



Research Group
Income Distribution, Consumption and Income Mobility
(INCDIS)

State of the Art Report

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Income Distribution, Consumption and Income Mobility

1. Introduction to the Main Themes

Brian Nolan

Research under this theme of the EQUALSOC network is focusing on the implications of patterns of economic change for the distribution of income, consumption and living standards, and how this works through dynamically for individuals and families over time. Four distinct but inter-related research topics are being explored; these are introduced in this section, and then reviewed in turn in some depth in the body of this state of the art report.

A/ Women's Labour Supply and the Distribution of Income

Many European countries have seen rapid increases in the level of participation by women in the paid labour force in recent years, and substantial increases are expected to take place in the future in a significant number of Member States. Depending on the way that it is structured, rising female participation could increase or reduce inter-household inequalities, or indeed leave overall intra-household inequality unchanged. Evidence from the USA suggests that the increase in women's participation has been disqualifying in terms of overall household income inequality, but it is not obvious that the same has been true of European countries where participation has been rising. Furthermore, increasing participation by women in the paid labour force also has a major impact on the financial position of women versus men, both in terms of current income and the accumulation of financial assets and pension entitlements for the future. It is therefore critical to understand the impact of women's employment patterns and changes in those patterns on the distribution of income in EU countries, and on the long-term financial position of women versus men.

B/ Consumption, Income and Living Standards

The way consumption changes for households as incomes fluctuate is a key link in the chain between macroeconomic changes and living standards. Growing income

inequality may not necessarily be accompanied by a corresponding growth in inequality in consumption, at least in the short run, as research for the USA and the UK has demonstrated. Household Budget Surveys (HBS) would seem to provide an excellent source for the comparative study of household consumption and its relationship with household income and other household characteristics, but have been little used for comparative European research of this type to date. This reflects both difficulties in accessing and pooling national HBS data sets across countries, and concern about the comparability of the data. In-depth analysis of inequality in consumption and the income-consumption relationship, for which HBS data is the key source, could be extremely valuable in understanding the implications of recent trends for living standards, poverty and social inclusion.

C/ Dynamic and Multidimensional Perspectives on Income Poverty and Deprivation

Recent research on poverty and deprivation in Europe has been characterised by an increasing interest in dynamics, in the difficulties of making meaningful comparisons across countries at quite different levels of income and living standards, and in multidimensionality and how to incorporate it into the measurement and the understanding of poverty and social exclusion. The implications of adopting a dynamic and multi-dimensional perspective on social exclusion/inclusion need to be explored, both from a methodological perspective and substantively, if efforts to promote social inclusion in the enlarged Union are to be successful. This involves bringing together various different strands in recent comparative research, placing them in an analytical framework, and applying them to emerging data on the 25 Member States, most significantly from EU-SILC.

D/ Income mobility

The extent to which socio-economic position and control over economic resources is fixed versus fluid over time is a central characteristic of society, and one which may be significantly affected by economic growth, structural change and globalisation. Income mobility versus immobility, both within and between generations, and how it is changing is thus a core issue for the network. Inter-generational associations in socio-economic position using social class or occupational prestige as outcome

measures have been extensively studied by sociologists, but economists have been engaged with inter-generational associations in income since at least the 1980s, mostly focusing on the correlation between the earnings of fathers and sons. Studies of shorter-term income mobility and poverty dynamics for individuals and households have also burgeoned in economics in recent years. Building on these foundations, the priority is to study intergenerational, long-term and short-term income mobility in a comparative way across the Union, covering intergenerational persistence of household disposable income, long-term stability and change of individual positions in the income distribution, and income mobility in nations with different welfare regimes.

We now turn to a detailed review of each of these areas in turn.

2. Women's Labour Supply and the Distribution of Income

Gosta Esping-Andersen and Berkay Ozkan

The Context: Rising Overall Income Inequality and Earnings Dispersion

The context in which female employment and income inequality are currently being studied is one where the dominant trend has been increasing overall income inequality, in sharp contrast to the prolonged post-World War II income compression (Levy, 1998; Davies and Shorrocks, 1999). Initially, rising inequality appeared restricted to the U.K. and the U.S. (Gottschalk and Smeeding, 1997; Atkinson, 1999), seen by some as a consequence of these countries' unregulated labour markets (Katz and Autor, 1999). More recently, though, more countries seem to be following suit, including the traditional bastions of equality in Scandinavia. The increase in market income inequality from 1980 to 2000, as measured by the Gini coefficient, ranges from a 6-7 percent rise in Denmark and Italy, to a 20-plus jump in the UK, the US, Germany and, surprisingly, Sweden. This trend is however far less dramatic when one turns to disposable incomes, in some instances because the welfare state intensified redistribution in response to widening inequalities (Kenworthy and Pontusson (2005).

The trend towards increasing inequality appears often to be related to top household incomes pulling ahead of the rest (Katz and Autor, 1999; Gottschalk and Smeeding, 1997). The ratio between the top and middle decile for household incomes rose from 1.8 to 2.2 in Britain; from 2.6 to 3.0 in the US; and from 1.5 to 1.7 in Sweden. The bottom is also losing ground in the US, Finland, Germany, Italy, Sweden and the UK (see e.g. Smeeding, 2004a).

Young adults bear much of the brunt, facing an erosion of relative wages at all skill levels while being hugely over-represented among the unemployed and those with precarious, short term employment contracts. Juhn et.al. (1993) show that young American workers have suffered a 70 percent wage decline compared to mature workers. More broadly, the relative disposable income of young adults (18-25) has declined by 7 percentage points on average in the OECD (Forster and d'Ercole, 2005: Annex Table A6), with the young suffering an especially steep decline in the Nordic countries. These new inequalities are associated with ongoing labour market transformation (OECD, 2000). On one hand, high unemployment contributes to inequality and helps in particular account for the eroding status of young adults. On the other hand, changing labour demand raises the wage premium to skills and punishes the less skilled (Katz and Autor, 1999). There is a clear over-representation of young workers within the low-wage population. Lucifora et.al. (2005) show that about 60 percent of youth (under 25) are low wage in the Netherlands, UK, and the US, and about 40 percent in France and Germany.

At the same time, the gap between top earners and the rest has been widening in many countries. In Britain and the US, the top-middle decile ratio for earnings rose by 15 and 21 percent, respectively. But major gains at the top occur also in Italy (with 13 percent), the Netherlands and Sweden (with 8 percent) and Germany (with 7 percent). Wage erosion at the bottom is less severe and also less common. The bottom decile has lost ground in Germany and Sweden (a 6-7 percent decline relative to the middle) and, more substantially so, in the Netherlands, the U.K. and the U.S. (a 9-11 percent decline).¹

¹ Calculated from OECD's Labour Market Statistics Data (updated 15.07.2003)

Although the female wage distribution follows the male trend, the gender wage gap is closing at all skill levels. Wage erosion at the bottom is far worse among low skilled males while highly skilled women enjoy major earnings gains relative to similar men (Blau and Kahn, 2002; Waldvogel and Mayer, 1999). And the ‘youth-penalty’, too, is biased against males. In the U.S. the earnings of 25-34 year old males declined by 23 percent compared to only 4.5 percent among women during the 1980s and 1990s (Schrammel, 1998). Trends in the gender pay gap vary substantially across countries (Blau and Kahn, 2002: Table 7.2; OECD, 2002: Tables 2.15 and 2.16). The latest Eurostat data show that the gender wage gap is narrowing substantially in the U.K., the Netherlands, Ireland and Italy. It has remained basically stable in Denmark, France and Germany, but it has widened in Spain and Sweden.²

Household Income Inequality and Female Labor Force Participation

Research on income distribution has, surprisingly, paid limited attention to the impact of household structures. In tandem with the dramatic changes in demographic behaviour and, especially, in women’s labour force attachment over the past decades, research on the link began to emerge. An early example is Levy (1987), who in particular stressed the potentially important effect of three emerging phenomena during the 70s and the 80s:

- 1) the rise of dual earner couples,
- 2) the growth of the elderly population, and
- 3) the role of female-headed households.³

Levy argued that the impact of these three factors on household income inequality is likely to be in opposite directions. He hypothesized that the rise of dual earnership should decrease household income inequality, whereas the increase in female-headed families and aging should intensify inequalities. Research over the past decades has been almost exclusively applied to US data and still has produced different and often contradictory results. Hence, the debate remains largely unsettled.

Using quite old data (from 1970-84), Levy concluded that the rise in dual earner couples had an equalizing effect on the US household income distribution. Cancian, Danziger and Gottschalk (1993) used PSID data and extended the time series

² Eurostat data from *NewCronos*.

³ For a discussion, see Ryscavage, (1999) .

backwards (1968-88). They concluded that wives' earnings had a greater equalizing effect on the distribution of income of married couples in 1988 than 1968. Another analysis of the same period (1967 and 1985) by Blackburn and Bloom (1989) also reached similar conclusions.

The non-US literature on this topic is sparse. For Italy, Del Boca and Pasqua (2002) found that the decline in the dispersion of wives' earnings (with increased labour force participation) was more important than the increased correlation of the earnings of spouses. Breen and Salazar (2004) analyzed the UK and concluded that rising female educational attainment and participation had not produced any equalizing effects.

Again using US data, Gittleman and Joyce (1999) focused on family income mobility and explored the likelihood of upward mobility. They found that an increase in hours worked by wives was less likely to produce upward mobility in the 1980s than in the 1970s. Their study implied that the educated men and women's increased earnings had stronger effect on the chances to push family up on the household income distribution.

There were a number of hypotheses for why increased dual earnership might have an equalizing – or at least neutral -- effect on income inequality. For example Cancian, Danziger and Gottschalk (1993) presented two arguments. Firstly, wives' earnings were rising relative to their husbands', particularly in the case of lower earning husbands. Secondly, the distribution of earnings among wives was becoming more equal partly because of the decline in the number of non-working wives. Gittleman and Joyce (1999) speculated that the decline in the positive impact of wives' participation on the chances of upward mobility was due to lower levels of entry wages during 80s as compared to those who entered labour force during 70s. Also, they note that the wives' shift from part-time to full-time was simply a response to falling wages.

More generally, Wolff (1997) argues that the results for the USA may be very sensitive to period effects. The years between 1979 and 1992 had totally different earnings dynamics for different population subgroups than 1969-1979. Indeed, the

marked rise in US income inequality occurred from the late 1970s onward – a trend that coincided with a significant increase in the wage dispersion between the skilled and unskilled (Hyslop 2001). Similar period effects were detected for Italy by Del Boca and Pasqua (2002). Italian data showed that inequality among all married couples decreased until 1989 and then widened subsequently.

The rationale behind the equalizing effect of wives' earnings was that female employment grew especially in couples where husbands' earnings were quite low. Moreover the variance of the wives' earnings has been very small relative to their husbands (Ryscavage 1999; Wolff 1997). If wives' earnings variance is smaller than husbands', and if the proportion of wives who enter employment is similar across all income classes, the upshot is like adding a (more compressed) constant to the husbands' earnings (Ryscavage, 1999; Cancian and Reed, 1999). Consequently, since the relative effect of the additional wives' earnings for the low earning husbands will be bigger, family income distribution with the increased dual earnership would look more equal.

However, some of the recent research argues that the equalizing effect of wives' employment has faded or, indeed, changed sign. Hyslop (2001), analyzing the years between 1979- 1985, concludes that women's labour supply has crucial importance for *women's* earnings inequality, but it explains only a modest part (approximately 10 % of the variation) of permanent family earnings inequality. The study by Karoly and Burtless (1995) focuses on female-headed families and concludes that their growth explains about half of the total increase in the Gini coefficient for the USA during the 1970s and 1980s. This they attribute to the change in skill distribution of women especially during the 80s and 90s: female employment growth has been strongest among more skilled, high-wage women while the less educated are more likely to be housewives, to interrupt around births, or to be unemployed.

The Importance of Marital Sorting – Who Marries Who?

The skill distribution and its connection to marital sorting (homogamy) have major implications for the impact of changes in wives' labour supply. Hyslop (2001) attributes 25 percent of the increase in permanent inequality to assortative mating, using US data. It is of course very likely that marital selection and inequality are

endogenously determined and that they reinforce one another. Fernandez, Guner and Knowles (2005) make this assumption explicit, arguing that marital sorting is a function of the distribution of skill premia (which is highly correlated (0.80) with the Gini coefficient). The logic is that rising returns to skills gives people incentives to partner with others who have valuable skills so as to maximize consumption abilities. They test their hypothesis on a large 34-country comparison (using household surveys), and find that “going from a more equal country like Sweden, for example, to a more unequal one (like Chile), is associated with a 0.26 point increase in the correlation coefficient of spouses human capital” (pp.317).

The marital sorting measure is usually based on correlations of husbands’ and wives’ years of education (Del Boca and Pasqua, 2002; Hyslop, 2001; Breen and Salazar, 2004). The correlation coefficient is a better measure for assigning the degree of homogamy than proportions of types (Morissette and Johnson) especially for the analysis of inequality over time because it takes into account the changes in the distribution of the skills from one year to another year, and it is not dependent to the initial distribution (Fernandez, Guner and Knowles (2005).

Household Composition and Selection Effects

The increase in the rate of dual earner couples and of single headed households together highlights the crucial question of selection effects. Wolff (1997) reminds us that the possible effects of female participation depend on shifts in household composition. The effect on married couple families exclusively is likely to be different from the effect on *all* households. Although there are more working wives in married couple families now relative to previous decades, the percentage of married couples among all households have declined dramatically during the same period. In other words, how we sample households is of crucial importance.

In order to isolate the effects of household composition changes, many studies focus on married couples only (Cancian and Reed 1999, Hyslop 2001, Del Boca and Pasqua 2002). Yet, as Ryscavage, Green and Welniak (1992) show, the median household income in 1989 would have been \$3,200 more in the absence of the shifts in household composition over the preceding 10 years. Furthermore, the Gini index has shown an increase of almost 10 percent just because of the substantial increase in the

single headed families between 1979-1989. With the exception of Scandinavia, where virtually all lone mothers work, single mother earnings tend to be low. In Continental Europe lone mother poverty rates hover around 30 percent; in the UK and the US, substantially higher (about 50 percent in the latter).⁴ As mentioned, Karoly and Burtless (1995) suggest that the rise of female-headed households explains about half of the total increase in the US Gini during 1970s and 1980s.

Methodological Approaches

The standard approach is to estimating how over-time changes in the household income distribution are connected to concurrent changes in female labour supply and earnings. Estimation is typically done via variance decomposition or via simulations. See Lam (1997) for an example of the former, and Cancian and Reed (1999) and Blackburn and Bloom (1989) for examples of the latter. Simulations test counterfactuals: what would the income distribution look like had there been no change in women's labour supply? They can also be applied to cross-sections. Pasqua (2002), for example, simulates what the Spanish income distribution would look like with Danish female employment levels (and finds it would be 15 percent less unequal).

Using a simulation approach, Blackburn and Bloom (1989) found that the increase in wives' participation and contribution to household income among all households was negligible. The problem of this approach is the potential selection problem due to the initial year's distribution. Hence, inclusion of singles into analyses requires using decomposition techniques (Cancian and Reed 1999). Reed and Cancian (2001) do, however, use simulation to identify both household composition effects (couples versus singles) and the impact of women's (and men's) earnings contribution. They conclude that the change in male earnings is, by far, the single strongest effect, but they also conclude that changes in the distribution of female earnings have reduced family income inequality. Simulations are criticized by Ryscavage (1999) for being solely first approximations of effects on broad income measures since they are not sufficiently sensitive to the interactions of the various characteristics.

⁴ These rates derive from LIS, *Key Figures*.

3. Consumption, Income and Living Standards

Heinz-Herbert Noll

A comprehensive and detailed state of the art report for the whole field of consumption, income and living standards would be neither feasible nor useful for present purposes, so this review focuses primarily on recent research on household expenditures and how they relate to household income as well as other characteristics of private households and household members.

