

Summer School on Multidimensional Poverty Analysis

**Oxford Poverty and Human Development Initiative (OPHI)
Oxford Department of International Development, University of Oxford
Washington, DC. ~ 8 July – 19 July 2013**

Welcome!

Welcome to the HDCA Summer School on Capability and Multidimensional Poverty. 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.

Bon Voyage!
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). 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. She holds a DPhil in Economics from Magdalen College, University of Oxford.

Apablaza, Mauricio

Mauricio Apablaza is a Researcher and Coordinator of the Outreach Initiative of the Oxford Poverty and Human Development Initiative (OPHI). He has Doctorate in Economics from the University of Nottingham, United Kingdom. He has been regional director for civil society organizations and consultant to international businesses and agencies (MEDSTAT-UNICEF). He has been a professor of undergraduate and graduate studies at the University del Desarrollo (Chile) and Nottingham (UK). He has led training programs for OPHI in Malaysia, Indonesia, Jordan, Egypt, Hungary, Holland and Thailand, among others. His areas of research include institutions, international commerce and multidimensional poverty.

Ballón, Paola (PB)

Paola Ballon is a Research Officer at OPHI. She holds a Ph.D in Econometrics from the University of Geneva, Switzerland. Her research interest includes structural equation modeling, applied micro-econometrics, quantitative development economics, and labour economics. She has been a researcher at the International Labour Office (ILO), at the United Nations University (UNU-WIDER), and at the United Nations Research Institute for Social Development (UNRISD). She is a Member of the Editorial Board of the "Review of Income and Wealth".

Foster, James (JF)

James Foster is Professor of Economics and International Affairs at The Elliott School of International Affairs at The George Washington University. Professor Foster received his Ph.D. in economics from Cornell University where he received the Selma Fine Goldsmith Award for his dissertation. He held positions at the Krannert School of Management at Purdue University and Department of Economics at Vanderbilt before joining the Elliott School. He has been a visiting professor at the London School of Economics, Cornell, Essex, Oxford, Harvard, and the University of the Americas in Puebla, Mexico. He received the Unilever Fellowship (UK) and the Robert Wood Johnson Investigator Award in Health Policy, and holds a Doctorate Honoris Causa, from Universidad Autonoma del Estado de Hidalgo (Mexico).

Roche, José Manuel (JMR)

José Manuel Roche is a Research Officer at OPHI. He is also a research fellow at CISOR, an Education Officer of the HDCA executive council, and the coordinator of the Quantitative Research Thematic Group at the HDCA. José Manuel holds a PhD in Sociology from the University of Sussex and has research and consultancy experience in poverty analysis, social inequality, survey analysis, social indicators and on the human development and the capability approach.

Santos, Maria Emma (MES)

Maria Emma is an Assistant Professor at the Department of Economics, Universidad Nacional del Sur, Argentina, a research fellow of the Consejo Nacional de Investigaciones Cientificas y Tecnicas (CONICET), Argentina and a research associate to the Oxford Poverty and Human Development Initiative, University of Oxford. Her research interests include the measurement and analysis of chronic and multidimensional poverty, the quality of education, its determinants, and its role for poverty persistence. She is particularly interested in Latin American countries.

Seth, Suman (SS)

Suman Seth is a 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.

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.

Zavaleta, Diego (DZ)

Diego Zavaleta is a Research Officer at OPHI. He is involved in research pertaining aspects of shame, humiliation and isolation as missing dimensions of poverty data. His doctoral research focused on economic relations that prevent major ethnic conflict in Bolivia, as part of a global project within the Centre for Research on Inequality, Human Security and Ethnicity (CRISE) at the University of Oxford. He has D.Phil in Development Studies and a M.Sc. in Public Policy from the University of Oxford, an MBA from the University of Birmingham and a B.S. in Economics from Arizona State University. He has worked for a variety of International Organisations, including The World Bank and the United Nations Development Program, as well as for the Bolivian government. Before joining Oxford, he was the Secretary for the National Dialogue of the Ministry of the Presidency. He is a Bolivian national.

2. Programme

<i>Times</i>	<i>Day 1 (08/07)</i>	<i>Day 2 (09/07)</i>	<i>Day 3 (10/07)</i>	<i>Day 4 (11/07)</i>	<i>Day 5 (12/07)</i>	<i>Day 6 (13/07)</i>
09:00-10:30	Introduction & Overview of the Summer School (SA)	Introduction to the Capability Approach (SA)	Paper-based Exercises on AF Methodology (AV)	Exam (All)	Working Groups: Exploring the Dataset (MA/PB)	Measures of Associations (PB)
11:00-12:30	Unidimensional Poverty Measurement (JF)	Properties of MD Poverty (SS)	Normative Issues in MD Poverty (SA)	Working Groups: Normative Issues (MES)	Working in Groups: Creating the Deprivation Matrix (SS)	Sub Index Scales Validation (JMR)
13:30-15:00	Why Multidimensional (MD) Poverty Measures? (SA)	Alkire Foster (AF) Methodology (JF)	Case Study: the International MPI (JMR & MES)	Survey Design, Bias Analysis, Missing Values, & Sample Drop (JMR)	Working Groups' Preparing Presentations (All)	
15:30-17:00	Overview of MD Poverty Methods (SA& PB & MES)	Paper-based Exercises on AF Methodology (MES)	Case Studies: National MD Poverty Measures (SA)	STATA Lab & Descriptive statistics (MA)	Working Groups' Results Presentations (MES)	
<i>Times</i>	<i>Day 7 (15/07)</i>	<i>Day 8 (16/07)</i>	<i>Day 9 (17/07)</i>	<i>Day 10 (18/07)</i>	<i>Day 1 (19/07)</i>	<i>Day 6 (20/07)</i>
09:00-10:30	Working in Groups: Creating the Deprivation Matrix (PB)	Working Groups: Subgroup Decomposition & Maps (JMR)	Inequality Among The Poor (JF & SS)	Clarifying Concepts and Communicating your Results (SA & MES)	Review of the Course & Closure (SA)	Non Compulsory Exam (MA)
11:00-12:30	Aggregated Results (MA)	Working Groups: Dimensional Breakdown (SS)	Time Series & Chronicity (JMR & SA)	Working Groups' Results Presentations (MES)	Presentations of Working Group Results	
13:30-15:00	Decomposition by Subgroup & Dimensional Breakdown (JMR & SS)	Sensitivity, Robustness Analysis & SE (SS-PB)	Regression Analysis (PB)	Flex session	Presentations of Working Group Results	
15:30-17:00	Working Groups: National Results (MES)	Missing Dimensions of Household Surveys on Poverty (DZ & SA)	Working Groups: Regression Analysis (PB & MA)	Institutions & Policy (SA)	Presentations of Working Group Results	

3. Syllabi

Topic: Introduction & Overview of the Summer School

Session: Monday 8 July, 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:

1. ALKIRE, S. (2008), "The Capability Approach to the Quality of Life". Background paper to the Commission on the Measurement of Economic Performance and Social Progress.
<http://www.ophi.org.uk/wp-content/uploads/OPHI-RP-2a.pdf>
2. ALKIRE, S. and J. FOSTER (2009), "Counting and Multidimensional Poverty" in von Braun, Joachim, Vargas Hill, Ruth and Rajul Pandya-Lorch eds, The Poorest and Hungry: Assessment, Analysis and Actions, p 77-90. Washington DC: International Food Policy Research Institute
<http://www.ifpri.org/sites/default/files/publications/oc63ch03.pdf>
3. ALKIRE, S. and M. E. SANTOS (2011), "Training Material for Producing National Human Development Reports" <http://www.ophi.org.uk/wp-content/uploads/MPI-Primer1.pdf>.

