Summer School on Multidimensional Poverty Analysis

Oxford Poverty and Human Development Initiative (OPHI)
Oxford Department of International Development, University of Oxford
Oxford, United Kingdom
11 – 23 August 2014
Welcome!

Welcome to the OPHI Summer School on Multidimensional Poverty Analysis 2014. We are very pleased to be able to share with you our interest in these important topics. We hope that you find your experience at the Summer School an interesting and valuable one. We are sure that we will learn a lot from you at the same time that you are learning from us. Please do not hesitate to ask questions or request clarifications on any matter at any point during the course. We will present the course content through lectures but there will also be exercises and working group sessions that will help you to incorporate the new content from the lectures through learning-by-doing. It is important that you take the time to work on these exercises since they will help you to understand the subject matters better.

Welcome to Oxford!
The Instructors

The capability approach formulated by Amartya Sen, and further developed by the philosopher Martha Nussbaum and others, provides a conceptual framework that grounds many multidimensional approaches to poverty and social protection. This includes the MDGs, PRSPs, rights-based development, integrated social policy, and other specific initiatives.

In the past few years, interest in multidimensional quantitative techniques of analysis has surged. New quantitative methodologies have been developed for measurement, comparison, and analysis. Many more are still under development. It is a fast-moving area.

The purpose of this intensive summer school is to provide a thorough conceptual and technical introduction to some techniques of measuring multidimensional poverty with a strong emphasis on the Alkire-Foster method. Participants will revise axiomatic poverty measures and they will learn different multidimensional poverty techniques and problems they best solve. The empirical motivation for measuring multidimensional poverty will be presented as well as the conceptual motivation drawing on Sen’s Capability approach.
1. Instructors

Alkire, Sabina (SA)
Sabina Alkire directs the Oxford Poverty and Human Development Initiative (OPHI), a research centre within the Department of International Development, University of Oxford. In addition, she is a Research Associate at Harvard and Vice President of the Human Development & Capability Association (HDCA). Her research interests include multidimensional poverty measurement and analysis, welfare economics, the capability approach, the measurement of freedoms and human development. Publications include ‘Valuing Freedoms: Sen’s Capability Approach and Poverty Reduction’, as well as articles in Philosophy and Economics. She holds a DPhil in Economics from Magdalen College, University of Oxford.

Apablaza, Mauricio (MA)
Mauricio Apablaza is a Researcher and Professor at the Universidad del Desarrollo, Chile. He is also a Research Associate at the Oxford Poverty and Human Development Initiative (OPHI). Previously, he worked as Research Officer and Outreach Coordinator at OPHI, at the University of Oxford. He holds a PhD in Economics from the University of Nottingham, United Kingdom and a Master in Public Policies from the University del Desarrollo (Chile). He has been regional director for civil society organizations and consultant to international businesses and agencies (MEDSTAT/OECD, UNICEF, UNDP, SADC, WORLD BANK). He has led training programs for OPHI in South Africa, Malaysia, Indonesia, Jordan, Egypt, Hungary, Brasil, Chile, the Netherlands, Barbados, US, Vietnam, Nicaragua and Thailand, among others. His areas of research include institutions, international commerce and poverty dynamics.

Chatterjee, Mihika (MC)
Mihika Chatterjee is a Researcher at the Oxford Poverty and Human Development Initiative (OPHI). Her work at OPHI involves the computation and analysis of data for the Global Multidimensional Poverty Index (MPI), and research into its policy applications in India. She holds an MPhil in Development Studies from the University of Oxford, and a B.A. in Economics from The College of Wooster, Ohio. Her MPhil thesis explored India’s Public Distribution System (PDS) and its effect on food security and child health. She has previously worked on Randomised Control Trials (RCTs) for the Abdul Jameel Poverty Action Lab (J-PAL).

Conconi, Adriana (AC)
Adriana Conconi is a Research Officer at the Oxford Poverty & Human Development Initiative (OPHI). She holds a Degree and Master Degree in Economics from the Universidad Nacional de La Plata (UNLP) – Argentina. She is enrolled in the Master in Public Administration in International Development (MPA/ID) at Harvard University (expected degree: 2015). She has been working with OPHI since 2011, and is leading the MPI 2014 computations. Her research interests include poverty analysis, development welfare and inequality. She has previously worked as a Researcher at the Centro de Estudios Distributivos, Laborales y Sociales (CEDLAS), at the UNLP and as a Professor in graduate and post-graduate courses at UNLP and Universidad de San Andres (Argentina).

Hammock, John (JH)
Prof. John Hammock is co-founder and Research Associate of the Oxford Poverty and Human Development Initiative. He is an Associate Professor of Public Policy at Tufts University’s Fletcher School and a Research Fellow at the Frederick S. Pardee Center for the study of the Longer-Range Future at Boston University. He is the Treasurer of the Human Development Capability Association. He founded and was director of the Feinstein International Famine Center at Tufts University. He served as Executive Director at Oxfam America from 1984-1995.
and as Executive Director at ACCION International from 1973-1980. He holds a Ph.D. in International Relations from Tufts University and an Honorary Doctor of Laws degree from Denison University. He was born in Cuba. He has two daughters and two grandchildren.

**Housseini, Bouba (BH)**
Bouba Housseini is currently a Research Officer at the Oxford Poverty and Human Development Initiative (OPHI). He holds a Ph.D. in Economics from Université Laval in Canada. He earned his M.Sc. in Statistics at the Institut National de Statistique et d’Économie Appliquée (INSEA) in Morocco. His research interests include human development, welfare economics and applied econometrics. He has taught Development Economics in undergraduate and graduate programmes at Université Laval in Canada. He has served as a consultant to the International Development Research Center (IDRC) in Canada, and for Capital Consulting in Morocco. His work experience also includes collaborations with various UN agencies, in particular, the UNDP Human Development Report Office (HDRO).

**Robles A., Gisela (GR)**
Gisela Robles Aguilar is a Research Officer at the Oxford Poverty & Human Development Initiative (OPHI). She has recently completed a DPhil degree in Comparative Social Policy, University of Oxford. Her research is focused in analyzing the extent to which participation in cash transfers is constrained by the conditionality attached to such anti-poverty programmes. She worked as a research assistant for the Oxford Poverty and Human Development Initiative (OPHI) from 2008 to 2012.

**Sarwar, Moizza (MS)**
Moizza B Sarwar works part-time at OPHI and develops policy briefs and research material for dissemination and discussion at international forums and government meetings as well as material for publication on the OPHI website. She is a graduate student at the University of Oxford’s Department of Social Policy and her current research area focuses on informal settlements in Cape Town, South Africa and Karachi, Pakistan.

**Seth, Suman (SS)**
Suman Seth is a Senior Research Officer at OPHI. He has also worked for the Regional Bureau of Latin America and the Caribbean, UNDP, and the Development Research Group at the World Bank. His primary interest lies in the area of Development Economics with special emphasis on measurement methodologies and policy-oriented applications of multidimensional welfare and poverty measures. He holds a PhD in economics from Vanderbilt University, USA.

**Vaz, Ana (AV)**
Ana Vaz is a Research Officer at OPHI. She has also worked for PricewaterhouseCoopers and at the Catholic University of Portugal. Her primary research interests are Development Economics and Applied Microeconomics. Her work at OPHI has focused on the policy applications of the Alkire Foster method for multidimensional measurement. She holds a DPhil in Economics from University of Oxford.
## 2. Programme

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<td>Alkire Foster (AF) Methodology</td>
<td>Normative Issues in MD Poverty</td>
<td>STATA Lab &amp; Descriptive statistics</td>
<td>Working Groups: Creating the Deprivation Matrix</td>
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<td>Sensitivity, Robustness Analysis &amp; SE</td>
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<td>Working Groups: National Results</td>
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<td>Decomposition by Subgroup &amp; Dimension</td>
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<td>Working Groups: Subgroup Decomposition, Maps &amp; Dimensional Breakdown</td>
<td>Interpreting the MPI Results</td>
<td>Working Groups’ Results Presentations</td>
<td>Review of the Course &amp; Closure</td>
<td>Presentations of Working Group Results</td>
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3. Syllabus

Topic: Introduction & Overview of the Summer School

Session: Monday 11 August, 09:00-10:30
Instructor: Sabina Alkire

Contents:
- Presentation of the OPHI Team
- Presentation of the Participants
- Presentation of the Summer School, aims and goals.
- Presentation of the programme of the Summer School
- Logistic Information

Pre-Summer School Reading List:
**Topic:** Why Multidimensional (MD) Poverty Measures?

**Session:** Monday 11 August, 11:00-12:30  
**Instructor:** Sabina Alkire

**Contents:**
- Conceptual and Philosophical arguments for multidimensional poverty measures
- Empirical evidence of Uni vs. Multi-Dimensional Poverty
- Examples of interest in multidimensional poverty measures in government agencies of different countries.

**Reading:**

**Further reading:**
Topic: **Unidimensional Poverty Measurement**

**Session:** Monday 11 August, 13:30-15:00  
**Instructor:** Suman Seth

**Contents:**
- Steps in poverty measurement: identification and aggregation.  
- Properties of unidimensional poverty measures.  
- Unidimensional poverty measures.  
- Poverty Orderings (Unidimensional stochastic dominance conditions and the links to poverty measures)

**Reading List:**

**Further readings:**
**Topic:** Properties of Multidimensional (MD) Poverty

**Session:** Monday 11 August, 15:30-17:30

**Instructor:** Suman Seth

**Contents:**
- Properties of multidimensional poverty measures that are natural extensions of the unidimensional framework.
- Properties specific to multidimensional measures.
- Multidimensional Poverty Measures.

**Reading List:**

**Further readings:**
## Topic: Multidimensional Poverty Methods and Counting Approaches

**Session:** Tuesday 12 August, 09:00-10:30  
**Instructor:** Sabina Alkire

### Contents
- The counting approach as a method for identifying the poor. Steps involved.  
- Links of this approach to the concept of poverty.  
- Salient implementations of the counting approach to measure poverty over time. Their use in policy.

### Reading:

### Further reading:

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## Topic: Case Studies: International MPI and Databank

**Session:** Tuesday 12 August, 11:00-12:30  
**Instructors:** Adriana Conconi, Ana Vaz and Mihika Chatterjee

### Contents:
- An introduction to the choices and limitations behind the international comparable MPI and the many types of possible analyses.

### Reading List:
## Topic: Alkire Foster (AF) Methodology

### Session:
Tuesday 12 August, 13:30-15:00 (theory) 15:30-17:30 (Paper exercises) 13 Aug 09:00-10:30 (Revisions)

### Instructor:
Ana Vaz

### Contents:
- Key literature on multidimensional poverty measures
- The steps of identification and aggregation in Alkire Foster method
- The importance of a joint distribution vs. a marginal distribution

### Reading:

### Further reading:
### Topic: Introduction to the Capability Approach

**Session:** Wednesday 13 August, 11:00-12:30  
**Instructor:** Sabina Alkire

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| ● History and Motivation  
● Capabilities  
● Functionings  
● Agency  
● Implications for economics  
● Issues for measurement |  |

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**Further reading:** |  |
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**Topic:** Normative Issues in Multidimensional Poverty Measurement

**Session:** Wednesday 13 August, 13:30-15:00 (theory), 14 August, 09:00-10:30 (working groups)

**Instructor:** Sabina Alkire

**Contents:**
- Choice of the unit of analysis
- Order of aggregation
- Choice of dimensions
- Choice of variables/indicators for dimensions
- Choice of poverty lines
- Choice of weights
- Choice of identification criterion & aggregate measures

**Reading:**

**Further reading:**
2. ALKIRE, S. (2002), “Dimensions of Human Development” World Development 30: 181-205. (This article surveys the ‘lists’ of dimensions of human development that have been proposed – on the basis of participatory planning or research, philosophy, synthesis of existing literature, cross-cultural psychology, psychology of human development, and so on).
## Topic: Case Studies: National Multidimensional Poverty Measures

**Session:** Wednesday 13 August, 15:30-17:30  
**Instructors:** Ana Vaz, Adriana Conconi, Gisela Robles A. and Mihika Chatterjee

### Contents:
- An overview of national A&F measures in Colombia, Mexico, Bhutan and South Africa.

### Reading List:
**Topic:** Survey Design, Bias Analysis, Missing Values and Sample Drop

**Session:** Thursday 14 August, 11:00-12:30  
**Instructors:** Adriana Conconi and Ana Vaz

**Contents:**
- An overview of common data issues related to the use of Household Surveys for  
- Multidimensional poverty measurement

**Reading:**

**Further reading:**
2. BROGAN, D. “Sampling error estimation for survey data”, in Household Sample Surveys in  
6. LEPKOWSKI, J. “Non-observation error in household surveys in developing countries”, in Household Sample Surveys in Developing and Transition Countries, New York: United Nation Publication.  
### Topic: Stata Lab & Descriptive Stats

**Session:** Thursday 14 August, 13:30-15:00 (lecture), 15h30-17h30 (Working Groups: exploring the dataset)

**Instructor:** Adriana Conconi, Ana Vaz and Mihika Chatterjee

**Contents:**
- Review of STATA
- Descriptive Statistics (categorical and continuous variables)
- Generating variables using loops
- The structure of the AF - do file.

**Reading List:**
2. STATA Press. Getting Started with Stata for Windows.

**Useful resource:**
1. General help can be found at [http://www.stata.com/links/resources-for-learning-stata](http://www.stata.com/links/resources-for-learning-stata).
2. UCLA Academic Technology Services available at [www.ats.ucla.edu/stat/stata](http://www.ats.ucla.edu/stat/stata)

### Topic: Exam

**Session:** Friday 15 August, 09:00-10:30

**Instructors:** Gisela Robles A., Bouba Housseini and Mihika Chatterjee

**Contents:**
- Why Multidimensional (MD) Poverty Measures?
- Unidimensional Poverty Measurement
- Properties of MD Poverty
- Alkire Foster (AF) Methodology
- Introduction to the Capability Approach
- Normative Issues in MD Poverty Measurement.
**Topic:** Measures of Associations and Redundancy

**Session:** Friday 15 August, 11:00-12:30  
**Instructors:** Sabina Alkire and Ana Vaz

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| ● Measuring association in contingency tables: local, and global odds ratios  
● Non-model based analysis of ordinal association: concordance and discordance measures of association, gamma, Kendall-tau.  
● Introduction to redundancy: Principles of EFA. |

**Reading:**


**Further reading:**

Topic: Aggregated Results, Decomposition by Subgroup and Dimensional Breakdown

Session: Monday 18 August, 09:00-10:30 (Aggregated Results), 11:00-12:30 (Working Groups), 13:30-15:00 (Decomposition by Subgroup and dimension), 15:30-17:30 (Working Groups).

Instructors: Adriana Conconi, Mauricio Apablaza, Suman Seth and Gisela Robles

Contents:
- Decompositions by population subgroups
- Breaks-down by dimension
- Analysis of Trends in AF Measure.

Reading List:
### Topic: Sensitivity, Robustness Analysis and Standard Errors

**Session:** Tuesday 19 August, 09:00-10:30 (lecture), 11:00-12:30 (working groups)

**Instructors:** Suman Seth and Bouba Housseini

**Contents:**
- Unidimensional versus multidimensional dominance
- Application of Stochastic Dominance in Alkire-Foster context
- Computation of standard errors of point estimates
- Rank robustness; Spearman, and Good & Kruskal's correlation coefficients and Rank concordance
- Robustness of point estimates with respect to the selection of weights, poverty cut-off and deprivation cut-offs.

**Reading:**

**Further reading:**
   [http://www.restore.ac.uk/Longitudinal/surveynetwork/documents/PragueCourseNotesPLv3.pdf](http://www.restore.ac.uk/Longitudinal/surveynetwork/documents/PragueCourseNotesPLv3.pdf)
9. YALONETZKY, Gaston (2009), "Testing for stochastic dominance among additive, multivariate welfare functions”, manuscript.
## Topic: Time Series and Chronicity

**Session:** Tuesday 19 August, 13:30-15:00  
**Instructors:** Sabina Alkire and Ana Vaz

### Contents:
- Time decompositions for panel datasets introducing transitional probabilities.  
- Empirical examples in both cross section and panel data.  
- Remarks on time comparability in cross section data

### Reading:

### Further reading:
## Topic: Interpreting the MPI Results

**Session:** Tuesday 19 August, 15:30-17:30  
**Instructors:** Mauricio Apablaza and Adriana Conconi

### Contents:
- Analysis and Interpretation of aggregated results (M0, H, A)  
- Comparing the MPI to other measures of welfare or poverty  
- Analysis and Interpretation of results by subgroup  
- Analysis and Interpretation of dimensional results (Raw and Censored Headcounts Ratios)

### Reading List:

### Further readings:
## Topic: Inequality Among the Poor

**Session:** Wednesday 20 August, 09:00-10:30  
**Instructor:** Suman Seth

### Contents:
- An inequality sensitive poverty index or a separate inequality measure?  
- Which Inequality measure?  
- Capturing inequality across the Poor  
- Capturing disparity in poverty across population subgroups

### Reading:

### Further reading:
Topic: Regression Analysis

Session: Wednesday 20 August, 11:00-12:30
Instructors: Bouba Housseini and Sabina Alkire

Contents:
- Introduction to Generalised linear models.
- Regression models for Indicators of deprivation: Poisson models for count data.
- Regression models for MPI by district: Linear regression
- Introduction to Structural Equation Modelling: MIMIC models for Female empowerment

Reading:

Further reading:

Topic: Clarifying Concepts and Communicating your Results

Session: Wednesday 20 August, 13:30-15:00
Instructors: Sabina Alkire/John Hammock/Mauricio Apablaza

Contents:
- Clarifying the different concepts used in multidimensional poverty analysis
- Communicating your multidimensional poverty measure
- OPHI’s experience in communicating the global MPI
- General communication advice.

Reading List:

Further readings:
## Topic: Targeting & Impact Evaluation

**Session:** Thursday 21 August, 09:00-10:30  
**Instructor:** Sabina Alkire and Ana Vaz

**Contents:**
- Methods of MPI poor targeting and applications  
- Impact evaluation and multidimensional poverty

**Reading List:**

## Topic: Institutions and Policy

**Session:** Thursday 21 August, 11:00-12:30  
**Instructor:** John Hammock and Mauricio Apablaza

**Contents:**
- Practical and policy considerations in implementing multidimensional poverty measures  
- Political purposes – users and incentives created  
- Process of developing a measure – how it will be used? Who will have interest in using it?  
- How measures will be updated? What institutions will be involved?

**Reading List:**

**Further readings:**
Topic: Missing Dimensions of Household Surveys on Poverty

Session: Thursday 21 August, 13:30-15:00
Instructor: Sabina Alkire

Contents:
- Informational Analysis of moral principles
- Review – the choice of dimensions
- The problem of ‘missing data’
- Four survey instruments producing most MDG-type data
- Various search engines and initiatives to improve data
- Characteristics of internationally comparable data
- OPHI’s Missing Dimensions: Employment, Empowerment, Safety from Violence, Ability to go about without Shame, Psychological and Subjective well-being.

Reading List:

Further readings:
### Topic: Review of the Course & Closure

**Session:** Thursday 21 August, 15:30-17:30  
**Instructor:** Sabina Alkire

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| ● Recapping key lessons and topics covered during the course  
● General advice and next steps. |  

**Reading List:**

**Further readings:**

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### Topic: Non-Compulsory Exam

**Session:** Saturday 23 August 09:00-11:00  
**Instructors:** Gisela Robles A., Bouba Housseini and Mihika Chatterjee

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<td>● The whole of the course.</td>
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