Household expenditures as they result from budget limitations at the one hand and choices based on needs, demand, preferences etc. on the other may be regarded as manifestations of economic and social inequalities as well as cultural differences and social distinctions. Studying the patterns, disparities and determinants of household expenditures and their changes across time by making use of large scale population surveys may thus be promising in various respects:

- at a most general level it may provide insights into general consumption behaviour as a major source of human well-being and respective choices and restrictions;
- investigating household expenditures and consumption patterns is considered to be key for the monitoring and explanation of inequalities and changes in material living standards and general welfare;
- studying expenditures and consumption behaviour of private households also seems to be an important and promising strategy to extend and supplement mainstream approaches of studying inequality as a key topic of sociological and economic research.

Surprisingly, issues related to household expenditures and consumption have been disregarded in sociology and particularly empirical sociological research to a large degree, although family and household budget data used to be a frequently used source of empirical knowledge in the early days of the discipline⁵. Some observers and commentators of developments in sociological research thus conclude that

⁵ See for example Halbwachs (1912) or Jahoda, Lazarsfeld, Zeisel (1933). The latter study even uses an equivalence scale to transform households of different sizes and structures into comparable “consumer units” (see page 20 of the english edition, published by Aldine et al., Chicago 1971).

consumption has been strongly neglected in sociological research (Rosenkranz, Schneider 2000) or even speak of the sociology of consumption as a “forgotten discipline” (Wiswede 2000)⁶. In recent years consumption has returned to the sociological agenda, but the majority of respective studies are dealing with consumption from a specific perspective only. Following the traditions set by Simmel, Veblen or – much later – Bourdieu, current mainstream sociology of consumption is primarily interested in and preoccupied with the social and symbolic functions of purchasing and consuming goods and services⁷. In other words, the subject of this sort of sociological research is the “conspicuous” and “status-“ or “lifestyle-seeking consumption”, while the – at least in quantitative terms much more important – “ordinary” (Gronow and Warde, 2001) or everyday-consumption has been largely neglected.⁸

As a consequence, there are only few empirical sociological studies available as yet regarding the structure and inequalities of household expenditures and consumption at the national level (e.g. Bögenhold, Fachinger 2000; Langlois 2000, 2002, 2003; Noll, Weick 2005a, 2005b, 2005c) and almost no comparative research in this field at all.

As one would expect, research on household expenditures and consumption is much more common and popular among economists and looks back to a long tradition in economics⁹. This is not surprising at all since consumption may be considered as the ultimate purpose of economic behaviour and thus plays a major role in economic theory, e.g. the microeconomic theory of the household.

From our point of view the longstanding debate among economists on whether incomes, expenditures or consumption are better indicators of welfare or well-being is

⁶ Although this observation may be true in general, in Germany sociological research on consumption seems to be even less developed than in countries like France, Britain or the United States.

⁷ See e.g. Baudrillard 1998; Corrigan 1997; Featherstone 1987; 1991;

⁸ “...a great deal of consumption in fact takes place inconspicuously as a part of the ordinary, everyday decision-making of millions of individual consumers. ›ordinary‹ consumption ...is not oriented particularly towards individual display. Rather it is about convenience, habit, practice, and individual responses to social norms and institutional contexts” (Jackson, Michaelis 2003: 31)

⁹ For an instructive review of “The Early History of Empirical Studies of Consumer Behavior” see Stigler (1954).

of major interest¹⁰. The perhaps most central line of argumentation in favour of expenditures follows the so-called “permanent income hypothesis” (Friedman 1957), arguing that household expenditures are more stable across time than current incomes, which may fluctuate considerably, not only for groups like the self-employed and employees with temporary jobs, but also due to certain life events or other causes like running up or down savings or debt. Expenditures are thus supposed to better reflect “long-term” or “permanent” income and are from this point of view considered to be a better measure of economic well-being and respective inequalities¹¹: “...if spending is maintained at a more constant level over time even while incomes are fairly volatile, it may be that spending is a better representation of an individual’s average ...income. If so, then disparities in expenditure tell us something about permanent inequalities in living standards and well-being that variation in income cannot” (Brewer, Goodman, Leicester 2006: 2).

It is important to note however that expenditures are not necessarily identical with consumption, which may even be a better indicator of well-being, for various reasons. Among them is the possibility of consumption without expenditures - at least within the same period. One example for this is the case of households consuming housing after having paid off mortgages¹². Another example is the consumption of non market goods and services (home production as well as public goods and services). While it thus seems to be important to be aware of the fact that expenditures do not necessarily reflect a households total consumption level, expenditures may still be used as a better proxy of its living standard than income.

As the literature reveals, a considerable part of the research on expenditures and consumption is empirical in nature, but little comparative research has been done in

¹⁰ For recent contributions to this debate see e.g. Brewer, Goodman, Leicester (2006); Goodman, Oldfield (2004); Mitrakos, Tsakloglou (1998); Sabelhaus, Schneider (1997); Slesnick (2001);

¹¹ See e.g. also Atkinson (1998: 32): „On a standard of living approach, it may appear self-evident that consumption should be the variable studied“ and (Zaidi / de Vos 2001: 369): „Consumption can be argued to be a more relevant measure when one is interested in assessing standards or levels of living“.

¹² More generally this means that “current-out-of-pocket expenditures may therefore provide an inaccurate picture of the service *flow* provided by a consumer unit’s *stock* of consumer durables..., spending on new automobiles is included in expenditures, but the consumption value of the existing stock is not” (Cutler et al.1991)

this field yet¹³. Obviously most of recent research on household expenditures has been carried out in the United States, where these issues obviously attract new and growing interest. In comparison, there is much less recent research addressing these issues in Europe. As it seems, the Institute for Fiscal Studies (London) is one of the few institutes in Europe , where issues of household expenditures and consumption are part of a longer term research programme; most of this research refers however to the UK only

The following sections will present a more detailed overview of research activities related to four issues:

- Research on expenditure patterns, their changes across time and their associations with household characteristics
- Research on the distribution and inequalities of income and expenditures in comparison
- income vs. expenditure based poverty measurement and analysis
- methodological issues related to Household Budget Surveys

Expenditure Patterns, their Changes Across Time and Associations with Household Characteristics

Research questions concerning expenditure patterns, their changes across time and their determinants include the following:

- What are the general changes in expenditure structures and consumption patterns across time?
- To which extend are expenditures and consumption levels and patterns being determined by household income as compared to other variables?
- What is the role of variables like household composition and family type, place of residence, or employment status of household members as factors explaining levels and structures of expenditures?

¹³ The DEMPATEM-Project (Demand Patterns and Employment Growth) is one of the few comparative research projects that have explicitly addressed household expenditures and consumption patterns (Schettkat/Yocarini n.y.). This comparative project, however, was primarily focused on the employment impact of different demand patterns and thus addressed the structures, inequalities and changes in household expenditures only from a special point of view.

- How different are levels and patterns of expenditures across socio-economic groups, particularly income groups (e.g. poor vs. well-off households)
- Are differences between socio-economic groups converging or diverging across time?
- How do consumption levels and patterns differ and change across the life course?

Although there is a long history of research on patterns of household expenditures and their changes across time, which goes back to the 19th century and the famous work by Ernst Engel and others, these questions have attracted surprisingly little attention in recent years. Most of the studies available are focusing on single countries and are addressing levels and structures of consumption and respective trends of change (e.g. Blow (o.A.); Blow Oldfield (2004); van Deelen, Schettkat (2004), Herpin, Verger (2000 a, b); Gardes, Starzec (2004); Kutsar, Trumm (2006); Langlois (2003, 2005). Another strand of research addresses questions of how consumption patterns are being determined by household income, household composition and other household characteristics (e.g. Deaton et al. 1989; Noll, Weick 2006a) as well as related methodological issues (Blow et al. 2004).

International comparative studies on household expenditure patterns are quite rare, although Houthakker (1957) has addressed this issue as early as in the 1950s. Eurostat publishes descriptive reports on the classes of goods and services for which private households in the EU Member States spend their financial resources (European Communities (2002); Puente (2005). As it seems, more analytical comparative research has been done as part of very few projects only, as for example the Dempatem Project¹⁴ (Dufour, et al. 1999; Kalwij, Machin2004)).

Overall, the potential of analysis provided by the HBS micro-data-files, which are available for many countries, as well as modern techniques auf data analysis doesn't seem to have been fully utilised as yet concerning the above mentioned research questions, neither at national nor at international comparative level.

¹⁴ See footnote 9.

Distribution and Inequalities of Income and Expenditures

A further strand of research – almost exclusively in economics – concerns issues of the distribution and inequalities of income and expenditures: What are the relations of household incomes and expenditures, are there significant differences between the distributions of household expenditures and household incomes and how do changes in the distribution of income relate to (or transform into) changes in the distribution of household expenditures? If there are significant differences between the distributions of incomes and expenditures, questions concerning the inequality of living standards may be answered differently depending on whether incomes or expenditures are being used as indicators of the standard of living.

Respective issues have been widely addressed under titles like “Trends in Economic Inequality in the United States: Income versus Expenditures versus Material Well-being” (Mayer, Jencks 1993); “United States Inequality through the Prisms of Income and Consumption” (Johnson, Smeeding and Torrey, 2004), “Using expenditures to measure the standard of living in the United States: does it make a difference?” (Johnson 2004), or “Measuring the distribution of well-being: why income and consumption give different answers” (Sabelhaus, Schneider 1997)¹⁵. One of the most prominent studies in this field of research is Daniel Slesnick’s (2001) book on living standards and their distribution in the United States. The study reveals significant differences between the distributions of income and expenditures, which may even lead to different assessments of trends in the inequality of living standards. Other research in this field concerns e.g. questions of whether and how earnings or income inequalities (Attanasio et al. 2002; Krueger, Perri 2002) transform into inequalities of spending and how incomes and expenditures relate for particular groups within the population (e.g. Charles et al. 2006b; Wang 1995).

A special aspect of the question of how household incomes and household expenditures relate to each other concerns “overspending”: Several studies have shown for various countries (e.g. Brewer, Goodman, Leicester 2006 for the U.K; Noll, Weick 2005a for Germany) that households’ total expenditures may and actually do –

¹⁵ See also Attanasio et al. (2006); Bögenhold and Fachinger (2000); Dhawan-Biswal (2002); Goodman and Oldfield (2004); Noll and Weick (2005b); Sierminska and Garner (2002);

at least for certain periods of time - exceed their net household incomes. As we know from these studies, the phenomenon of “overspending” is not only, but particularly prevalent among low income households. This raises questions about whether the observed phenomenon is a real one or whether it is due to errors in the measurement of household income and/or expenditures, and if it is real, how widespread it is in different populations, under which conditions households tend to overspend, and how they finance overspending. Obviously these are very crucial – and not least politically relevant - questions, which have not yet been frequently addressed in empirical research. A very recent paper on “Overspending – Who, Why, and How” (Charles, Li, Schoeni 2006) presents first instructive empirical evidence for the United States, but due to differences in spending behaviour it is certainly questionable whether the results will hold true for European countries as well.

Overall, it seems again as if – with a few exceptions (e.g. Noll and Weick 2006) - this research concerning distributional differences and associations between incomes and expenditures is much more frequent in the United States than in European countries, particularly in recent years.

Poverty Research

Poverty research – focusing on a specific aspect of the more general question concerning the distribution and inequalities of incomes and expenditures – looks back to a longer debate on whether poverty measures should be based on incomes or expenditures. However, there is obviously a renewed interest in the implications and consequences of following the one or the other approach and which one may be considered more appropriate. A most recent example of the new interest in expenditure based measurement of poverty as an alternative to or enhancement of income-based measurement is a report on “Household Spending in Britain – What Can it Teach Us about Poverty?” (Brewer, Goodman, Leicester 2006), which demonstrates, that following the one or the other approach may lead to significantly different results in terms of the amount, changes and structures of poverty. According to a study for the U.S. by Slesnick (2001), the two approaches may even reveal

different trends in poverty¹⁶. Particularly in the U.S. the issue of expenditure based poverty measurement currently seems to rank high on the research agenda as can be seen from a number of recent research papers (e.g. Garner, Short 2006; Mayer 2004; Meyer, Sullivan 2003; Meyer, Sullivan 2004; Meyer, Sullivan 2006; Smeeding 2004b) and several conferences¹⁷ addressing this issue. In their most recent study on “Household spending in Britain”, Brewer et al. (2006: 1) conclude that “although there has been much recent emphasis on the advantages of measures of household expenditures in assessing household welfare in more academic circles, this has yet to work its way into the mainstream poverty measurement debate”.

In Europe the issue of income vs. expenditure based poverty measurement has been taken up rather early, albeit sporadically, particularly as part of poverty research conducted in the U.K. An interesting theoretical contribution to this debate is an article published by Stein Ringen (1988), where he discusses “direct and indirect measures of poverty”. In his terminology income is an indirect measure of poverty, whereas consumption is a direct one. His critical assessment of income based poverty research concludes that “one needs only to introduce some very simple and tentative information on the standard of consumption to demonstrate the inadequacy of relying on income information alone in the measurement of poverty (Ringen 1988: 363). Atkinson (1998: 32) has argued, that from a standard of living approach, consumption would be the preferable variable, while income would be preferable from a minimum rights approach. McGregor and Borooah (1992) presented an early empirical comparison of income and expenditure based measures of poverty for the U.K., using the Family Expenditure Survey data from 1985. They conclude that the poverty measure based on expenditures is superior to the measure based on income (McGregor, Borooah 1992: 68). A major step forward has been made by a research project conducted at the Erasmus University of Rotterdam as part of the third anti-poverty programme of the European Commission. The results have been published within a comprehensive Eurostat-Report (Hagenaars, de Vos, Zaidi 1994) as well as in various related articles (e.g. Hagenaars, de Vos, Zaidi 1998; Zaidi, de Voos 2001).

¹⁶ Similar results have been found for other countries as well. See e.g. for Germany Noll, Weick (2006).

¹⁷ See for example two conferences of the U.S. National Poverty Center in 2004 and 2006 in Washington D.C.

This report discusses not only the advantages and disadvantages of income vs. expenditure based approaches of poverty measurement, but rather presents for the first time results of detailed comparative micro-data-analyses for the 12 EC-Countries using incomes as well as expenditures. The authors came to the conclusion to use expenditure data primarily for pragmatic reasons, arguing “that they are more accurately measured than income data, at least in certain Member States.” (Hagenaars, de Vos, Zaidi 1994: 10). By that time Household Budget Surveys used to be the “only available source of comparable statistics on household resources in all the (12) Member States of the European Community” (Hagenaars, de Vos, Zaidi 1994: 3). Another pragmatic reason to use household expenditures rather than incomes was the fact that a previous Eurostat publication on “Poverty in Figures” (1990) – which was supposed to be used as a baseline - was based on expenditures too. But also from a conceptual point of view, the report presents a number of good reasons in favour of using expenditures as a basis of poverty measurement instead of incomes and why “a snapshot picture of income can be misleading” (Hagenaars, de Vos, Zaidi 1994: 8).

However, after all, this report made use of expenditures as a measure of household resources due to the fact that – according to the authors - reliable, comparable and high quality household income data were lacking for at least some of the European Community Member States by that time. The lack of comparable income data and a respective recommendation of the report to “set up an independent community-wide panel survey on income data” (Hagenaars, de Vos, Zaidi 1994: 195) has prompted Eurostat to establish the ECHP in 1994. As a consequence of the availability of this new data source providing comparative household income data for the EU Member States, poverty research in Europe in the following years was almost exclusively based on income up to recently¹⁸ and the Household Budget Surveys were no longer used as a data base for comparative poverty research. However, since – as has been shown conceptually as well as empirically – relying on income alone may result in an incomplete and even biased picture of poverty, there is good reason for European poverty research to resume the previous approaches and to explore more systematically the relations between poverty of incomes and expenditures in recent years.

¹⁸ There were only very few exceptions as for example O’Neill & Sweetman (1999).

Methodological Issues Related to Household Budget Surveys

Many countries around the world regularly carry out Household Budget Surveys (HBS), including all EU member states and the three current candidate countries. HBS are large scale official surveys that collect detailed information on expenditures in private households and also typically collect data on household incomes and the possession of consumer durables, as well as additional characteristics of households and individual household members. Two recent Eurostat reports (2003, 2004) provide detailed information on Household Budget Surveys in all the EU member states. These surveys – although in the past primarily designed to collect information for the calculation of price indexes – thus provide a database, which can be used for all kinds of empirical studies related to issues of household consumption and income. However, their scientific use varies a lot across countries, due to different research traditions, availability of alternative data sources and not least differences in policies giving access to official microdata sets.

One strand of methodological research related to HBS concerns the quality of information collected, with a focus on the information on income and expenditures. Examples of respective studies are those by Attanasio et al. (2004) and Battistin (2004), both for the U.S. Consumption Expenditure Survey. Blow et al. (2004) treat more comprehensively “methodological issues on the analysis of consumer demand patterns over time and across countries”. Due to the fact that the U.S. Panel Study of Income Dynamics had included questions on household expenditures some years ago, there are also new research activities comparing the information from the PSID and the Consumption Expenditure Survey (Charles et.al. 2006).

Despite their richness, however, HBS data – with some exceptions - have been little used for comparative European research. The reason may lie partly in difficulties of accessing and pooling national HBS data sets across countries. A more serious deterrent, however, may be a concern about the real comparability of the data, a concern that is difficult to clear up in view of the complexity and unwieldiness of HBS data. Some research on the comparability of HBS data across the EU-12 countries has been done as part of of the European poverty project mentioned above (Zaidi 1991). However, this review does neither cover the 13 member states added since, nor does it account for the important changes in the design of HBS introduced

in the meantime. Responsibility for the HBS lies at national level in each country. While there is no legal basis for an EU role in this area, Eurostat has worked informally with the national statistical services of the member states both to pre-harmonise HBS instruments and methods and to post-harmonise HBS results (Eurostat 2003, 2004). Eurostat also compiles a pooled HBS data set for its own use. However, it is unclear to outside researchers how far these efforts have succeeded in producing real similarity and comparability in the data, and the surveys continue to be used mainly for analyses at national level. To be used for comparative analysis the national data need to be thoroughly assessed for comparability of concepts, classifications, sampling procedures etc. and to be adjusted as far as possible where necessary.

4. Dynamic and Multidimensional Perspectives on Income Poverty and Deprivation

Christopher T. Whelan

Introduction

This recent enlargement of the EU has led to a need to reconsider the conceptual frameworks, and associated policy perspectives, relating to economic and social inequalities both within and between member countries. Even prior to enlargement, a large body of literature had argued the need for a move from a focus on income poverty to a concern with multidimensional social exclusion.¹⁹ However, such demands have been given impetus by the difficulties that EU enlargement has created for the development of a consistent policy perspective relating to variation in disadvantage. As Förster (2005:29) observes, agreement that poverty and social exclusion should be defined on a common basis across countries must now be implemented in the context of the accession of ten countries, the vast majority of whom underwent a deep “transitional recession” during the early 1990s and whose shared legacy from the former era included the denial of poverty as a social policy concern.

¹⁹ See Ashworth *et al* (2002), Bane and Ellwood (1986), Duncan *et al* (1999), Halleröd, (1996), Kangas and Ritakallio (1996), Nolan and Whelan (1996)

The increasing emphasis on the multidimensionality of poverty and social exclusion, and on the need to incorporate indicators relating to dimensions other than income is reflected in the set of indicators adopted by the European EU to monitor social inclusion at the Laeken Council in 2001 which include measures of income poverty and income inequality, but also educational disadvantage, health inequalities, and unemployment and worklessness;²⁰.

Typically the implementation of a multidimensional approach to poverty and social exclusion is pursued on a fairly *ad hoc* basis. Here we start by trying to clarify exactly why and when a multidimensional approach might be necessary or helpful. We then discuss different aspects of what such an approach might involve. We contrast the adding-up across indicators that are already themselves aggregates with the use of micro-data to investigate the relationships between different dimensions at individual/household level and the extent of multiple deprivation. We discuss how non-monetary indicators obtained at micro-level have two complementary advantages : they help to do a better job than income on its own in identifying the poor, and also directly capture the multifaceted nature of poverty and exclusion.. We then explore approaches to incorporating a multidimensional perspective into the analysis of poverty and social exclusion via the application of latent class analysis to data from the European Quality Life Survey (EQLS).

Why (and To What) Should a Multidimensional Approach Be Adopted?

The language of multidimensionality has been adopted so widely that the underlying rationales its advocates have in mind are in danger of being obscured or confused; furthermore, different rationales for adopting a multidimensional approach have differing implications for how it should be implemented. It is becoming a commonplace that poverty and social exclusion are inherently multi-dimensional concepts, and that anti-poverty policy therefore needs to be equally multi-dimensional rather than “just” focusing on income and transfers. Proponents of a focus on social exclusion for example stress the need to go beyond low income because of the multidimensional nature of the mechanisms whereby individuals and groups are excluded (EU Commission 1992), requiring the mobilisation not only of employment

²⁰ See Atkinson *et al* (2002)

and social policy but also housing, education, health, leisure and culture (EU Commission 2000).

The point that needs to be stressed at the outset is that in discussing multidimensionality a clear distinction needs to be maintained between *conceptualising, measuring, understanding* and *responding* to poverty. One can make a case for a multidimensional approach to each of these, but they are not the same case, they have different implications, and one does not simply follow from the other. For example, the fact that poverty may be best thought of as a multidimensional concept does not in itself mean that the poor can only be identified using a multidimensional approach; nor does identifying the poor unidimensionally (via income, for example) imply that poverty can be understood that way or that policies should be directed towards that single dimension.

Starting at the level of conceptualisation, most research now takes as point of departure that people are in poverty when “their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities” (Townsend 1979). The linkage between concept and measurement then has to be thought about carefully, however; in doing so, it is also important to distinguish two different aspects of measurement: identifying the poor/counting the number poor versus capturing what it means to be poor. In some circumstances, a single indicator might in fact be adequate to identify empirically those experiencing poverty or social exclusion in a particular society. It could be that household income, accurately measured, is sufficient to identify those who would be generally thought of as poor or socially excluded. Those below the appropriate income threshold might well be experiencing all sorts of other types of deprivation and exclusion – poverty is in that sense multifaceted. To document what being poor entailed would require the use of appropriate indicators across various dimensions. However, the poor could be accurately identified via their income alone. This would be the case if income were indeed very strongly associated with those other dimensions of deprivation and exclusion. So the need for a multidimensional measurement approach in identifying the poor/excluded is an empirical matter. It is not something one can simply read off from the multidimensional nature of the concepts themselves.

In a similar vein, identifying the poor is only the first step in understanding the causes of poverty, and the measure employed does not determine the best approach to exploring those causes. Even before we start thinking about aspects of poverty other than low income, there are many different channels into poverty and many mechanisms involved – most obviously the way the labour market, education and tax and transfer systems are structured.

Focusing finally on policy, the way poverty is measured should not in itself imply a particular set of policy prescriptions to combat it, or a narrow versus broad approach to doing so. A multi-sectoral anti-poverty strategy can be justified on the basis of the complex and interlocking nature of the underlying causal mechanisms and structures, irrespective of the measurement approach employed.

Multi-Dimensional Measures of Poverty and Social Exclusion: the Aggregation Issue

The most common way to use multi-dimensional indicators of poverty and social inclusion is to identify at country level some statistics relating to different dimensions or aspects and track how they evolve over time and/or vary across countries. Taking the indicators of social inclusion which the EU has adopted as an example, these are each produced and presented as an aggregate for the country in question – the percentage below relative income thresholds, the long-term unemployment rate, the proportion of early school-leavers etc. in each country at a particular time. The phenomena they aim to capture could be entirely distinct or intimately related to each other, but the indicators are stand-alone and have nothing to say about these inter-relationships. An issue that then pervades the use of such multi-dimensional indicators is how to assess whether things are getting better or worse overall in a given country, or whether one country is doing better than another in some summary sense. Do we simply assume that the different dimensions are non-comparable and indicators relating to them should be presented separately, or do we try to aggregate or arrive at an overall assessment across dimensions, and if so how is this to be done?

There has been a longstanding practice in the quality of life literature of summarizing across dimensions to produce a single quality of life index.²¹ In a development context the UNDP's Human Development Index (HDI), constructed from indicators of life expectancy, education and standard of living, has received a great deal of attention and a HDI variant designed for developed countries is also now produced. On the other hand the Laeken indicators are very deliberately presented individually with no attempt to produce an overall "score" across the dimensions – indeed, Atkinson *et al* (2002) argue that this should be avoided precisely because the whole thrust of the European social agenda is to emphasize the multidimensionality of social disadvantage.

Proponents of summary measures of national performance aggregating across dimensions argue that they serve the twin functions of summarising the overall picture and facilitating communication to a wide audience.²² However, the arguments against are also well illustrated by the on-going controversy around the use of the HDI. The general problem is how to reach agreement not only on the best indicators to use but also on the weight to give to different ones. If a society has a relatively low level of average income but above-average life expectancy, to use perhaps the most obvious but striking example, how would we place a value on one versus the other in constructing a summary measure? Such indices, in consequence, are always arbitrary in fundamental and unavoidable ways.

At the individual level, on the other hand, linking information across dimensions allows us see for example where unemployment, poverty and ill-health are found together – which not only allows the extent of "multiple deprivation" to be captured, but is also invaluable in investigating the causal factors involved. Aggregation issues still have to be faced: having distinguished different dimensions and measured whether the individual is "deprived" on each one, how is such information to be summarised across dimensions? Tsui (2002) and Bourguignon and Chakravarty (1998, 2002) have explored this issue from a welfare-theoretic perspective. Tsui provides an axiomatic justification for aggregating across different deprivation dimensions into a single cardinal index, and distinguishing the poor as those above some threshold score on that index. Bourguignon and Chakravarty, on the other hand, seek to take into account that one may want to

²¹ see Hagerty *et al* 2001 for a review

²² See for example Micklewright, 2001

define a poverty threshold *for each dimension* or attribute. They provide a framework for counting the number of poor in different dimensions and combining that information into a statistic summarising the overall extent of poverty. One can, for example, have a summary measure that counts as poor all those who are poor on *any* dimension. More sophisticated measures take into account different weightings of dimensions and the degree of substitutability one builds in between them. They show in particular how this can be linked to assumed properties of the social welfare function.

Measuring Poverty: What Is Wrong With a Unidimensional Approach?

Poverty as generally understood in advanced societies has two core elements: it is about inability to participate, due to inadequate resources. Most quantitative research on poverty in such societies then in fact employs a unidimensional approach to distinguishing the poor: it uses income. The EU social policy perspective continues to define being “at risk of poverty” in purely relative terms as falling below a percentage of median income. However, the widening in income inequalities associated with enlargement raises questions about the continued validity of this approach. If we focus on the Laeken indicator of being at-risk-of poverty indicated by being below 60% of median income we find that the most recent estimates suggest there is relatively modest variation in rates across EU member states and candidate countries. On average 16% of the EU population were at risk of poverty. Variations in that rate bear little relationship to conventional notions of affluence and deprivation. The countries with the highest poverty rates are Slovakia, Ireland and Greece (21%). Intermediate levels are observed in Portugal, Italy, Spain, the United Kingdom and Estonia (16%-19%). The lowest levels are observed in the Czech Republic, Luxembourg, Hungary and Slovenia (8%-10%). Contrary to conventional expectations, the poverty rate in Latvia is slightly lower than in the UK. Enlargement has no effect on the numbers estimated to be at risk of poverty, however, even after adjusting for differing purchasing power standards, there are substantial variations in the absolute levels at which such thresholds are set. Consequently, while some of the New Member States are relatively well ranked in terms of poverty risks, nine out of ten of such states have a threshold that is below the EU-25 average. Expressed in terms of the EU-25 average of €15,913, values range from 28% in Latvia to 188% in Luxembourg (EUROSTAT, 2004).

It could be argued that relative income poverty lines were never intended to capture cross-country differences in living standards and that the purely national perspective is entirely consistent with the limiting character of the EC's social policy remit. However, both the development of a broader EC social policy remit to include a common set of indicators of social exclusion that are monitored through national action plans for social inclusion, and the concerns encapsulated in the regional perspective, point to the need for a consideration of a wider range of indicators of economic and social circumstances²³.

In this context it seems unlikely that at-risk-of poverty rates that appear to be counter intuitive are likely to be taken seriously, as a basis for evaluating the comparative impact of policy interventions, unless an explicit rationale justifying the basis of such comparison is developed. Similarly, if the promotion of social cohesion is a primary objective, then it would seem necessary to look beyond GDP levels and take into account the distributional concomitants of trends in economic development.

The rationale underlying the use of relative income lines 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 recognised for some time (Ringen 1987, 1988) that low income may be an unreliable indicator of poverty in this sense.. This has been demonstrated in a variety of studies of different industrialised countries employing non-monetary indicators of deprivation.²⁴ Analysis of data from the ECHP reveals that the degree of overlap between income and an appropriate measure of life-style deprivation ranges from one third to less than a half (Whelan *et al* 2001).

It is worth teasing out why one might actually expect current income to have serious limitations in capturing poverty. Both the theoretical concepts of resources versus

²³ See Atkinson *et al* (2002) and Ferrera *et al* (2002) and for more recent discussion based on the European Quality of Life Survey Fahey (forthcoming) Whelan and Maître (forthcoming).

²⁴ These include Townsend (1979), Mack and Lansley (1985), Gordon *et al* (1995), Gordon *et al* (2000) and Bradshaw and Finch (2001), Bertoud *et al* (2004), McKay (2004) with British data, Mayer and Jencks (1988) for the USA, Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996) with Irish data, Muffels (1993) and Muffels and Dirven (1998) with Dutch data, Hallerod (1996) for Sweden, Kangas and Ritakallio (1998) for Finland, Bohnke and Delhey (1999) for Germany, Tsakloglou and Panopoulou (1998) for Greece, Bray (2001) for Australia, and Jensen *et al* (2002) and Krishnan *et al* (2002) for New Zealand.

needs, and the realities of their empirical measurement, are relevant here.²⁵ A household's standard of living will depend crucially on its command over resources and its needs compared with others in the same society. While disposable cash income is a key element in the resources available to a household, it is by no means the only one. Savings accumulated in the past add to the capacity to consume now, and servicing accumulated debt reduces it. Similarly, the level of past investment in consumer durables influences the extent to which resources must be devoted to such expenditure now. Imputed rent should in principle be counted among available resources but very often is not. Non-cash income may also comprise a major resource for households. Cash income itself may fluctuate from year to year, so that current income is an imperfect indicator of long-term or "permanent" income.

Needs, also differ across households, in a manner that is difficult to capture adequately at the conceptual much less empirical level. Most obviously, differences in household size and composition, in terms of numbers of adults and children, affect the living standards a particular level of income will support. It is customary to seek to take this into account by dividing household income by the number of "equivalent adults" in the household, but the equivalence scales employed may or may not satisfactorily achieve this objective. Households may also vary in a variety of other ways that affect the demands on their income.

Turning to measurement, one first of all cannot be confident that income itself has been measured comprehensively and accurately. Household surveys face (intentional or unintentional) mis-reporting of income. They also find it particularly difficult to adequately capture income from self-employment, from home production, from capital, and from the imputed rent attributable to homeowners.