Topic: Unidimensional Poverty Measurement

Session: Monday 8 July, 11:00-12:30

Instructor: James Foster

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:**Basic**

1. ALKIRE, S. and M. E. SANTOS (2009), "Poverty and Inequality Measurement", in DENEULIN, S. and SHAHANI, L. An Introduction to the Human Development and Capability Approach, Chapter 6. London, Earthscan.

Advanced

2. ATKINSON, A. B. (1987): "On the Measurement of Poverty", *Econometrica*. 55: 749-764.
3. FIELDS, G. (2001): *Distribution and Development*. New York: Russell Sage Foundation and Cambridge, MA: MIT. Chapter 4.
4. FOSTER, J. E. (2006): "Poverty Indices" in A. de Janvry and R. Kanbur (eds), *Poverty, Inequality and Development: Essays in Honor to Erik Thorbecke*. New York: Springer Science.
5. FOSTER, J. E. and A. Sen (1997): "On Economic Inequality: After a Quarter Century". Annex to the Expanded Edition of A. Sen. *On Economic Inequality*. Oxford: Clarendon Press. Section A.6.
6. FOSTER, J. E., S. SETH, M. LOKSHIN, Z. SAJAJA (2013), *A Unified Approach to Measuring Poverty and Inequality*, The World Bank.
7. FOSTER, J. E. and A. SHORROCKS. (1988): "Poverty Orderings and Welfare Dominance", *Social Choice and Welfare*. 5: 179-198.
8. RAY, D. (1998): *Development Economics*. New Jersey: Princeton. Chapter 8.

Further readings:

1. ATKINSON, A. B. (1987): "On the Measurement of Poverty", *Econometrica*. 55: 749-764.
2. BARRET, G. and S. DONALD, (2003), "Consistent Tests for Stochastic Dominance", *Econometrica*, 71(1): 71-104.
3. CLARK, S., HEMMING, R., and D. ULPH. (1981): "On Indices for the Measurement of Poverty", *Economic Journal*. 91: 515-26.
4. FOSTER, J. E. (1998) "Absolute versus Relative Poverty" *American Economic Review, Papers and Proceedings*. 88: 335-341.
5. FOSTER, J. E. and A. SHORROCKS. (1988): "Poverty Orderings and Welfare Dominance", *Social Choice and Welfare*. 5: 179-198.
6. FOSTER, J. E. and A. SHORROCKS. (1991): "Subgroup Consistent Poverty Indices", *Econometrica*. 59: 687-709.
7. FOSTER, J.E., GREER, J., and E. THORBECKE. (1984): "A Class of Decomposable Poverty Indices",

Econometrica. 52: 761-6.

8. RAVALLION, M. (1992): "Poverty Comparisons, A Guide to Concepts and Methods", Living Standards Measurement Study, Working Paper 88, World Bank, Washington D.C.

9. RAVALLION, M. (1996): "Issues in Measuring and Modelling Poverty", Economic Journal. 106: 1328-1343.

10. RAVALLION, M. and CHEN, S. (2009) "Weakly Relative Poverty" Policy Research Working Paper 4844, World Bank, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1348985

11. SEN, A. (1976): "Poverty: An Ordinal Approach to Measurement", Econometrica 44: 219-231.

Topic: Why Multidimensional (MD) Poverty Measures?

Session: Monday 8 July, 13:30-15:30

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 List:

1. ALKIRE, S. and M. E. SANTOS (2009), "Poverty and Inequality Measurement", in DENEULIN, S. and SHAHANI, L. An Introduction to the Human Development and Capability Approach, Chapter 6. London, Earthscan. http://www.idrc.ca/en/ev-146721-201-1-DO_TOPIC.html
2. ALKIRE, S. and M. E. SANTOS (2010), "Acute Multidimensional Poverty: A new Index for Developing Countries", OPHI WP 38. <http://www.ophi.org.uk/wp-content/uploads/ophi-wp38.pdf>
3. ALKIRE, S. and S. SETH (2008), "Multidimensional Poverty Measurement and BPL Methods in India: A Comparison of Methods". OPHI Working Paper No 15.
4. DUCLOS, J.-Y. and ARAAR, A. 2006. 'Poverty and Equity Measurement, Policy, and Estimation with DAD', Springer and IDRC, Berlin and Ottawa.
5. OPHI (2010), Bhutan's Gross National Happiness Index. <http://www.ophi.org.uk/policy/national-policy/bhutan/>
6. OPHI (2011), Colombia's National Poverty Measure. <http://www.ophi.org.uk/policy/national-policy/colombia-mpi/>
7. RUGGERI-LADERCHI, C., SAITH, R. and F. STEWART (2003), "Does it Matter that we do not agree on the definition of poverty? A Comparison of Four Approaches." Oxford Journal of Development Studies. 31:3 243-274.
8. SANTOS, M.E. and K. URA (2008), "Multidimensional Poverty in Bhutan: Estimates and Policy Implications". OPHI Working Paper No 13.
9. SEN, A. (1999), Development as Freedom, Oxford University Press. Chapter 4.
10. SEN, A. K. (2009), The Idea of Justice, Chapter 12, London, Allen Lane.
11. United Nations (2003). Indicators for Monitoring the Millennium Development Goals, New York: United Nations.
12. United Nations (2008). The Millennium Development Goals Report 2008. New York: United Nations.

Topic: Overview of MD Poverty Methods

Session: Monday 8 July, 15:30-17:30

Instructors: Sabina Alkire, Paola Ballon, Maria Emma Santos

Contents

- Brief introduction to different approaches used to measure poverty in a multidimensional way.
- The counting approach as a method for identifying the poor.
- Salient implementations of the counting approach to measure poverty over time. Their use in policy.

Reading List

1. ATKINSON, A. B. (2003). Multidimensional deprivation: contrasting social welfare and counting approaches. *Journal of Economic Inequality* 1, 51-65.
2. ALKIRE, S., BALLON, P., FOSTER, J. E., ROCHE, J. M., SANTOS, M. E. and SETH, S. (forthcoming) "Counting Approaches", Draft of section from Chapter 3 from forthcoming book on Multidimensional Poverty Measurement and Analysis.

