

SYLLABUS

ECN-6992: Measuring and Alleviating Poverty and Inequality

Course description

Poverty and Inequality reduction is a central objective of economic policies in both developed and developing countries. This course introduces students to the main theoretical and empirical aspects of the economic analysis of poverty and inequality: distributive analysis, poverty and inequality measures and profiles, multidimensional poverty, robustness, pro-poor growth and policies, poverty alleviation, targeting criteria and the distributive effects of price changes and tax reforms, progressivity and benefit incidence analysis, and estimation of individual budget shares and poverty rates. Each theoretical class is accompanied with guided practices on real data through DASP (Distributive Analysis Stata Package). Participants require a working knowledge of basic statistics and economics. Students are evaluated through 4 assignments (about every three weeks) and an essay.

General objective

The main aim of this course is to enhance the skills of current or future researchers and officials in conducting poverty and social impact assessments using quantitative micro data and state-of-the-art methods. At the end of this course, participants are expected to be able to prepare and interpret a comprehensive poverty and inequality analysis.

Specific objectives

Specific objectives will be illustrated at the beginning of each class.

Instructional approach

For each class, narrated presentations are available. They are accompanied by readings and guided exercises in order to allow the student to understand the notions and concepts.

Learning steps

In general, the steps of learning consist of:

- Watching the narrated presentation(s)
- Doing the mandatory readings
- Doing the suggested exercises
- Making sure to master the concepts
- Participating actively to the forum
- Supervision strategy

Students are encouraged to ask questions using the forum available for each class. In the case of a more specific problem, students can communicate directly with the teacher by email.

Content and activities

1. Descriptive tools for comparing well-being and poverty

- Space for comparing wellbeing
- Concepts and tools for distributive analysis
 - Ranks
 - Percentiles
 - Cumulative Distribution Function
 - Quantiles Distribution
 - Mean
 - Censored Quantiles Gaps
 - Poverty Gaps
 - Density Histograms
 - Kernel Density

2. Introduction to Stata and DASP

- Introduction to Stata
- Introduction to DASP: a Stata package for distributive analysis
 - See how the information required by DASP is related to important issues in welfare economics;
 - See how to generate tabular and graphical output with DASP

3. Introduction to basic statistical inferences

- Sample design
- Sampling weight
- Statistical inference and hypothesis testing

4. Inequality concepts and measures

- Thinking about inequality
- Measuring inequality
 - Basic axioms
 - Lorenz, Gini and Entropy measures

5. Inequality profiles

- Decomposing inequality by population groups
- Decomposing inequality by income sources
- The Shapley decomposition technique

6. Poverty indices

- Key notions of distribution
- Principles for measuring poverty
- Common poverty indices
- Illustration using Ugandan data

7. Poverty lines

- Relative poverty lines
- Absolute poverty lines
- Subjective poverty lines

8. Decomposing poverty and pro-poor growth and policy

- Decomposing poverty by population groups
- Decomposing the change in poverty into growth and redistribution
- Pro-poor growth and pro-poor policy

9. Poverty impact of policies and growth

- Targeting
- Group targeting
- Impact of growth on poverty
- Targeting by taxation

10. Progressivity of taxes and benefits

- Concentration curves
- Progressivity of taxes and transfers
- Indices of progressivity
- Redistributive Equity
- The Benefit Incidence Analysis

11. Multidimensional Poverty

- Measurement and aggregation issues
- Human Development Index and Human Poverty Index
- Setting
- Index properties
- Other indices: two examples

12. Intra-household allocation and individual poverty

- Unitary VS non-unitary households in welfare analysis;
- Quick overview of the main collective models for welfare analysis (including main testing hypotheses);
- Recent development:
 - Collective model with children;
 - Nuclear VS Complex households;
- Examples:
 - Individual sharing rules;
 - Per adult equivalent VS Individual Poverty;
 - male VS female; adult VS children

Mandatory references

To learn or improve your skills with Stata, we strongly encourage you to read the following:

- [Introduction to Stata](#)
- [Impact evaluation using Stata](#)
- [Impact evaluation using Stata | Wepage](#)
- [Stata Preliminary | Learning Stata](#)
- [Introduction to Stata](#)
- Duclos, J. Y., & Araar, A. (2006). [Poverty and equity: measurement, policy and estimation with DAD](#) (Vol. 2). , Springer Science & Business Media (specific chapters or sections are indicated at the end of each class)
- [DASP](#) download from its website or follow the instructions below, by running (in Stata):
set more off
net from c:/dasp
net install dasp_p1, force
net install dasp_p2, force
net install dasp_p3, force
net install dasp_p4, force

