

# ***MEASURING MULTIDIMENSIONAL DEPRIVATION, WELL-BEING, AND INEQUALITIES***

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Abstract for  
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Poverty, richness, and inequality have always been key elements in policy oriented quality-of-life (QoL) applications (Atkinson 2019; Wilkinson, Pickett 2009a,b; Layte 2012). Poverty, richness, and inequality are traditionally treated as one-dimensional, income-based measures.

We consider QoL and its (eudaimonic) applications as intrinsically multidimensional. Therefore, we aim to capture dimensional overlaps at different (conceptual) aggregation levels across population, space and time – which may help to identify social and political (interactive) tipping points. We further suggest to differentiate measures on (economic, social) well-being distributions for developments within the entire population (between the tails).

We contribute to the ongoing discussion in several ways. For deprivation (poverty) and well-being (richness) we extend the one- and multidimensional (MPI) standard threshold-approach by a fixed-fuzzy-approach (Krause 2019, 2024), which overcomes existing reluctancies on fuzzy-based applications (volatile membership functions; non-cardinal fuzzy values) by using predefined lines and parameter-driven exponential functions. For empirical inequality analysis we suggest to consider also individual inequality-scores from aggregated coefficients (Gini, Atkinson). We further propose fully decomposable within-between Gini coefficients for one- and multi-dimensional (horizontal, diversity-related) applications including (multiple) subgroup indicators. Weighting remains a methodological challenge in multidimensional applications. In our framework, design weights constitute the conceptual basis to allocate indicators accordingly. For normative design settings, we propose multi-conceptual schemes from quality-of-life, social-indicators and sustainability background (Maslow, Allardt, Bourdieu, Zapf; OECD well-being framework [beyond GDP]; How's Life 2024, SDG Report 2025, World Inequality Report 2026) and emphasize further on CA-based non-normative settings according to the constitutional method (Burchi, De Muro & Kollar, 2014).

We further propose to combine design-oriented weighting schemes with empirical weightings derived from regression analyses based on selected key variables (hh-incomes, life-satisfaction) - further differentiated by sub-group-levels to catch as well shifts in individual weighting preferences over the life cycle or between ethnic groups or regions using three optional key elements: the relative meaning of each indicator, individual variations and control for correlation between indicators. All suggested measures are empirically illustrated using the SOEP.

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