Topic: Introduction to the Capability Approach

Session: Tuesday 9 July, 09:00-10:30

Instructor: Sabina Alkire

Contents:

- History and Motivation
- Capabilities
- Functionings
- Agency
- Implications for economics
- Issues for measurement

Reading List:

1. ALKIRE, S. (2005) Capabilities and Functionings: Definition and Justification. http://hd-ca.org/pubs/HDCA_Briefing_Concepts.pdf
2. ALKIRE, S. and S. DENEULIN (2009), "The Human Development and Capability Approach" in DENEULIN, S. and L. SHAHANI (eds) An Introduction to Human Development and Capability Approach, draft chapters. Chapter 2. http://www.idrc.ca/en/ev-146685-201-1-DO_TOPIC.html
3. SEN, A. (1989), "Development as Capability Expansion" In S. FUKUDA-PARR and A.K. SHIVA KUMAR, Readings in Human Development, Oxford University Press (2003).
4. SEN, A. (1999), Development as Freedom, Oxford University Press. Chapters 1-3.

Further readings:

1. ALKIRE, S. (2005), "Why the Capability Approach?" Journal of Human Development 6:115-133.
2. ALKIRE, S. (2007), "Measuring freedoms alongside well-being", in GOUGH, I. and J. A. MCGREGOR (eds.) Well-being in developing countries: new approaches and research strategies. Cambridge: Cambridge University Press.
3. ATKINSON, A.B. (2003), "Multidimensional Deprivation: Contrasting Social Welfare and Counting Approaches." Journal of Economic Inequality. 1:1 from p 51. (This article identifies the problem of aggregating multiple attributes, and some of the methods in use to address them).
4. KUKLYS, W. (2005): Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications. Berlin: Springer.
5. NARAYAN, D, CHAMBERS, R., SHAH, M.K. and P. PETESCH (2000), Voices of the poor: Crying out for change. New York: Oxford University Press for the World Bank. – (This influential study tries to synthesise participatory poverty assessments in order to identify the dimensions of "ill-being" and of "well-being" that emerge across contexts).
6. ROBEYNS, I. (2003), "Sen's capability approach and gender Inequality: Selecting Relevant Capabilities." Feminist Economics. 9:61-92. (This more philosophical article argues that, to select capabilities (or dimensions), we need to observe four procedural criteria.)
7. ROBEYNS, I. (2005), "The Capability Approach: a theoretical survey." Journal of Human Development 6:93-114.
8. RUGGERI-LADERCHI, C., SAITH, R. and F. STEWART (2003), "Does it Matter that we do not agree on the definition of poverty? A Comparison of Four Approaches." Oxford Journal of Development Studies. 31:3 243-

274. (This paper compares monetary poverty, capability, social exclusion, and participatory measures of poverty).

9. SEN, A. (1985), 'Well-Being Agency and Freedom: The Dewey Lectures 1984', *Journal of Philosophy* 82(4): 169–221.

10. SEN, A. (1992), *Inequality Re-Examined*, Oxford: Clarendon Press

11. SEN, A. (1993), 'Capability and Well-being' in A. SEN and M. NUSSBAUM, *The Quality of Life*, Clarendon Press.

12. SEN, A. K. (2004), 'Capabilities, Lists, and Public Reason: Continuing the Conversation', *Feminist Economics*, 10:3. (In this rather thunderous short piece, Sen defends his decision not to adopt 'one' list of capabilities).

13. SEN, A. K. (2009), *The Idea of Justice*, Chapter 11, London, Allen Lane.

14. THORBECKE, E. (2008), "Multidimensional Poverty: Conceptual and Measurement Issues." in edited by KAKWANI, N. and J. SILBER (eds.), *The Many Dimensions of Poverty*. New York: Palgrave MacMillan.

Topic: Properties of Multidimensional (MD) Poverty

Session: Tuesday 9 July, 11:00-12:30

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: issues of identification and aggregation.
- Multidimensional Poverty Measures

Reading List:

1. ALKIRE, S. and J.E. FOSTER. (2007): "Counting and Multidimensional Poverty Measurement", Working Paper No 7 and No 32 (revised), Oxford Poverty and Human Development Initiative, <http://www.ophi.org.uk/wp-content/uploads/OPHI-wp32.pdf>. Also note the version in Spanish: "Recuento y Medicion Multidimensional de la Pobreza", <http://www.ophi.org.uk/wp-content/uploads/ophi-wp7-es.pdf>
2. BOURGUIGNON, F. and S. CHAKRAVARTY. (2003): "The Measurement of Multidimensional Poverty", *Journal of Economic Inequality*. 1: 25-19.

Further readings:

1. ATKINSON, A. B. (2003): "Multidimensional Deprivation: Contrasting Social Welfare and Counting Approaches", *Journal of Economic Inequality*. 1: 51-65.
2. BRANDOLINI, A., and G. D'ALESSIO (1998). "Measuring Well-being in the Functioning Space". Mimeo. Rome. Banco d'Italia Research Department.
3. CHAKRAVARTY, S.R., D'AMBROSIO, A., 2006, The Measurement of Social Exclusion. *Review of Income and Wealth*. 523, 377-398.
4. CHAKRAVARTY, S. R. and SILBER, J. (2008). Measuring Multidimensional Poverty: The Axiomatic Approach in Kakwani, N. and Silber, J. (eds), *Quantitative Approaches to Multidimensional Poverty Measurement*. UNDP. Palgrave Macmillan. New York.
5. DEUTSCH, J., and J. SILBER (2005): "Measuring Multidimensional Poverty: An Empirical Comparison of Various Approaches", *The Review of Income and Wealth*, 51, 145-174
6. GORDON, D., S. NANDY, C. PANTAZIS, S. PEMBERTON, and P. TOWNSEND (2003): "The Distribution of Child Poverty in the Developing World", Bristol: Centre for International Poverty Research.
7. KOLM, S. C. (1977): "Multidimensional Egalitarianism", *Quarterly Journal of Economics*, 91, 1-13.
8. MAASOUMI, E., and M. A. LUGO (2008): "The Information Basis of Multivariate Poverty Assessments", in *Quantitative Approaches to Multidimensional Poverty Measurement*, ed. by N. Kakwani, and J. Silber. New York: Palgrave-MacMillan, 1-29.
9. THORBECKE, E. (2008): "Multidimensional Poverty: Conceptual and Measurement Issues", in *The Many Dimensions of Poverty* ed. By N. Kakwani, and J. Silber. New York: Palgrave MacMillan.
10. TSUI, K. (2002): "Multidimensional Poverty Indices", *Social Choice and Welfare*. 19: 69-93.

