

The Dimensions of Ordinal Well-Being Indexes: Using Orthogonal Weighting with the Kids Count Index

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Paper Abstract:

Well-being indices such as the Gallup-Healthways Well-Being Index, the Kids Count Index, the Opportunity Index, the Healthy Planet Index, and the Human Development Index combine large amounts of data about geographic areas into a single number in order to compare economic and social well-being across time and space. The computation of these types of indices is all too often left without scrutiny. Are the proper variables being used? And what is the best way to determine the right variables? Even if the correct variables are used, what should be their relative importance? Many indices attempt to avoid these questions by weighting all variables equally, using the variables from a related index, or basing the calculations solely on availability of public data. This paper uses the example of the annual Annie E. Casey Foundation's Kid Count Index. The purpose of the Kids Count Index is to provide an objective and consistent third-party measurement of child welfare in every U.S. state. This paper suggests using a methodology based on Knippenberg (2014) that weights the variables into orthogonal dimensions. Variables are not the same thing as dimensions, so while most indices weight variables equally, this study recommends orthogonalization of the data so that dimensions are weighted equally. This minimizes the effect of correlation between variables. This procedure ensures that all underlying dimensions are equally represented in the final index calculation. This study recommends that well-being indices be constructed with special attention paid to the system of weighting between variables.