

Lori Curtis: Poverty in Canada: Unidimensional and Multidimensional Measures

Gordon Anderson

What the Paper does. (Super attention to detail, a useful contribution, a sort of robustness exercise).

- “In summary, this study used Statistics Canada's survey data to estimate and compare different poverty measures ... although with a little more subjectivity than may be desirable and with some difficulty in matching the indicators.”
- “The second query of the paper, as to whether different measures of poverty/well-being provide similar statistics through time is definitely, it depends. Although the levels of poverty differ across the various multidimensional measures, the trends are very similar. Measures are substantially more similar if home ownership is not included as an indicator.”
- !!!!!26 Tables 6 figures!!!!!!

My Concerns. MDP's inherently problematic – increased dimensionality – arbitrariness in cut-offs – arbitrary weights – additively separable problem – assumes homogeneous population.

- **increased dimensionality => flattening likelihood surfaces => more difficult to discriminate between things. {think of k independent standard normals the peak is $(1/\sqrt{2\pi})^k$. This problem is familiar to neural networks researchers, and is referred to as the empty space phenomenon (Verleysen 2003)}**
- **Generally union rules -> poverty measures increase with dimensionality, intersection rules -> diminish poverty measures with dimensionality.**
- **arbitrariness in cut-offs – arbitrary weights typically ties the progress of the poor to the general population (what about the focus axiom for poverty measurement). Some measures relative – some absolute (Relative: $\text{Poor} \leq 0.5\text{median}$ or bottom quintile.... Absolute: unemployment or health status). Would expect differences, different measures are attacking different problems.**
- **which population – whose preferences (suppose substantial portion of the population is nomadic why would home ownership matter to them - mention Jasmin Thomas's work on aboriginal vs. non-aboriginal communities – have very different preferences perhaps need different cutoffs and weights).**
- **A word about “robustness” – It's not really about whether or not different approaches yield similar measures, it's more about whether different measures capture the same collection of agents as poor – that's the real test of robustness (tetrachoric correlations do this to some degree) but I prefer overlap measures.**