Topic: Alkire Foster (AF) Methodology and MD Poverty Measure

Session: Tuesday 9 July 13:30-15:30 (theory) 15:30-17:30 (Paper Exercise) 10 July 09:00-10:30 (Paper Exercise)

Instructor: James Foster, Sabina Alkire, Maria Emma Santos, 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 List:

1. ALKIRE, S. (2008) "Choosing dimensions: The capability approach and multidimensional poverty." In *The Many Dimensions of Poverty*, eds., N. Kakwani and J. Silber. Basingstoke: Palgrave Macmillan.
2. ALKIRE, S. and S. DENEULIN (2009). "The Human Development and Capability Approach." In *An Introduction to the Human Development and Capability Approach: Freedom and Agency*, eds., S. Deneulin and L. Shahani. London: Earthscan.
3. ALKIRE, S., and J.E. FOSTER (2011). "Counting and Multidimensional Poverty Measurement." *Journal of Public Economics*. 95(7-8): 476-487.
4. ALKIRE, S., and J.E. FOSTER(2011). "Understandings and Misunderstandings of Multidimensional Poverty Measurement." *Journal of Economic Inequality*. 9(2):289-314.
5. ALKIRE, S., and M.E. SANTOS. 2010. "Acute Multidimensional Poverty: A New Index for Developing Countries." Background paper for the 2010 Human Development Report. UNDP (United Nations Development Programme).
6. ALKIRE, S., M.E SANTOS, S. SETH and G. YALONETZKY. 2010. "Is the Multidimensional Poverty Index robust to different weights?" OPHI Research in Progress Paper 22a.
7. ALKIRE, S. and M. E. SANTOS (2011), "Training Material for Producing National Human Development Reports" <http://www.ophi.org.uk/wp-content/uploads/MPI-Primer1.pdf>.
8. SEN, A, K. 1999. *Development as Freedom*. Oxford: Oxford University Press.
9. UNDP (United Nations Development Programme). 2010. *Human Development Report 2010. The Real Wealth of Nations: Pathways to Human Development*. UNDP, New York.
10. YALONETZKY, G. 2011. "A note on the standard errors of the members of the Alkire Foster family and its components", OPHI RP. No 25.

Topic: Normative Issues in Multidimensional Poverty Measurement

Session: Wednesday 10 July, 11:00-12:30

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 List:

1. ALKIRE, S. and M. E. SANTOS (2009), "Poverty and Inequality Measurement", in DENEULIN, S. and SHAHANI, L. An Introduction to the Human Development and Capability Approach, Chapter 6. London, Earthscan. http://www.idrc.ca/en/ev-146721-201-1-DO_TOPIC.html
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).
3. ALKIRE, S. (2007), "Choosing Dimensions: The Capability Approach and Multidimensional Poverty." (This paper observes how researchers have, in practice, selected dimensions of poverty, and finds they generally use one of five methods).
4. DECANCO, K. and M. A. LUGO (2008), "Setting weights in multidimensional indices of well-being". <http://www.ophi.org.uk/pubs/W1.Decancq-Lugo.pdf.pdf> and the references therein.
5. FOSTER, J. E. (1998) "Absolute versus Relative Poverty" American Economic Review, Papers and Proceedings. 88: 335-341.
6. RAVALLION, M. and S. CHEN (2009), "Weakly Relative Poverty" Policy Research Working Paper 4844, World Bank, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1348985

Further readings:

On the choice of dimensions:

1. GRUSKY, D. and R. KANBUR (eds) (2006). Poverty and Inequality. Stanford: Stanford University Press. "Introduction" (p 1-29). (Kanbur's introduction situates the rise of multidimensional poverty and inequality within economics from 1970 on, and identifies standing questions including how to choose dimensions. Grusky then introduces sociological approaches to multidimensional poverty, outlining their relation to previous research over the last 50 years).
2. MCGILLIVRAY, M. (1991), "The Human Development Index: yet another redundant composite development Indicator?", World Development, 1461-68
3. MCGILLIVRAY, M. (ed.) (2007), Understanding Well-Being: Concept and Measurement, Palgrave Macmillan, Basingstoke.

4. RANIS, G., F. STEWART, and E SAMMAN. (2006). "Human Development: Beyond the Human Development Index." *Journal of Human Development* 7(3): 323-358. (This paper draws on various approaches to well-being, proposes eleven categories of human development, and identifies and examines certain indicators).
5. RANIS, G., F. STEWART. and E. SAMMAN (2006) Human Development: Beyond the Human Development Index. *Journal of Human Development*, Vol. 7, No. 3 (November).
6. RUGGERI-LADERCHI C. (2008), "Do concepts matter? An empirical investigation of the differences between a capability and a monetary assessment of poverty", in COMIM, QIZILBAH and S. ALKIRE (eds), *The Capability Approach: Concepts, Measures and Application*, CUP, 2008.
7. SEN, A. K. (1992), *Inequality Reexamined*. Chapter 7: "Poverty and Affluence". (This Chapter lays out the case for considering multiple dimensions of well-being or poverty – in Sen's cases, through measures of capability – rather than focusing on income or utility).
8. SUDHIR, A. and A. SEN (1994) *Human Development Index: Methodology and Measurement*. Human Development Report Office Occasional Paper No. 12. UNDP, New York.

On the choice of weights:

9. BRANDOLINI, A. (2007), "On synthetic indices of multidimensional well-being: health and income inequalities in France, Germany, Italy, and the United Kingdom". *Child Working Paper 07/2007*.
10. CHERCHYE L, E OOGHE, and T V PUYENBROECK. (2008), "Robust human development rankings", *Journal of Economic Inequality*, Volume 6 (4), 287–320.
11. CHOWDHURY, S. & SQUIRE, L. (2006). "Setting weights for aggregate indices: An application to the commitment to development index and human development index", *Journal of Development Studies* 42(5): 761–771.
12. DECANCO, K., and E. OOGHE (2010): Has the world moved forward? A robust multidimensional evaluation, *Economic Letters* 107: 266-269..
13. DIBBEN, C., ATHERTON, I., COX, M., WATSON, V., RYAN, M. and SUTTON, M. (2007), "Investigating the Impact of Changing the Weights that Underpin the Index of Multiple Deprivation 2004", Department for Communities and Local Government Report, London. <http://www.ophi.org.uk/pubs/W8.Dibben.pdf>
14. FOSTER, J. E., MC GILLIVRAY, M. and S. SETH (2008), "Rank Robustness of Composite Indices", OPHI Working Paper No 26.
15. WRIGHT, G., NOBLE, M. and WISEMAN, M. (2007), *Towards A Democratic Definition of Poverty: Socially Perceived Necessities in South Africa*, Published by the Human Science Research Council (HSRC) Press, Cape Town.

On discussions of these issues all-together:

16. CAHILL M. B. (2005), "Is the human development index redundant?" *Eastern Economic Journal* 31(1), 1-5
17. KLASSEN, S (2006) UNDP's Gender-related Measures: Some Conceptual Problems and Possible Solutions *Journal of Human Development*, Vol. 7, No. 3 (November).
18. MCGILLIVRAY, M. (2007) *Measuring Human Well-being: Key Findings and Policy Lessons*, UNU Policy Brief, November 3.
19. MCGILLIVRAY, M. and F. NOORBAKSH (2004) *Composite Indices of Human Well-being: Past, Present, and Future*, WIDER Research Paper No. 2004/63
20. NOORBAKSH, F. (1998), *The human development index: Some technical issues and Alternative indices*, *Journal of International Development*, Vol 10, 589-605

21. RAWORTH, K and D. STEWART (2002) Critiques of the Human Development Index: a review in S. FUKUDA-PARR and A.K. SHIVA-KUMAR (eds) Readings in Human Development. New Delhi. Oxford University Press.
22. SAISANA, M., SALTELLI, A., TARANTOLA, S., (2005), "Uncertainty and sensitivity analysis as tools for the quality assessment of composite indicators" Journal of the Royal Statistical Society, Ser. A 168, 1–17
23. SCHULER, D. (2006) The Uses and Misuses of the Gender-related Development Index and Gender Empowerment Measure: a Review of the Literature Journal of Human Development, Vol. 7, No. 3 (November).

