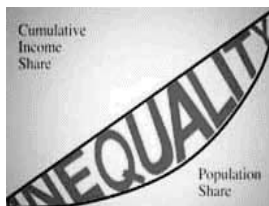


**The Development Economics (DEC) Vice Presidency of the World Bank presents a course on:**

## **Poverty and Inequality Analysis**



The Research Group in DEC is pleased to offer an in-depth course on poverty and inequality analysis. The overall aim is to discuss a number of economic principles and analytic tools required for effective policy-making against poverty. Participants will receive a firm grounding in the basics of each topic and an introduction to the emerging issues at the frontier of research.

The intended audience will be practicing economists in Bank operations or central units, though non-economists with a quantitative background should have no difficulty; and, selected non-Bank practitioners (by invitation only) are also welcome. The course will try to provide a bridge to allow a macroeconomist (say) or specialist from another sector to quickly deepen her understanding of the topic; or for someone who has worked in this area before to rapidly "re-tool".

There will be seven modules covering household survey design and implementation, sampling, qualitative and mixed methods, poverty measurement and analysis, inequality measurement and analysis, and the evaluation of policies and programs, both "micro" (assigned program) and "macro" (economy wide policies and shocks).

This set of modules is designed to form a reasonably complete course on the measurement and analysis of poverty and inequality in developing countries. It is expected, however, that only a minority of participants would take all seven modules. Each module will thus be reasonably self-contained, revising relevant material from previous modules. So each participant can choose her own sequence of anything from 1-7 modules.

The overall supervisor of the course is Peter Lanjouw, Research Manager, DECRG. The course will be taught mainly by staff of the DEC Poverty Group, including Kathleen Beegle, Quy-Toan Do, Gero Carletto, Francisco H.G. Ferreira, Jed Friedman, Emanuela Galasso, Peter Lanjouw, Michael Lokshin, Branko Milanovic, Berk Ozler, Biju Rao, Martin Ravallion, Kinnon Scott, Diane Steele and Michael Woolcock; Module 7 will be taught primarily by B. Essama-Nssah from the PREM Poverty Group. There will also be contributions from a number of other Bank Staff and consultants, as noted in the detailed outline.

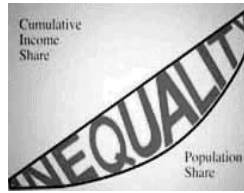
The following table summarizes the dates, locations and contact persons for all seven modules. The rest of the document then outlines the detailed syllabus for each module in turn.

**DEC Course on Poverty and Inequality Analysis 2009:  
Summary of dates, locations and contacts**

<b>Module</b>	<b>Dates</b>	<b>Location</b>	<b>Contact persons</b>
1: Sampling for surveys	January 27-28, 2009	U3-555	Juan Muñoz, Kinnon Scott
2: Multi-topic Household Surveys	February 2-3, 2009	I 1-200	Kinnon Scott, Diane Steele
3: Mixing qualitative and quantitative methods	February 19-20, 2009	MC C1-100	Vijayendra (Biju) Rao, Michael Woolcock
4: Poverty measurement and analysis**	February 23-24, 2009	MC8-100	Kathleen Beegle, Peter Lanjouw, Michael Lokshin, Martin Ravallion
5: Inequality and pro-poor growth**	February 25-26, 2009	MC9-100	Francisco (Chico) Ferreira, Peter Lanjouw, Branko Milanovic, Martin Ravallion
6: Evaluating the impacts of programs and policies	April 1-2, 2009	U3-485	Jed Friedman, Emanuela Galasso
7: Evaluating the distributional and poverty impacts of economy-wide policies	April 28-30, 2009	U3-555	B. Essama Nssah

\*\*Modules 4 and 5 are being taught in the same week and it is hoped that participants will be able to attend both courses.

# Poverty and Inequality Analysis



## Module 1: Sampling for Surveys

January 27-28, 2009

Tuesday, 9:00 am - 5:00 pm; Wednesday, 9:00am – 2:30pm

Room:U3-555

### Course Objective

The objective of this module is to provide staff with a clear understanding of the key issues involved in selecting samples of households, enterprises, facilities or individuals to be included in various surveys. The module will cover the basics of sampling, both in theory and in practical terms as well as how to correctly adjust for sampling biases *ex post*. The module is useful both for those who plan to be involved in any of a variety of sample surveys as well as those who analyze such data. Upon completing the course the participants should be familiar with the major issues and procedures.

### Agenda

#### Tuesday, January 27, 2009

##### Opening

9:00-9:30

##### OPENING REMARKS AND INTRODUCTIONS

An overview of sampling: why sampling is used, what are its main advantages, the power of probability sampling compared with other forms of sampling and the costs of misuse of sampling techniques

Presenter: Kinnon Scott, DECRG

##### Session I

9:30-11:15

##### SAMPLING FOR PROPORTIONS AND AVERAGES

Basic concepts of sampling presented as a simulation (Example: an electoral poll in a small island) and then formalized. Population and sample. Truth and estimation: the meaning of sampling error. The distribution of sampling error. How is sampling error related to sample size? How is sampling error related to the size of the population? How is sampling error related to the proportion that is being estimated? Estimating averages (Example: an income survey in a small island). How is sampling error related to the distribution of incomes in the population? The concepts of simple population, sample, sample frame, estimation, sampling error and confidence intervals will be covered.

Presenters: Kristen Himelein, DECRG  
Juan Muñoz, Sistemas Integrales

11:15-11:30

*Coffee Break*

**Session II**

11:30-12:15

## GROUP EXERCISE #1

Participants simulate various alternative situations in their own computers. Discussion

Presenters: Kristen Himelein, DECRG  
Juan Muñoz, Sistemas Integrales

12:15-1:30

*Lunch (not provided)*

1:30-2:15

## GROUP EXERCISE #2

Presenters: Kristen Himelein, DECRG  
Juan Muñoz, Sistemas Integrales

**Session III**

2:15-3:30

## MULTI-STAGE SAMPLING AND CLUSTERING

Two-stage sampling: rationale and motivation (Example: simulation of an electoral poll with respondents clustered into city blocks). Comparison with a simple random sample: the price to pay is a larger error. Intra-cluster correlation and cluster effects. Relationship between cluster effect, cluster size and intra-cluster correlation. A case study from Moldova will be presented.

Presenters: Kristen Himelein, DECRG  
Kathleen Beegle, DECRG  
Juan Muñoz, Sistemas Integrales

3:30-3:45

*Coffee Break***Session IV**

3:45-5:00

## THE PRACTICE OF SAMPLING FOR HOUSEHOLD SURVEYS

The national census as the basis of the first-stage sample frame. Selecting Primary Sampling Units (PSUs) with Probability Proportional to Size (PPS). Household listing operations for the development of last-stage sample frames: tools, methods and resources. Selection of households from the listings by Systematic Sampling. Common difficulties: segmentation of outsized PSUs; targeting special groups (disabled, migrants, female-headed households, etc.); alternatives to the household listing operation.

Presenters: Kristen Himelein, DECRG  
Juan Muñoz, Sistemas Integrales

**Wednesday, January 28, 2009****Session V**

9:00-9:45

## SAMPLE FRAMES – ISSUES AND SOLUTIONS

Frames may not exist for a variety of reasons or they may be outdated or incomplete. In these cases alternative techniques are needed to construct good sample frames. Quite distinct examples of constructing frames are presented here, including examples from Timor Leste, Brazil, Ethiopia and Sri Lanka.

Presenters: David McKenzie, DECR  
Kathleen Beegle, DECRG

**Session VI**

9:45-10:30

## STRATIFICATION-CONCEPTS AND FORMALIZATION

Stratification (Example: simulation of an electoral poll in an archipelago). The two main reasons for stratification are [a] improving the precision of the overall estimate and [b] obtaining separate estimates for different groups of the population. These objectives are generally contradictory in practice and arbitration is needed. Key concepts are: analytic domains and strata, allocating the

sample among strata, proportional and equal allocations and what are sampling weights and why are they needed. Case studies from Enterprise Surveys in Sri Lanka and Bangladesh will be presented.

Presenters: Kristen Himelein, DECRG  
Mikhail Bontch Osmolovski, DECRG  
Juan Muñoz, Sistemas Integrales

**Session VII**

10:30-11:15 DESIGN EFFECTS

The combined effect of stratification, clustering and weighing – Design effect and rate of homogeneity. Alternative interpretations of deff (and deft) and why they cannot be ignored. Typical values found in practice. Information and software needed to compute design effects. Implications for the documentation of the design and implementation of the sample.

Presenters: Kathleen Beegle, DECRG  
Juan Muñoz, Sistemas Integrales

11:15-11:30 *Coffee Break*

**Session VIII**

11:30-12:30 SAMPLING ISSUES IN IMPACT EVALUATION AND PUBLIC EXPENDITURE TRACKING SURVEYS (PETS)

General overview of issues related to sampling for impact evaluation and for PETS. The session covers experimental design issues, including power calculations and the importance of not losing sight of selection probabilities, as well as issues related to the construction of panel surveys.

Presenters: Juan Muñoz, Sistemas Integrales  
Kristen Himelein, DECRG

12:30-1:30 *Lunch (not provided)*

**Session IX**

1:30-2:30 NON-RESPONSE AND EX-POST CORRECTIONS FOR SAMPLING BIASES

The real world of survey field work and human behavior means that, even a sound sampling design, cannot save one from problems arising from non-response. This session presents technique for correcting ex post for sampling biases that arise from unit non-response and item non-response and/or selective attrition in panel samples. But it also stresses that prevention is still the best method.

Presenters: Emanuela Galasso, DECRG  
Juan Muñoz, Sistemas Integrales



Living Standards  
Measurement Study  
of the World Bank

## **Module 2: Multi-topic Household Survey**

**February 2-3, 2009**

**Room: I 1-200**

### **Agenda**

#### **Monday, February 2, 2009**

9:00- 9:30 INTRODUCTION  
Presenter: Peter Lanjouw

9:30- 10:30 HOUSEHOLD SURVEYS

What are the major types of household surveys and what are the key dimensions on which they differ? The session will look at Household Budget Surveys (HBS), Living Standards Measurement Study Surveys (LSMS), Labor Force Surveys (LFS), Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), CWIQ and PS and demonstrate how these differ: how purpose and analytic aims affect the various dimensions of surveys.

Presenter: Kinnon Scott

10:30-11:00 Coffee Break

11:00-11:30 THE WORLD BANK AND HOUSEHOLD SURVEYS

The session will inform participants about the role that the World Bank and the LSMS group have and continue to play in household surveys. The session will contain a brief LSMS history but more importantly will discuss the present activities:

- (i) LSMS IV- experiment and validation, and
- (ii) Agricultural initiative for Sub Saharan Africa

Presenter: Kinnon Scott

11:30-12:05 KEY USES OF HOUSEHOLD SURVEY DATA

Household survey data, and LSMS data in particular, have been used for a wide range of purposes. This session will talk about how surveys are used to monitor MDGs, carry out and monitor PRSP, provide inputs to poverty assessments, affect social policy, create the ability to construct poverty maps and carry out impact evaluation.

Presenter: Kathleen Beegle

12:05-12:30 HOUSEHOLD SURVEYS AS PART OF THE NATIONAL STATISTICAL SYSTEM

The session will look at the overall system of statistics in a country and how household surveys fit into them. Many countries have a National Strategy for Statistical Development. Questions on how are decisions made concerning the system of surveys required by this system will be addressed along with a discussion of the types and role of administrative data and how these can be linked.

Presenter: Neil Fantom

12:20-1:30 Lunch (not included)

1:30 -2:30 QUESTIONNAIRE DESIGN

The session will focus on the process by which questionnaires should be designed as well as content and testing.

