

Multidimensional Measures of Well-being with Dimensional Hierarchy

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Paper Abstract:

In this paper we propose an axiomatic framework to measure multidimensional well-being and deprivation indices. When multiple dimensions are considered, it is often the case, that there is a need to determine the relative importance attached to the different dimensions. The current literature has largely focused on a two-tier partition of dimensions, for instance basic and non-basic dimensions. Our proposed framework allows us to differentiate dimensions in more than two hierarchical orders. The resulting well-being and deprivation indices can be estimated using minimal data that is binary in nature. We illustrate the multidimensional measures by using data from the American Community Survey, the largest household level survey in the U.S. We compile information on 9 dimensions of well-being for 6 years. Our results show that during the Great recession, between 2008 and 2011, there was a rise in the index measuring social deprivation and a decline in the values of the social well-being index. The trend is reversed in the recovery period following the recession, between 2011 and 2013. We also test the robustness of our estimates to different values of the parameters and thresholds.