Topic: Case Studies

Session: Wednesday 10 July, 13:30-15:00 (International MPI) 15:30-17:30 (Colombia)

Instructors: Sabina Alkire, José Manuel Roche, Maria Emma Santos

Contents:

- An introduction to the choices and limitations behind the international comparable MPI and the many types of possible analyses.
- An overview of two national A&F measures in Mexico and Colombia.

Reading List:

1. ALKIRE, S., and M.E. SANTOS. (2010) "Acute Multidimensional Poverty: A New Index for Developing Countries." Background paper for the 2010 Human Development Report. UNDP (United Nations Development Programme).
2. ALKIRE, S., J.M. ROCHE and S. SETH (2012). "Sub-national Disparities and Inter-temporal Evolution of Multidimensional Poverty across Developing Countries" OPHI research in progress 32a. <http://www.ophi.org.uk/wp-content/uploads/OPHI-RP-32a-2011.pdf>
3. FOSTER, J.E. (2010). A Report on Mexican Multidimensional Poverty Measurement. OPHI working paper 40. <http://www.ophi.org.uk/a-report-on-mexican-multidimensional-poverty-measurement/>
4. OPHI (2011), Colombia's National Poverty Measure. <http://www.ophi.org.uk/policy/national-policy/colombia-mpi/>

Topic: Exam

Session: Thursday 11 July, 09:00-10:30

Instructor: Mauricio Apablaza

Contents:

- Unidimensional Poverty Measurement
- Introduction to the Capability Approach
- Why Multidimensional (MD) Poverty Measures?
- Properties of MD Poverty
- Alkire Foster (AF) Methodology and MD Poverty Measure
- Normative Issues in MD Poverty Measurement

Topic: Survey Design, Bias Analysis, Missing Values and Sample Drop

Session: Thursday 11 July, 13:30-15:00

Instructor: Jose Manuel Roche

Contents:

- An overview of common data issues related to the use of Household Surveys for
- multidimensional poverty measurement

Reading List:

1. DEATON, Angus (1997) *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*, Washington: The World Bank. (Specially chapters 1 and 2)

Further readings:

1. BROGAN, D. "Sampling error estimation for survey data", in *Household Sample Surveys in Developing and Transition Countries*, New York: United Nation Publication.
2. CHROMY, J. R. and ABEYASEKERA, S. (2005) "Statistical analysis of survey data", in *Household Sample Surveys in Developing and Transition Countries*, New York: United Nation Publication.
3. KASPRZYK, D (2005) "Measurement error in household surveys: sources and measurement", in *Household Sample Surveys in Developing and Transition Countries*, New York: United Nation Publication.
4. 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.
5. YANSANEH, I (2005) "Overview of sample design issues for household surveys in developing and transition countries", in *Household Sample Surveys in Developing and Transition Countries*, New York: United Nation Publication.

Topic: Stata Lab & Descriptive Statistics

Session: Thursday 11 July, 15:30-17:00

Instructor: Mauricio Apablaza

Contents:

- Review of STATA
- Descriptive Statistics (ategorical and continuous variables)
- Generating variables using loops
- The structure of the AF - do file

Reading List:

1. CAMERON A.C. and P.K. TRIVEDI. "Microeconometrics using STATA" Revised Edition (2010) Stata Press, 706 pages. Chapter 1-2
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>.
2. UCLA Academic Technology Services available at www.ats.ucla.edu/stat/stata
3. Prof. Cameron's webpage at the University of Davis, available at cameron.econ.ucdavis.edu/stata/stata.html

Topic: Measures of Association

Session: Saturday 13 July, 09:00-10:30

Instructor: Paola Ballon

Contents:

Contents:

- 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 List:

Reading List:

1. AGRESTI, A. (1990) Categorical data analysis, New York, NY ; Toronto: John Wiley & Sons. Chapter 2.
2. ANDERSON, T.W. (2003) An Introduction to Multivariate Statistical Analysis, 3rd Edition, John Wiley & Sons. Chapter 14.
3. AGRESTI, A. (1984). Analysis of ordinal categorical data, New York, NY ; Toronto: John Wiley & Sons.

Topic: Sub Index Scales Validation (Principal Components & Factor Analyses)

Session: Saturday 13 July, 11:00-12:30

Instructor: Jose Manuel Roche

Contents:

- Data reduction with Principal Component Analysis
- Exploratory Factor Analysis, measurement error and scale construction
- Hypothesis testing with Confirmatory Factor Analysis
- Introduction to other related techniques: Multiple Correspondence Analysis, Cluster Analysis and Structure Equation Modelling
- Reviewing the strengths and weaknesses

Reading List:

1. BROWN, T. A. (2006) *Confirmatory factor analysis for applied research*, New York, NY ; London, New York, NY ; London : Guilford Press. (Chapter 2: *The common Factor Model and Exploratory Factor Analysis*)
2. CHIAPPERO-MARTINETTI, E. and J. M. ROCHE (2009) "Operationalization of the capability approach, from theory to practice: a review of techniques and empirical applications" in CHIAPPERO-MARTINETTI, E. (Ed.) *Debating Global Society: Reach and Limits of the Capability Approach*. Milan, Fondazione Feltrinelli.
3. HAMILTON, L. C. (2009) *Statistics with Stata : updated for version 10*, Belmont, CA, Brooks/Cole. (Chapter 12: *Principal Components, Factor, and Cluster Analysis*)
4. HEATH, A. and J. MARTIN (1997) 'Chapter 3: Why Are There so Few Formal Measuring Instruments in Social and Political Research?' IN LYBERG, L. (Ed.) *Survey measurement and process quality*. New York ; Chichester, Wiley.
5. ROCHE, J. M. (2008) 'Monitoring Inequality among Social Groups: A Methodology Combining Fuzzy Set Theory and Principal Component Analysis'. *Journal of Human Development and Capabilities*, 9 (3), 427 - 452.
6. TREIMAN, D. J., D. D. JOHNSTON and T. J. GRITES (2009) *Quantitative data analysis : doing social research to test ideas*, 1st ed., San Francisco, Calif., Jossey-Bass ; Chichester : John Wiley [distributor]. (Chapter 11 *Scale Construction*)

Further readings Factor Analysis:

1. BALESTRINO, A. and N. SCICLONE (2000) "Should we use functioning instead of income to measure wellbeing?". *Rivista internazionale di scienze sociali*, 53 (1), 3-22.
2. BERENGER, V. and A. VERDIER-CHOUCHANE (2007) "Multidimensional Measures of Well-Being: Standard of Living and Quality of Life Across Countries". *World Development*, 35 (7), 1259-1276.
3. BROWN, T. A. (2006) *Confirmatory factor analysis for applied research*, New York, NY ; London, New York, NY ; London : Guilford Press.
4. COSTELLO, A. and J. OSBORNE (2005) "Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis". *Practical Assessment, Research & Evaluation*, 10 (7)
5. DI TOMMASO, M. L. (2007) "Children capabilities: A structural equation model for India". *The Journal of Socio-Economics*, 36, 436-450.
6. EVERITT, B. (2001) *Cluster analysis*, London: New York, London: Arnold; New York: Oxford University Press.
7. GRIMM, L. G. and P. R. YARNOLD (2000) *Reading and understanding more multivariate statistics*, Washington, DC ; London, American Psychological Association. (Chapter 7 Structural Equation Modeling)
8. HARRINGTON, D. (2009) *Confirmatory factor analysis*, Oxford, Oxford University Press.
9. KLASSEN, S. (2000) "Measuring Poverty and Deprivation in South Africa". *Review of Income and Wealth*, 46, 33-58.
10. KLINE, R. B. (2005) *Principles and practice of structural equation modeling*, 2nd ed., New York ; London, Guilford. (Chapter 1-4)
11. KRISHNAKUMAR, J. and A. NAGAR (2007) 'On Exact Statistical Properties of Multidimensional Indices Based on Principal Components, Factor Analysis, MIMIC and Structural Equation Models'. *Social Indicators Research*, 86 (3), 481-496.
12. KRISHNAKUMAR, J. (2007) "Going Beyond Functioning to Capabilities: An Economic Model to Explain and Estimate Capabilities". *Journal of Human Development*, 8 (1), 39-63.
13. KUKLYS, W. (2005) *Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications*, Berlin, Springer.
14. LE ROUX, B. and H. ROUANET (2010) *Multiple correspondence analysis*, Los Angeles, Calif. ; London, Los Angeles, Calif. ; London : SAGE.
15. LELLI, S. (2001) "Factor Analysis vs. Fuzzy Sets Theory: Assessing the Influence of Different Techniques on Sen's Functioning Approach". *Centre of Economic Studies Discussion Paper*, KU Leuven,
16. MCGILLIVRAY, M. (2005) "Measuring Non-economic Well-being Achievement". *Review of Income and Wealth*, 51 (2), 337-364.
17. NEFF, D. F. (2007) "Subjective Well-Being, Poverty and Ethnicity in South Africa: Insights from an Exploratory Analysis". *Social Indicators Research*, 80, 313-341.
18. SCHOKKAERT, E. and L. VAN OOTEGEM (1990) "Sen's Concept of the Living Standard Applied to the Belgian Unemployment". *Research Economiques de Louvain*, 56, 429-450.
19. VELICER, W. F. and D. N. JACKSON (1990) "Component Analysis Versus Common Factor-Analysis - Some Issues in Selecting an Appropriate Procedure". *Multivariate Behavioral Research*, 25 (1), 1-28.
20. WIDAMAN, K. F. (1993) "Common Factor Analysis Versus Principal Component Analysis: Differential Bias in Representing Model Parameters?". *Multivariate Behavioral Research*, 28 (3), 263.

Online Sources:

Multivariate data analysis in STATA: <http://www.stata.com/capabilities/mv.html>
Annotated STATA Output FA: http://www.ats.ucla.edu/stat/stata/output/fa_output.htm
Annotated SPSS Output FA: <http://www.ats.ucla.edu/stat/spss/output/factor1.htm>

Useful Reference in Scale Validation and Survey Design

1. ABELL, N., D. W. SPRINGER and A. KAMATA (2009) Developing and validating rapid assessment instruments, New York ; Oxford, Oxford University Press.
2. BENTLER, P. M. and C. CHOU (1987) 'Practical issues in structural modelling'. *Sociological Methods and Research*, 16, 78-117.
Britain] : John Wiley & Sons, Inc. (SSL Main Lib HM538.MET)
3. BROWN, T. A. (2006) *Confirmatory factor analysis for applied research*, New York, NY ; London, New York, NY ; London : Guilford Press.
4. BYRNE, B. M. (2010) *Structural equation modelling with AMOS : basic concepts, applications, and programming*, New York, Routledge.
5. CONVERSE, J. M. and S. PRESSER (1986) *Survey questions: handcrafting the standardized questionnaire*, Beverly Hills, Sage Publications. (SSL Main Lib HN29.QUA)
6. COSTELLO, A. B. and J. W. OXSBORNE (2005) *Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most From Your Analysis*. *Practical Assessment, Research & Evaluation*, 10 (7).
7. CRONBACH, L. J. and P. E. MEEHL (1955) Construct validity in psychological test. *Psychological Bulletin*, 52, 281-302.
8. DEVELLIS, R. F. (2003) *Scale development: theory and applications*, 2nd ed., London, Sage.
9. FOWLER, F. J. (1995) *Improving survey questions: design and evaluation*, Thousand Oaks, Sage Publications. (SSL Main LibHN29.FOW)
10. GAGNÉ, M., J. FOREST, M.-H. GILBERT, C. AUBÉ, E. MORIN and A. MALORNI (2010) *The Motivation at Work Scale: Validation Evidence in Two Languages*. *Educational and Psychological* Guilford.
11. HARRINGTON, D. (2008) *Confirmatory Factor Analysis* New York, New York: Oxford University
12. HEATH, A. and J. MARTIN (1997) Chapter 3: Why Are There so Few Formal Measuring Instruments in Social and Political Research? IN LYBERG, L. (Ed.) *Survey measurement and process quality*. New York ; Chichester, Wiley.
Journal of Happiness Studies, 10 (3), 351-366. <http://dx.doi.org/10.1007/s10902-008-9093-6>.
13. KLINE, R. B. (2005) *Principles and practice of structural equation modelling*, New York ; London,
14. KOLENIKOV, S. and G. ANGELES (2009) 'Socioeconomic status measurement with discrete proxy variables: is principal component analysis a reliable answer? '. *Review of Income and Wealth*, 55 (1), 128-165.
Measurement, 70 (4), 628-646. <http://epm.sagepub.com/content/70/4/628.abstract>.
15. MORGAN, J. and T. FARSIDES (2009a) *Measuring Meaning in Life*. *Journal of Happiness Studies*, 10 (2), 197-214.
16. MORGAN, J. and T. FARSIDES (2009b) *Psychometric Evaluation of the Meaningful Life Measure*. Press.
17. PRESSER, S. (2004) *Methods for testing and evaluating survey questionnaires*, Hoboken, NJ, [Great
18. STEGER, M. F. (2006) An Illustration of Issues in Factor Extraction and Identification of Dimensionality in Psychological Assessment Data. *Journal of Personality Assessment*, 86 (3), 263 - 272.