Specific references for each class:

Class 1:

- [Poverty and Equity: Measurement, Policy, and Estimation with DAD](#), chapter 3
- [Guidelines for Constructing Consumption Aggregates for Welfare Analysis](#)

Class 2:

- [DASP : Distributive Analysis Stata Package](#)
- [User Manual DASP version 2.3](#)

Class 3:

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). [Poverty and equity: measurement, policy and estimation with DAD \(Vol. 2\)](#). Springer Science & Business Media, chapter 16

Suggested:

- Haughton, J., & Khandker, S. R. (2009). [Handbook on poverty+ inequality](#). World Bank Publications, pages 84-89 and 374-376
- Ravallion, M. (1992). [Poverty Comparisons—A Guide to Concepts and Methods; Worldbank. Living Standards Measurement Study Working Paper, 88](#), pages 8-12 and 48-50

Class 4:

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). [Poverty and equity: measurement, policy and estimation with DAD \(Vol. 2\)](#). Springer Science & Business Media, sections 4.1, 4.2 and 4.6.1

Suggested:

- Haughton, J., & Khandker, S. R. (2009). [Handbook on poverty+ inequality](#). World Bank Publications, pages 84-89 and 101-108
- Coudouel, A., Hentschel, J. S., & Wodon, Q. T. (2002). [Poverty measurement and analysis. A Sourcebook for poverty reduction strategies, 1](#), pages 46-50.
- Atkinson, A. (1970): "On the Measurement of Inequality," *Journal of Economic Theory*, 2, 244–63.
- Dalton, H. (1920): "The Measurement of the Inequality of Incomes," *The Economic Journal*, 30, 348–61.
- Pigou, A. (1912): *Wealth and welfare*, London: Macmillan.

Class 5

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). [Poverty and equity: measurement, policy and estimation with DAD \(Vol. 2\)](#). Springer Science & Business Media, chapter 4 (sections 4.6.1, 4.6.2)

Suggested:

- Haughton, J., & Khandker, S. R. (2009). [Handbook on poverty+ inequality](#). World Bank Publications, pages 111-115

- Coudouel, A., Hentschel, J. S., & Wodon, Q. T. (2002). *Poverty measurement and analysis. A Sourcebook for poverty reduction strategies, 1*, pages 49-51.
- Lambert, P. J., & Aronson, J. R. (1993). *Inequality decomposition analysis and the Gini coefficient revisited*. *The Economic Journal*, 103(420), 1221-1227.
- Shorrocks, A. F. (1980). *The class of additively decomposable inequality measures*. *Econometrica: Journal of the Econometric Society*, 613-625.
- Shorrocks, A. F. (1982). *Inequality decomposition by factor components*. *Econometrica: Journal of the Econometric Society*, 193-211.
- Shorrocks, A. F. (1984). *Inequality decomposition by population subgroups*. *Econometrica: Journal of the Econometric Society*, 1369-1385.

Class 6

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). *Poverty and equity: measurement, policy and estimation with DAD (Vol. 2)*. Springer Science & Business Media, chapter 5 (sections 5.1.1-5.1.3)
- FOSTER, J., J. GREER, AND E. THORBECKE (1984): "A Class of Decomposable Poverty Measures," *Econometrica*, 52, 761–776.

Suggested:

- Haughton, J., & Khandker, S. R. (2009). *Handbook on poverty+ inequality*. World Bank Publications, chapter 2 and chapter 4 (pages 67-74).

Class 7

Compulsory:

- DUCLOS, J.-Y. AND A. ARAAR (2006): *Poverty and Equity Measurement, Policy, and Estimation with DAD*, Berlin and Ottawa: Springer and IDRC, p. 103-120

Suggested:

- GREER, J. AND E. THORBECKE (1986): "A Methodology for Measuring Food Poverty Applied to Kenya," *Journal of Development Economics*, 24, 59–74.
- PRADHAN, M. AND M. RAVALLION (2000): "Measuring Poverty Using Qualitative Perceptions of Consumption Adequacy," *Review of Economics and Statistics*, 82, 462–71.
- RAVALLION, M. (1998): "Poverty Lines in Theory and Practice," LSMS Working Paper 133, The World Bank.

