

Suman Seth

Curriculum Vitae, October 2009

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Vanderbilt University
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Graduate Education

Vanderbilt University, Department of Economics
Ph.D. candidate in Economics
Expected completion date: May 2010

Dissertation Title: Essays in Multidimensional Measurement: Welfare, Poverty, and Robustness

Dissertation Committee and References

Professor James E. Foster (Primary Advisor), fosterje@gwu.edu, (202) 994 8195
Professor John A. Weymark, john.weymark@vanderbilt.edu, (615) 322 1437
Professor Yanqin Fan, yanqin.fan@vanderbilt.edu, (615) 322 3796
Professor Mark A. Cohen, cohen@rff.org, (202) 328 5167
Dr. Sabina Alkire, sabina.alkire@qeh.ox.ac.uk, +44 1865 271529

Jawaharlal Nehru University, New Delhi, India
M.Phil. in Economics, 2004

Calcutta University, Kolkata, India
M.Sc. in Economics, 2002

Undergraduate Education

Bidhan Nagar College, Kolkata, India
B.Sc. (Hons.) in Economics, 2000

Research and Teaching Fields

Primary Field: Development Economics, Applied Microeconomics
Secondary Field: Public Economics, Microeconometrics

Honors and Fellowships

Social Science Dissertation Fellowship, Vanderbilt University, 2009-2010
Wiebke Kuklys Prize 2008 for the best paper presented by a graduate student, Human Development and Capability Association (HDCA) Annual Conference, 2008
Kirk Dornbush Summer Research Award, Vanderbilt Department of Economics, Summer 2007
Graduate Fellowship, Vanderbilt University, 2004-2009

Teaching Experience

HDCA Summer School, New Delhi, India, Summer 2008 and Lima, Peru, Summer 2009
Lectures on Multidimensional Inequality and Welfare Measures, and Robustness in Weighting

Vanderbilt University, Instructor
Principles of Microeconomics, Summer 2008 and 2009

Vanderbilt University, Teaching Assistant
Inequality and Distribution; Public Finance: 2009
Microeconomic Theory (Master's program); Development Economics (Master's program);
Intermediate Macroeconomic Theory: 2007
Development Economics; Intermediate Microeconomic Theory; Urban Economics: 2006
Macroeconomic Theory (Doctoral program): 2005

Research Papers

“A Class of Association Sensitive Multidimensional Welfare Indices” [[Job Market Paper](#)]

This paper axiomatically characterizes a class of two-parameter generalized mean social welfare indices when there are two or more dimensions of well-being. These indices, under appropriate parametric restrictions, are sensitive to two distinct forms of inter-personal inequality. The first form of inequality is concerned with the dispersion of each dimensional achievement across the population, as would be reflected in the multidimensional version of the usual Lorenz criterion. The second is concerned with the association or correlation across dimensions, reflecting the observation that the correlation of individual components of well-being across dimensions is relevant for the social welfare evaluation. It is shown that many existing multidimensional welfare indices are sub-classes of this new class. Statistical tests are developed to verify the reliability of the evaluations generated by these indices. Finally, the class of indices is applied in the Indian context to compare the level of social welfare across various population subgroups using the Demographic Health Survey 2005/06 dataset.

“Rank Robustness of Composite Indicators”, (with James E. Foster and Mark McGillivray), [Working Paper 26](#), Oxford Poverty & Human Development Initiative, 2008

Many common multidimensional indices take the form of a “composite indicator” which aggregates linearly across dimensions using a vector of weights. Judgments rendered by a composite indicator are contingent on the initial vector of weights and could well be reversed at some other plausible vector. Certain other comparisons, however, are preserved even when weights are varied. This paper defines and characterizes a general robustness criterion that discerns between these two situations for a set of multiple “allowable” weighting vectors. We focus on a particular form for this set that arises naturally from an epsilon contamination model of ambiguity whose parameter relates to the degree of confidence in the initial weighting vector, as in Ellsberg (1961). We provide the necessary and sufficient conditions for a comparison to exhibit this form of robustness and propose a measure by which the robustness level of a comparison can be gauged. This paper further demonstrates a link between empirical prevalence of robustness and positive association across components examining various composite indicators such as the Human Development Index, the Index of Economic Freedom and the Environmental Performance Index.