19. STEGER, M. F., P. FRAZIER and S. OISHI (2006) The Meaning in Life Questionnaire: Assessing the Presence of and Search for Meaning in Life. *Journal of Counselling Psychology*, 53 (1), 80-93.
20. TREIMAN, D. J., D. D. JOHNSTON and T. J. GRITES (2009) *Quantitative data analysis : doing social research to test ideas*, San Francisco, Calif., Jossey-Bass ; Chichester : John Wiley [distributor].
21. WILLIS, G. B. (2005) *Cognitive interviewing : a tool for improving questionnaire design*, Thousand Oaks, Calif. ; London, Sage Publications. (SSL Main Lib H61.28.WIL

Topic: Aggregated Results, Decomposition by Subgroup, Dimensional Breakdown

Session: Monday 15 July, 11:00-12:30 (Aggregated Results) 13:30-15:00 (Decomposition by Subgroup and Dimensional Breakdown)

Instructors: Mauricio Apablaza, Jose Manuel Roche, Suman Seth

Contents:

- Decompositions by population subgroups
- Breaks-down by dimension
- Analysis of trends in AF Measure

Reading List:

1. ALKIRE, S. and J. M. ROCHE (2013), "How Multidimensional Poverty went down: Dynamics and Comparison", Research briefing <http://www.ophi.org.uk/wp-content/uploads/How-Multidimensional-Poverty-went-down.pdf?7ff332>
1. ALKIRE, S. and M. E. SANTOS (2010), "Acute Multidimensional Poverty: A new Index for Developing Countries", OPHI WP 38. <http://www.ophi.org.uk/wp-content/uploads/ophi-wp38.pdf>
2. ALKIRE, S. and S. SETH (2013), "Selecting a Targeting Method to Identify BPL Households in India". *Social Indicators Research*, Volume 112, Issue 2, pp 417-446.
4. ALKIRE, S. and S. SETH (2013), "Multidimensional Poverty Reduction in India Between 1999 and 2006: Where and How?". OPHI Working Paper No 60.
3. APABLAZA, M., OCAMPO, J.P., & YALONETZKY, G. (2010). 'Decomposing Changes in Multidimensional Poverty in 10 Countries', mimeo, Oxford Poverty and Human Development Initiative, Oxford Department of International Development, University of Oxford.
4. BATANA, Y. (2008), "Multidimensional Measurement of Poverty in Sub-Saharan Africa", OPHI WP. NO 13.
5. BENNETT, C. and S. SINGH, (2010), "Multidimensional poverty: Measurement, Estimation and Inference", manuscript.
- * ROCHE J. M. (2013), "Monitoring Progress in Child Poverty Reduction: Methodological Insights and Illustration to the Case Study of Bangladesh", *Social Indicators Research*, Volume 112, Issue 2, pp 363-390
6. SANTOS, M. E. and URA, K. (2008), "Multidimensional Poverty in Bhutan: Estimates and Policy Implications", OPHI WP. 14

7. SANTOS, M.E, LUGO, M. A., LOPEZ-CALVA, L. F., CRUCES, G., BATTISTON, D. (2010), "Refining the Basic Needs Approach: A Multidimensional Analysis of Poverty in Latin America", Research on Economic Inequality, Chapter 1, Vol. 18, forthcoming.

Further readings:

1. DUCLOS, J.Y. and R. DAVIDSON (2010), "Testing for Restricted Stochastic Dominance", forthcoming Econometric Reviews.

Topic: Sensitivity, Robustness Analysis and Standard Error

Session: Tuesday 16 July, 13:30-15:00

Instructor: Suman Seth, Paola Ballón

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 List:

1. ALKIRE, S., and J.E. FOSTER (2011). "Counting and Multidimensional Poverty Measurement." *Journal of Public Economics*. 95(7-8): 476-487.
1. ALKIRE, S., ME. SANTOS, S. SETH, and G. YALONETZKY (2010). Is the Multidimensional Poverty Index robust to different weights? OPHI Working Paper 22a
2. ATKINSON, A.B and F. BOURGUIGNON (1982), "The comparison of multidimensioned distributions of economic status", *Review of Economic Studies*, 49(2): 183-201.
3. DEATON, A. (1997). The analysis of household surveys. A microeconomic approach to development policy. The World Bank
4. DUCLOS, J-Y., SAHN, D and S. YOUNGER (2006), "Robust Multidimensional Poverty Comparisons", *The Economic Journal*. 116(514): 943-68.
5. LYNN, P. (2007). Hypothesis testing using complex survey data.
<http://www.restore.ac.uk/Longitudinal/surveynetwork/documents/PragueCourseNotesPLv3.pdf>
6. YALONETZKY, G (2011), Conditions for the Most Robust Poverty Comparisons Using the Alkire-Foster Family of Measures. OPHI Working Paper 44b.
7. YALONETZKY, G (2011). A note on the standard errors of the members of the Alkire Foster family and its components. OPHI Working Paper 25a (work in progress)
8. YALONETZKY, Gaston (2009), "Testing for stochastic dominance among additive, multivariate welfare functions", manuscript.

Further readings:

1. ANDERSON, G. (1996), 'Nonparametric tests of stochastic dominance in income distributions', *Econometrica*, 64(5): 1183-1193.
2. ANDERSON, G. (2008), "The empirical assessment of multidimensional welfare, inequality and poverty: Sample weighted multivariate generalizations of the Kolmogorov-Smirnov two sample test for stochastic dominance", *Journal of Economic Inequality*, 6(1): 73-87.
3. DAVIDSON, R. and J. DUCLOS (2000), "Statistical inference for stochastic dominance and for the measurement of poverty and inequality", *Econometrica*, 68(6): 1435-65.
4. DUCLOS, J-Y., SAHN, D and S. YOUNGER (2006), "Robust Multidimensional Poverty Comparisons with Discrete Indicators of Well-being", CIRPEE Working Paper, 06-28.
5. DUCLOS, J.Y. and R. DAVIDSON (2010), "Testing for Restricted Stochastic Dominance", forthcoming *Econometric Reviews*.

Topic: Missing Dimensions of Household Surveys on Poverty

Session: Tuesday 16 July, 15:30-17:00

Instructor: Diego Zavaleta, 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:

1. ALKIRE, S. (2007), "The Missing Dimensions of Poverty Data: Introduction to the Special Issue." *Oxford Development Studies* 35:347-359.
2. ALKIRE, S. (2009) The MDGs: Multidimensionality and Interconnection. *Background paper for DFID White Paper*. <http://ophi.org.uk/pubs/RP-Alkire%20OPHI-DFID%20Background%20Paper.pdf> Please see section 2.

Further readings:

1. DIPROSE, R. (2007), "Physical Safety and Security: A Proposal for Internationally Comparable Indicators of Violence." *Oxford Development Studies* 35:431-458.
2. GROVES, R. M., F. J. FOWLER, M. P. COUPER, J. M. LEPKOWSKI, E. SINGTER and R. TOURANGEAU (2004) *Survey methodology*, Hoboken, NJ, J. Wiley. (Chapter Eight: Evaluating Survey Questions)
3. IBRAHIM, S., and S. ALKIRE (2007), "Agency and Empowerment: A Proposal for Internationally Comparable Indicators." *Oxford Development Studies* 35:379-403.
4. LUGO, M. A.(2007), "Employment: A Proposal for Internationally Comparable Indicators." *Oxford Development Studies* 35:361-378.
5. NARAYAN, D, CHAMBERS, R., SHAH, M.K. and P. PETESCH (2000), *Voices of the poor: Crying out for change*. New York: Oxford University Press for the World Bank
6. RANIS, G., F. STEWART, and E SAMMAN. (2006). "Human Development: Beyond the Human Development Index." *Journal of Human Development* 7(3): 323-358.
7. SAMMAN, E. (2007), "Psychological and Subjective Well-being: A Proposal for Internationally Comparable Indicators." *Oxford Development Studies* 35:459-486.
8. ZAVALETA, D. (2007), "The ability to go about without shame: a proposal for international comparable indicators on shame and humiliation." *Oxford Development Studies*.