There is then a range of responses to recognition of these difficulties. One is clearly to work to improve the depth and accuracy of measures of resources and needs and our understanding of how they relate to one another. However, obtaining a full picture of command over resources and how it relates to needs remain problematic. This is illustrated by the results of panel analysis of the relationship between deprivation and

²⁵ See the discussions in for example Atkinson *et al.*, (2002) and Mayer (1993).

period using data from the ECHP. Where persistent poverty is defined as having experienced a consecutive three-year spell in poverty in the course of a five-year window of observation and a comparable deprivation indicator is constructed the extent of mismatch remains substantial (Whelan *et al* 2004).²⁶

The evidence available suggests that non-monetary indicators contain valuable information, and when combined with information on financial constraints, do help in identifying those who are experiencing exclusion due to lack of resources. This evidence takes a number of forms. One is that those on low income and displaying particular types of deprivation generally have much higher levels of self-assessed economic stress than those on low income alone. Another is that “low income plus deprivation” is generally more strongly related to factors that are widely believed to increase the risk of poverty in many countries than low income alone. Finally, those identified as “low income plus deprived” also display higher levels of other types of deprivation than those on low income alone (Nolan and Whelan, 1996, Hallerod, 1996). As well as helping in identifying the poor, non-monetary indicators obtained in household surveys can be very valuable in the second element of the measurement process, namely capturing the multifaceted nature of poverty and social exclusion.

Non-Monetary Indicators and Multidimensionality

Social exclusion can refer to a state or situation but it places particular emphasis on the processes or mechanisms by which exclusion comes about. This concern is captured in Paugam’s (1996) focus on precarity and spirals of precariousness. As De Haan (1998:15) observes, perhaps closest to the notion of social exclusion employed in this sense are notions of vulnerability. Following Chambers (1989:1), vulnerability can be seen as not necessarily involving current deprivation either in income or consumption terms, but rather insecurity and exposure to risk and shock. Despite the emphasis in the literature on both multidimensionality and vulnerability, little methodological progress has been made in identifying such vulnerability on the basis of multiple indicators. Recently, Whelan and Maitre (2005, 2006) use latent class analysis to distinguish an underlying economically vulnerable class, using data from the European Quality of Life Survey. Their focus is on three key indicators - income

²⁶ Correcting for measurement error in relation to both income poverty and deprivation dynamics does not alter these conclusions (Whelan and Maitre, 2005a).

and deprivation quartile position within economic cluster and exposure to subjective economic stress – and on different clusters of European countries distinguished by average income.

Latent class analysis can be extended to identify multiple underlying clusters with distinctive life-style deprivation profiles, as in Whelan and Maître (2006). Schizzerotto, Pisati and Lucchini (2005) adopt this approach to finding absolute and multidimensional measures of well-being and deprivation, that aims to produce a segmentation of individuals according to different indicators of well-being or deprivation “as is”, i.e. without weighting and collapsing them into a unique synthetic measure. The selected data and variables were analysed by means of a standard Kohonen’s Self-organizing Map, one of the best known neural networks for unsupervised classification.

While most approaches to measuring life-style deprivation and the analysis of its dimensions adopt an additive approach in which individual items are summed either by a weighted or unweighted procedure. However, Cappellari and Jenkins (forthcoming) have recently proposed an alternative approach based on Item Response modelling. Their empirical application of these procedures yields very similar outcomes to the sum of scores approach and the latter has the merit of being simple to implement and to understand.. However, as they note there are a number of technical and conceptual issues for seeking to further explore this approach

Conclusions

Multidimensionality has become pervasive in debates about poverty and social exclusion, but with considerable confusion about what assigning it a central place would mean in practice and indeed about why that would such be a good idea in the first place. This review has tried to clarify exactly why a multidimensional approach might indeed be necessary or helpful in this context, distinguishing conceptualising, measuring, understanding and responding to poverty. A multidimensional approach using micro-data at the level of the individual and his or her household has two complementary advantages in analysing poverty and social exclusion. The first is that it does a better job than income on its own in identifying the poor. The second is that different dimensions of deprivation and exclusion can be identified.

4. Income mobility

Robert Erikson and Brian Nolan

Introduction

Studies of social mobility, income mobility and poverty dynamics have burgeoned in recent years. Without attempting to encompass this large literature, this review focuses first on inter-generational mobility, and then turns to intra-generational income dynamics. After an overview of research on intra-generational mobility, the short-term dynamics of poverty in relation to income mobility in other areas of the distribution are discussed. Long-term stability and change of individual positions in the income distribution, income mobility in nations with different welfare regimes, and the relation between income mobility and individual/household characteristics are then reviewed. Finally, the implications of adopting different definitions or measures of poverty for measured mobility are brought out.

Intergenerational Income Mobility²⁷

Within sociology there is a long tradition of studying inter-generational associations in socio-economic position using social class or occupational prestige as outcome measures (see for example Breen and Jonsson, 2005). Economists have been engaged with inter-generational associations since at least the 1980s, mostly focusing on the correlation between the earnings of fathers and sons. Estimation of a simple statistical regression model relating the logarithm of son's earnings to the logarithm of parents' earning has been the main analytical approach.²⁸ Much of this literature has focused on the USA, reflecting availability of data, although there were also some early British studies.²⁹

Influential US studies by Solon (1992) and Zimmermann (1992) estimated father-son earnings elasticities above 0.4, a good deal higher than previous studies. Estimates of intergenerational father-son elasticities are now also available for some other industrialised countries (see Solon 2002, Corak 2006, Björklund and Jäntti 1997,

²⁷ We draw here on a very helpful review by Anders Björklund carried out under the CHANGEQUAL Network of Excellence.

²⁸ The coefficient on father's earnings in such an equation gives the elasticity of son's earnings with respect to father's, but if the variances in log earnings are about the same in the two generations this will approximately equal the correlation.

²⁹ See Solon (1999) for a survey, and Atkinson, Maynard and Trinder (1983) for an early British study.

Bratberg, Nilsen and Vaage 2005, Bonke, Hussain and Munk 2005, and several of the contributions to Corak (ed.) 2004), and as Table 1 illustrates these show an interesting cross-country pattern. The lowest estimated correlations have been for Norway, of about 0.13. Estimates for Denmark, Finland and Sweden are generally of the order of 0.2-0.28, and Canadian studies have produced estimates in a similar range. A German study indicates a slightly higher elasticity. Estimates for the United Kingdom, on the other hand, are like most of those for the USA at about 0.4. So father-son correlations as a key indicator of intergenerational income mobility show a substantial divergence even across what are in many respects quite similar industrialised countries.

Table 1. Estimated father-son earnings elasticities for various countries.

Country	Study	Elasticity
Sweden	Gustafsson (1994)	.14
	Björklund & Jäntti (1997)	.28
	Österberg (2000)	.13
	Björklund & Chadwick (2002)	.25
Finland	Jäntti & Österbacka (1996)	.22
	Österbacka (2001)	.13
Norway	Bratberg, Nilsen & Vaage	.12
Canada		.17
	Corak & Heisz (1999)	.23
United Kingdom	Atkinson et al. (1983)	.42
	Dearden et al. (1997)	.57
Germany	Couch & Dunn (1997)	.11
	Wiegand (1997)	.34
USA	Solon (1992)	.43
	Zimmerman (1992)	.45

Most of this research has focused on the earnings of fathers rather than mothers, because mothers' intermittent labour market participation in the past made it problematic to measure their long-run earnings reliably. A small number of studies have estimated father-daughter elasticities, and these tend to be somewhat lower than father-son ones, while mother-son or mother-daughter earnings elasticities may be lower than father-child ones (Chadwick and Solon 2002, Bonke *et al* 2005). With most studies focused on earnings, only a few have looked at family income across the generations.

The intergenerational correlations identified in these studies obviously only measure degrees of association between outcomes, they do not in themselves tell us anything about how meaningful those are or the causal processes that might underpin them. A related and substantial literature on the correlation in earnings between siblings versus non-siblings has sought to measure how much of the variation in earnings can be attributed to factors that siblings share – which would include not just family income but a host of other family and neighbourhood characteristics. Björklund *et al* (2002) for example estimated brother correlations in long-run earnings to be substantially higher for the United States than for the Nordic countries where earnings are more equally distributed. Like the related sociological literatures on occupational, social class and educational transmission across the generations, these studies have tried to shed some light on the processes that may be at work. A fundamental question is the role of genetic inheritance, where analysis of data on twins has played a central role, but assessing the extent to which resources are transmitted across the generations through direct or indirect transfer of economic capital versus via social and cultural capital is also key. For example, a fascinating recent study by Björklund *et al* (2005) using data on adoptees has sought to distinguish the effects of pre-birth factors including genes and pre-natal environment from post-birth ones such as childhood environment; both are found to contribute to intergenerational transmission, but the latter dominate in the transmission of father's income.

This intergenerational literature provides the background when one comes to study income mobility within rather than across generations. As well as bringing out the very wide and complex set of factors that can affect income mobility, a number of

more specific lessons carry across from one context to the other. One is that annual earnings or income is affected by transitory factors, Another is that earnings mobility may well vary across the income distribution. For example, Bratberg, Nilsen and Vaage (2005) find the greatest inter-generational mobility in the middle of the distribution and more persistence at the top and bottom: it is very interesting to ask whether this sort of pattern also applies.

Intragenerational income mobility: An Overview

There has been a long-standing interest among labour economists in mobility in individual earnings, with a particular focus on age-earnings profiles and on the distinction between “transitory” and “permanent” components of earnings. As far as differences across countries are concerned, OECD (1997) for example found few consistent differences between five European countries and the USA in the scale of earnings mobility. Research on mobility in household incomes (from all sources) is more recent, and whereas intergenerational mobility has been measured from a variety of sources, longitudinal survey data has dominated the analysis of intragenerational income mobility.³⁰ These have been available for many years in the USA, notably through the Panel Study of Income Dynamics, and for Sweden through the Level of Living Surveys, but only from the 1980s/early 1990s in other European countries, with national longitudinal surveys in for example Germany, The Netherlands and the UK. More recently, panel data for most of the 15 pre-2004 members of the European Union have been produced from the European Community Household survey (ECHP).

While a range of studies of income mobility in individual countries have been carried out, a reliable and comprehensive comparative picture is still emerging. A common starting-point for comparative studies has been to test the notion that the USA’s exceptionally high level of cross-sectional income inequality might be offset by higher levels of income mobility than other industrialised countries – consistent with the image of the USA as a society that is particularly open and mobile across various dimensions (compare though Erikson and Goldthorpe 1985 and Ferrie 2005). Research to date has generally contradicted that picture. Burkhauser and Poupore

³⁰ Administrative register data provides an alternative source but only for a small number of countries.

(1997) compared the USA (using PSID data) with Germany (using the Socio-Economic Panel), and found if anything more income mobility in the latter. Schluter (1998) found little difference between the USA, the UK and Germany in that respect. Goodin et al (1999) found more mobility in the Netherlands than in Germany or the USA. Aaberge *et al* (2002) found mobility levels in Scandinavian countries to be at least as great as the USA despite their much lower levels of income inequality. Gangl (2005) found as much income mobility in Denmark, the Netherlands and Germany as in the USA.

Focusing then on income poverty dynamics, comparative analysis was pioneered by Duncan *et al* (1993, 1995), comparing the USA and Canada with selected European countries for which panel data was then available. In broad terms, analysis of short-term poverty dynamics using these sources has revealed what the OECD has summarised as the seeming paradox that poverty is simultaneously fluid and characterised by long-term traps.³¹ Many spells in poverty are short and represent only transitory set-backs, and considerably fewer people are continually poor for an extended period of time than are observed in poverty at a point in time. On the other hand, the typical year spent in poverty is lived by someone who experiences multiple years of poverty and whose longer-term income is below the income poverty threshold on average. Repeated spells help to explain the apparent paradox of fluidity combined with persistence, since many of those whose exit poverty in a given year re-enter it within a short time. In addition, much of the time spent by such people above the poverty threshold is not very far above it. So the evidence suggests that there is extensive persistence, and that this is greater than just looking at spell exits would suggest.

This brings out that the extent of mobility versus persistence may depend on how one seeks to capture poverty dynamics. For example, the most popular analytical approach follows Bane and Ellwood's (1986) influential US study in analysing the duration of single spells and how they start and end; this may not adequately capture individuals'

³¹ See in particular OECD (2001), Whelan *et al* (2001), Layte and Whelan (2002).

experience of poverty over a period of time given the importance of spell repetition.³² Furthermore, the availability of information on individual and household characteristics in panel surveys can lead to a bias towards concentrating on those factors in studying low income dynamics, to the neglect of institutional and macro-economic factors - the chance of being trapped in low pay or poverty long-term could be much higher in one institutional setting than another, and could also be affected by the macroeconomic situation. Since most studies of poverty are based on a dichotomy between the poor and the non-poor, analysing movements above and below an income poverty threshold, the extent and nature of mobility may vary depending on precisely where and how the poverty line is set. Furthermore, changes in household income may not have an immediate impact on consumption and on levels of deprivation and exclusion, so short-term movements above and below an income threshold may not be as significant as they appear at first sight for poverty.³³ And finally, the time horizon adopted could be critical: mobility over the longer term may be much greater than over a period of just a few years, and a longer perspective might produce rather different patterns within and across countries. With these issues in mind we now proceed from this overview to a more in-depth consideration of, first, the relationship between income poverty dynamics and mobility throughout the income distribution.

Income Poverty Dynamics and Mobility in Other Areas of the Income Distribution

Household incomes change over time throughout the income distribution: poverty dynamics measured as movements relative to an income poverty threshold are in that sense simply income changes occurring in a particular part of the distribution. Movements in and out of poverty are special cases of more general income mobility, but stability versus change around the poverty threshold might well be greater or less than in other areas of the income distribution. For example, movements in and out of unemployment or into and out of welfare dependency might be key factors producing change around the poverty threshold, but much less important in the middle and upper reaches of the income distribution. It is therefore valuable to look at cross-country

³² Stevens (1995) shows how poverty re-entry probabilities as well as exits might be combined to examine the implications for total poverty experienced over a period but this has not been widely applied.

³³ See for example Layte, et.al (2001).

patterns of poverty dynamics in this broader context, to see in particular whether cross-country differences in poverty dynamics, appear to simply reflect the scale of income mobility more generally, or have distinctive features which it would be important to understand.

We begin with poverty dynamics. A comparative picture of poverty persistence versus mobility in the shorter term, from one year to the next, can be derived from longitudinal data for most countries of the “old” EU-15, Canada and the United States (from the European Community Household Panel (ECHP), the Canadian Survey of Labour and Income Dynamics, and the PSID). Table 2 shows some key indicators derived from these sources, looking at poverty dynamics over a three-year period, which is 1993-1995 for most of the countries covered but 1987-89 for the USA.³⁴ A poverty threshold set at 50 percent of median equivalised income in the country in question is the one used in the table, though some results using a higher threshold set at 60 percent of the median will also be discussed. The figures refer to the entire sample, across all ages, and thus cover different cohorts and include children, those of working age, and those aged 65 or over.

The percentage falling below that threshold (averaged over the three years) is first shown for reference: we see that this ranges from 5 percent in Denmark up to 16 percent in the USA. Next, the percentage of those below the income threshold in one year who have escaped by the next is shown (Poverty status in 1994 is compared with 1993, and in 1995 with 1994, and the proportion “escaping” is averaged over the two.) This ranges from 30 percent in the USA up to 60 percent in Denmark. Countries with high cross-sectional poverty rates also tend to have low escape rates and vice versa, though there are exceptions – the UK, for example, has a relatively high poverty rate but also a high escape rate, while Canada’s poverty rate is about average but its escape rate is low.

³⁴ See OECD (2001). The ECHP began in 1994 but the reference period for income was the previous calendar year.

Table 2: Poverty Rates, Exit Rates and Poverty Persistence in the European Union, Canada and the USA 1993-1995, Threshold 50 percent of Median Equivalised Income

<i>Country</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
	<i>Annual</i>	<i>Yearly</i>	<i>Exit</i>	<i>% poor at</i>	<i>% always</i>
	<i>poverty rate</i>	<i>Rate</i>	<i>% poor at</i>	<i>% always</i>	<i>(4) as % of (3)</i>
			<i>least once</i>	<i>poor</i>	<i>(Always poor as % of ever poor)</i>
Belgium	9.8	48.2	16.0	2.8	17.5
Denmark	4.7	60.4	9.1	0.8	8.8
France	9.6	46.9	16.6	3.0	18.1
Germany	12.1	41.1	19.2	4.3	22.4
Greece	14.5	38.8	25.1	6.5	25.9
Ireland	8.2	54.6	15.3	1.3	8.5
Italy	13.5	40.6	21.5	5.6	26.0
Luxembourg	7.8	47.4	12.7	2.2	17.3
Netherlands	7.8	55.7	12.9	1.6	12.4
Portugal	15.3	37.0	24.2	7.8	32.2
Spain	12.0	49.6	21.3	3.7	17.3
UK	12.1	58.8	19.5	2.4	12.3
<i>ECHP average</i>	<i>11.7</i>	<i>46.1</i>	<i>19.2</i>	<i>3.8</i>	<i>19.8</i>
Canada	10.9	36.4	18.1	5.1	28.2
USA (1987-89)	16.0	29.5	23.5	9.5	40.4

Source: OECD (2001) Table 2.1, and 2.2, p. 45 and 50, derived from ECHP Waves 1-3 except Canada and USA from SLID and PSID respectively.

The overall numbers experiencing poverty over the period will depend on the cross-sectional scale of poverty in any one year together with the extent of movement in and out of poverty. We see in column (3) that the percentage experiencing poverty at any stage over the period ranges from 9 percent in Denmark up to 25 percent in Greece – with the USA at the high end of the spectrum but not the highest. The explanation is to be found in column (4), which shows the percentage below the income threshold in all three years. At almost 10 percent this is clearly highest in the USA, is also high in

Greece and Portugal, and is 3 percent or less in Belgium, Denmark, France, Ireland, Luxembourg, the Netherlands and the UK. The proportion of those falling below the threshold in any year who were below it in all three years – the “always poor” as a proportion of the “ever poor” – is then a useful summary indicator of poverty persistence, shown in column (4). Once again this is much higher in the USA than anywhere else, with 40 percent of those experiencing poverty below the threshold in all three years. It is lowest in the countries with the lowest cross-sectional poverty rates, though the ranking of countries in terms of persistence is not identical to the ranking by annual poverty rates.

So how do these patterns in terms of poverty dynamics relate to broader patterns of income mobility throughout the income distribution, again focusing on the short-to-medium term time horizon? We have seen that the USA appears to be an outlier in terms of poverty dynamics, in the sense that it has a particularly low level of “escapes” and a correspondingly high level of persistence of income poverty. As already noted, the literature on income mobility more broadly has often focused precisely on issue of American “exceptionalism”, but has emphasised that the USA in fact looks similar to other industrialised countries when it might be expected to have higher levels of mobility. To illustrate this pattern we can look in more detail first at the results presented by Aaberge *et al* (2002), who compared levels of income mobility in longitudinal datasets for Denmark, Norway, Sweden and the USA. The main measure of mobility they employ, following Shorrocks (1978a, b), is the extent to which a conventional measure of income inequality – the Gini coefficient – changes as the period over which income is measured is lengthened. Their results show that the Gini coefficient does not in fact fall much when the accounting period is lengthened even up to eleven years. Although the differences across countries in measured income inequality narrow slightly when that much longer accounting period is used, the USA remains by far the most unequal of the four countries studied. This is consistent with Fritzell’s (1990) finding that mobility (again in disposable income adjusted for family size) was remarkably similar in Sweden and the USA. As already noted, Burkhauser and Poupore (1997) found similar mobility patterns in Germany and the USA, Schluter (1998) found little difference between the USA, the UK and Germany, and Goodin *et al* (1999) also found similar levels of mobility in Germany and the USA but more in the Netherlands. Maitre and Nolan (1999), using the first

two years of the ECHP, found Italy and the UK to have the highest level of income mobility of the countries studied, while France had the lowest.

The recent study by Ayala and Sastre (2004) uses data from the ECHP and the PSID compares mobility over a five-year period in the UK, Germany, France, Italy, Spain and the USA. When various summary inequality measures are computed using income over the five years and compared with the corresponding measure for one year only, Italy is consistently the country where measured inequality falls most – so it has the highest level of mobility – whereas France is the country where it falls least. The USA is in an intermediate position, with the Gini coefficient for example falling by about 10 percent, compared with 7 percent in France and 14 percent in Italy. Germany and the UK have higher levels of mobility than the USA but look quite similar to each other, while Spain is similar to the USA.

Ayala and Sastre also present some results that allow income mobility towards the bottom to be compared with movements elsewhere in the distribution, which we show in Table 3. The income distribution is divided into three segments – the bottom, middle and top of the distribution³⁵ - and the extent to which people remain in the segment they started in a year later and five years later is measured. We see that over two years the proportion remaining at the bottom varies from 36 percent in Spain up to 48 percent in France, with Italy and the UK around 40 percent and Germany and the USA around 43-44 percent. The percentage remaining in the top income group is also highest in France, but Italy has least persistence there. The pattern of persistence over 5 years differs in some respects, with the percentage remaining in the bottom group ranging from 26-27 percent in Spain, the UK and France up to 32 percent in Germany and France, with Italy in an intermediate position. The percentage remaining in the top income group is now highest in France and the USA, considerably lower than that in Germany, Italy and Spain, and lowest in the UK.

³⁵ The “bottom” is decile groups 1, 2 and 3, the “middle” is decile groups 4, 5 and 6 and the “top” is decile groups 8,9 and 10 – so decile group 7 seems to be omitted.

Table 3: Percentage Remaining in the Same Disposable Household Income Group Over 2 Years and 5 Years, Selected EU Countries and USA, 1990s

	<i>Bottom</i>	<i>Middle</i>	<i>Top</i>	<i>Overall</i>
<i>% remaining in same category over 2 years</i>				
France	48.3	35.8	54.7	45.2
Germany	44.4	30.4	51.1	40.8
Italy	39.5	30.4	44.4	37.3
Spain	35.8	27.9	48.5	36.5
UK	40.8	28.5	46.8	37.7
USA	42.9	31.7	47.7	39.9
<i>% remaining in same category over 5 years</i>				
France	31.6	23.5	37.5	30.1
Germany	32.1	19.3	34.5	27.7
Italy	29.7	17.3	31.3	25.2
Spain	26.5	16.1	32.0	24.0
UK	26.6	15.4	29.2	22.9
USA	27.4	18.0	36.6	26.4

Source: Ayala and Sastre (2004)

So the ranking of countries by the extent of income mobility towards the top of the distribution – on this measure – would not be identical to that by mobility towards the bottom. France ranks as having the least mobility overall, but is most an outlier in the persistence of income positions towards the top. The USA has nearly as much persistence/as little mobility as France towards the top over the longer period, but rather less persistence towards the bottom. The latter might appear inconsistent with the very low level of escapes from poverty in the USA indicated by other studies as we have described, but they were focusing on “escapes” from below a relative income threshold; escaping from the bottom deciles or quintile groups of the income distribution – the indicator of mobility being used here – may give a very different picture.

The relationship between measured poverty dynamics and overall income mobility is a complex one, and patterns across countries and their rankings may differ for (at least) two distinct reasons. The first is that poverty dynamics are conventionally measured in relation to an income threshold that is set as some proportion of the mean or median income, whereas income mobility is usually measured in terms of changes in ranking, either by income decile or quintile or simply by individual rank in the distribution. The second reason why poverty dynamics may give a different picture to overall income mobility is simply that the former involves focusing on a specific part of the income distribution whereas the latter encompasses mobility throughout. Thus, as we have seen, the fact that a country has relatively low or high levels of overall income mobility does not necessarily mean that it will display that pattern towards the bottom. A country like France, for example, may have low levels of mobility overall compared with other EU members but people in the bottom quintile are less likely to be still there five years later than in countries like Denmark and Belgium with considerably higher levels of overall mobility. Similarly it is the high level of persistence/low level of mobility at the top of the distribution that has most impact on the USA's overall level of mobility.

Long term stability and change of individual positions in the income distribution

Having looked in the previous section at poverty dynamics and income mobility over the short to medium term, we now turn to income mobility over a longer period. For this purpose the most valuable data resources are the Swedish Level of Living Study and the American Panel Study of Income Dynamics, which both started as long ago as 1968 and thus provide a period of observation of more than thirty years.³⁶ A slightly broader range of countries can be studied over a much shorter – but still substantial – period using the Cross-National Equivalent Files (CNEF) of harmonised longitudinal survey data prepared at Cornell University covering Canada, Germany, the UK and the USA. We can start by drawing on results from the analysis of these datasets by the OECD in its study of poverty dynamics.

OECD (2001) used this CNEF data to look at poverty dynamics over an eight-year period, except for Canada which was restricted to 6 years. The figures for Canada,

³⁶ Information on the Level of Living Surveys can be found in (Erikson and Åberg (1987) and Jonsson and Mills (2001).

Germany and the UK are for the 1990s but those for the USA relate to 1985-1992, due to difficulties experienced at the time in obtaining comparable data from PSID for later years. The results in Table 4 show the percentage “ever poor”, “always poor”, and the latter as a percentage of the former, all with the 50 percent of median income threshold. We see that the percentage below the income threshold throughout the period was four and a half times higher in the USA than in Germany, with Canada closer to the USA and the UK closer to Germany. The “always poor” as a proportion of the “ever poor” ranged from 13 percent in the USA to less than 6 percent in Germany, but the UK is now very close to that while Canada is little different to the USA.

Table 4: Poverty Rates and Poverty Persistence in Germany, the UK, Canada and the USA Over 6/8 Years, Threshold 50 percent of Median Equivalised Income

<i>Country</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
	<i>Annual poverty rate</i>	<i>% poor at least once</i>	<i>% always poor</i>	<i>Always poor as % of ever poor</i>
Germany (1990-97)	9.6	17.4	1.0	5.6
UK (1990-97)	15.1	31.2	2.2	7.1
Canada (1993-98)	11.5	23.8	3.0	12.6
USA (1987-89)	16.8	34.0	4.5	13.2

Source: OECD (2001) Table 2.9, derived from CNEF version of GSOEP, BHPS, SLID and PSID respectively.

Yearly exit rates from poverty were also presented, separately for the working-age and retirement age populations. These are lower in the USA than in the other three countries covered, with the most pronounced difference being for the retirement-age population. For the working-age population, the (average) yearly rate of exit from poverty was 30 percent in the USA, compared with 34 percent in Canada and the UK and 45 percent in Germany. For the retirement-age population the average escape rate of only 18 percent in the USA compared with 34 percent in the UK, 39 percent in Canada and 51 percent in Germany.³⁷

³⁷ OECD (2001) Table 2.10, p. 65.

Another study using the PSID takes a slightly longer time horizon, looking at poverty over the twelve years from 1981 to 1992 (Wu 2003). The results show that the probability of an individual exiting from poverty falls sharply from the second to the sixth year in poverty and then plateaus for a number of years before falling again. The exit probabilities are considerably lower for older persons than for others at each duration, with that gap widening as duration lengthens. After the first three years in poverty, for example, the exit rate for an older person was only 7 percent compared with 21 percent for younger people. The majority of older people who spend over three years in poverty could expect to stay there for a long time. About 30 percent of the completed poverty spells of older persons can be expected to last ten years or more.

Income mobility in nations with different welfare regimes

It is well established that the size and character of social protection transfers and of broader welfare state institutions influence the degree of income inequality (even if it is difficult to establish the most relevant counterfactual situation – in other words, what would the society in question look like with a different structure or no transfers?). What is less well established is the degree to which income mobility, and particularly movements in and out of poverty, vary with the character of the ‘welfare regime’.

‘Welfare regime’ refers to the constellation of socio-economic institutions, policies and programmes which countries have adopted to promote their citizens’ welfare, and the key claim is that it is useful to distinguish distinctive combinations of intervention strategies, policy designs and institutional frameworks. Esping-Andersen (1990) distinguishes between ‘social democratic’, ‘corporatist’ and ‘liberal’ welfare regimes. While others (as far back as Titmuss) had put forward similar typologies (as Goodin *et al* 1999, note), this terminology has now become standard. There has been a good deal of discussion about which countries fit in which categories, and whether the set of regimes distinguished needs to be expanded or amended. In particular, a strong case has been advanced for adding a fourth, “Southern” welfare regime or sub-protective welfare state.³⁸ Despite arguments about the typology and where particular countries fit, the underlying justification advanced for a regime perspective, that it

³⁸ See for example Ferrera (1996), Gallie and Paugam (2000), Arts and Gleisen (2002).

helps in understanding key processes and outcomes in individual countries, appears to be quite widely accepted at this point.

The key features which have been identified as characteristics of the different regimes may be briefly described. The social democratic regime assigns the welfare state a substantial redistributive role, seeking to guarantee adequate economic resources independently of market or familial reliance. The corporatist regime views welfare primarily as a mediator of group-based mutual aid and risk pooling, with rights to benefits depending on being already inserted in the labour market. The liberal welfare regime acknowledges the primacy of the market and confines the state to a residual welfare role, social benefits typically being subject to a means test and targeted on those failing in the market. In the Southern Mediterranean countries family support systems play a distinctive role and the benefit system is uneven and minimalist in nature (Leibfried 1992, Ferrera 1996, Bonoli 1997, Arts and Gleisen 2002).

Sweden, Germany and the United States are often seen as archetypal examples of the three welfare regimes originally identified by Esping-Andersen (1990), which makes a comparison of these three countries especially interesting. Of the other countries we have been discussing, Denmark can be categorised as Social Democratic, Canada, the UK and Ireland as Liberal, Belgium, France and Luxembourg as Corporatist, and Italy, Greece, Spain and Portugal as in the Southern regime. The Netherlands is often included in the corporatist/conservative regime – see for example Ferrera (1996) - but Dutch analysts such as Muffels and Dirven (in Goodin et al, 1999), categorise it as social democratic.

If we go back to the results on poverty dynamics and income mobility presented in previous sections and look at them through this ‘welfare regime’ lens, what do we see? As far as poverty dynamics are concerned, some countries in the Liberal regime can be certainly be considered distinctive in the extent of poverty persistence over the short to medium term. Canada and even more so the USA had substantially higher rates of persistence/lower rates of escape from poverty than the EU countries with which they could be compared. However the other countries in the Liberal regime – Ireland and the UK – displayed much higher escape rates. If we assess poverty persistence by the summary measure “always poor”/”ever poor”, and use the 50

percent income threshold, Ireland and the UK were among the countries with the least persistence (together with Denmark and the Netherlands). Even with the 60 percent threshold this remained true of the UK. When the observation window is lengthened as far as eight years the UK did not look different to Germany, the classic example of the Corporatist regime – but Canada and the USA did.

At the other end of the spectrum, Denmark certainly has a distinctively high level of exits from poverty and low level of persistence, and the Netherlands – if one wants to count it as social democratic – also ranks among the countries with least poverty persistence. Among the Southern countries there was considerable variation, with Portugal having a very high level of poverty persistence but Greece, Spain and Italy being much less distinctive. So as far as poverty dynamics are concerned the explanatory power of the welfare regime perspective seems to be limited to distinguishing either end of the spectrum: the USA and Canada at one extreme, and the social democratic/Scandinavian countries at the other – and this still leaves unexplained why other countries in the Liberal regime are much closer to other EU countries than to the USA and Canada.

What is very important, though, is that even the limited “fit” with the welfare regime categorisation that we do see goes in the opposite direction to what may be casually assumed before the evidence is examined: the highest poverty rates go with the least rather than the most mobility out of poverty. In other words, it is often casually assumed that Canada and even more so the USA have high cross-sectional poverty rates but that their effect is ameliorated by high levels of mobility, so people are not trapped in poverty or welfare dependency as long as in some countries with lower poverty rates. The evidence suggests that the opposite is the case: those falling below conventional relative income poverty lines in North America are less likely to escape from one year to the next than elsewhere, and more likely to spend a sustained period in poverty. Denmark, by contrast, combines both a relatively very low cross-sectional poverty rate and high levels of poverty escape from one year to the next. Layte and Whelan (2003) show that transfers play a particularly pronounced role in poverty transitions in Denmark, in contrast to the very limited role they play in EU countries in the southern regime, where changes in earnings – particularly of the main earner in the household - are dominant.

Clearly countries differ not only in welfare and other institutional structures but also in terms of population profiles, with differing proportions of older people, lone parents, unemployed etc. Since such characteristics might be expected to influence poverty persistence, we need to ask whether there remain significant differences across welfare regimes in predicted poverty durations or experiences once such characteristics have been taken into account. Fouarge and Layte's (2005) results using five waves of ECHP data show that countries in the social democratic regime do a better job of preventing both short-term and long-term poverty, those in the liberal and southern regimes display much longer durations, and corporatist countries are in an intermediate position. When individual and country variables are used to predict exit rates, welfare regime categories serve as an adequate substitute for individual country effects.

Turning to overall income mobility, here the limited evidence available does not seem to suggest that countries within the EU in different welfare regimes have consistently different levels of mobility. For example, of the six countries included in Ayala and Sastre's analysis based on the ECHP, the UK and Spain displayed more mobility than France and Germany, with Italy and the USA in an intermediate position. So even the USA, which is so clearly distinctive in terms of income poverty dynamics vis-à-vis relative income thresholds, does not appear to be distinctive when one focuses on overall income mobility.

Income mobility and income poverty dynamics are of course measured with error, particularly in household surveys on which most comparative studies rely, and this could lead to a significant exaggeration of the actual scale of mobility and thus understatement of the persistence of poverty. Several recent studies have sought to model and assess the role of measurement error in poverty dynamics, and have indeed concluded that it is substantial (Breen and Moisio 2004, Whelan and Maitre 2006). Breen and Moisio's (2004) results from estimating latent class mover-stayer models with ECHP data also suggest that when measurement error is taken into account poverty rates show less variation across countries. Rendtel, Langeheine and Bernstein (1998) using a latent Markov chain model suggest that almost half the observed income poverty mobility in the German Socio-Economic Panel could be accounted

for by measurement error. Whelan and Maitre's (2006) results on poverty persistence in the ECHP taking measurement error into account suggest that the broad comparative picture across countries is not affected: there remains a pronounced variation in persistence between Denmark at one extreme and Portugal at the other. The extent to which household surveys overstate mobility compared with data from administrative registers available for the Scandinavian countries has been directly examined by Basic and Rendtel (2004), who compare five waves of ECHP data for Finland with register data over the same period. The results show that much of the observed movement into and out of poverty in the survey data reflects measurement error, and that this has a much greater impact than attrition bias in the longitudinal survey (which tends to receive much more attention from researchers). This makes the examination here of income mobility and poverty dynamics using register data for Sweden of particular interest.

The Relation between Income Stability/Change and Individual Characteristics

trying to understand the factors influencing transitions, econometric modelling of poverty dynamics generally attempts to link observed changes in poverty status over time to changes in the earnings, labour force participation and composition of the household.³⁹ The key distinction made is between income "events", such as changes in earnings, benefits, or investment income and demographic "events" such as the arrival of a new child, partnership formation, death, marital dissolution, or adult offspring leaving home. The results produced by the OECD suggest that labour market changes are more important and household structure changes less important in "driving" poverty entries and escapes in European countries than in the USA.

Using three-year panels the OECD (2001) analysis showed that for the European countries in the ECHP, 25 percent of entries into poverty and 15 percent of exits coincided with events such as marriages, births or the establishment of a new family. Such family-related events were observed more frequently in North America, coinciding with 41 percent of entries and 31 percent of exits in Canada and 37 percent of entries and 27 percent of exits in the USA. Separation or divorce was the most

³⁹ Individual country studies include Jarvis and Jenkins (1997) and Jenkins and Rigg (2001) for the UK, Canto Sanchez (2003) with Spanish data, Muffels (2000) for the Netherlands, Schluter (1997) for Germany, van Kerm (1998) for Belgium. Cross-country studies using data from the ECHP include OECD (2001), Whelan *et al* (2000), Layte and Whelan (2002), Fouarge and Layte (2005).

common family-related event associated with poverty entry in both the EU and North America, but marriage is associated with an important share of exits in North America but not the EU. There was a strong association between job-related events - such as a change in the number of employed persons in the household, in the number of months they worked, or in earnings - and poverty transitions. This was true everywhere, but was particularly pronounced in the USA. About one-third of poverty exits in the USA coincided with an increase in the number of workers in the household, another one-third with an increase in the number of months worked (with an unchanged number of workers), and one third with an increase in earnings (with an unchanged number of workers and months worked). Family and job-related events can be linked, and the number of workers in the household often changes because someone joins or leaves the household, but the importance of labour market changes is clear. Changes in transfers as well as earnings were seen to be important in the EU and to a lesser extent in Canada, but much less so in the USA. Another study confined to the ECHP but using five waves of data (Layte and Whelan 2003) confirmed that most poverty transitions there were associated with job and income-related events rather than changes in household size and composition.

The influence of individual and household characteristics can also be studied in relation to overall experience of poverty over a period. Analysis of three-year panels by the OECD showed that the age and gender of the household head, educational attainment, the number of workers in the household at the outset, and family composition have a substantial impact on both poverty exits and on the likelihood of being persistently poor. Exit rates were affected most by the education of the household head, whereas the risk of persistent poverty was affected most by the number of workers in the household. Analysis of the longer 6 or 8 year CNEF panels available for Canada, Germany, the UK and the USA brought out the extent to which predicted overall poverty experience over that period varied with individual and household characteristics (see also Valletta 2004). To take an extreme case, a child in a family with a young single head with low education and no workers in the family was predicted to spend 3.5 years in poverty in Canada, 4.7 in Germany, 5.6 in the UK, and 7 years in poverty in the USA; this compares with predicted poverty experience of only 0.5, 0.2, 0.7 and 1.1 years respectively in these countries for a prime working-age couple with medium-level education and children.

Do Poverty Dynamics Depend on the Poverty Measure?

Poverty dynamics are generally measured vis-à-vis relative income thresholds, derived as proportions of mean or median income in the country in question. This is the conventional approach adopted in most comparative studies, and the one we have concentrated on up to this point. Poverty thresholds can be established on a different basis and poverty dynamics measured in other ways, however, and we now look at how much difference this could make to cross-country patterns of poverty dynamics.

One option, as discussed in previous sections, in seeking to capture income mobility towards the bottom of the distribution is to focus on mobility out of the bottom decile or quintile group rather than relative to a mean or median-based threshold. In other words, we could consider the bottom 10 percent or 20 percent of the distribution to be “poor”, and measure how many remain versus escape from the bottom of the distribution over time.⁴⁰ The picture this conveys can differ in some respects from that provided by conventional relative income poverty thresholds. A key difference between the two approaches is of course that the quintile-based measures in effect assume away any differences in the underlying level of poverty: one-fifth are in the bottom quintile in each country. This has the effect of “flattening out” differences across countries in “poverty persistence/escapes”, and for countries where the percentage below the relative income poverty threshold is very different from one-fifth then the measured extent of poverty exits and the pattern of dynamics may also be quite different.

The extent to which this can matter can be demonstrated by reference to some of the results presented by Ayala and Sastre (2004) and reproduced in Table 5. The lower half of the table shows the percentage remaining in the “bottom” of the income distribution, defined as the bottom three decile groups. The top half shows persistence when the “bottom” group is defined instead as those below 75 percent of mean equivalised disposable income. The most striking difference is in the position of the USA. As we noted earlier, the USA was not distinctive compared with other countries in terms of overall income mobility, and we see that in terms of mobility out of the bottom three deciles it has if anything more escaping/a lower percentage remaining

⁴⁰ Compare Table 9 above.

than for example France or Germany. If we look at the percentage remaining below the 75 percent threshold, on the other hand, the USA is indeed distinctive: it has a considerably higher percentage remaining below that threshold than the other countries covered.

This matters because conclusions relating to poverty dynamics may easily be drawn from results relating to income mobility from the bottom: the figures presented here suggest that this can indeed be misleading, particularly when comparing a country with a particularly high relative income poverty rate such as the USA with others with much lower poverty rates.

Table 5: Percentage Remaining in the “Bottom” Disposable Household Income Group Over 5 Years, Alternative Approaches, Selected EU Countries and USA, 1990s

<i>Percentage Remaining in the “Bottom” Disposable Household Income Group Over 5 Years</i>	
<i>(a) below 75% of mean income</i>	
France	48.7
Germany	38.3
Italy	45.3
Spain	46.4
UK	37.6
USA	52.3
<i>(b) in bottom 3 income deciles</i>	
France	31.6
Germany	32.1
Italy	29.7
Spain	26.5
UK	26.6
USA	27.4

Source: Ayala and Sastre (2004), Table 5, p. 69.

While exits from the bottom decile or quintile group may be hazardous as measures of poverty dynamics that does not mean that relative income thresholds are unambiguously satisfactory for that purpose. We have already noted the fact that low

income is imperfectly related to deprivation and changes in income may not have an immediate impact on deprivation and exclusion – so it is important to try to capture the dynamics of deprivation as well as income over time (see for example Whelan *et al* 2001, 2003, 2004). More fundamentally, the use of a purely relative threshold may not be universally accepted as the best way to measure poverty over time. While standards of adequacy change over time as general living standards in the society rise, some may wish to take improving real living standards and falling deprivation levels into account at least to some extent in measuring both how the level of poverty is evolving and poverty dynamics. At the extreme, a poverty threshold that is held fixed in purchasing power terms and rises only in line with prices, such as the official poverty threshold employed in the USA, can be used. Over a period where any significant growth in real incomes towards the bottom is seen, this will convey a very different picture of poverty dynamics to a purely relative threshold.

This can be seen most dramatically in a country experiencing very rapid increases in incomes and living standards, such as Ireland in the period from the mid-1990s. Table 6 shows cross-sectional poverty rates for Ireland for the period 1994-2000, on two different bases. With purely relative income poverty lines, set at 50 percent or 60 percent of equivalised disposable income, we see that poverty rose substantially over this period in Ireland. But if the poverty line is set at 50 percent or 60 percent of the 1994 median and subsequently increased only in line with consumer prices - the poverty line is “anchored” – then poverty is seen to fall very substantially.

Table 6: Alternative Cross-sectional Poverty Measures, Ireland 1994-2000

Ireland	50% of median		60% of median	
	<i>Relative</i>	<i>Anchored</i>	<i>Relative</i>	<i>Anchored</i>
	<i>Poverty Line</i>	<i>Poverty Line</i>	<i>Poverty Line</i>	<i>Poverty Line</i>
1994	11.9	11.9	20.4	20.4
1995	12.9	11.1	20.8	19.2
1996	12.3	8.5	21.8	16.6
2000	16.5	3.5	22.7	9.0
Percentage Change 1994-2000	+38.7	-70.6	+11.3	-55.9

Source: Munzi, Nolan and Smeeding in *Human Development Report, UNDP, 2005*.

So low incomes grew at a slower rate than higher incomes, but substantially faster than prices. In particular, social transfers rose substantially in real terms, so pensioners for example, saw their living standards improve markedly, though they still lagged behind rapidly-rising incomes from employment and profits. In such circumstances poverty dynamics as well as poverty rates will look very different depending on the approach adopted: with the “anchored” approach, most of those in income poverty in 1994 will have exited by 2000. Clearly both this and the conventional relative income approach contain important and relevant information, but neither on its own tells the full story.

In this context Amartya Sen’s (1993) highly influential concept of “capabilities” has served to bring out that the goods required to allow for particular “functionings” may be very different in a rich versus a poor society. Similarly in industrialised countries, as living standards rise societal standards about what is regarded as adequate will also evolve. However, that will not necessarily be captured by relative income and purely relative poverty thresholds. Various studies in both Europe and North America have sought to employ non-monetary indicators of deprivation in order to tap directly into what those on low income can and cannot afford to do – and how that compares with what people regard as “adequate” or as “necessities” (see for example Mayer 1993,

Nolan and Whelan, 1996). This needs to be kept in mind in interpreting the evidence about income poverty dynamics.

References

- Aaberge, R, Björklund A., Jäntti M., Palme M., Pedersen P., Smith N. and Wennemo T. (2002), "Income Inequality and Income Mobility in the Scandinavian Countries Compared to the United States", *Review of Income and Wealth*, 48(4): 443-469.
- Arts, W. and Gleissen J., (2002), "Three worlds of welfare capitalism or more?" *Journal of European Social Policy*, 12,2:137-158
- Atkinson, A. B. (1998), *Poverty in Europe*, Oxford: Blackwell.
- Atkinson, A.B. (1999), 'Is rising income inequality inevitable? A critique of the transatlantic consensus'. Annual Lecture, United Nations University.
- Atkinson, A. B. (2003), "Multidimensional Deprivation: Contrasting Social Welfare and Counting Approaches", *Journal of Economic Inequality*, 1 (1), 51–65.
- Atkinson, A. B., Maynard A. K., and Trinder C. G. (1983), *Parents and Children: Incomes in Two generations*, London: Heinemann.
- Atkinson, A. B., Cantillon B., Marlier E, and Nolan, B. (2002), *Social Indicators: The EU and Social Inclusion*, Oxford: Oxford University Press.
- 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].
- Attanasio, O.P; Battistin, E. (2004), What happened to consumption and Income Inequality in the US and what Can we Learn from It? Presentation for Conference on "The Link between Income and Consumption Inequality". Madrid March 26-27, 2004
- Attanasio, O. P; Battistin, E., Leicester, A. (2004), Inequality, Poverty and their Evolution in the U.S.: Consumption and Income Information in the Consumer Expenditure Survey. Notes prepared for the National Poverty enter's ASPE-Initiated Workshop on Consumption among Low-Income Families. November 5, 2004, Washington.
- Attanasio, O.P; Battistin, E., Leicester, A. (2006), *From Micro to Macro, from Poor to Rich: Consumption and Income in the UK and the US*. Conference of the National Poverty Center on "Consumption, Income, and the Well-Being of Families and Children", Washington, May 4-5, 2006.
- Attanasio, O.; Berloff, G.; Blundell, R.; Preston, I. (2002), From Earnings Inequality to Consumption Inequality. *Economic Journal*, C52 – C59.
- Ayala, L. and Sastre M. (2004), "Europe Versus the United States: Is there a Trade-Off Between Mobility and Inequality?", *Journal of Income Distribution*, 13 (1-2), pp. 56-75.
- Bane M. J. and Ellwood D. T. (1986), "Slipping Into and Out of Poverty," *Journal of Human Resources*, 21, 1-23.
- Basic, E and Rendtel, R. (2004), *Latent Markov Chain Analysis of Income States with the European Community Household Panel: Empirical results on*

- Measurement Error and attrition Bias*, Paper presented at the 2nd International Conference of ECHP Users-EPUNet, Berlin, June 23-26.
- Battistin, Erich (2004), *Errors in Survey Reports of Consumption Expenditures*. Institute for Fiscal Studies, London.
- Berthoud, R, Bryan, M. and Bardasi, E. (2004), *The Relationship between Income and Material Deprivation over Time*. Department for Work and Pensions Research Report 219, Document Services, Leeds
- Björklund, A. and Jäntti M. (1997), “Intergenerational Income Mobility in Sweden Compared to the United States”, *American Economic Review*, 87, 1009-1018.
- Björklund, A., Lindahl M. and Plug E. (2005), *The Origins of Intergenerational Associations: Lessons from Swedish Adoption Data*, DP 1739, IZA, Bonn.
- Björklund, A., Eriksson T., Jäntti M., Raaum O. and Österbacka E. (2002), “Brother correlations in earnings in Denmark, Finland, Norway and Sweden compared to the United States”, *Journal of Population Economics*, vol 15: 757-772.
- Blau, F. And Kahn, L. (2003), ‘Understanding international differences in the gender pay gap’. *Journal of Labor Economics*, 21, 1: 106-44.
- Blow, L. (o.A.), Household consumption patterns. IFS Leverhulme Project.
- Blow, L., Leicester, A., Oldfield, Z. (2004), Consumption Trends in the UK, 1975-1999. The Institute for Fiscal Studies. *Working Paper Series*. London.
- Blow, L., Kalwij, A., Ruiz-Castillo, J, (2004), Methodological issues on the analysis of consumer demand patterns over time and across countries. *Dempatem Working paper no. 9*.
- Bögenhold, D., Fachinger, U. (2000), The Social Embeddedness of Consumption – Towards the Relationship of Income and Expenditures over Time in Germany. *ZES-Arbeitspapier Nr. 6/00*. Zentrum für Sozialpolitik, Universität Bremen.
- Bonke, J., Hussain, M. A. and Munk, M. D. (2005), A comparison of Danish and International Findings on Intergenerational Earnings Mobility, *SFI-working paper 2005:11*
- Bonoli, G. (1997), “Classifying Welfare State: A Two-Dimensional Approach,” *Journal of Social Policy*, 26(3), 351-372.
- Bourguignon, F. and Chakravarty, S. (1998), “A Family of Multidimensional Poverty Measures”, mimeo., DELTA.
- Bourguignon, F. and Chakravarty, S. (2003), “The Measurement of Multidimensional Poverty”, *Journal of Economic Inequality*, 1 (1), 25-49.
- Bowles, S. and Gintis H. (2002), "The Inheritance of Inequality", *Journal of Economic Perspectives*, 26:3-30.
- Bradshaw, J. and Finch, N. (2002), “Core Poverty”, mimeo., SSPRU, University of York.
- Brandolini, A. and D’Alessio, G. (1998), Measuring Well-Being in the Functioning Space”, mimeo., Bank of Italy.

- Bratberg E., Nilsen, O. and Vaage, K. (2005), "Intergenerational Earnings Mobility in Norway: Levels and Trends", *Scandinavian Journal of Economics*, 107 (3), 419-435.
- Bray, J. (2001), *Hardship in Australia*, Department of Family and Community Services, Canberra.
- Breen, R and Moiso, P. (2004), "Overestimated Poverty Mobility: Poverty Dynamics Corrected for Measurement Error", *Journal of Economic Inequality*, 2 (3), 171-191.
- Breen, R. and Jonsson J. O. (2005), "Inequality of Opportunity in Comparative Perspective: Recent Research on Educational Attainment and Social Mobility", *Annual Review of Sociology*, Vol 31.
- Breen, R. and Moiso P. (2004), "Overestimated Poverty Mobility: Poverty Dynamics Corrected for Measurement Error", *Journal of Economic Inequality*, 2 (3), 171-191.
- Brewer, M., Goodman, A., Leicester, A., (2006), *Household spending in Britain. What can it teach us about poverty?* London: The Institute for Fiscal Studies.
- Burkhauser, R.V., and Poupoure, J. (1997), 'A cross-national comparison of permanent inequality in the United States and Germany.' *Review of Economics and Statistics*. Vol. LXXIX, No.1, February: 10-18.
- Callan, T., Nolan, B., and Whelan, C. T. (1993), 'Resources, Deprivation and the Measurement of Poverty', *Journal of Social Policy*, vol. 22, no. 2, pp. 141-172.
- Cantó Sanchez, O. (2003), "[Finding out the Routes to Escape Poverty: The Relevance of Demographic vs. Labor Market Events in Spain](#)," *Review of Income and Wealth*,. 49(4), 569-588.
- Cappellari and Jenkins (forthcoming), 'Summarizing Multiple Deprivation Indicators' Jenkins S. and Micklewright J. (eds.), *Inequality and Poverty: Re-examined*, Oxford: Oxford University Press
- Chadwick, L. and Solon G. (2002), "Intergenerational Income Mobility Among Daughters", *American Economic Review* 92 (1): pp. 335-344.
- Charles, Kerwin; Danziger, Sheldon, Li, Geng, Schoeni, Bob (2006a), [Studying Consumption with the Panel Study of Income Dynamics: Comparisons with the Consumer Expenditure Survey and an Application to the Intergenerational Transmission of Well-being](#). Conference of the National Poverty Center on "Consumption, Income, and the Well-Being of Families and Children", Washington, 4-5, 2006.
- Charles, K., Danziger, S., Pounder, L., Schoeni, R. F. (2006b), [Income, Consumption, and Well-Being Among Poor Elderly](#). Conference of the National Poverty Center on "Consumption, Income, and the Well-Being of Families and Children", Washington, 4-5, 2006.
- Charles, K., Li, G., Schoeni, B. (2006), *Over-Spending: Who, How, and Why?* Conference of the National Poverty Center on "Consumption, Income, and the Well-Being of Families and Children", Washington, May 4-5, 2006.

- Corak, M. (2006), Do Poor Children Become Poor Adults? Lessons from a Cross Country Comparison of Generational Earnings Mobility, Discussion Paper No. 1993, IZA, Bonn.
- Corak, M. ed. (2004), *Generational Income Mobility in North America and Europe*, Cambridge: Cambridge University Press.
- Corrigan, P. (1997), Theoretical Approaches to Consumption, in Corrigan P. (Hrsg.), *The Sociology of Consumption. An Introduction*. London: Sage Publications.
- Davies, J. and Shorrocks, A. (1999), 'The distribution of wealth'. in A. Atkinson and F. Bourguignon, eds. *Handbook of Income Distribution*. Volume 1. Amsterdam: Elsevier.
- Deaton, A. S.; Ruiz-Castillo, J.; Thomas, D. (1989), The Influence of Household Composition on Household Expenditure Patterns: Theory and Spanish Evidence. In: *Journal of Political Economy*, vol. 97, no. 1: 179-200.
- Deelen van, M and Schettkat, R. (2004), Household Demand Patterns in West Germany. *Dempatem working paper no. 5*.
- Dhawan-Biswal, Urvashi (2002), Consumption and Income Inequality: The Case of Atlantic Canada from 1969-1996. *Canadian Public Policy – Analyse De Politiques*, Vol. XXVIII, No. 4, 513-537
- Dufour, A. Loisel, J-P, Maincent, E., Pouquet, L., Volatier, J-L (1999), Les comportements des consommateurs européens. Une analyse comparative portant sur la France, l'Allemagne, la Grande-Bretagne et l'Italie. *Cahier de Recherche No. 126*. Paris.
- Duncan, G. J., Gustafsson B., Hauser R., Schmaus G., Jenkins S., Messinger H., Muffels R., Nolan B., Ray J-C., Voges W. (1995), "Poverty and Social-Assistance Dynamics in the United States, Canada and Western Europe" in K. McFate, R. Lawson and W. J. Wilson (ed.), *Poverty, Inequality and the Future of Social Policy: Western States in the New World Order*. New York: Russell Sage, 1995, pp. 67-108.
- Duncan, G., Gustafsson B., Hauser R., Schmaus G., Messinger H., Muffels R., Nolan B., and J-C. Ray (1993), "Poverty Dynamics in Eight Countries" *Journal of Population Economics*, 6, No. 3, 1993, pp. 215-234.
- Erikson R. and Goldthorpe J.H. (1992), *The Constant Flux - A Study of Class Mobility in Industrial Societies*. Oxford: The Clarendon Press.
- Erikson R., and Goldthorpe J.H. (1985), "Are American Rates of Social Mobility Exceptionally High? New Evidence on an Old Issue", *European Sociological Review*, vol. 1, pp. 1-22.
- Erikson, R. (1984), "Social Class of Men, Women and Families", *Sociology*, vol. 18, 1984, pp. 500-514.
- Erikson, R. and Åberg, R. eds. (1987), *Welfare in Transition*, Oxford: Clarendon Press.
- Esping-Andersen, G. (1990), *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

- EU Commission (1992), *Towards a Europe of Solidarity: Intensifying the Fight against Social Exclusion, Fostering Integration, Communication from the Commission*, Brussels.
- European Communities (Hg.) (2002), *Household final consumption expenditure in the European Union. Data 1995-99*. Luxembourg: Office for Official Publications of the European Communities.
- Eurostat (2000), *Income, Poverty and Social Exclusion in Member States of the European Union*, Luxembourg: Office for Official Publications of the European Communities.
- Eurostat (2003), *Household Budget Surveys in the EU. Methodology and recommendations for harmonisation*. Luxembourg.
- Eurostat (2004), *Household budget surveys in the Candidate Countries. Methodological Analysis 2003*. Luxembourg.
- Fahey, T. (forthcoming), 'The Case for an EU-wide Measure of Poverty', *European Sociological Review*.
- Featherstone, M. (1987), *Lifestyle and Consumer Culture, Culture and Society*, 4: 55-70.
- Featherstone, M. (1991), *Consumer culture and postmodernism*. London, Newbury Park, New Delhi: Sage Publications.
- Ferrera M. (1996), "The southern welfare state in social Europe", *Journal of European Social Policy*, vol. 6, No 1, pp 17-37.
- Ferrie, J. P. (2005), "The End of American Exceptionalism?: Mobility in the U.S. Since 1850." *Journal of Economic Perspectives*. 19(3): 199-215.
- 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.
- Forster, M. and d'Ercole, M. (2005), 'Income distribution and poverty in OECD countries in the second half of the 1990s'. *OECD Social, Employment and Migration Working Paper*, no.22.
- Förster, M. and Pearson (2002), "Income distribution and poverty in the OECD area: trends and driving forces", *OECD Economic Studies*, No.34, pp. 7–39, Paris.
- Fouarge, D. and Layte R. (2005), "Welfare Regimes and Poverty Dynamics: The Duration and Recurrence of Poverty Spells in Europe", *Journal of Social Policy*, 34, 1-20.
- Fritzell, J. (1990), *The Dynamics of Income Distribution: Economic Mobility in Sweden Comparison with the United States*. Academic Press Inc., *Social Science Research* ;19(1).
- Gallie, D. and S. Paugam eds. (2000), *Welfare Regimes and the Experience of Unemployment in Europe*, Oxford: Oxford University Press.
- Gangl, M. (2005), "Income inequality, permanent incomes and income dynamics: Comparing Europe to the United States", *Work and Occupations*. Vol. 32 , Nr. 2, S. 140-162

- Gardes, F., Starzec, C. (2004), Household Demand Patterns in France 1980 – 1995. *Dempatem working paper no. 6*.
- Garner, T.I. and K. de Vos (1994), "Income sufficiency, expenditures and subjective poverty: Results from the United States and the Netherlands". In: W. Eichhorn (ed.), *Models and Measurement of Welfare and Inequality*, Springer-Verlag, Berlin, pp. 33-66.
- Garner, T. I.; Short, K. (2006), [Poverty in the U.S. Based on NAS Recommendations: Income and Expenditures](#). Conference of the National Poverty Center on "Consumption, Income, and the Well-Being of Families and Children", Washington, 4-5, 2006.
- Goodin, R.E., Heady, Muffels, R. and Dirven, H.J. (1999), *The Real Worlds of Welfare Capitalism*, Cambridge: Cambridge University Press.
- Goodman, A., Oldfield, Z., (2004), Permanent Differences? Income and Expenditure Inequality in the 1990s and 2000s. London: The Institute for Fiscal Studies.
- Gordon, D. et al (2000), *Poverty and Social Exclusion in Britain*, York: Joseph Rowntree Foundation.
- Gordon, D., Pantazis, C., Townsend, P., Bramley, G., Bradshaw, J., Holmes, H., Halleröd, (1995), *Breadline Britain in the 1990s: A Report to the Joseph Rowntree Foundation*, Department of Social Policy and Planning, University of Bristol, Bristol.
- Gottschalk, P. and Smeeding, T. (1997), 'Cross-national comparisons of earnings and income inequality'. *Journal of Economic Literature*, XXXV: 633-87.
- Hagenaars, A.J.M., K. de Vos and M.A. Zaidi (1994), "*Poverty statistics in the late 1980s: Research based on microdata*". Eurostat publication, Theme 3, Series D, Luxembourg: Office for Official Publications of the European Communities.
- Hagenaars, A.J.M., K. de Vos and M.A. Zaidi (1998), "Patterns of poverty in Europe. In Jenkins, S. P., A. Kapteyn and B. van Praag, eds., *The Distribution of Welfare and Household Production: International Perspectives*, Aldi Hagenaars Memorial volume, Cambridge: Cambridge University Press.
- Hagerty, M. R. et al (2001), "Quality of Life Indexes for National Policy: Review and Agenda for Research", *Social Indicators Research*, 55:1-96
- Halbwachs, M. (1912), *La Classe ouvrière et les niveaux de vie: Recherches sur la hiérarchie des besoins dans les sociétés industrielles contemporaines*. Paris.
- Hallerod, B. (1995), 'The Truly Poor: Direct and Indirect Measurement of Consensual Poverty in Sweden', *European Journal of Social Policy*, 5 (2), 111-129
- Herpin, N., Verger, D., (2000a), La consommation des Français. Tome 1 : Alimentation, habillement, logement. Paris : Éditions la Découverte.
- Herpin, N., Verger, D., (2000b), La consommation des Français. Tome 2 : Transports, loisirs, santé. Paris : Éditions la Découverte.
- Hertz, T. (2002), "Intergenerational economic mobility of black and white families in the United States". Paper presented at the Society of Labor Economists Annual Meeting, May.

- Hout, M. (1983), *Mobility Tables*. Beverly Hills: Sage.
- Houthakker, H.S. (1957), An International Comparison of Household Expenditure Patterns, Commemoration the Centenary of Engel's Law. In: *Econometrica*, Volume 25, Issue 4, S. 532 – 551
- Jackson, T., Michaelis, L., (2003), Policies for Sustainable Consumption. A report to the Sustainable Development Commission. 20. Mai 2003.
- Jarvis S, Jenkins SP (1997), "Low income dynamics in 1990s", *Fiscal Studies*, 18: 1-20.
- Jenkins, S.P. and Rigg, A. (2001), The dynamics of poverty in Britain, Department of work and pensions, *Research Report 157*, Leeds, Corporate Document Services.
- Johnson, David S. (2004), 'Using expenditures to measure the standard of living in the United States: does it make a difference?' In Wolff, Edward N. (ed.) *What Has Happened to the Quality of Life in the Advanced Industrialized Nations?*. Cheltenham / Northampton: Edward Elgar.
- Johnson, D. S.; Smeeding, T. M.; Torrey, B. N. (2004), 'United States Inequality through the Prisms of Income and Consumption'. Preliminary Draft # 3 for "The Conference on the Link between Income and Consumption Inequality". Madrid March 26-27, 2004
- Johnson, D., Shipp, S. (o. A.), Trends in Inequality Using Consumer Expenditures: 1960 to 1993. Washington.
- Jonsson J.O. and Mills C. eds. (2001), *Cradle to Grave: Life-course change in modern Sweden*, Durham: Sociologypress.
- Juhn, C., Murphy, K. and Pierce, B. (1993), 'Inequality and rise in returns to skills'. *Journal of Political Economy*, 101: 410-42.
- Kalwij, Adriaan; Machin, Steve (2004), Changes in Household Demand Patterns: A Cross- Country Comparison. *Dempatem Working paper no. 8*
- 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*, Aldershot: Ashgate.
- Katz, L. and Autor, D. (1999), 'Changes in the wage structure and earnings inequality'. Pp. 1464-1555 in O. Ashenfelter and D. Card, eds. *Handbook of Labor Economics*. Volume 3A. Amsterdam: Elsevier.
- Kenworthy, L. And Pontusson, J. (2005), 'Rising inequality and the politics of redistribution in affluent countries'. *LIS Working Paper*, no. 400.
- Krueger, D., Perri, F. (2002), Does Income Inequality Lead to Consumption Inequality? Evidence and Theory. *NBER Working Paper 9202*
- Kutsar, D., Trumm, A. (2006), 'On poverty research in Estonia' Report to EQUALSOC: INCDIS). University of Tartu.
- Langlois, S. (2005), *Consommer En France*. La Tour d'Aigues: Editions de l'Aube.
- Langlois, Si, (2002), 'Nouvelles orientations en sociologie de la consommation', *L'Année sociologique*, numéro 1, p. 83-104.

- Langlois, S. (2003), 'Structures de la consommation au Canada. Perspectives transversales et longitudinales', *Sociologie et Sociétés*. Numéro spécial *Les chiffres pour le dire. Innovations conceptuelles et méthodologiques en statistiques sociales*, (Paul Bernard dir.), XXXV, 1, p. 221-242.
- Langlois, S., Gardes, F., Gaubert, P. (2000), 'Pauvreté et convergence des structures de consommation au Canada', *Canadian Review of Sociology and Anthropology/Revue canadienne de sociologie et d'anthropologie*, 37, p.: 1-27.
- Layte, R. and Whelan C.T. (2002), "The Dynamics of Income Poverty Risk", chapter 5 in *European Social Statistics: Income, Poverty and Social Exclusion: 2nd Report - Data 1994-1997*, Luxembourg: European Communities.
- Layte, R. and Whelan C.T. (2003), "Moving In and Out of Poverty: The Impact of Welfare Regimes on Poverty Dynamics in the EU", *European Societies*, Vol. 5 No. 2, 167-191.
- Layte, R., Maitre B., Nolan B. and Whelan C.T. (2001), "Poverty Dynamics: An Analysis of the 1994 and 1995 Waves of the European Community Household Panel Survey", *European Societies*, 2 (4), 505-31.
- Layte, R., Maitre, Nolan, B and Whelan, C. T (2001a), 'Persistent and Consistent Poverty: An Analysis of the First Two Waves of the European Community Household Panel', *Review of Income and Wealth*, 47, 427-440.
- Leibfried S., (1993), "Towards a European Welfare State?", in C. Jones, *New Perspectives on the Welfare State in Europe*, London: Routledge.
- Levy, F. (1998), *The New Dollars and Dreams*. New York: Russell Sage.
- Lucifora, C., McKnight, A. and Salverda, W. (2005), 'Low wage employment in Europe'. *Socioeconomic Review*, 3: 293-310.
- Mack, J. and Lansley, S. (1985), *Poor Britain*, London: Allen and Unwin.
- Maitre, B. and Nolan B. (1999), Income Mobility in the European Community Household Panel Survey. *EPAG Working Paper 4*, University of Essex.
- Mayer, S. and Jencks, C. (1989), 'Poverty and the Distribution of Material Hardship', *Journal of Human Resources*, vol. 24, no. 1, pp. 88-114.
- Mayer, S., (1993), "Living Conditions Among the Poor in Four Rich Countries", *Journal of Population Economics*, 6, 261-86.
- Mayer, S., (1993), "Living Conditions Among the Poor in Four Rich Countries", *Journal of Population Economics*, 6, 261-86.
- Mayer, S. (2004), "*Potential Policy-Related Uses of Measures of Consumption among Low-Income Populations*". Memo. University of Chicago.
- Mayer, S. and Jencks, C. (1993), "Recent Trends in Economic Inequality in the United States: Income versus Expenditures versus Material Well-being. Papadimitriou, D. B.; Wolff, E. N. (eds.) 'Poverty and Prosperity in the USA in the Late Twentieth Century'. London: Macmillan.
- Mc Kay, S. (2004), 'Poverty or Preference? What do Consensual Deprivation Indicators Really Measure?', *Fiscal Studies*, 25, 201-223

- McGregor, P.P.L., Borooah, V.K. (1992), 'Is Low Spending or Low Income a Better Indicator of Whether or Not a Household is Poor: Some Results From the 1985 Family Expenditure Survey'. *Journal of Social Policy*, Vol. 21, 1, 53-69.
- Meyer, B. D., Sullivan, J.X. (2003), 'Measuring the Well-Being of the Poor Using Income and Consumption'. *NBER Working Paper no. 9760*. Cambridge.
- Meyer, B., Sullivan, J.X (2004), 'Consumption and the Poor: What We Know and what We Can Learn.' Paper Prepared for the *ASPE-Initiated Workshop on Consumption among Low Income Families*. Washington, November 5, 2004.
- Meyer, B., Sullivan, J. (2006), 'Three Decades of Consumption and Income Poverty.' Conference of the National Poverty Center on "*Consumption, Income, and the Well-Being of Families and Children*", Washington, 4-5, 2006.
- Mickelwright, J. (2001), "Should the UK Government Measure Poverty and Social Exclusion with a Composite Index?" in *Indicators of Progress: A Discussion of Approaches to Monitor the Government's Strategy to Tackle Poverty and Social Exclusion*, CASE Report No. 13, London School of Economics.
- Mitrakos, T., Tsakoglou, P., (1998), 'Income, consumption or something else? Selecting a welfare indicator for distributional studies' Athens University of Economics and Business, *Department of International and European Economic Studies Discussion Paper No 98-05*.
- Muffels, R. (2000), "Dynamics of poverty and the determinants of poverty transitions: results from the Dutch socio-economic panel", in D. Rose (ed.). *Researching Social and Economic Change*, London: Routledge.
- Muffels, R. (1993), 'Deprivation Standards and Style of Living Indices,' in *The European Face of Social Security*, J. Berghman and B. Cantillon, eds., Aldershot: Avebury.
- Muffels, R. and Dirven, H. (1998), "Long-term Income and Deprivation-Based Poverty Among the Elderly", in Andress, H.-J., ed., *Empirical Poverty Research in a Comparative Perspective*, Aldershot: Ashgate.
- Munzi, T., Nolan B. and Smeeding T. (2005), "Two Tales of Irish Poverty", Box 3, in *Human Development Report 2005*, Oxford and New York: United Nations/Oxford University Press.
- Nolan, B. and Whelan C. T., (1996a), *Resources, Deprivation and Poverty*, Clarendon Press, Oxford.
- Nolan, B. and Whelan, C. T. (1996b), 'Measuring Poverty Using Income and Deprivation Indicators: Alternative Approaches', *Journal of European Social Policy*, vol. 6, no. 3., pp. 225-240.
- Nolan, B. and Whelan, C. T. (forthcoming), 'On the Multidimensionality of Poverty and Social Exclusion', in S. Jenkins and J. Micklewright (eds.), *Inequality and Poverty: Re-examined*, Oxford: Oxford University Press
- Noll, H.-H., Weick, S., (2005a), 'Relative Armut und Konzentration der Einkommen deutlich gestiegen. Indikatoren und Analysen zur Entwicklung der Ungleichheit von Einkommen und Ausgaben'. In: *Informationsdienst Soziale Indikatoren (ISI)*, 33, p. 1-6.

- Noll, H-H, Weick, S., (2005b), 'Markante Unterschiede in den Verbrauchsstrukturen verschiedener Einkommenspositionen trotz Konvergenz. Analysen zu Ungleichheit und Strukturwandel des Konsums'. In: *Informationsdienst Soziale Indikatoren (ISI)*, 34, p. 1-5.
- Noll, H-H, Weick, S., (2006a), 'Strukturen des privaten Verbrauchs in Deutschland - Ungleichheiten und temporärer Wandel'. In: K.-S. Rehberg (ed.), *Soziale Ungleichheit und kulturelle Unterschiede*. Verhandlungen des 32. Kongresses der Deutschen Gesellschaft für Soziologie. Frankfurt/New York: Campus Verlag.
- Noll, Heinz-Herbert, Weick, Stefan (2006b), 'The Inequalities of Income and Consumption Expenditures – How Do They Relate?' Paper presented during the XVI. ISA World Congress of Sociology, Research Committee on Social Stratification, Durban, July 23-29, 2006.
- O'Neill, D. and Sweetman, O. (1999), 'Poverty and Inequality in Ireland 1987 – 1994: A Comparison using measures of Income and Consumption'. *Journal of Income Distribution* Vol 10 No. 3-4: 23-39.
- OECD (1997), "Earnings Mobility: Taking a Longer-Run View", Chapter 2, *Employment Outlook*, Paris: OECD.
- OECD, 2000 *Literacy in the Knowledge Society*. Paris: OECD.
- OECD (2001), "When Money is Tight: Poverty Dynamics in OECD Countries", Chapter 2, *Employment Outlook*, Paris: OECD.
- OECD, 2002 *Knowledge and Skills for Life*. Paris: OECD.
- Puente, Antonio (2005), 'The European consumer in the enlarged Union.' In: *Statistics in Focus*, 02/2005
- Rendtel, U., Langeheine, R and Bernstein, R. (1998), "The estimation of poverty dynamics using different household income measures", *Review of Income and Wealth*, 44:81-98.
- Ringen, S. (1987), *The Possibility of Politics*, Oxford: Clarendon Press.
- Ringen, S. (1988), 'Direct and Indirect Measures of Poverty', *Journal of Social Policy*, vol. 17, pp. 351-366.
- Rosenkranz, D., Schneider, N., (Hrsg.) (2000), *Konsum–Soziologische, ökonomische und psychologische Perspektiven*. Opladen: Leske+Budrich
- Rowntree, S. (1901), *Poverty: a Study of Town Life*, London: Macmillan.
- Ryscavage, P. (1999), "Income Inequality in America" NY: ME Sharpe.
- Sabelhaus, J., Schneider, U. (1997), Measuring the distribution of well-being: why income and consumption give different answers. *Konjunkturpolitik* 43, pp. 153-176.
- Schizzerotto, A., Pisati, M. and Lucchini (2005), 'Well-being and Social Deprivation in Contemporary Europe, European Consortium for Sociological Research Conference Paris on Comparative European Studies: assessing Ten Years of Research', November.
- Schrammel, K. (1998), 'Comparing the labor market success of young adults from two generations'. *Monthly Labor Review*, 121 (February): 3-9.

- Schluter, C. (1997), German Income Mobility (and Some Observations on Poverty Dynamics), *DARP Discussion Paper*, LSE, London.
- Schluter, C. (1998), 'Income dynamics in the USA, Germany and the UK'. European Meeting of the Econometric Society, Berlin.
- Sen, A. (1993), "Capability and Well-Being", in M. Nussbaum and A. Sen (eds.), *The Quality of Life*, Oxford: Clarendon Press.
- Shorrocks, A.F. (1978a), "The measurement of mobility", *Econometrica*, 46, 1013-1024.
- Shorrocks, A.F. (1978b), "Income Inequality and Income Mobility", *Journal of Economic Theory*, 19 (2), 376-93.
- Sierminska, E., Garner T. I. (2002), 'A comparison of income, expenditures, and home market value distributions using Luxembourg income study data from the 1990s'. *Luxembourg income study working paper series no. 338*. Syracuse, New York.
- Slesnick, D. T., (2001), 'Consumption and Social Welfare. Living standards and their distribution in the United States'. Cambridge: Cambridge University Press.
- Smeeding, T. (2004a). 'Government programs and social outcomes. The United States in comparative perspective'. Paper presented at the Smolensky Conference, University of California, Berkeley, December.
- Smeeding, T. M. (2004b), 'Consumption Among Low-Income Families: Policy Concerns' *Paper for the National Poverty Center's ASPE-Initiated Workshop on Consumption among Low-Income Families*. November 5, 2004, Washington.
- Solon, G. (1992), "Intergenerational Income Mobility in the United States", *American Economic Review*, 82: 393-408.
- Solon, G. (1999), "Intergenerational Mobility in the Labor Market", in O Ashenfelter & D Card (eds.) *Handbook of Labor Economics*, Volume 3A, Amsterdam: North Holland.
- Solon, G. (2002), "Cross-country Differences in Intergenerational Earnings Mobility", *Journal of Economic Perspectives*, 16(3) pp. 59-66.
- Stevens, A.H. (1999), "Climbing Out of Poverty, Falling Back In: Measuring the Persistence of Poverty over Multiple Spells." *Journal of Human Resources*, 34 (3), 557-588.
- Stigler, G.J. (1954), The Early History of Empirical Studies of Consumer Behavior. In: *The Journal of Political Economy*, Vol. 62, No. 2, S. 95 – 113.
- Townsend, P. (1979), *Poverty in the United Kingdom* Harmondsworth: Penguin.
- Tsui, K. (2002), "Multidimensional Poverty Indices", *Social Choice and Welfare*, 19, 69–93.
- Valletta, R. G. (2004), "The ins and outs of poverty in advanced economies: poverty dynamics in Canada, Germany, Great Britain, and the United States," *Working Papers in Applied Economic Theory 2004-18*, Federal Reserve Bank of San Francisco.

- Van den Bosch, K. (2001), *Identifying the Poor: Using Subjective and Consensual Measures*, Aldershot: Ashgate.
- van Kerm, P. (1998), *Low Income Turnover in Wallonia*, mimeo., Facultes Universitaire Notre-Dame de la Paix, Namur. Waner, Stefan: http://people.hofstra.edu/faculty/Stefan_Waner/RealWorld/fancymatrixalg.html.
- Waldvogel, J. and Mayer, S. (1999), 'Male-female differences in the low-wage labor market'. Paper presented at the American Economics Association Meetings, New York, January.
- Wang, Hui (1995), 'Income and Expenditure Inequality of Elderly Households: An Analysis Using the Gini Coefficient', in *Family Economics and Resource Management Biennial*, S. 179-184.
- Whelan, C. and Maitre, B. (2006), "Comparing Poverty and Deprivation Dynamics: Issues of Reliability and Validity", *Journal of Economic Inequality*, forthcoming.
- Whelan, C. T and Maître, B. (forthcoming), 'Income, Deprivation and Economic Strain in an enlarged EU', *Social Indicators Research*.
- Whelan, C. T. and Maître, B. (2005a), "Vulnerability and Multiple Deprivation Perspectives on Economic Exclusion in Europe: A Latent Class Analysis", *European Societies*, 7 (3), 423-450.
- Whelan, C. T. and Maître, B. (2005b), 'Economic Vulnerability, Multidimensional Deprivation and Social Cohesion in the Enlarged European Community', *International Journal of Comparative Sociology*, 46(3) 216-239
- Whelan, C. T. and Maître, B. (2006a), 'Comparing Poverty and Deprivation Dynamics: Issues of Reliability and Validity', *Journal of Economic Inequality*, 4(2)
- Whelan, C.T., Layte R. and Maitre B. (2004), "Understanding the Mismatch Between Income Poverty and Deprivation: A Dynamic Comparative Analysis", *European Sociological Review*, 20 (4), 287-301.
- Whelan, C.T., Layte R., Maitre B. and Nolan B. (2003), "Persistent Income Poverty and Deprivation in the European Union", *Journal of Social Policy*, 32 (1), 1-32.
- Whelan, C.T., Layte R., Nolan B. and Maitre B. (2001), "Income, Deprivation and Economic Strain", *European Sociological Review*, 17 (4), 357-372.
- Whelan, C.T., Layte, R. and Maître, B. (2003), "Persistent Income Poverty and Deprivation in the European Union", *Journal of Social Policy*, 32,1:1-18.
- Whelan, C.T., Layte, R. and Maître, B. (2004), "Understanding the Mismatch between Income Poverty and Deprivation: A Dynamic Comparative Analysis", *European Sociological Review*, 20 (4), 287-302.
- Whelan, C.T., Layte, R., Maitre, B. and Nolan, B. (2000), "Poverty Dynamics: An Analysis of the 1994 and 1995 Waves of the ECHP", *European Societies*, 2 (4), 505-531.

- 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.
- Wiswede, Günter (2000), 'Konsumsoziologie – Eine vergessene Disziplin', in: D. Rosenkranz, N. Schneider (Hg.), *Konsum. Soziologische, ökonomische und psychologische Perspektiven*. Opladen, S. 23-72.
- Wu, K.B. (2003), Poverty Experience of Older Persons: A Poverty Study from a Long-Term Perspective, *AARP Discussion Paper*, Washington: AARP.
- Zaidi, Asghar M. (1991), 'Comparability of Household Budget Surveys'. *Discussion Paper EURDP*, Department of Economic Sociology and Psychology. Erasmus University, Rotterdam.
- Zaidi, A. M.; de Voos, K. (2001), 'Trends in consumption-based poverty and inequality in the European Union during the 1980s.' In: *Journal of Population Economics*. Vol. 14, 367 – 390.
- Zimmermann, D.J. (1992), "Regression Toward Mediocrity in Economic Stature", *American Economic Review*, 82, 409-436.