“Multidimensional Poverty and BPL Measures in India: A comparison of Methods”, (with Sabina Alkire), [Working Paper 15](#), Oxford Poverty & Human Development Initiative, 2008

In 2002, India identified rural households as ‘below the poverty line’ according to a 13-item census questionnaire. Both the BPL census data and the method of identification have been critically scrutinized subsequently. Informed by such criticisms, this paper focuses on the methodology by which BPL census data are used to identify the poor and construct a BPL headcount. To do so, it draws on NFHS data and matches, to the extent possible, the dimensions in the BPL census for rural populations. Using the BPL 2002 methodology, it constructs pseudo-BPL scores, and identifies which families would have been considered BPL poor were NFHS data used. It compares these to poor families that would be identified using the exact same variables with the multidimensional poverty methodology proposed by Alkire and Foster (2007). It finds that up to 12% of the poor sample population could be misclassified as non-poor by the pseudo-BPL method, and that this rises to 33% among the extreme poor. While criticisms regarding corruption and poor data quality have been widely recognized, this paper draws attention to the significant and costly problems of using weak identification methods.

Work in Progress

“Robustness Tests for Rankings and Multidimensional Association”, (with Gaston Yalonetzky)

“Stochastic Dominance Rules for Parametric Families of Distributions”

Other Papers and Publications

- “Composite Indicators: Rank Robustness, Statistical Association, and Redundancy”, (with James Foster and Mark McGillivray), under review in *Econometric Reviews*
- “Inequality, Interactions, and Human Development,” *Journal of Human Development and Capabilities*, 10 (3), 375 – 396, 2009
- “Collecting capability data on the basis of existing surveys: The case of India,” *Maitreyee*, 14, 7 – 10, 2009
- “Determining BPL Status: Some Methodological Improvements”, (with Sabina Alkire), *Indian Journal of Human Development*, 2 (3), 407 – 424, 2008
- “Do Government Agencies Respond to Market Pressures? Evidence from Private Prisons,” (with J. Blumstein and M. Cohen), *Virginia Journal of Social Policy and the Law*, 15 (3); 446 – 477, 2008

Other Research Experience and Employment

- Consultant to Human Development Report for Latin America and the Caribbean, UNDP, Fall 2008
- Researcher, Oxford Poverty & Human Development Initiative (OPHI), Summer 2008 - Present
- Research Assistant to Professor James E. Foster, Department of Economics, Spring 2008
- Research Assistant to Professor Mark Cohen, Owen School of Management, Summers 2005 and 2006

Professional Activities

Referee

- Journal of Human Development
- Review of Income and Wealth

Discussant

- 6th Midwest International Economic Development Conference, Minneapolis, May 2009
- Workshop on the Robustness of Welfare Comparisons, Oxford Poverty & Human Development Initiative, Oxford University, May 2008

Presentations of Research

- “A Class of Association Sensitive Multidimensional Welfare Indices”
 - OPHI Wednesday Lunchtime Seminar Series, Oxford University, May 2009
 - Inequality and Human Development in Latin America and the Caribbean, UNDP, Vanderbilt University, January 2009
 - Brown-Bag Seminar, Regional Bureau for Latin America and the Caribbean, UNDP, New York, November 2008
 - Southern Economic Association Conference, Washington D.C., November 2008
 - Human Development and Capability Association Annual Conference, Delhi, September 2008
 - International Meeting of the Society for Social Choice and Welfare, Montreal, June 2008
- “Rank Robustness of Composite Indicators”
 - Human Development and Capability Association Annual Conference, Lima, September 2009
 - American Economic Association Meetings, San Francisco, January 2009
 - Workshop on Weighting in Multidimensional Poverty Measures, Oxford Poverty & Human Development Initiative, Oxford University, May 2008
- “Multidimensional Poverty and BPL Measures in India: A Comparison of Methods”
 - 6th Midwest International Economic Development Conference, Minneapolis, May 2009
 - Human Development and Capability Association Annual Conference, Delhi, September 2008
- “Stochastic Dominance Rules for Parametric Families of Distributions”
 - Graduate Student Research Day, Vanderbilt University, March 2006

Professional Membership

- American Economic Association
- Human Development and Capability Association
- Society of Social Choice and Welfare
- Southern Economic Association

Software Knowledge

- STATA and MATLAB