Topic: Inequality in Poverty

Session: Wednesday 17 July, 09:00-10:30

Instructor: James Foster, 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 List:

1. ALKIRE, S. and S. SETH (2013), Analysis of Inequality across the Multi-dimensionally Poor and across Population Subgroups for Counting Approaches, Oxford Poverty and Human Development Initiative, Work in Progress.
2. ALKIRE, S., J. M. ROCHE, and S. SETH (2011) "Sub-national Disparities and Inter-temporal Evolution of Multidimensional Poverty across Developing Countries", Research in Progress 32a, Oxford Poverty and Human Development Initiative, University of Oxford. Available at: <http://www.ophi.org.uk/wp-content/uploads/OPHI-RP-32a-2011.pdf>.
3. KOLM, S. C. (1976), "Unequal inequalities I", Journal of Economic Theory, 12(3), 416-42.
4. STEWART, F. (2000), "Crisis prevention: tackling horizontal inequalities". Oxford Development Studies, 28(3), 245-262.

Further readings:

1. BOSMANS, K., and F. A. COWELL (2010) "The class of absolute decomposable inequality measures", Economics letters, 109, 154-156.
2. CHAKRAVARTY, S. R. (2001) "The variance as a subgroup decomposable measure of inequality", Social Indicators Research, 53, 79-95.
3. Chakravarty, S. R., & D'Ambrosio, C. (2006). The measurement of social exclusion. Review of Income and Wealth, 52(3), 377-398.
4. Delamonica, E. E., & A. Minujin (2007) "Incidence, depth and severity of children in poverty", Social Indicators Research, 82(2), 361-374.
5. Foster, J. E. and A. Sen (1997) "On economic inequality", Delhi: Oxford University Press.
6. Foster, J. E. and A. A. Shneyerov (1999) "A general class of additively decomposable inequality measures", Economic Theory, 14, 89-111.
7. Foster, J. E. and A. A. Shneyerov (2000) "Path independent inequality measures", Journal of Economic Theory, 91, 199-222.
8. Jayaraj, D., and S. Subramanian (2010) "A Chakravarty-D'Ambrosio View of Multidimensional Deprivation: Some Estimates for India", Economic and Political Weekly, 45(6), 53-65.
9. Jenkins, S. P. and P. J. Lambert (1997) "Three 'I's of Poverty Curves, With an Analysis of UK Poverty Trends," Oxford Economic Papers, 49(3), 317-327.
10. Roche J. M. (2013) "Monitoring progress in child poverty reduction: methodological insights and illustration to the case study of Bangladesh", Journal of Social Indicators Research, DOI: 10.1007/s11205-013-0252-8.
11. Shorrocks, A. F. (1980) "The class of additively decomposable inequality measures" Econometrica, 48,

613-625.

12. Shorrocks, A. F. (1984) "Inequality decomposition by population subgroups", *Econometrica*, 52, 1369-1385.
13. Xu K. and L. Osberg (2001) "How to decompose the Sen-Shorrocks-Thon Poverty Index: A Practitioner Guide", *Journal of Income Distribution*, 10, 77-94.

Topic: Time Series & Chronicity

Session: Wednesday 17 July, 11:00-12:30

Instructor: Jose Manuel Roche, Sabina Alkire

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 List:

1. APABLAZA, M. and G. YALONETZKY (2011). Measuring the dynamics of multiple deprivations among children: the cases of Andhra Pradesh, Ethiopia, Peru, and Vietnam. OPHI Working Paper 26a
2. APABLAZA, M., J.P OCAMPO and G. YALONETZKY, (2010). 'Decomposing Changes in Multidimensional Poverty in 10 Countries', mimeo, Oxford Poverty and Human Development Initiative, Oxford Department of International Development, University of Oxford
3. FOSTER, J.E. (2009). A class of chronic poverty measures. In: Addison A, Hulme D, Kanbur R (eds) Poverty Dynamics: Towards Inter-disciplinary Approaches. Oxford University Press, Oxford.
4. FOSTER, J.E. and M.E. SANTOS (2012). Measuring Chronic Poverty. OPHI Working Paper.

Further readings:

1. BOSSERT, W., S. CHAKRAVARTY, and C. D'AMBROSIO. (2010). Poverty and Time. Working Papers with number wp2010-74. World Institute for Development Economic Research (UNU-WIDER)
2. BOUILLON, C. and P. YANEZ-PAGANS (2011). Dynamic Consistency of Multidimensional and Income Targeting: An Application for Mexico Using Panel Data Information. RES Working Papers. Inter-American Development Bank, Research Department.
3. CALVO, C and S. DERCON (2007). Chronic poverty and all that: the measurement of poverty over time. University of Oxford.
4. CARTER, M.R. and C.B. BARRETT (2006) The economics of poverty traps and persistent poverty: an asset-based approach. Journal of Development Studies, 42(2): 178-99.
5. HULME, D. and A. MCKAY (2005). Identifying and measuring chronic poverty: beyond monetary measures. Chronic Poverty Research Centre Working Paper No 30.
6. RAY, N.A. (2011). Duration and persistence in multidimensional deprivation: methodology and Australian application. Economic Record 88, 280, 106-126.

Topic: Regression Analysis

Session: Wednesday 17 July, 13:30-15:00

Instructor: Paola Ballon

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 List:

1. BALLON, P. (2011). A Structural Model for Female Empowerment. PhD dissertation. Mimeo, University of Geneva, Switzerland., 2011.
2. BOLLEN, K. A. (1989). Structural Equations with Latent Variables. Wiley Series in Probability and Mathematical Statistics. New York
3. CAMERON A.C. and P.K. TRIVEDI (2005). Microeconometrics: Methods and Applications. Cambridge University Press, Cambridge.

Further readings:

1. DI TOMMASO, M. L. (2007) "Children capabilities: A structural equation model for India". The Journal of Socio-Economics, 36, 436-450.
2. KRISHNAKUMAR, J. & P. BALLON (2008). "Estimating Basic Capabilities: A Structural Equation Model Applied to Bolivia". World Development Vol 36 (6) pages 992-110.
3. KUKLYS, W. (2005) Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications, Berlin, Springer.

Topic: Clarifying Concepts and Communicating your Results

Session: Thursday 18 July, 09:00-10:30

Instructor: Sabina Alkire, Maria Emma Santos

Contents:

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Reading List:

Further readings:

Topic: Institutions and Policy

Session: Thursday 18 July, 13:30-15:00

Instructor: Sabina Alkire

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: