

CRP 6490 “Social Indicators: Theory and Applications”.

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Course Description:

This course is intended for those interested in using quantitative social indicators in their empirical research in the social sciences. Currently, many empirical studies in the social sciences rely, at some level, on quantitative information that can be summarized using social indicators. In many papers, reports or presentations, it is precisely the values and behavior of these indicators that are used to give empirical rigorous support to the corresponding claims. However, and despite their usefulness as powerful tools, social indicators are sometimes used inappropriately, hence the importance of understanding their advantages and limitations. Given the overwhelming reliance on indicators for measuring progress, directing policy and allocating resources, this course will be especially relevant for students in development studies, planning, economics, and the social sciences in general.

The course will examine the construction of indicators in different areas of the social sciences. Topics will include (but are not limited to): poverty and social mobility, inequality and polarization, literacy, United Nations Development Programme indices, gender inequality, human rights and, more generally, the analysis of composite indices on different areas (Environmental Sustainability Index, Corruption Perception Index, Freedom Index, and so on).

Prerequisites:

Students should have some knowledge of basic statistics (descriptive statistics, statistical inference, confidence intervals, hypothesis testing, probability distributions) and some notions of basic mathematical analysis in a single variable (functions of a single real variable, definition, domain, graph, continuity, derivative, maxima and minima, optimization). Math-averse students should be aware that the course might be somewhat technical in certain parts: even if these technicalities are not a goal in itself, they are extremely useful for the rigorous and sound analysis of social indicators.

Course Requirements and Evaluation:

Paper reports: 50%

Each week you will have to write a brief summary of a paper with your own thoughts on a selected topic and the answers to some questions. Lectures on different topics will be given Thursdays. The following Tuesdays there will be a class debate and discussion on some of the issues raised in the assigned papers.

Final Project/Paper: 50%

At the end of the semester you will have to write and present a paper incorporating the issues raised in the course.

There is no curve in this course, so you are not competing against your classmates.

Academic Integrity. Cornell's Code of Academic Integrity will be strictly enforced. The discussion of course materials with your classmates outside of class is strongly encouraged. However, the written work you turn in and the oral presentations you make must be entirely your own. A violation of the code of academic integrity will result in a failing course grade.

Tentative Course Schedule:

Except for the first two weeks, discussions will be held on Tuesdays and lectures on Thursdays. This will give you enough time to prepare your assignments. The following is a tentative calendar for the Thursday course lectures (the corresponding debate sessions will be held the following Tuesdays).

Week 1

First class. General Introduction. August 27th

Week 2.

Second class. Lecture on: *Measurement*. September 1st

Third class. Lecture on: *The measurement of poverty* (I). September 3rd

Paper to read & discuss:

Zheng, B. (1997), "Aggregate Poverty Measures", *Journal of Economic Surveys*, Vol. 11, issue 2, pp. 123-162.

Sen, A. (1976), "An Ordinal Approach to Measurement", *Econometrica*, Vol. 44, No. 2, pp. 219-231.

Week 3. Topic: *The measurement of inequality and polarization*. September 10th

Paper to read & discuss:

Duclos, J-Y, Esteban J. and D. Ray (2004), "Polarization: Concepts, Measurement, Estimation", *Econometrica*, 72, 1737-72.

Montalvo, J.G., and M. Reynal-Querol (2005), "Ethnic polarization, potential conflict and civil wars", *American Economic Review*, 95, pp. 796-815.

Week 4. Topic: *The measurement of literacy*. September 17th

Paper to read & discuss:

Basu, K. and Foster, J. (1998), "On measuring literacy", *Economic Journal*, Vol 108, No. 451, pp. 1733-1749.

Dutta, I. (2004), "Generalized measures of literacy", *Mathematical Social Sciences*, 48, pp. 69-80.

Denny, K. (2002), "New methods for comparing literacy across populations: insights from the measurement of poverty", *Journal of the Royal Statistical Society, Series A*, Vol 165, Part 3, pp. 481-493.