Presenter: Kinnon Scott

2:30 - 3:15 SAMPLING

This is a very short overview as there is a two-day sampling course that is being held January 27-28.

Presenter: Juan Muñoz

3:15 - 3:30 Break

3:30 - 4:35 FIELD WORK

This session covers the key features of field work used in LSMS surveys. The session will emphasize the link between field work and quality control and how all of these features are relevant for all surveys. There will also be a discussion on how the key features are implemented in differing ways while maintaining the importance of training and supervision and overall quality.

Presenter: Juan Muñoz

4:35- 5:35 DATA ENTRY AND THE CONSTRUCTION OF A FINAL DATA BASE

LSMS surveys have traditionally used concurrent data entry to further ensure the high quality of data. This method will be discussed and contrasted to the still-used centralized and batch data entry systems. Information will also be provided on the use of CAPI systems for data entry. The next steps from data entry to the creation of a final, documented data base for dissemination will be outlined.

Presenters: Juan Muñoz and Diane Steele

**Tuesday, February 3, 2009**

9:00-11:00 IMPLEMENTATION, TRADE-OFFS AND INTEGRATION: CASE STUDIES

**Case study 1: TLSS**

This is an example of an LSMS survey that has now been carried out twice. The field work is based on a 12-month design. The survey was the first carried out in the newly formed country. The original sample design was complicated by the lack of a sample frame; the field work in the second round was affected by political violence. Other issues that will be discussed are capacity building, and financing. In addition, the use of the data, as well as the ability of the statistical team to respond to new requests for data will be highlighted.

Presenters: Juan Muñoz and Kristen Himelein

**Case study 2: Albania**

This example will describe a multi-year program of LSMS surveys implemented in Albania by the national Institute of Statistics (INSTAT) with multi-donor funding. The presentation will focus on a number of innovative features which were introduced in the course of the project and the multiple uses of the survey data for policy analysis.

Presenter: Gero Carletto

**Case Study 3: Merging LSMS with Other Surveys**

In some cases the LSMS surveys have been merged or linked with existing surveys, or other surveys have been incorporated into LSMS surveys. These are all efforts to build on existing surveys to ensure sustainability and increase the efficiency of survey resources in countries with limited human and financial resources to carry out multiple surveys. Some of the examples to be discussed are: HBS and LSMS (Mongolia, Western Balkans), LFS and LSMS (Jamaica), MICS and LSMS (Tajikistan and Angola), Food Security Surveys and LSMS (Mozambique, Tanzania).

Presenter: Diane Steele

**Summary and questions 15 minutes**

11:00-11:20 Coffee Break

11:20-12:20 WHO, WHAT AND HOW?

The session will address the issues of who is responsible for what in the development of a household survey, what are the key stages of activity and how long does each phase take, ideally as well as how much does it all cost. The following, afternoon session, will address how to get the work done

Presenters: Juan Muñoz and Gero Carletto

12:20-1:30 Lunch (not included)

1:30-2:30 INNOVATIONS IN HOUSEHOLD SURVEYS

Household surveys have expanded their scope as technology and data demands have increased. This session will provide an overview of some of the key areas in which new knowledge is being generated for surveys and where new technologies are being brought to bear on important issues. The session will cover the use of bio-markers, cognitive testing of children, the use of geo-referencing, computer assisted personal interviewing (CAPI), cell phones for supervision and survey experimentation as some of the examples of innovations that have been implemented.

Presenter: Kathleen Beegle

2:30 -3:30 TOOLS FOR DEVELOPING AN LSMS

There are a variety of programs, activities and tools that are available to help task managers design, implement and analyze household survey data. This session will present tools for developing the survey, reference materials, tools for archiving and disseminating data and suggestions for sources of funding.

Presenter: Diane Steele

## Module 3: Mixing Qualitative and Quantitative Methods

February 19-20, 2009

Room: MC C1-100

The World Bank

### Objective

This course will briefly review the different types of methods used in qualitative and quantitative analysis and then explain the appropriateness and applicability of these methods. We will then go on to explore the costs and benefits of mixing qualitative and quantitative methods. Our perspective is that no one method is better than another but that a diverse menu of social science methods offer different ways of understanding and interpreting the “truth.” The important thing is to begin with the research question, and choose the mix of methods best suited to providing answers to it. We will emphasize the benefits and drawbacks of each method and how a judicious combination of methods has the ability to address the disadvantages of one with the advantages of another. Emphasis will be placed on design and sampling issues, and the precautions that should be taken with regard to drawing generalizable inferences from qualitative data. The course will be based on selected examples of studies that use these mixed methods to conduct analyses that are of relevance to poverty and inequality – such as poverty assessments and impact evaluations.

### Agenda

#### Thursday, February 19, 2009

Opening

8:30-9:00 OPENING REMARKS AND INTRODUCTION

#### **Session I**

9:00-9:30 INTRODUCTION TO MIXED METHODS

Presenters: Vijayendra Rao and Michael Woolcock

Themes: Engaging the Research and Evaluation Process

How do we let the question of interest drive the method that we use? How do we distinguish data from the methods used to collect them? How do we classify the various methods and tools available to the researcher? ‘Mixed methods’ as a strategic response to a particular set of (usually) complex, difficult questions; *not* an inherently better way to proceed (though many development problems do not map neatly onto a single methodological approach).

**Session II** INTRODUCING QUALITATIVE AND QUANTITATIVE METHODS

9:30-10:00 A BRIEF REVIEW OF QUALITATIVE METHODS AND DATA

Presenter: Michael Woolcock

Themes: What Qualitative Methods Can and Cannot Do

A brief overview of qualitative methods – focus group discussions, in-depth interviews, participant observation, PRA/RRA, textual analysis, etc. – and an assessment of their respective strengths and weaknesses.

10:00-10:30A BRIEF REVIEW OF QUANTITATIVE METHODS AND DATA

Presenter: Vijayendra Rao

Themes: What Quantitative Methods Can and Cannot Do

The logic of statistics, sampling methods, the notion of a standard error, Representativeness, generalizability, causal impact, etc. Assessing the strengths and weaknesses of quantitative approaches.

10:30-10:45 BREAK

**Session III** QUALITATIVE METHODS IN MORE DETAIL

Themes: In this session we will outline the some of the important types of qualitative methods, highlighting their advantages and disadvantages.

10:45-11:30 PARTICIPATORY METHODS: PRA/PPA

Presenter: Vijayendra Rao

Themes: The origins, promises and pitfalls of ‘participatory’ methods, and their incorporation into research and poverty analysis. The crucial role of facilitator quality. Analyzing and interpreting data from such exercises.

11:30-12:30 COMPARATIVE-HISTORICAL METHODS, CASE STUDIES

Presenters: Vijayendra Rao and Michael Woolcock

Themes: What exactly is a ‘case’, and how can selected case study comparisons be used to infer broader statements about social, economic and political processes? How historians and other social scientists make ‘causal’ statements about dynamic processes when ‘samples’ are necessarily small.

12:30-2:00 LUNCH

**Session IV** INTEGRATING METHODS AND DATA: PROS, CONS, EXEMPLARS

2:00-2:45 COMMON CHALLENGES IN QUALITATIVE AND QUANTITATIVE RESEARCH

Presenters: Vijayendra Rao and Michael Woolcock

Themes: All social science research is concerned with making reliable and valid claims about the effects of one or more variables on other variables (outcomes), and explaining how, why and the conditions under which this relationship holds. Different research methods are needed, however, when the number of cases under consideration (many/few), the unit of analysis (small/large), and the consistency of the variables being studied (stable/unstable), varies. An example is drawn from the challenge of understanding the impact trajectory of development projects over time, especially those that seek to accommodate local contextual realities.

2:45-3:30 USING MIXED METHODS IN SOCIOLOGY AND POLITICAL SCIENCE

Presenter: Michael Woolcock

Themes: ‘Best practice’ examples of how qualitative tools have been used to complement and strengthen more orthodox quantitative approaches (e.g., “anchoring vignettes” to enhance comparability of cross-context survey responses; to “observe unobservables” when identifying comparable program and non-program communities), and vice versa (e.g., unpacking causal mechanisms by which a given variable “impacts” another). The importance of history, context and process.

3:30-3:45 BREAK

3:45-5:00 USING MIXED METHODS IN ECONOMICS: ‘PARTICIPATORY ECONOMETRICS’

Presenter: Vijayendra Rao

Themes: Using qualitative methods to inform household survey design and response items, and to interpret results according to their contextual meaning. Where time and resources allow, engaging with research communities in an ongoing/iterative role to enhance the reliability and validity of responses, analysis, and interpretation.

## **Friday, February 20, 2009**

**Session V** PRACTICAL APPLICATIONS OF MIXED METHODS IN POLICY RESEARCH

Themes: The use of qualitative and mixed methodologies will be demonstrated with detailed examples from a poverty assessment which emphasizes the social dimensions of poverty and inequality, mixed method analyses of relative (or subjective) poverty, and an analysis which shows how qualitative methods helped design new ways of measuring inequality. We will then look at an ongoing study examining the delivery of private health services in slum areas of Delhi. Finally we will look at the use of mixed methods in developing impact evaluations. The cases we will look at are an evaluation

of the Jamaica Social Fund that focused on the impact of the CDD on participation, collective action and trust, and a recent effort to evaluate a CDD project in Indonesia.

9:15-10:00 RETHINKING INEQUALITY: AN INDIAN CASE STUDY

Presenter: Vijayendra Rao

Themes: Qualitative insights led to the development of a methodology that revealed that poor pay higher unit prices for food than the rich which suggests that “real” inequality is higher than measured inequality.

10:00-10:30 UNDERSTANDING AND RESPONDING TO LOCAL LEVEL CONFLICT: ASSESSING THE IMPACT OF A RURAL CDD PROJECT IN INDONESIA

Presenter: Michael Woolcock

Themes: Much is claimed about the capacity of CDD projects to enhance a community’s capacity for collective action; in the most hopeful cases, it is invoked as an instrument to promote the quality of local ‘governance’. Does this in fact happen? Under what conditions might we expect development projects generally, and CDD projects in particular, to either help or hinder the capacity of communities to address local conflicts?

10:30-10:45 BREAK

10:45-12:15 (Continuation)  
UNDERSTANDING AND RESPONDING TO LOCAL LEVEL CONFLICT:  
ASSESSING THE IMPACT OF A RURAL CDD PROJECT IN INDONESIA

Presenter: Michael Woolcock

12:15-2:00 LUNCH

2:00-3:00 THE SOCIAL IMPACT OF SOCIAL FUNDS IN JAMAICA

Presenter: Vijayendra Rao

Themes: This paper develops an evaluation method that combines qualitative evidence with quantitative survey data analyzed with propensity score methods, on matched samples, to study the impact of a participatory community driven Social Fund on preference targeting, collective action, and community decision making.

3:00-3:10 BREAK

3:10-4:15 USING MIXED-METHODS TO STUDY VILLAGE GOVERNANCE IN INDIA

Presenter: Vijayendra Rao

Themes: Complex processes such as village governance can benefit greatly by being studied with a mixed-methods approach. This project used qualitative methods with large scale random samples both for stand-alone studies, and also to generate measurable indicators. The combination of methods generated several insights into how village governments (panchayats) in India work.

4:15-4:40 Question and Answers/Discussion

## DEC Course on Poverty and Inequality Analysis

### Module 4: Poverty Measurement and Analysis

February 23-24, 2009

Room MC8-100

The World Bank

#### Objective

The aim of this module is to provide an introduction to both conceptual and practical issues associated with household-survey based empirical analysis of poverty, as well as a flavour of recent advances arising out of research in this field. Poverty comparisons – such as assessments of whether poverty has increased, or where it is greatest – are typically clouded in conceptual and methodological uncertainties. How should individual “well-being” be assessed in deciding who is poor? Is a household survey a reliable guide? Where should the poverty line be drawn? What poverty measure should be used in aggregating data on individual well-being? The module will draw heavily on the Bank’s experience in analyzing poverty in developing countries to provide an overview of these issues and of the options available to address them.

#### Agenda

##### Monday, February 23, 2009

##### **Opening**

9:00-9:15            OPENING REMARKS AND INTRODUCTIONS

##### **Session I**

9:15-11:00        CONCEPTS, DEFINITIONS, DATA

CONSTRUCTION OF A COMPREHENSIVE CONSUMPTION/INCOME INDICATOR  
AND ADJUSTMENTS FOR DEMOGRAPHIC CHARACTERISTICS

Presenter: Kathleen Beegle

Themes: This session will describe theoretical arguments and particular consideration of choosing income versus consumption as a welfare measure. It will also focus on constructing a comprehensive consumption aggregate. We will look at the components of consumption: food expenditures; home-produce food consumption; basic non-food, durables, housing, health and education expenditures and discuss issues related to recall period and disaggregation of components. The presentation will focus further on the problems of adjusting for family composition and family size.

11:00-11:15        Break

##### **Session II**

11:15-12:30        POVERTY LINES

Presenter: Peter Lanjouw

Themes: The presentation will discuss the importance of widespread endorsement and the political role of the poverty lines. We will discuss the relative versus absolute poverty lines and the choice depends on goal of poverty analysis. The session will also focus on alternative approaches to setting absolute lines that include expert group poverty lines, the cost of basic needs approach, the food energy intake method and subjective poverty lines.

12:30-2:00 Lunch Break

**Session III**  
2:00-3:30

POVERTY MEASURES: PROPERTIES AND ROBUSTNESS

Presenter: Michael Lokshin

Themes: How do we aggregate the measures of well-being estimated on individual or household level into a measure of poverty? This session will focus on various poverty measures that include head-count index, poverty gap, Sen's measure of severity of poverty, and FGT indexes. Properties of poverty indexes will also be discussed. In the second part the robust analysis and the stochastic dominance results will be looked at. Here we will talk about uni- and multi- dimensional dominance and its implications.

**Tuesday, February 24, 2009**

**Session IV**  
9:00-10:30

STATISTICAL INFERENCE FOR POVERTY INDEXES AND  
POVERTY DECOMPOSITION

Presenter: Michael Lokshin

Themes: The first part will illustrate the effect of sample design on the poverty index estimation. We also will analyze the statistical inference for head-count and FGT indexes and discuss its limitations. The second part will discuss the poverty profiles and other decomposition methods. Here we look at the various types of poverty profiles, growth and redistribution components and sectoral decomposition of changes in poverty.

**Session V**  
10:30-12:00

NEW FRONTIERS IN POVERTY MEASUREMENT

Presenter: Francisco H.G. Ferreira and Peter Lanjouw

Themes: In this session we will provide a brief overview of new directions in the measurement and analysis of poverty that have seen growing attention and application in practice. We will start by examining recently proposed approaches to the analysis of poverty within a multidimensional framework. From there we will examine the distinction between chronic and transient poverty and explore methods to measure long-term poverty of households. Finally we will review the application of small-area estimation procedures to develop poverty "maps" by combining household survey with population census data.

12:00-2:00 Lunch Break

**Session VI**

2:00-3:30

DESCRIBING AND MODELING THE DETERMINANTS OF  
POVERTY

Presenter: Martin Ravallion

Themes: The session will discuss alternative approaches to explaining why some people are poor and others not using the types of data and measures described in previous sessions and modules. The discussion will cover univariate poverty profiles, multivariate profiles in the form of regression models (both reduced form and structural), and dynamic (panel data) models of living standards. The problems of causal inference will also be examined. Case studies for India and China.

## Module 5: Inequality and Pro-Poor Growth

February 25-26, 2009

Room MC9-100

World Bank

### Objective

This is the fifth module in a larger course on poverty and distribution, offered annually by DECRG within the World Bank. This module focuses on economic inequality: its domain, measurement, structure and dynamics. The course begins with a brief conceptual discussion of the appropriate domain of economic inequality, followed by an overview of how measures of income and consumption should (and should not) be constructed in practice. Once a distribution of economic well-being is available for analysis, scalar measures of inequality are defined on that distribution, and various decomposition techniques are presented. Changes in inequality are then shown to be related to changes in other aspects of the distribution – such as growth in the mean and changes in poverty. The course uses that integrated framework to introduce the discussion of pro-poor growth: what makes some growth episodes more beneficial to the poor than others? Trends in global inequality are also analyzed, and related to their within- and between-country components. Finally, the implications of high or rising inequality and the corresponding policy options are discussed.

### Agenda

#### Wednesday, February 25, 2009

Opening

9:00-9:15 OPENING REMARKS AND INTRODUCTIONS

#### **Session I**

9:15-10:45 THE MEASUREMENT OF ECONOMIC INEQUALITY

Presenter: Francisco H. G. Ferreira

Themes: Why is economic inequality of interest in welfare economics, and what is the right space on which it should be defined and measured? Given that conceptual basis, but also the informational constraints associated with most data sources, how should indicators of individual welfare be constructed? How are their distributions represented and compared, and how are summary (scalar) inequality measures defined and calculated? In order to be most useful, what properties should such measures have?

#### Structure:

1. *Inequality of What? A brief discussion of the normative foundations*
2. *Constructing a measure of individual welfare*
  - a. Income or consumption?
  - b. Source aggregation
  - c. Price deflation
  - d. Equivalence scales
  - e. Households or individuals?

3. *The distribution*
  - a. Density, distribution and deficit functions.
4. *Scalar Inequality Measures*
  - a. An axiomatic approach
  - b. The Gini coefficient
  - c. The Atkinson class
  - d. The Generalized Entropy class
5. *Stochastic (including Lorenz) Dominance*

10:45-11:00 Coffee Break

## Session II

11:00-12:30

### INEQUALITY: STRUCTURE AND DYNAMICS

Presenter: Francisco H. G. Ferreira

Themes: Inequality is much higher in some countries than in others. In some countries it is remarkably stable, while in others it can change quite quickly. What economic forces shape the distribution of incomes? What is the role of ascribed characteristics, such as race and gender, versus that of acquired characteristics, such as education and experience? How important are different income sources, such as labor and capital incomes? Within the labor market, what are the roles of changes in prices and returns; of evolving occupational patterns such as the changing composition of the labor force; and of changes in the distribution of schooling, on inequality and poverty? How do distributional dynamics relate to the incidence of economic growth? This session will present some of the decomposition techniques which economists use to understand levels and changes in poverty and inequality.

#### Structure:

1. *A conceptual overview of the determinants of the income distribution:* the role of assets, markets, demographics and the State.
2. *Static Determinants of Inequality*
  - a. Decompositions by population subgroup
  - b. Decompositions by income source
  - c. Comparing income distributions across countries
3. *Income Distribution Dynamics:*
  - a. Decomposing changes in inequality and poverty indices
  - b. Decomposing changes in the entire distribution of incomes

12:30-2:00 Lunch

## Session III

2:00-3:30

### INEQUALITY OF OPPORTUNITY

Presenter: Francisco H. G. Ferreira

Themes: Are some kinds of inequality more morally objectionable than others? This session briefly reviews some theories of justice that distinguish between inequalities that are due to differences in individual responsibility and effort from those which are due to the opportunities with which people are faced. It also introduces a relatively recent empirical literature on the diagnosis and measurement of inequality of opportunity.

Structure:

1. *Equality of Opportunity as a normative principle*
2. *John Roemer's formal definition of equality of opportunity*
3. *Empirical approaches to diagnosing and measuring inequality of opportunity*
4. *Opportunity profiles.*

**Thursday, February 26, 2009**

**Session IV**

9:30-10:45

**ECONOMY-WIDE POLICIES AND PRO-POOR GROWTH**

Presenter: Martin Ravallion

Themes: As suggested by the discussion in Session II, income distributions are affected by a large number of economic aggregates. Economy-wide policies are also therefore likely to affect inequality, even if they are not designed with that objective in mind. How can we analyze the impact of exchange rate policies, trade liberalization, or financial reforms on the distribution of income? Why does the same rate of economic growth reduce poverty much more in one country than in another? Do financial and economic crises always have the same impact on inequality? What makes some forms of growth more “pro-poor” than others? This session will shed light on some of these issues at the frontier of current economic research.

Structure:

1. *The debate on globalization, inequality and poverty*
2. *Concepts and measures of “pro-poor growth”*
3. *Evidence from cross-country comparisons*
4. *Country case studies for India and China*
5. *Policies for pro-poor growth*

10:45-11:00 Coffee Break

**Session V**

11:00-12:30

**GLOBAL INCOME INEQUALITY**

Presenter: Branko Milanovic

Themes: How is economic well-being distributed within and between countries around the world? This session addresses that question focusing on individuals as the basic unit, because welfare is intrinsically an individual (or household) attribute. It then also looks at the two-way relationship between inequality and growth: whether growth (or higher income) reduce or increase inequality, and whether inequality helps or hampers faster growth.

Structure:

1. *Various inequalities around the world defined: income and consumption differences between people and countries (representative individuals).*
2. *Does inequality go up with higher average income?*
  - a. Kuznets hypothesis

- b. Recent cross country and panel studies.
- c. Recent long-run historical studies.
- 3. *Does high inequality hinder or help growth?*
  - a. Median voter hypothesis
  - b. Inequality of opportunities (wasted resources)
  - c. Inequality and political instability

12:30-2:00 Lunch

**Session VI**

2:00-3:30 INEQUALITY, POVERTY, AND PUBLIC POLICY  
Presenter: Francisco H. G. Ferreira

Themes: Drawing on the WDR 2006 on Equity and Development, this session reviews recent thinking on policies that can be designed to contribute to poverty reduction by spreading economic opportunity more broadly. The discussion reviews some of the evidence suggesting that large inequalities in opportunity are costly in terms of efficiency, and leads to forgone growth potential. We then discuss policies that are likely to promote greater equity with either negative or very small efficiency costs, leading to sustainable pro-poor growth. We focus on the areas of human development; infrastructure provision and regulation; and fairness in markets.

Structure:

1. *Leveling the Playing Field: the Equal Opportunity Approach to Economic Development*
  - a. Expanding opportunities in human development
  - b. Expanding opportunities through the provision of infrastructure.
  - c. Expanding opportunities through ensuring that market rules are applied the same way for all.

## Module 6: Evaluating the impacts of programs and policies

April 1-2, 2009

Room U3-485

World Bank

### Objective

The objective of the module is to provide a thorough introduction to the concepts and methods of assessing poverty impacts of programs and policies that are “assigned” in that certain units (people, facilities, locations) receive the program and some do not. The first part of the module will provide a comprehensive overview of the theory while the second part will provide detailed case studies drawn from World Bank operations. Participants will learn about the methods that have been used to assess the ex-post impacts of specific programs as well as methods used to simulate impacts of an intervention before the policy is in place. The module will draw on some material from previous modules, and will assume that participants are familiar with the basic tools of economic and statistical analysis.

### Agenda

#### Wednesday, April 1, 2009

Opening

9:00-9:30

OPENING REMARKS AND INTRODUCTIONS

#### Session I

ASSESSING POVERTY IMPACTS: CONCEPTS AND METHODS

Presenter: Jed Friedman, Emanuela Galasso

Themes: The session will introduce the main concepts of the evaluation problem and distinguish it from monitoring. We will define the standard problem of identifying the counter-factual for impact assessment, review strengths and weaknesses of alternative methods of dealing with the problem, and discuss recurrent problems in setting up an evaluation. In particular, we will look at experimental, quasi-experimental, and non-experimental evaluation methods. The session will emphasize that when assessing anti-poverty policies we typically need to know more than the average impact — we also need to know how impact varies with pre-intervention welfare levels, i.e., the incidence of program benefits and impacts on poverty.

9:30-11:00 Part 1

11:00-11:15 Break

11:15-12:30 Part 2

12:30-2:00 Lunch

## **Session II**

2:00-3:00

### **CASE STUDIES 1: IMPLEMENTATION ISSUES IN SETTING UP RANDOMIZED EXPERIMENTS**

Presenters: Harold Alderman, Miriam Bruhn

Themes: Randomized experiments are often presented as the theoretical ideal for establishing the causal effects of a given policy invention. However their implementation is quite costly and may need timely planning and careful monitoring. This session will discuss practical and methodological issues related to the design and implementation of such studies. This session will also touch upon the possible trade-offs between the rigor necessary to establish the causal effect (what is usually referred to as ‘internal validity’) and the need to extrapolate from the experiment to policy (‘external validity’).

3:00-3:10

Coffee Break

3:10-4:00

### **CASE STUDIES 2: USING EVALUATIONS TO TEST POLICY RELEVANT HYPOTHESES**

Presenters: Jed Friedman, Xavier Gine/Ghazala Mansuri (tbc)

Themes: These case studies will illustrate the concepts and methods discussed in the morning session using the experience of specific World Bank projects. Examples include malaria, health financing and community driven development programs and will be used to show how evaluations are designed to address specific policy questions about service delivery and program performance.

## **Thursday, April 2, 2009**

## **Session III**

9:30-10:30

### **CASE STUDIES 3: EX-ANTE EVALUATIONS**

Presenters: Emanuela Galasso

Themes: Most program evaluations focus on the problem of assessing ex-post the effectiveness of a given program. A complementary approach is to use ex-ante tools to calibrate and simulate the behavioral response of households or service delivery agents. The impact of changing some key parameters of program design (such as subsidy levels or the age group target) can be forecasted with these methods and its predictions validated with experimental data. Methodology and results of such methods will be reviewed based on examples from conditional cash transfer programs in Latin America.

10:30-10:45

Coffee Break

**Session IV:**

10:45-11:30

**FROM IMPACT EVALUATIONS TO COST-BENEFIT ANALYSIS**

Presenter: Jed Friedman

Themes: Estimating the causal impact of an intervention is just one input into a comprehensive cost-benefit analysis. This session will review the methodological challenges in obtaining good estimates on both the benefit and the cost side, and will draw from comprehensive reviews of cost-benefit analysis of educational and nutrition/health interventions.

## DEC Course on Poverty and Inequality Analysis

### Module 7: Evaluating the Distributional and Poverty Impacts of Economy-Wide Policies

April 28-30, 2009

Room U3-555

World Bank

#### Objective

Policy impact analysis entails *an assessment of variations in individual and social welfare attributable to an exogenous shock or the implementation of a policy*. Economic shocks and policies may have at once macroeconomic, structural and distributional implications working through a number of flow-of-funds variables, and a set of market and non-market institutions. This creates a need for an analytical framework that explicitly accounts for the interdependence between these three dimensions. The objective of this module is to provide participants with a sound understanding of the logic of social impact analysis and its application to the evaluation of the distributional and poverty impacts of economy-wide policies. The module focuses on general equilibrium modeling and microsimulation techniques, and presents a variety of case studies to illustrate the application of these methods.

#### Outline

Tuesday, April 28, 2009

##### Session I

9:00-10:30 THE LOGIC OF SOCIAL IMPACT ANALYSIS

Presenter: B. Essama-Nssah

Themes: There is an intimate relationship between effective policymaking and social impact assessment. Indeed, the policy objective defines the metric by which to assess its effectiveness, while effective methods of evaluation produce reliable information that can be fed back into policy design or reform. This introductory session expands on this idea, focusing on the fundamental dimensions of an evaluative framework: (1) the specification of the *focal space* on the basis of the policy objective; (2) the identification of *winners* and *losers* based on variations in individual welfare; (3) *causal inference* to ensure that observed outcomes are indeed attributable to the shock or policy under consideration; and (4) the *ranking of social states* according to some evaluation criterion. These dimensions can also guide the construction of a *policy model* (implicit or explicit) linking policy instruments and socioeconomic outcomes. It is assumed that the observed distribution of living standards (and hence poverty and inequality) in any society depends on individual *behavior* and *endowments*, and the socio-political arrangements that govern socioeconomic *interaction*. A policy model can therefore be thought of in terms of two generic components: (1) a structural model of *individual behavior* and *social interaction* to explain outcomes, and (2) a *social evaluation function* to assess the desirability of such outcomes.

10:30-11:00 Break

**Session II**

11:00-12:00 EQUALITY OF OPPORTUNITY AS A SOCIAL EVALUATION CRITERION

Presenter: Francisco H. G. Ferreira

Themes: Following the general discussion of social evaluation criteria in Session I, this session introduces *equality of opportunity* as a relevant concept for evaluating different distributional outcomes. The session briefly reviews the intellectual origins of the concept, and focuses on John Roemer's definition of equal opportunities. A class of measures of inequality of opportunity that follows directly from that definition is presented, with empirical examples. The concept of *opportunity deprivation profiles* is introduced, and compared to standard poverty profiles. This leads naturally to the definition of equitable development policy as the set of policies that maximize the future stream of advantage for the least privileged group. We close with a discussion of how these concepts may be used to evaluate counterfactual distributions, such as those discussed in the remainder of this course.

12:00-2:00 Lunch

**Session III**

2:00-3:30 DISTRIBUTIONAL AND POVERTY IMPACT ANALYSIS WITHIN A GENERAL EQUILIBRIUM FRAMEWORK

Presenter: B. Essama-Nssah

Themes: This session uses a stylized simulation model to illustrate distributional analysis in a general equilibrium framework. The first component is a two-sector computable general equilibrium (CGE) model based on an extension of the generalized Salter-Swan model of international trade. The second component is a poverty module composed of two parameterized Lorenz curves representing the distribution of economic welfare in the rural and urban sectors. It is assumed that the government has three tax instruments available: tariffs on final and intermediate goods and an indirect tax on domestic sales. All government revenue is transferred to two representative households (rural and urban). The framework is used to simulate the social impact of Dutch disease, variations in the terms of trade and fiscal policy reforms.

**Wednesday, April 29, 2009**

**Session IV**

9:00-10:30 THE POVERTY IMPACT OF SCALED-UP GOVERNMENT SPENDING: A GENERAL EQUILIBRIUM ANALYSIS

Presenters: Hans Löfgren and Carolina Diaz-Bonilla

Themes: Governments have to make strategic decisions regarding how much to spend, how to finance this spending, and how to allocate it across different areas. The Maquette

for MDG Simulations (MAMS), a dynamic-recursive computable general equilibrium (CGE) model that links the provision of social services to outcomes (inter alia in terms of growth, poverty, and human development indicators), is designed to analyze the effects of such decisions. This session introduces MAMS and reviews microsimulation and representative-household approaches to poverty analysis in conjunction with CGE models. In an exercise, the participants analyze the poverty impact of scaled up government spending on infrastructure with and without a parallel increase in foreign aid, drawing on a recent application of MAMS to a developing country.

10:30-11:00 Break

### **Session V**

11:00-12:00 MICROSIMULATION APPROACH TO POLICY EVALUATION

Presenter: B. Essama-Nssah

Themes: Policymaking is fundamentally a political process to the extent that it involves strategic interaction among socioeconomic agents subject to potential conflict stemming from *heterogeneity of interests*. Such heterogeneity may reflect differences in tastes, resource endowments or other socio-demographic characteristics. The microsimulation approach generally relies on a microeconomic model to simulate the consequences of a policy reform on the level of activity or welfare for each individual in a representative sample for the whole population. It thus provides a more precise way of identifying likely *winners* and *losers* from a policy reform. This approach also improves accuracy in evaluating the impact of a policy on the government budget. This session focuses on both the *envelope* and *discrete choice* frameworks guiding the design and implementation of microsimulation models on the basis of the assumed behavior of economic agents. Examples of applications to the analysis of the welfare effects of changes in the tax-benefit system will also be discussed.

12:00-2:00 Lunch

### **Session VI**

2:00-3:30 AID, PUBLIC INVESTMENT, GROWTH AND THE MDGs: A QUANTITATIVE ANALYSIS USING THE SPAHD MODEL

Presenter: Emmanuel Pinto Moreira

Themes: In a number of low income countries (LICs), Poverty Reduction Strategy Papers (PRSPs) have become a strategic framework for designing policies and actions to fight poverty. They also help to anchor and frame donor assistance to LICs. However, many existing PRSPs suffer from the lack of a quantitative analytical framework to assess the effects of poverty reduction strategies and evaluate progress in their implementation. More importantly most PRSP documents do not contain a quantitative analysis of the linkages between foreign aid, public investment, growth, and human development.

This session will present a model called “Strategy Paper for Human Development” (SPAHD), which captures the links between foreign aid, the level and composition of public investment, the supply-side effects of public capital, growth and poverty in the

context of a “typical” low-income country. It focuses on the fiscal and supply-side effects of aid, as well as the stock and flow effects of public investment---which is disaggregated into education, infrastructure, and health -- while accounting at the same time for potential congestion effects associated with the use of public services. It is designed to examine how debt relief, as well as increased aid and aid-funded levels of public investment, coupled with changes in the allocation of public expenditure can stimulate growth and lead to sustained poverty reduction.

An application of a SPAHD model will be presented using the case of Niger.

### **Thursday, April 30, 2009**

#### **Session VII.**

9:00-10:30 SIMULATING THE DISTRIBUTIONAL IMPACTS OF THE 1998 DEVALUATION OF THE BRAZILIAN REAL

Presenter: Francisco H. G. Ferreira

Themes: As an additional example of techniques used to investigate the poverty impact of economy-wide policies (or shocks), this session introduces a macro-micro model that relies on an econometrically-estimated augmented IS-LM model on “top”, linked to a set of simple behavioral models estimated on a household survey at the “bottom”. Unlike in general equilibrium modeling, no calibration is involved: All structural relationships are estimated from time-series or cross-section data. The macro and micro modules are linked by a set of meso-level wage rates, prices, and employment demand levels, known collectively as “linkage aggregated variables” (LAVs). A convergence algorithm is used to simulate changes in household level occupations and incomes that are ultimately consistent with the aggregated changes predicted by the macro module. The tool is applied to the study of a large devaluation of the Brazilian Real, in 1998-99, and the performance of the model is assessed by comparison with real ex-post data.

#### **Session VIII.**

11:00-12:30 ECONOMY-WIDE AND DISTRIBUTIONAL IMPACTS OF AN OIL PRICE SHOCK ON THE SOUTH AFRICAN ECONOMY

Presenter: Delfin S. Go

Themes: An increase in crude oil prices is bound to fuel concern about the impact of external shocks on growth and poverty in developing countries. This final session uses a CGE-microsimulation framework to analyze the structural and distributional consequences of a significant increase in the world price of oil on the South African Economy. The microsimulation component is framed within the logic of Roy (1951) occupational choice model. It is found that the oil price shock tends to increase the disparity between rich and poor. Furthermore, unemployment hits mostly low and medium-skilled workers in the service sector. High-skilled workers are the most likely winners from the oil price shock.