

***Social Class Variation in Income Poverty,
Deprivation and Consistent Poverty: An
Analysis of EU-SILC***

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Introduction

It is now widely agreed that in measuring poverty and social exclusion we need to go beyond income measure. The increasing emphasis on multidimensionality is reflected, among other things, in the set of indicators adopted by the European Union (EU) to monitor social exclusion at the Laeken council.¹ As part of this development there has been a renewed discussion of the contribution that material deprivation indicators can make at both national and European levels.²

Poverty in advanced societies is generally understood to have two core elements: it is about inability to participate, due to inadequate resources. Most quantitative research then employs a unidimensional approach to distinguishing the poor: The most common practice in Western Europe in recent years has been to rely on relative income lines, with thresholds. The broad rationale is that those falling more than a certain 'distance' below average income are unlikely to be able to participate fully in the life of the community. However, it has been recognized for some time (Ringen 1988) that low income may be an unreliable indicator of poverty in this sense, failing in practice to identify those who are unable to participate in their societies due to lack of resources. The evidence for a range of countries strongly suggests that it is hazardous to draw strong conclusions about whether a household is poor from current income alone³.

¹ For a general discussion of how and when a multidimensional approach to poverty and social exclusion might be necessary or helpful and a more detailed treatment of the issues dealt with in this introduction see Nolan and Whelan (forthcoming)

² See Atkinson *et al* (2005), and Guio (2005)

³ These include Townsend (1979), Mack and Lansley (1985), Gordon et al (2000) and Bradshaw and Finch (2003), Mayer (1993), Nolan and Whelan (1996), Muffels (1993), Hallerod (1995), Kangas and Ritakallio (1998), Tsakoglou and Papadopoulous (1998)

In such circumstances a complementary rather than alternative route is to use non-monetary indicators to measure levels of deprivation directly, and see whether these can assist in improving the measurement of poverty. Such indicators can help capture situations involving, for example, temporarily low income, additional needs and cost variations. Despite the concern that non-monetary indicators of deprivation may reflect choice/taste, the available evidence suggest that such indicators do contain valuable information that, particularly when combined with information on financial constraints, greatly enhance our capacity to identify those experiencing exclusion due to lack of resources.⁴ This evidence derives from a range of studies that have explored the relationship between both income and broader economic resources and have combined information relating to income and material deprivation to construct measures of consistent poverty, to develop notions of economic vulnerability and address more general issues relating to the multidimensionality of poverty and social exclusion.

In addressing these issues, using data from the first wave of EU-SILC we shall not seek to treat the full range of material deprivation but rather will focus on the particular form that is most strongly associated with income and that has been used by a range of authors to construct measures of consistent poverty and to develop notions of economic vulnerability.⁵ Thus we shall not attempt to incorporate indicators relating to housing, health and neighbourhood environment. In pursuing our analysis, our choice of indicators of options is restricted by the fact that the range of deprivation items currently available in EU-SILC is considerably more restricted than was the case for the ECHP and it is consequently more difficult to develop measures

⁴ For recent discussions of these issues see McKay (2004) and Halleröd (2006).

that display satisfactory levels of reliability across European societies and at the European level.⁶

Our analysis will proceed as follows. We shall first construct an index of material deprivation that we shall refer to as ‘economic strain’ that comes as close as we can to capturing what has been referred to in earlier work as ‘basic deprivation’, although in fact it the measure falls somewhere between this measure and the somewhat broader measure of “current life-style deprivation” also employed in earlier studies.⁷ This comprises indicators available in the EU-SILC data set relating to inability to afford rather basic food, clothing and heat items, enforced absence of particular consumer items and difficulty in financial coping. As a consequence, when we refer to European ‘levels’ our estimates will actually relate to the fourteen countries comprising the currently available EU-SILC data set. Having established reliability levels in relation to such an index both nationally and at the European level we shall proceed to compare income poverty levels using the conventional 60% of equivalent median at income threshold at both national and European level with those relating to a comparable material deprivation set at the European level threshold. Combining information relating to both income poverty and material deprivation we shall go on to construct a measure of consistent poverty and to document European and national variation in levels of income poverty, risk of being above the corresponding deprivation threshold and consistent poverty by the social class of the household. In

⁵ See Boarini and d’Ercole (2005), Förster (2005), Layte *et al* (2001).

⁶ For an analysis using the full range of items available in the Irish survey see Whelan & Maître (forthcoming a) and for a comparison of measures of consistent poverty and economic vulnerability employing Irish specific measures with ones used on the common set of EU-SILC items see Whelan & Maître (forthcoming a)

⁷ Callan *et al* (1993) & Whelan *et al* (2001)

so doing we will take advantage of the body of work that has led to the development of the provisional European Socio-economic Classification (ESeC).⁸

The European Socio-economic Classification

The ESeC schema, based as it is on the work of Erikson and Goldthorpe (1992) involves a focus on employment relations. As well as distinguishing between those who own the means of production and those who do not, within the former it distinguishes large from small employers, and, among employees, between different forms of employment relationship. The major contrast in the employment relationship is between the service relationship, entailing a long-term and diffuse exchange of rewards for commitment, and the labour contract, involving a relatively short-term and specific exchange of money for effort. The crucial dimensions along which work is differentiated are the degree of asset specificity involved and ease or difficulty of measuring performance (Goldthorpe, 2000:13). In response to such variation employers offer different forms of employment relations.

The purpose of this schema, as Goldthorpe (2002:213), observes is to bring out the constraints and opportunities typical of different class positions particularly as they bear “on individuals *security, stability and prospects* as a precondition of constructing explanations as of empirical regularities”. This approach can be contrasted with those that make use of information on income, education or, perhaps more importantly, occupation, to develop either continuous or finely differentiated measure (Grusky and Weede, 2001, 2005). A major concern of such class analysis is with the association

⁸ See Rose (2005).

and actual causal connection between class and differential life-chances - with how class influences what actually happens to people (Goldthorpe, 2002:21).

Our analysis takes as its starting point earlier work relating to income poverty and deprivation based on the analysis of the European Community Household Panel Survey (ECHP) in its User Data Base (UDB) format (Whelan *et al* 2001, 2003, 2004). However, comparative analysis focusing on social class effects using the UDB was possible only at the price of utilising a rather crude version of class schema.

One of the major justifications for devoting attention to the conceptualisation and measurement of social class is the argument that such measures provide us with a better understanding of the determinants of longer-term command over resources and exposure to deprivation (Breen and Rottman, 1995). In seeking to test the validity of this argument employing EU-SILC data by comparing the impact of social class on income poverty, material deprivation and consistent poverty. Our expectation is that class differentiation will become progressively sharper as we move from income poverty to consistent poverty

The ESeC schema distinguishes a relatively small set of classes that are distinctive in terms of their employment relations. The logic of the classification system is discussed more fully elsewhere and will not be repeated here (Rose 2005). The version of the ESeC we employ is Version 4 from February 2006. The schema distinguished ten social classes as shown in Figure 1, below. Social class is operationalised in terms of the information available in the first wave of the EU-SILC survey in each country.

Figure 1: The ESeC Classes

	<i>ESeC Class V4</i>	<i>Common Term</i>	<i>Employment Regulation</i>
1	Large employers, higher grade professional, administrative & managerial occupations	Higher salariat	Service Relationship
2	Lower grade professional, administrative and managerial occupations and higher grade technician and supervisory occupations	Lower salariat	Service Relationship (modified)
3	Intermediate occupations	Higher grade white collar workers	Mixed
4	Small employer and self employed occupations (exc. agriculture etc)	Petit bourgeoisie or independents	-
5	Self employed occupations (agriculture etc)	Petit bourgeoisie or independents	-
6	Lower supervisory and lower technician occupations	Higher grade blue collar workers	Mixed
7	Lower services, sales & clerical occupations	Lower grade white collar workers	Labour Contract (modified)
8	Lower technical occupations	Skilled workers	Labour Contract (modified)
9	Routine occupations	Semi- and non-skilled workers	Labour Contract
10	Never worked and long-term unemployed	Unemployed	-

Appendix A gives details of the variables available in EU-SILC for the measurement of ESeC⁹. Because of some limitations in the data we needed to make some compromises, compared to the ‘blueprint’ ESeC. Chief among these are the following:

Information on a number of variables (supervisory variable and size of establishment) is only available for those who are unemployed or currently working. This means that

the construction of ESeC for the retired (based on former occupation) is much less precise.

The level of missing information (ESeC cannot be assigned) is quite high for several countries (particularly Denmark, Finland, Norway and Austria), due to missing information on some of the required variables (ISCO, supervisory status, whether ever worked, size of establishment), often because the information is only available for those currently at work. The proportion of cases assigned and missing is shown in Appendix A. More work is needed on the SILC data to see whether the proportion of assigned cases can be increased.

The version of ISCO available on EU-SILC is the two-digit version. As the ESeC prototype is developed for the three-digit version of ISCO, there is some loss of precision.

ESeC 10 is intended for those who do not have an employment relationship: those who never worked and the long-term unemployed¹⁰. The retired, other inactive and more recently unemployed are classified according to the occupation in their previous job. In this implementation, we have reserved ESeC 10 for those who have never worked only. We would argue that unemployment is an outcome of the unfavourable employment relations experienced by those in the less advantaged class locations. As such, to group the unemployed in a separate class would result in an underestimation of the impact of class structure on outcomes such as poverty and deprivation. It would also have the perverse effect of making the gap between the labour contract and service classes appear narrower in periods or places with high levels of

⁹ Since the appendices to this paper are rather long, we have not reproduced them here. They are available from the authors on request: dorothy.watson@esri.ie.

¹⁰

unemployment, as the burden of economic downturn is likely to fall most heavily on the weaker occupants of labour contract positions.

Household Level Class

For the analysis in this paper, we assign ESeC at the *household level* and take the person (including children) as the unit of analysis. The ESeC of the household reference person is assigned to all household members. In SILC, the household reference person is the person responsible for the accommodation or the older of two or more equally responsible persons, that is the person in whose name the title to the property or rental agreement is. Since, in most couple households, the couple is jointly responsible, we used a dominance rule to decide which persons class to use where the household reference person has a spouse or partner (rather than the straightforward age rule). The idea behind the dominance rule is that each person is assigned the same class position as the household member whose occupation and employment conditions are likely to affect household circumstances the most (Erikson, 1984). In this regard, higher socio-economic positions dominate lower ones and self-employment dominates employee status. We based the presumed dominance of socio-economic positions on the link between poverty risk and ESeC class¹¹, with positions associated with a lower risk dominating those with a higher risk. The dominance order adopted for ESeC was: 1,2,3,4,6,7,8,9,5,10. Note that only the class of those responsible for the accommodation is considered. This means that, for instance, the class position of an adult child still living at home is not allowed to dominate the class position of the parents.¹² The effect of using the dominance rule is

¹¹ Based on previous work using the ECHP dataset.

¹² Analyses on the ECHP data showed that the class assignment using the dominance rule differed from the class assignment using the age rule (i.e. the older partner) in about 15 per cent of cases overall (unweighted), ranging from 10 per cent in Greece to 20 per cent in Denmark.

to increase the proportion of individuals assigned to the more advantaged ESeC classes.

Income and Material Deprivation in EU-SILC

The income measure we used to construct the income poverty line is the total disposable household income. The total disposable household income is defined as the sum for all household members of net (of income tax at source and social contributions) personal income components plus all net income components at household level.

Finally in order to adjust the level of household income to the different sizes and compositions of households we use the “modified OECD scale”. Thus the first adult in the household is accorded a value of one with each additional adult being given a value of 0.5. Children aged less than 16 have a weight of 0.3. The number of equivalent adults in the household is then calculated by summing these values. The household equivalised income is given by dividing the total household disposable income by the number of adult equivalents.

As we have noted earlier, the range of deprivation items available in EU-SILC is more restricted than was the case for the ECHP. The list of items available is shown in Table 1, below.

Table 1: Items used to measure deprivation.

<i>Item</i>	<i>Variable</i>
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Cannot afford meal with meat, chicken, fish (or vegetarian) every second day	HS050
Inability to keep home adequately warm	HH050
Cannot afford to have a car	HS110
Cannot afford a telephone	HS070
Cannot afford a PC	HS090
Cannot afford a colour TV	HS080
Cannot afford a washing machine	HS100
Cannot afford a weeks holiday away from home	HS040
Cannot afford to pay unexpected required expenses	HS060
Experiencing arrears on rent, mortgage, utility bills or hire purchase payments	HS010, HS020, HS030

These items with the addition of the PC item combine items that Eurostat have shown to load on dimensions that they have labelled “economic strain”. In previous analysis comparing the set of items on which we focus here with a rather wider set available in the Irish component of EU-SILC, Whelan and Maître found that the major difference related to the possibility in the latter case of distinguishing rather basic items such as food, clothing, heat and social participation, which load on the economic strain dimension, and deprivation relating to consumer durables. However, given the importance of achieving a satisfactory level of reliability we have chosen to focus on the combined 10-item set. From Table 2 we can that this measures achieves a reasonably satisfactory level of reliability across the 14-country sample with an overall Cronbach alpha of 0.68. Furthermore, we observe rather modest variation in the reliability level across country with the range of values running from a low of 0.63 in Denmark, Spain and Luxembourg to a high of 0.73 in Ireland. Thus our conclusions regarding cross-national variations will not be significantly affected by differential reliability. Since in our view the 10-item measures comes closer to tapping a what we would refer to as economic strain or basic deprivation than more general consumption deprivation we shall refer to it as a measure of economic strain.

<i>Table 2: Cross-national Reliability Levels for the 10-item Economic Strain index</i>	
	Alpha
Austria	0.663
Belgium	0.691
Denmark	0.629
Estonia	0.672
Spain	0.632
Finland	0.655
France	0.666
Greece	0.692
Ireland	0.726
Italy	0.711
Luxembourg	0.631
Norway	0.625
Portugal	0.671
Sweden	0.668
Overall	0.676

In the analysis that follows we compare being income poor at the 60% line with a dichotomous deprivation variable based on the 10-item index that in each country comes as close as possible within each country to identifying the same proportion above the deprivation threshold as are located below the 60% income poverty line. We then proceed to construct a consistent poverty measure that identifies as poor those who are below the 60% income line and above the threshold. Variations across country in the percentage poor will then be affected by percentage below the income poverty line and by the degree of association within each country between the income poverty and consistency measures. However, cross-national variations in levels of

deprivation will have no effect. It is our intention in the future to explore the consequences of different forms of weighting and the movement between national and European perspectives implied by such choices.

Social Class by Country

For ease of exposition, the results are presented on a collapsed version of ESeC. Classes 1 and 2 are combined, as are classes 6 and 7, classes 8 and 9 and classes 4 and 5. Figure 2 shows the ESeC class distribution in each of the 14 countries under consideration.

ESeC by Country:

- The sizes of the classes differ by country, with the proportion in classes 1 and 2 (large employers, professionals, managers, higher administrative, technical and supervisory) higher in the northern countries than in the southern countries (Greece, Spain, Portugal, Italy) and Estonia.
- The ‘petit bourgeois classes’ (small employers and the self-employed) are large in the Southern countries, especially Italy, Portugal and Greece.
- The size of the lower technical and routine classes is largest in Estonia, but is also large in Spain and Portugal.

[Figure 2: ESeC Social Class Distribution by Country – Here]

Poverty and Deprivation Levels by Country

Poverty and Deprivation by Country

Income poverty, in the present analysis, is measured as being below the 60 per cent of median household equivalised income line¹³. Deprivation is measured by taking the threshold within each country that identifies the same percentage of persons as ‘deprived’ as are below the 60 per cent poverty line. The ten items used above are used and are weighted by the proportion of people who lack them within each country. Note that although the poverty and deprivation thresholds identify the same proportion of people as poor, they will not necessarily be the same people: some will be income poor but not deprived and vice versa. We construct a measure of consistent poverty that identifies those who are both income poor and deprived. The incomplete overlap between the poverty and deprivation measures can be seen in that the percentage of persons who are consistently poor is lower than the percentage income poor or deprived.

Since the measure of deprivation used is designed to capture the same percentage deprived in a country and the percentage below the 60 per cent of the median equivalised income line, the overall distribution of poverty and deprivation will be almost identical, as shown in Figure 3. The levels of poverty/deprivation are highest in the Southern countries, but also in Ireland and Estonia, and lowest in the Nordic countries.

Figure 3: Poverty and Deprivation Levels by Country (percentage of persons)

[Figure 3 here]

¹³ The median is calculated within country across persons of all ages and the modified OECD scale is used for equivalisation.

Poverty, Deprivation and Social Class

Figure 4 shows how the risk of poverty and deprivation varies by social class across all countries in the 2004 EU-SILC dataset.

[Figure 4: Poverty and Deprivation by Social Class, all countries – here]

Here, in order to facilitate comparison between our income and deprivation results we present our results in terms of the log ratios for each class compared to the average across all classes. On these charts, the ‘zero’ line represents the average level of risk across all classes. Figures below zero represent a below-average risk, while figures above zero represent a higher than average risk of poverty and deprivation. The chart show the relative risk of income poverty (the blue line), deprivation (the white bar) and consistent poverty (being both income poor and deprived – the grey bar).

The ‘employee classes’ are shown to the left of the chart, with the self-employed and ‘never worked’ to the right. There is a clear increase in the risk of both income poverty and deprivation as we move from classes characterised by the service relationship (1 and 2) to those characterised by ‘mixed contracts (3, 6 and 7) to the labour contract (8 and 9). The class pattern for consistent poverty (being both below

the income poverty threshold and the deprivation threshold) is stronger than for poverty or deprivation taken alone.

As we found in earlier analyses using the ECHP data, the self-employed appear ‘worse off’ when we focus on income than when the focus shifts to deprivation. This may reflect difficulties in accurately measuring the income of the self-employed, and the greater command of resources that people who own a business have access to. The deprivation measure for the self-employed places them just at the average, while the income poverty measure tends to show a higher than average level of risk.

Country Differences

Figure 5 shows the class pattern within country in terms of income poverty, deprivation and consistent poverty.

The main points are as follows:

- In all countries, there is a stronger risk of poverty and deprivation for classes 8 and 9 than for classes 1 and 2.
- The class pattern in all countries is stronger for consistent poverty (both income poor and deprived), than for either income poverty or deprivation taken separately.
- In all countries, the risk for the self-employed classes (4 and 5) is greater for income poverty than for deprivation. This indicates that the measure of deprivation is providing an important ‘correction’ to the tendency for income-only measures to overstate the poverty levels of these groups.
- In almost all countries (Austria is the exception), those who never worked experience the highest risk of consistent poverty.

[Figure 5 Here]

If we focus on the Scandinavian countries we find the overall anticipated pattern of class differentials. However, perhaps because of the low absolute levels of deprivation, we do not find the anticipated pattern of stronger association with deprivation as opposed to income. In Sweden and Denmark and Norway we observe little difference while for Finland the deprivation difference is slightly greater. However, generally the disparities are more substantial in relation to consistent poverty. For the comparison between classes 1 & 2 and 8 & 9 the respective ratios for Sweden Denmark, Finland and Norway are respectively 0.50, 0.81, 0.73 & 0.92. Small employers and farmers appear consistently more disadvantaged in Denmark and Finland in comparison with Sweden and Norway.

Taking Austria, Belgium, France, Luxembourg and Ireland together, again there is no clear tendency for the class differentials to be greater in the case of deprivation. However, in every case the consistent poverty differentials are higher than for income or deprivation separately, with the respective Class 1&2 to Class 8&9 ratios for Austria, Belgium, France and Luxembourg being 1.19, 0.97 0.94, 1.64 and 1.08. While the levels for the self-employed and farmers vary across countries the pattern whereby they appear considerably more disadvantaged in relation to income poverty than deprivation or consistent poverty is uniform one.

In Spain and Portugal we do observe larger disparities between, for example, classes 1 & 2 and classes 8 & 9 in relation to deprivation but for Italy and Greece there is little difference. Once again, however, the pattern whereby social class differences are greatest for consistent poverty emerges with the respective log ratio difference

(classes 1&2 compared to classes 8&9) in relation to the national mean being respectively for Italy, Spain, Portugal and Greece being 1.09, 1.19, 1.03 and 0.99.

Conclusions

This preliminary analysis has demonstrated the usefulness of taking account of deprivation as well as income in evaluating the risk of social exclusion. Measures of deprivation provide an important ‘correction’ to income-only poverty measures, particularly in understanding the situation of the self-employed. The consistent poverty measure, which takes account of both income and living standards, shows a stronger pattern of class differentiation than either measure taken alone. It also tends to reveal rather different patterns of variation for the self-employed and farming classes.

The analysis has also demonstrated that the ESeC social class measure can be constructed using the SILC data, although further work is clearly needed to handle situations (particularly in some of the Scandinavian countries) where some of the required information is missing or imperfect.

Our analysis did not confirm the finding observed in earlier work that the association between social class and deprivation was stronger for material deprivation than income poverty. (Watson *et al* forthcoming and Whelan *et al* (2004). Whether this is

due to the different measure of deprivation employed or the need to improve the operationalising of the ESEC class schema is an issue that requires further exploration. Further analysis of deprivation is also desirable. For instance, we could usefully explore the impact on class and country differences of changing the assumptions implicit in the way the measure of deprivation is constructed, by taking Europe as the reference point rather than focusing on relativities within the country.

The conceptual advantage of an income-based measure is that income in itself can be used to acquire a range of goods and services and its use does not involve making judgements about tastes, preferences, custom and necessity. However, when used to construct relative income poverty lines a strong set of underlying assumptions is involved. Measures of deprivation must always choose from a limited set of measures and involves making such judgements, either implicitly or explicitly. Weighting and standardising the measures are strategies to increase the flexibility of the items available. In this paper, we have focused on a single weighting scheme (weighting the items by the proportion of people within the country who possess the item), a single threshold (the threshold which identifies as deprived the same proportion of people as the proportion who are income poor at the 60 per cent line – *within country*), and standardisation to a national reference point. Other assumptions, perhaps taking a more European perspective, are worthy of exploration. Items could be weighted by the proportion of people who lack the item in Europe; and a threshold could be chosen which is standard across Europe. Alternatively the relative approach could be taken more seriously and allowance could be made for the fact that the impact of items may vary across as well as within countries. This would allow us to ask whether subjective perceptions of deprivation (experiencing economic strain, for instance) are mainly determined by the relative situation of the household within a country or its relative

situation in a broader European context. This assessment of the impact of alternative measures of deprivation on subjective economic strain would allow us to explore whether social classes differ in terms of the reference group they adopt (national or European). Given the increasing liberalisation of labour markets across Europe, the issue of the to which reference groups reference groups are shaped by European or national comparison is likely to become increasingly salient.¹⁴

there is likely to be a shift in reference group over time from National to European.

¹⁴ For somewhat different perspectives on this issue see Fahey (forthcoming) and Whelan and Maître (forthcoming c).

References

Atkinson, A. B., Cantillon, B., Marlier, E. and Nolan, B (2005), *Taking Forward the EU Social Inclusion Process*, Report for High–Level Conference organized by the Luxembourg Presidency of the EU, Luxembourg [available at www.fm.etat.lu and www.ceps.lu/eu2005_lu/inclusion].

Boarini, R. and d’Ercole (M. M. (2006), *measures of Material Deprivation in OECD Countries*, OECD Social, Employment and Migration Working Paper No. 37, Paris: OECD

Bradshaw. J and Finch N. (2003), ‘Overlaps in Dimensions of Poverty’, *Journal of Social Policy*, 32, 4:5113–525

Callan, T., Nolan, B., **Whelan, C. T.** (1993), “Resources, Deprivation and the Measurement of Poverty”, *Journal of Social Policy*, 22, 2:141-172.

Eurostat (2005b), ‘Material Deprivation in the EU’ *Statistics in Focus 05/2005*, A.-C. Guio.

Fahey, T. (2006), ‘The Case for an EU-wide measure of Poverty’, *European Sociological Review*

Förster, M, F. (2005), ‘The European Social space Revisited: Comparing Poverty in the Enlarged European Union’, *Journal of Comparative Policy Analysis*, 7,1:29-48.

Goldthorpe, J. H (2000), ‘Social Class and the Differentiation of Employment

Contracts’, in J. H. Goldthorpe *On Sociology: Numbers, Narratives and the Integration of Theory and Research*

Grusky and Weeden (201), ‘Decomposition without Death: a Research Agenda for New Class Analysis, *Acta Sociologica*, 44, 203-218

Hallerod, B. (1995), ‘The Truly Poor: Direct and Indirect Measurement of Consensual Poverty in Sweden’, *European Journal of Social Policy*, 5 (2), 111–129. Mack, J. and Lansley, S. (1985), *Poor Britain* Allen and Unwin, London.

Halleröd, B (2004) Sour Grapes: Relative Deprivation, Adaptive Preferences and the Measurement of Poverty., *Journal of Social Policy*

Kangas, O. and Ritakallio, V. (1998) “Different Methods – Different Results? Approaches to Multidimensional Poverty”, in Andress, H.J., ed., *Empirical Poverty Research in a Comparative Perspective*, Ashgate: Aldershot.

Mc Kay, S. (2004), ‘Poverty or Preference: What Do ‘Consensual Deprivation Indicators’ Really Measure?, *Fiscal Studies*, 25,2:201-223

Mack, J. and Lansley, S. (1985), *Poor Britain* Allen and Unwin, London.

Mayer, S., (1993). “Living Conditions Among the Poor in Four Rich Countries”, *Journal of Population Economics*, 6, 261–86.

Muffels, R. (1993), ‘Deprivation Standards and Style of Living Indices,’ in *The European Face of Social Security*, J. Berghman and B. Cantillon, eds., Avebury, Aldershot.

Nolan, B. and Whelan, C. T. (1996), *Resources, Deprivation and Poverty*, Oxford and New York: Oxford University Press, Clarendon Press.

Nolan, B. and Whelan, C. T. (forthcoming), 'On the Multidimensionality of Poverty and Social Exclusion' in Jenkins, S. and J. Micklewright (eds.), *Inequality and Poverty Re-examined*, Oxford: Oxford University Press.

Ringen, S. (1988), 'Direct and Indirect Measures of Poverty', *Journal of Social Policy*, vol. 17, pp. 351–366.

Rose, D. (2005), *The 'EsEC Class Schema Summarised*, ESeC Project Working Paper

Townsend, P. (1979), *Poverty in the United Kingdom* Penguin, Harmondsworth.

Tsakoglou, P. and Papadopoulos, F. (2002) 'Aggregate level and determining factors of social exclusion in twelve European countries', *Journal of European Social Policy*, 12 (3): 211–25.

Watson, D., Whelan, C.T, Maître, B (2006), ' Validating the ESeC Class Schema: Cross-sectional and Dynamic Analysis of Income Poverty and Deprivation, in D. Rose, (ed) *Development of a European Socio-economic Classification (ESeC)*, Routledge

Whelan, C. T., Layte, R., Maitre, B., and Nolan, B. (2001) “Income, Deprivation and Economic Strain: An Analysis of the European Community Household Panel”, *European Sociological Review*, 17 (4), 357–372.

Whelan, C.T, Maître, B. (forthcoming a), ‘Levels and Patterns of Multiple Deprivation in Ireland: after the Celtic Tiger’, *European Sociological Review*

Whelan, C.T, Maître B (forthcoming b), ‘Measuring Material Poverty with EU SILC Data: Lessons from the Irish Survey’, *European Societies*

Whelan, C.T, Maître, B. (forthcoming c), ‘Income, Deprivation and Economic Stress in an Enlarged European Union’, *Social Indicators Research*

Figure 2: Esec Class Distribution by Country

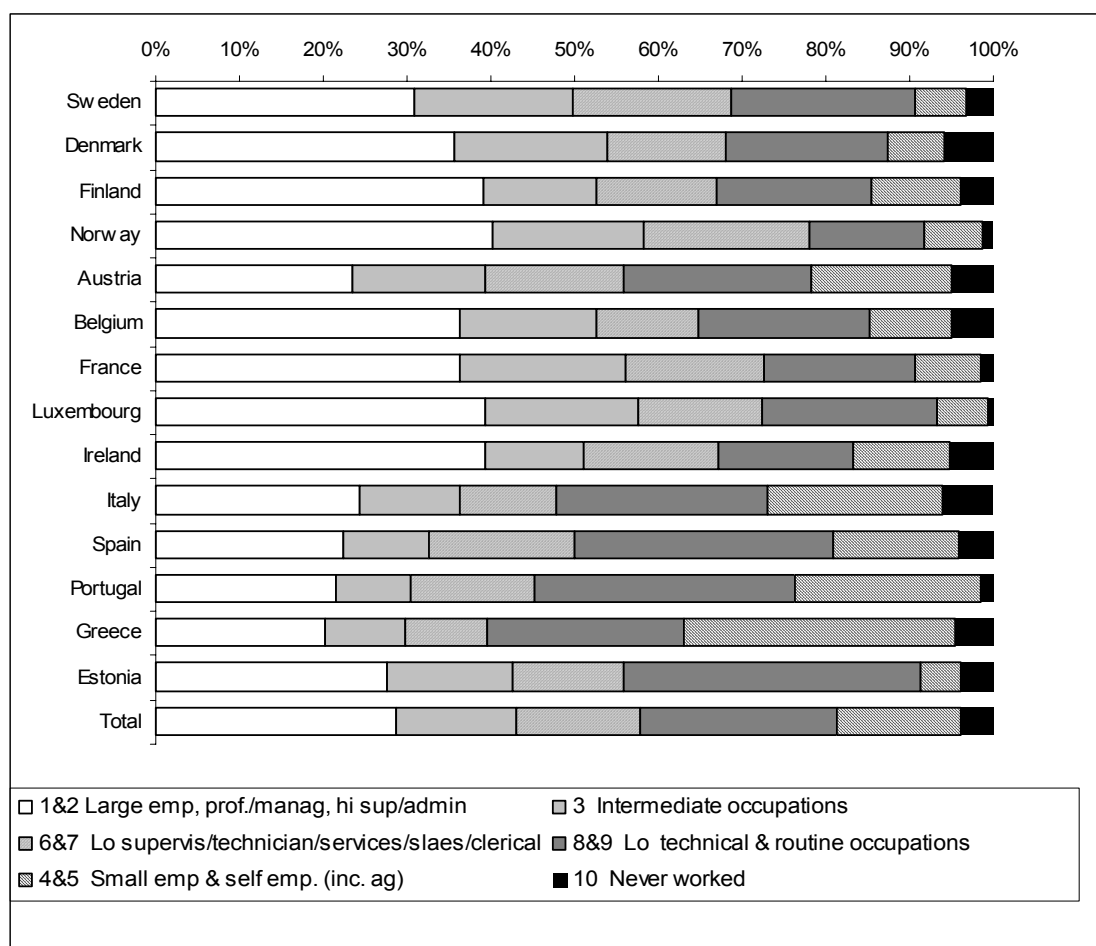


Figure 3: Poverty and Deprivation Levels by Country

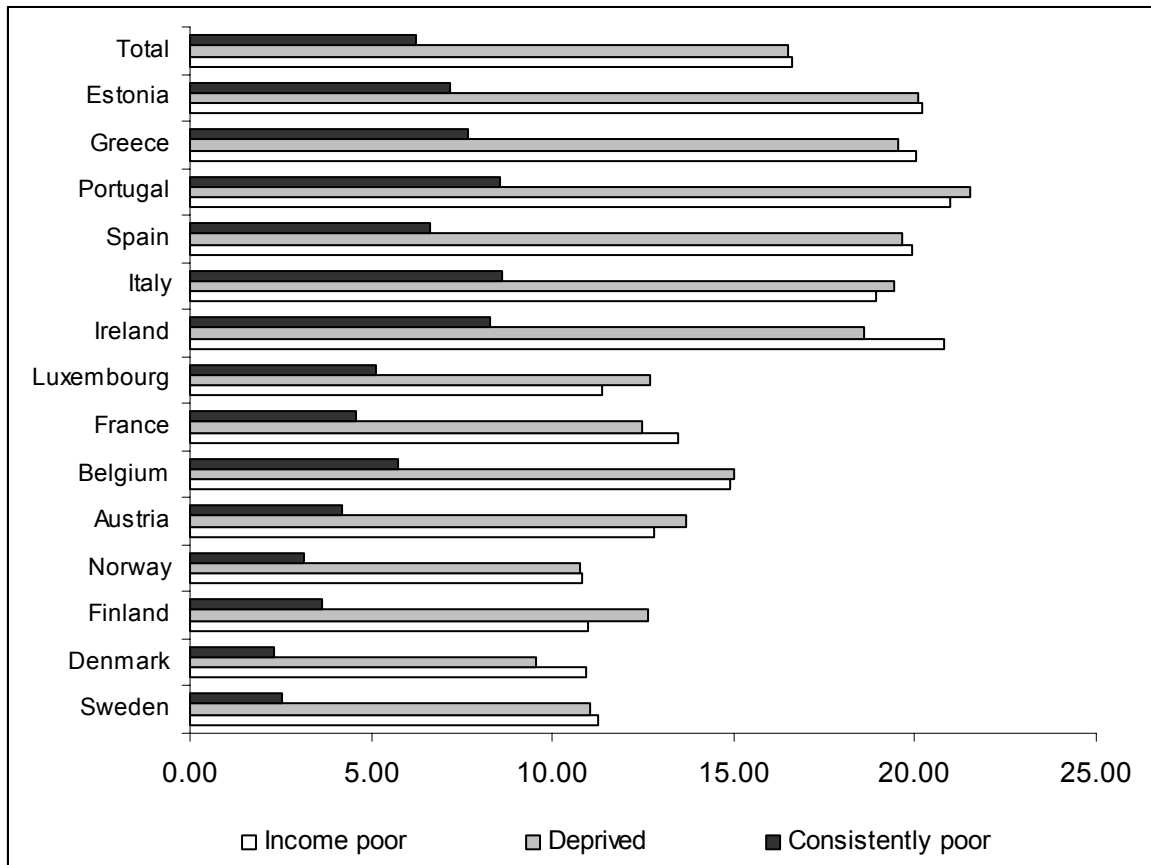


Figure 4: Poverty and Deprivation by Social Class, all countries

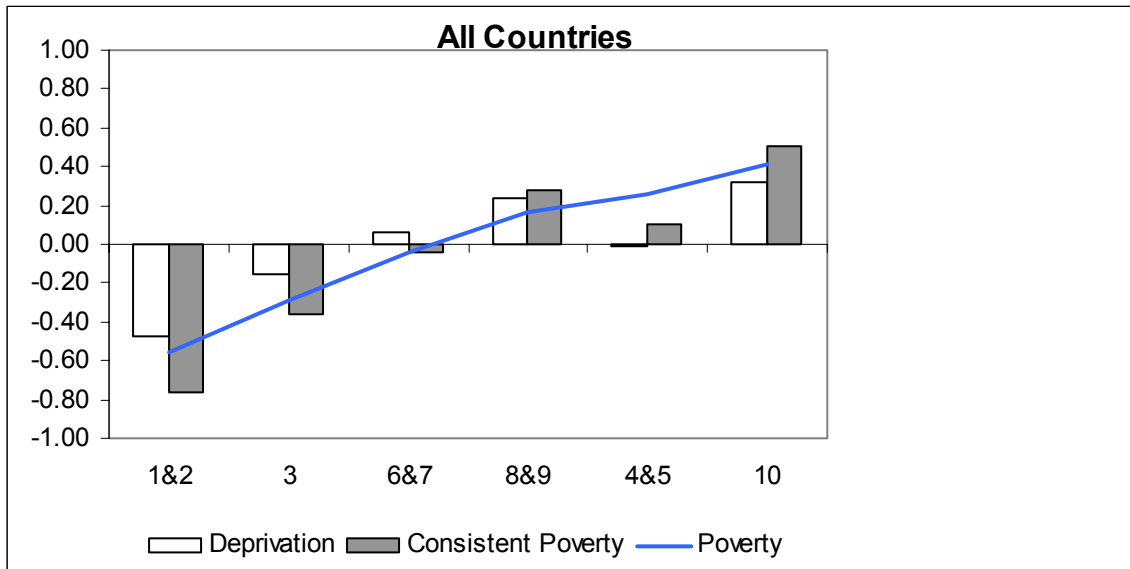


Figure 5: Class Patterns in Income Poverty, Deprivation and Consistent Poverty by Country

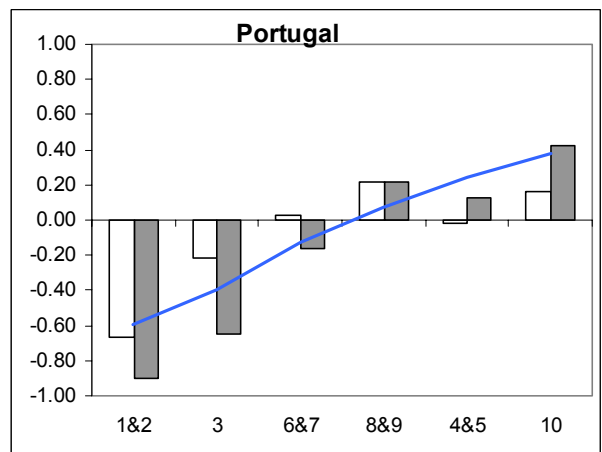
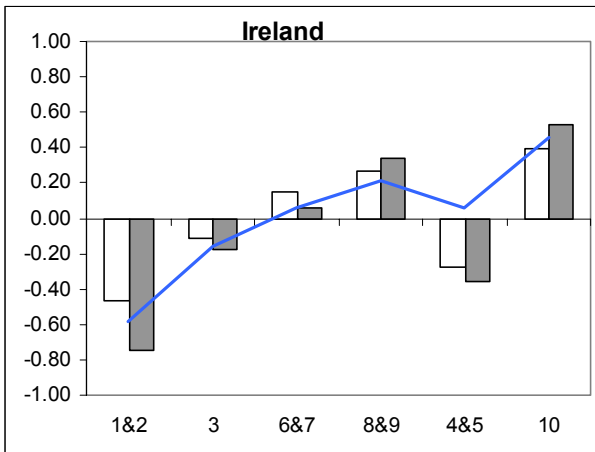


Figure 5: (continued)

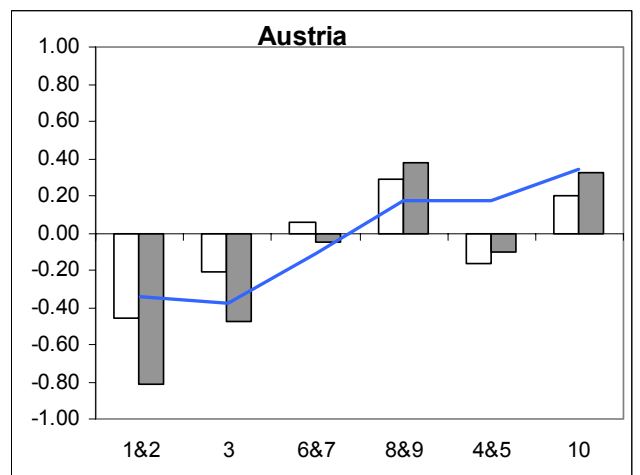
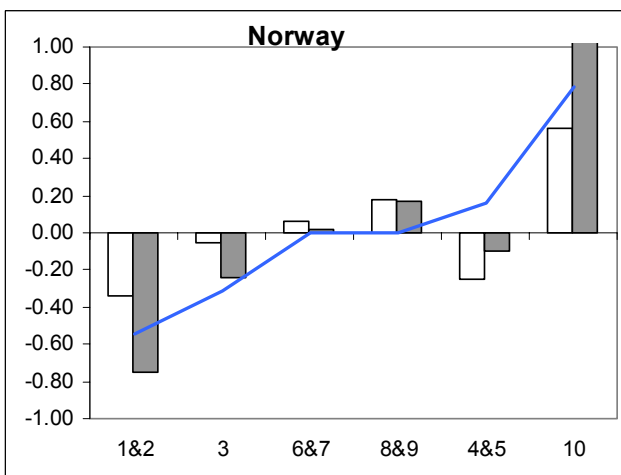
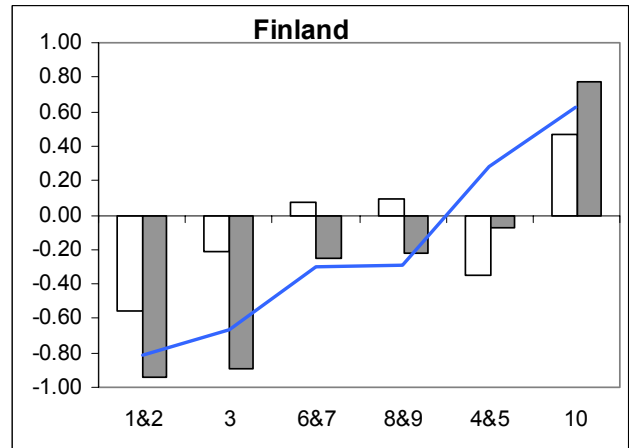
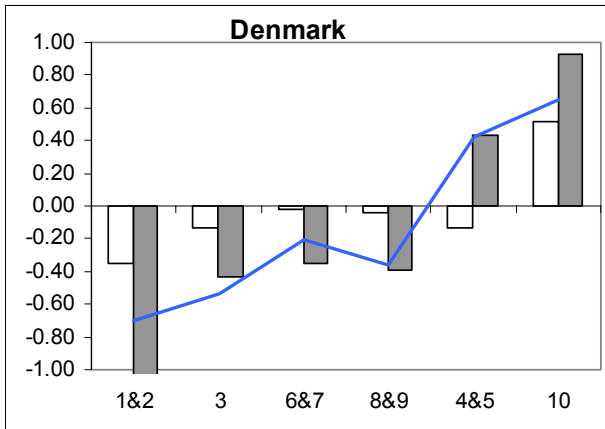


Figure 5: (continued)

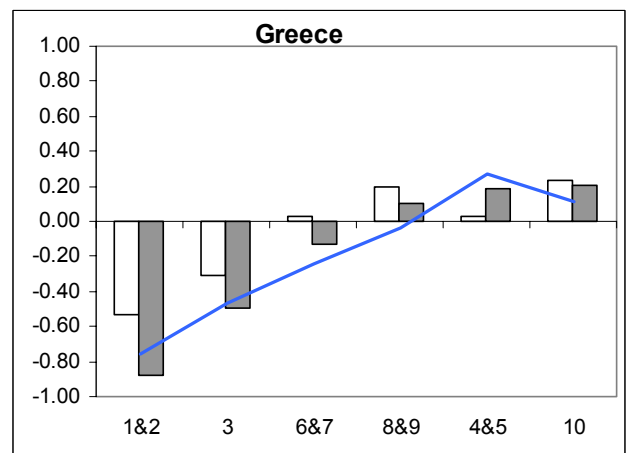
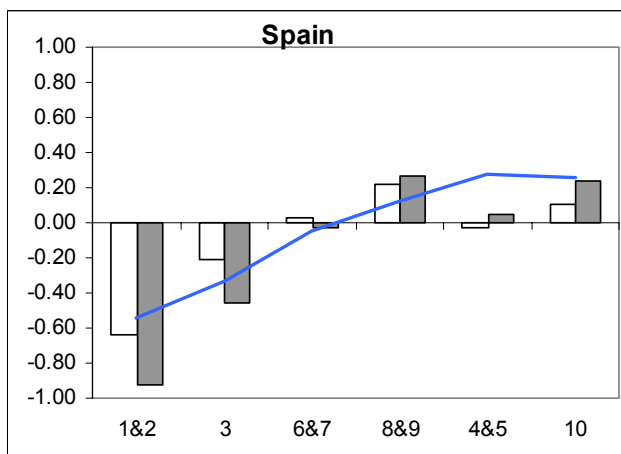
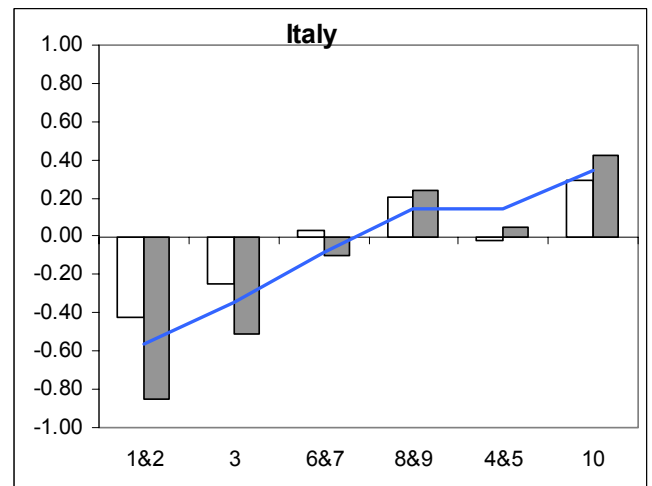
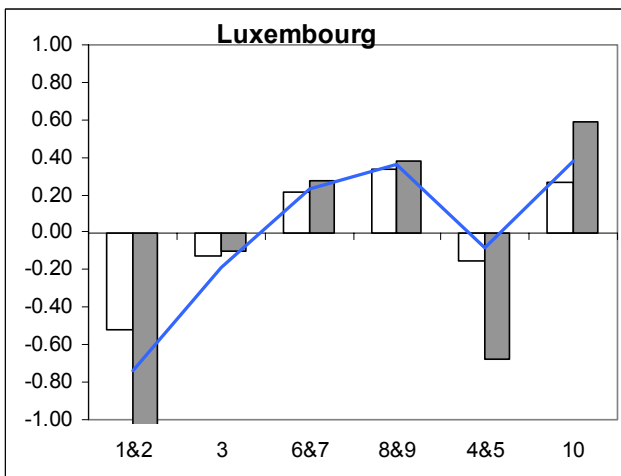
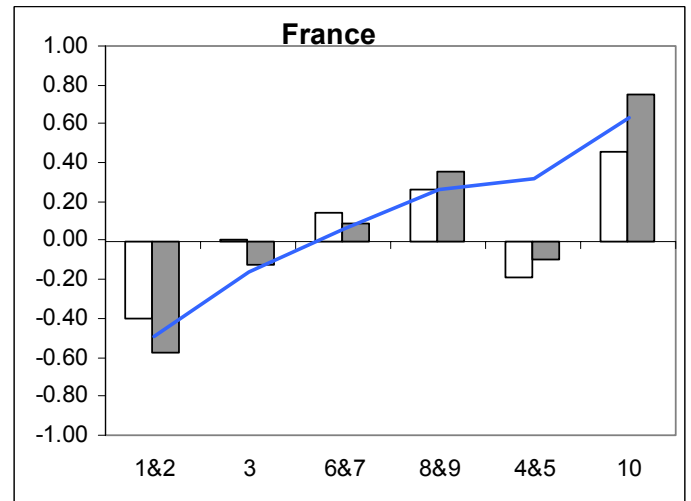
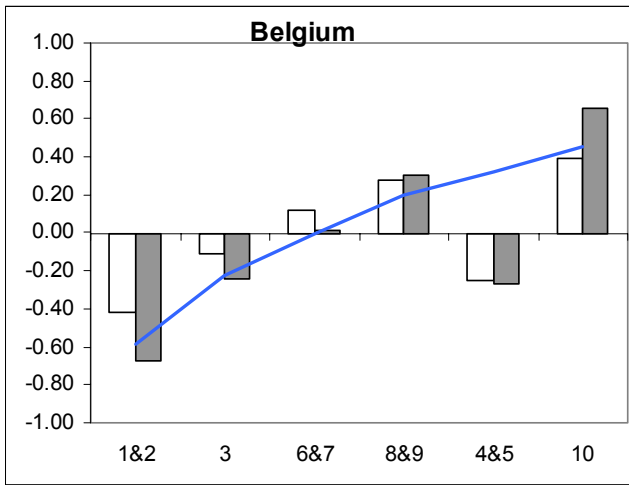


Figure 5: (continued)