Week 5. Topic: *General introduction to Composite Indicators*. September 24th

Paper to read & discuss:

Booyesen, F. (2002), "An Overview and Evaluation of Composite Indices of Development", *Social Indicators Research*, Vol. 59, pp. 115-151.

Week 6. Topic: *The Capability Approach and the Human Development Index (I)*. October 1st

Paper to read & discuss:

McGillivray, M. (1991), "The Human Development Index: Yet Another Redundant Composite Development Indicator?", *World Development*, vol. 19(10), pp. 1461-1468.

Chakravarty, S. and Majumder, A. (2008), "Millennium Development Goals: Measuring Progress towards their achievement", *Journal of Human Development and Capabilities*, Vol. 9, No. 1, pp. 109-129.

Week 7. Guest Lecture on October 8th(TBA).

Week 8. Topic: *The Human Development Index (II) and other UNDP indices*. October 15th.

Paper to read & discuss:

James E. Foster, Luis F. Lopez-Calva, Miguel Szekely (2005), "Measuring the Distribution of Human Development: methodology and an application to Mexico", *Journal of Human Development and Capabilities*, Vol. 6, Issue 1, pp. 5-25.

Dutta, I., Pattanaik, P. and Xu, Y. (2003), "On measuring multi-dimensional deprivation on the basis of aggregate data", *Economica*, Vol. 70, pp. 197-221.

Week 9. Topic: *The measurement of Poverty and inequality (II)*. October 22nd

Papers to read & discuss:

Bourguignon, F. and Chakravarty, S. (2003), "The Measurement of Multidimensional Poverty", *Journal of Economic Inequality*, Vol. 1, pp. 25-49.

Alkire, S. and Foster, J. (2008), "Counting and Multidimensional Poverty Measurement", OPHI Working Paper 7, Oxford.

Week 10. Topic: *The measurement of Gender inequality*. October 29th

Papers to read & discuss:

Schüler, Dana (2006), "The uses and misuses of the Gender-related Development Index and Gender Empowerment Measure: A Review of the literature", *Journal of Human Development*, 7(2), pp.161-181.

Bardhan, Kalpana & Klasen, Stephan (1999) "UNDP's Gender-Related Indices: A Critical Review", *World Development* 27(6), pp.985-1010.

Dijkstra, A. Geske & Hanmer, Lucia C. (2000), "Measuring socio-economic gender inequality, towards an alternative to the UNDP Gender-Related Development Index", *Feminist Economics* 6(2), pp.41-75.

Dijkstra, A. Geske (2002), "Revisiting UNDP's GDI and GEM: Towards an alternative", *Social Indicators Research* 57, pp.301-338.

Permanyer, I. (2009a), "The Measurement of Multidimensional Gender Inequality: Continuing the Debate", *Social Indicators Research*, March 2009.

Week 11. Topic: *The Measurement of Human Rights*. November 5th

Papers to read & discuss:

Apodaca, C. (1998), "Measuring women's economic and social rights achievement", *Human Rights Quarterly*, Vol. 20, No.1, pp. 139-172.

Landman, T. (2004), "Measuring Human Rights: Principle, Practice and Policy", *Human Rights Quarterly*, Vol. 26, pp. 906-931.

Poe, S., Wendel-Blunt, D. and Ho, K. (1997), "Global patterns in the achievement of women's human rights to equality", *Human Rights Quarterly*, Vol. 19, No. 4, pp. 813-835.

Week 12. Topic: *Sensitivity and uncertainty analysis*. November 12th

Papers to read & discuss:

Chowdhury, S. and Squire, L. (2006), "Setting weights for aggregate indices: An application to the commitment to development index and human development index", *The Journal of Development Studies*, 42 (5), pp. 761-771.

Foster, J., McGillivray, M. and Seth, S. (2009), "Rank Robustness of Composite Indices" OPHI Working Paper 26, Oxford.

Saisana, M., Saltelli, A. and 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, pp. 1-17.

Week 13. Topic: *Presentation and dissemination of results.* November 19th

Weeks 14 & 15. *Student presentation of final papers.* November 24th, December 1st and 3rd.

Office Hours. Wednesdays 10am-12am.