Class 8

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). *Poverty and equity: measurement, policy and estimation with DAD (Vol. 2)*. Springer Science & Business Media, sections 5.2 and 5.7
- Haughton, J., & Khandker, S. R. (2009). *Handbook on poverty+ inequality*. World Bank Publications, p. 110-111, 162-169
- DATT, G. AND M. RAVALLION (1992): *Growth and Redistribution Components of Changes in Poverty Measures: a Decomposition with Applications to Brazil and India in the 1980's* *Journal of Development Economics*, 38, 275–295.

- RAVALLION, M. AND S. CHEN (2003): “[Measuring Pro-poor Growth](#),” *Economics Letters*, 78, 93–99.

Class 9

Compulsory:

- Duclos, J. Y., & Araar, A. (2007). *Poverty and equity: measurement, policy and estimation with DAD (Vol. 2)*. Springer Science & Business Media, sections 12.1-12.

Suggested:

- BIBI, S. AND J.-Y. DUCLOS (2007): “[Poverty Decreasing Indirect Tax Reforms: Evidence from Tunisia](#),” *International Tax and Public Finance*, 14, 165–190.
- BOURGUIGNON, F. AND G. FIELDS (1997): “[Discontinuous Losses from Poverty, Generalized Pa Measures, and Optimal Transfers to the Poor](#),” *Journal of Public Economics*, 63, 155–175.
- Cornia, G. A., & Stewart, F. (1993). [Two errors of targeting](#). *Journal of International Development*, 5(5), 459-496.
- DUCLOS, J.-Y., P. MAKDISSI, AND Q. WODON (2008): “[Socially- Improving Tax Reforms](#),” *International Economic Review*, 49, 1507– 1539.

Class 10

Compulsory:

- Haughton, J., & Khandker, S. R. (2009). *Handbook on poverty and inequality*. World Bank Publications, chapter 15
- Kakwani, N. C. (1977). "Measurement of Tax Progressivity: An International Comparison". *The Economic Journal*. 87 (345): 71–80
- DUCLOS, J.-Y. AND A. ARAAR (2006): *Poverty and Equity Measurement, Policy, and Estimation with DAD*, Berlin and Ottawa: Springer and IDRC, chapters 7 and 8
- DEMERY, L. (2000): “[Benefit incidence: a practitioner’s guide](#),” Tech. report, Poverty and Social Development Group. Africa Region, The World Bank.
- LANJOUW, P. AND M. RAVALLION (1999): “[Benefit Incidence, Public Spending Reforms, and the Timing of Program Capture](#),” *World Bank Economic Review*, 13, 257–73.

Suggested:

- Davoodi, H. R., Tiongson, E. R., & Asawanuchit, S. (2003). [How useful are benefit incidence analyses of public education and health spending?](#) IMF Working Paper, WP/03/227

Class 11

Compulsory:

- Alkire, S., & Santos, M. E. (2014). [Measuring acute poverty in the developing world: Robustness and scope of the multidimensional poverty index](#). *World Development*, 59, 251-274.
- Anand, S. and A. Sen (1997): “[Concepts of Human Development and Poverty: A Multidimensional Perspective](#)”, United Nations Development Programme, *Poverty and human development: Human development papers* (1997): 1-20, pages 117-127.
- Bourguignon, F. and S. Chakravarty (2003): “[The Measurement of Multidimensional Poverty](#),” *Journal of Economic Inequality*, 1, 25–49

- Duclos, J.-Y. and L. Tiberti (2016), "[Multidimensional poverty indices: A critical assessment](#)", in M.D. Adler and M. Fleurbaey (eds.) *Oxford Handbook of Well-Being and Public Policy*, Oxford University Press

Class 12

Compulsory:

- Dunbar, G. R., Lewbel, A., & Pendakur, K. (2013). Children's resources in collective households: identification, estimation, and an application to child poverty in Malawi. *American Economic Review*, 103(1), 438-71.
- Bargain, O., Lacroix, G., & Tiberti, L. (2018). <https://portal.pep-net.org/document/download/32014>. *Partnership for Economic Policy Working Paper*, (2018-06).
- Lechene, V., Pendakur, K., & Wolf, A. (2020). [OLS estimation of the intra-household distribution of consumption](#). IFS Working Paper W20/6.