

Intra-household Inequality and Material Deprivation Measurement

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Household composition including the proportion of people living in households consisting of two or more generations varies dramatically across European countries. In 2013, nearly one-third of the population in Greece lived in households containing three or more adults, compared to less than a fifth of the population in the UK and fewer than 1 in 10 people in France (Eurostat database, 2015). This has important implications for poverty and income inequality measurement, since income is measured at household level and equivalised on the assumption of income pooling of household income which implies that all members of the household share its resources equally. Material deprivation is also usually measured at a household level, masking variation in individual living standards. For example the official material deprivation indicator adopted by the EU measures the proportion of people who cannot afford at least three of the out nine household level deprivation items (e.g. inability to pay their rent, mortgage or utility bills; to keep their home adequately warm; to face unexpected expenses). If household income is not shared to the equal benefit of all - an assumption embedded in the equivalisation of income in standard poverty and inequality measurement - then neither conventional measures of poverty, nor those of deprivation, may give an accurate representation of the risks of low standards of living faced by different genders and generations within households. The equal sharing assumption is especially unlikely to hold in complex households, made up of more than one family unit, because income streams and preferences are more likely to differ across household members from different generations. This implies that conventional living standard estimates in countries like Greece, with a higher proportion of extended family households, are less valid than in countries like France or UK.

In this paper we make use of individual-level deprivation data included in the 2014 European Union Statistics on Incomes and Living Conditions (EU-SILC) ad-hoc module on material deprivation to examine the implications of intra-household inequality on material deprivation measurement and to test the income pooling hypothesis. Our analysis proceeds in three stages. First, we calculate an index of adult deprivation based

on individual-level deprivation indicators to examine the sensitivity of deprivation estimates to using individual level rather than household level deprivation indicators – both in terms of country rankings and in terms of the characteristics of adults identified as deprived in terms of the two indicators. Using a series of regression models we then examine how adult deprivation indicators vary by household and individual characteristics focusing in particular on the effect of relative income shares of different household members (which can be seen as indicator of relative power within households). Controlling for household income the coefficient on the relative income shares captures the extent to which the income pooling holds and the extent to which unequal distribution of resources is contributing to the results. In the next stage, we examine the degree of inequality in the distribution of personal deprivation and we estimate the share of inequality in the distribution of material deprivation that is accounted for by the within household inequality in the distribution of personal deprivation. Finally, we examine the correlation between the within household inequality in material deprivation and the within-household inequality in the distribution of relative incomes and we identify countries and the characteristics of people for whom the correlation is stronger.

We find significant differences in the proportion of adults identified as deprived according to the conventional household level material deprivation indicator and the alternative deprivation indicator based on the enforced lack of personal deprivation items. Comparisons of country rankings in terms of the two indicators show that important differences. The groups identified at high deprivation risk in terms of the two indicators are also different, with most pronounced being the case for single people either living alone or in multifamily households. Regression analysis revealed a significant negative effect of the relative income shares on the risk of experiencing personal deprivation, pointing to the incomplete pooling of household resources. The effect, however, varied substantially across different countries and across family types. Analysis of the distribution of the two indicators showed that the alternative indicator based on the enforced lack of personal deprivation items is more unequal than the conventional household-level deprivation indicator. Using decomposition analysis we find that the within household inequality in the distribution of personal deprivation contribute between 10 and 20 per cent to the overall inequality in its distribution and even higher for multi-family households.

Given this evidence, we conclude that (a) individual-level deprivation items should be included as standard in EU-SILC and national income and expenditure surveys; (b) social security and other anti-poverty strategies need to be sensitive to the within-household distribution of resources, especially in countries with high rates of co-residence among generations and in low income households.