NON-SKILLED WORKERS (ESeC CLASS 9)	19.250	9.613	3.020
NAGELKERKE2	0.118		
REDUCTION IN LOG LIKELIHOOD	8,821.7		
DEGREES OF FREEDOM	18		
N	91,308		

Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold

*Table A1e: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Post-Socialist Corporatist Regime*

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESEC CLASS 2)	2.541	1.471	1.201
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	4.527		1.454
PETIT BOURGEOISIE (ESEC CLASS 4)	2.214	2.845	2.768
FARMERS (ESEC CLASS 5)	12.337	1.809	5.672
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	11.331	3.266	2.311
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	15.573	5.135	2.311
NAGELKERKE <sup>2</sup>	0.121	5.489	2.295
REDUCTION IN LOG LIKELIHOOD	9,817.0		
DEGREES OF FREEDOM	22		
N	24,599		

*Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold*

*Table A1f: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Post-Socialist Liberal*

	IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD	ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP	IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD
	ODDS RATIO	ODDS RATIO	ODDS RATIO
<b>HRP SOCIAL CLASS</b>			
HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY	1.000	1.000	1.000
LOWER SALARIAT (ESEC CLASS 2)	1.337	1.940	0.838
HIGHER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 3 & 6)	2.307	1.966	1.564
PETIT BOURGEOISIE (ESEC CLASS 4)	2.583	1.293	5.723
FARMERS (ESEC CLASS 5)	7.469	3.793	13.552
LOWER GRADE WHITE & BLUE COLLAR (ESEC CLASSES 7 & 8)	6.674	3.420	2.597
SEMI & NON-SKILLED WORKERS (ESEC CLASS 9)	8.188	3.989	3.092
NAGELKERKE <sup>2</sup>	0.109		
REDUCTION IN LOG LIKELIHOOD	2,701.1		
DEGREES OF FREEDOM	22		
N	27,906		

*Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold*

*Table A1g: Multinomial Regression of EU Indicator and Consumption Deprivation Typology on Social Class, Residual Regime*

	<b>IN EU TARGET GROUP AND ABOVE CONSUMPTION DEPRIVATION THRESHOLD</b>	<b>ABOVE CONSUMPTION DEPRIVATION THRESHOLD BUT NOT IN EU TARGET GROUP</b>	<b>IN EU TARGET GROUP BUT BELOW CONSUMPTION DEPRIVATION THRESHOLD</b>
	<b>ODDS RATIO</b>	<b>ODDS RATIO</b>	<b>ODDS RATIO</b>
<b>HRP SOCIAL CLASS</b>			
<b>HIGHER SALARIAT (ESEC CLASS 1) REFERENCE CATEGORY</b>	1.000	1.000	1.000
<b>LOWER SALARIAT (ESEC CLASS 2)</b>	2.181	2.673	3.506
<b>HIGHER GRADE WHITE &amp; BLUE COLLAR (ESEC CLASSES 3 &amp; 6)</b>	2.909	2.300	2.205
<b>PETIT BOURGEOISIE (ESEC CLASS 4)</b>	6.771	2.241	7.616
<b>FARMERS (ESEC CLASS 5)</b>	40.510	7.117	34.144
<b>LOWER GRADE WHITE &amp; BLUE COLLAR (ESEC CLASSES 7 &amp; 8)</b>	8.442	4.948	4.758
<b>SEMI &amp; NON-SKILLED WORKERS (ESEC CLASS 9)</b>	10.721	4.163	3.846
<b>NAGELKERKE2</b>	0.167		
<b>REDUCTION IN LOG LIKELIHOOD</b>	3,516.4		
<b>DEGREES OF FREEDOM</b>	22		
<b>N</b>	21,561		

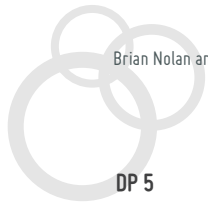
*Note: Reference group neither in EU Target Group nor above Consumption Deprivation Threshold*



# GINI Discussion Papers

Recent publications of GINI. They can be downloaded from the website [www.gini-research.org](http://www.gini-research.org) under the subject Papers.

- DP 18**    **The Interplay between Economic Inequality Trends and Housing Regime Changes in Advanced Welfare Democracies: A New Research Agenda**  
Caroline Dewilde  
November 2011
- DP 17**    **Income Inequality, Value Systems, and Macroeconomic Performance**  
Giacomo Corneo  
September 2011
- DP 16**    **Income Inequality and Voter Turnout**  
Daniel Horn  
October 2011
- DP 15**    **Can higher employment levels bring down poverty in the EU?**  
Ive Marx, Pieter Vandenbroucke and Gerlinde Verbist  
October 2011
- DP 14**    **Inequality and Anti-globalization Backlash by Political Parties**  
Brian Burgoon  
October 2011
- DP 13**    **The Social Stratification of Social Risks. Class and Responsibility in the 'New' Welfare State**  
Olivier Pintelon, Bea Cantillon, Karel Van den Bosch and Christopher T. Whelan  
September 2011
- DP 12**    **Factor Components of Inequality. A Cross-Country Study**  
Cecilia García-Peñalosa and Elsa Orgiazzi  
July 2011
- DP 11**    **An Analysis of Generational Equity over Recent Decades in the OECD and UK**  
Jonathan Bradshaw and John Holmes  
July 2011
- DP 10**    **Who Reaps the Benefits? The Social Distribution of Public Childcare in Sweden and Flanders**  
Wim van Lancker and Joris Ghysels  
June 2011
- DP 9**    **Comparable Indicators of Inequality Across Countries (Position Paper)**  
Brian Nolan, Ive Marx and Wiemer Salverda  
March 2011
- DP 8**    **The Ideological and Political Roots of American Inequality**  
John E. Roemer  
March 2011
- DP 7**    **Income distributions, inequality perceptions and redistributive claims in European societies**  
István György Tóth and Tamás Keller  
February 2011
- DP 6**    **Income Inequality and Participation: A Comparison of 24 European Countries + Appendix**  
Bram Lancee and Herman van de Werfhorst



January 2011

- DP 5**    **Household Joblessness and Its Impact on Poverty and Deprivation in Europe**  
Marloes de Graaf-Zijl  
January 2011
  
- DP 4**    **Inequality Decompositions – A Reconciliation**  
Frank A. Cowell and Carlo V. Fiorio  
December 2010
  
- DP 3**    **A New Dataset of Educational Inequality**  
Elena Meschi and Francesco Scervini  
December 2010
  
- DP 2**    **Are European Social Safety Nets Tight Enough? Coverage and Adequacy of Minimum Income Schemes in 14 EU Countries**  
Francesco Figari, Manos Matsaganis and Holly Sutherland  
June 2011
  
- DP 1**    **Distributional Consequences of Labor Demand Adjustments to a Downturn. A Model-based Approach with Application to Germany 2008–09**  
Olivier Bargain, Herwig Immervoll, Andreas Peichl and Sebastian Siegloch  
September 2010



# 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](http://www.gini-research.org)





**GINI** GROWING INEQUALITIES' IMPACTS

**Amsterdam Institute for Advanced labour Studies**

University of Amsterdam

Plantage Muidergracht 12 1018 TV Amsterdam The Netherlands

Tel +31 20 525 4199 Fax +31 20 525 4301

[gini@uva.nl](mailto:gini@uva.nl) [www.gini-research.org](http://www.gini-research.org)



Project funded under the  
Socio-Economic sciences  
and Humanities theme.



