



Dear Colleagues,

After the success of the previous seven tutorials, this current year, 2007, we have the pleasure to announce one more by Professor D.S. Prasada Rao, *School of Economics and Director, Centre for Efficiency and Productivity Analysis, University of Queensland, Brisbane, Australia*, entitled INDEX NUMBER METHODS FOR SPATIAL, REGIONAL AND CROSS-COUNTRY COMPARISONS OF PRICES, REAL OUTPUT AND INCOME, AND PRODUCTIVITY. The tutorial will take place from Thursday, September 6th to Friday, September 7th, 2007 in the Modernist building *Casa de la Convalescència*, of *The University Autònoma of Barcelona*, Spain (<http://www.fundaciouab.com/CAT/int10.html>). The tutorial is free of registration fees and with a limited number of places. It is organized in 3 - 4 hours of lectures in the morning and questions, discussions and individual advice in the afternoon for two consecutive days.

Abstract

The main objective of the Tutorial is to equip the participants with the latest index number techniques used in spatial comparisons of prices, output and productivity and provide them with working knowledge of these methods through the use of illustrative empirical applications. While the index numbers used in temporal price comparisons such as the compilation of the consumer price index are familiar and commonly known, little is known about the important problem of undertaking spatial price comparisons. These methods can be used for purposes of comparing price level differences across different geographical regions within a country and countries within a region or the world as a whole. These methods are also typically applicable for comparisons of real output and productivity. Spatial price comparisons play a crucial role in the assessment of regional or provincial inequality within a country.

The Tutorial will focus mainly on the methodological issues focusing on the special analytical requirements associated with spatial price comparison and different types of various index number methods available for the purpose of spatial comparisons. Illustrative examples with empirical applications of the methods discussed will be used to supplement the analytical material.

Topics for the Tutorial

A Review of Basic Index Number Methods – Axiomatic, economic theoretic and stochastic approaches to the construction of index numbers. Review of formulae commonly used in binary temporal comparisons of prices; *Spatial/Multilateral Price Comparisons* – Transitivity and Base Invariance requirements for spatial price index numbers and implications for the development of index number methods; and the concept of purchasing power parity (PPP)

exchange rates for currency conversion; *Multilateral index number methods* derived from binary index numbers like the Fisher and Tornqvist index numbers; EKS (Elteto-Koves-Szulc) method for spatial comparisons and its properties; Similarity indexes and the construction of weighted EKS index numbers; *Spatial comparisons based on a common price structure* and the property of additive consistency – the Geary-Khamis method and its properties; its variants including the Rao, Ikle and Neary methods for regional price comparisons; *Stochastic approach to spatial price comparisons* – the CPD (country-product-dummy) method and the weighted CPD methods; stochastic approach and computation of standard errors for PPPs and price index numbers; *Spanning Trees and spatial price comparisons* – the concept of spatial linking; use of minimum spanning trees; measuring distance/reliability of binary comparisons; use of similarity measures; *Multilateral comparisons and the measurement of efficiency* and productivity - analytical issues and applications; *A review of various empirical applications* of multilateral index number methods to the measurement of real output and productivity in agriculture, manufacturing and selected service sector industries.

About Professor Prasada Rao: Professor Rao is internationally recognized for his work on index number methods for international comparisons of prices, output and productivity. Over the last three decades he has worked on new methods and refining existing methods for price comparisons. He has made significant contributions through his work on the stochastic approach to the construction of index numbers. He has also undertaken several large scale research projects for various international organizations including the Food and Agricultural Organisation of the United Nations, World Bank, the Asian and African Development Banks and the International Labour Organisation. His research interests include productivity and efficiency measurement, modeling income distributions, measurement of inequality and poverty, health and mortality inequality, and applied econometrics in general. Currently, Professor Rao is an Associate Editor of the Journal of Productivity Analysis and is a member of the editorial board of the Review of Income and Wealth. He is also a member of the Poverty and Technical Advisory Groups for the International Comparison Program – 2005 at the World Bank.

If you would like to come or if you require further information about the tutorial, please do not hesitate to contact me.

E. Grifell – Tatjé

Additional information about the tutorial:

E. Grifell–Tatjé. *Business Efficiency and Competitiveness Group (BECG)*.
Department of Business Economics. Universitat Autònoma de
Barcelona. Edifici B. 08193 Bellaterra, Barcelona, Spain.

tutorial.inefficiency@uab.es

Fax: (34) 93 – 581 2555

See page: <http://selene.uab.es/dep-economia-empresa/BECGroup/tutorials.htm>

Previous Tutorials:

Professor Bert M. Balk, *Statistics Netherlands*. “Industrial Price, Quantity, and Productivity Indices: The Micro-Economic theory and an Application,” on February 25th and 26th, 1999.

Professor Peter Bogetoft, *The Royal Veterinary and Agricultural University, Copenhagen, Denmark*. “Incentives and Efficiency Evaluations,” on March 29th to March 31st, 2000.

Professors Rolf Färe and Shawna Grosskopf, *Department of Economics and Department of Agricultural and Resource Economics, Oregon State University (USA)*. “Efficiency and Duality, with Applications to Aggregation and Environmental Performance,” on June 1st and 2nd, 2001.

Professor C.A.K. Lovell, *Terry Business School, University of Georgia (USA)*. “Malmquist, Fisher and Törnqvist Productivity Indexes,” on May 9th and 10th, 2003.

Professor Tim Coelli, *Centre for Efficiency and Productivity Analysis (CEPA), School of Economics, University of Queensland (Australia)*. “Econometric Estimation of Distance Functions: with Application to Price Regulation in Infrastructure Industries,” on September 22^{sd} and 23rd, 2004.

Professor Erwin Diewert, *Department of Economics, The University of British Columbia (Canada)*, entitled: “The Measurement of Business Income, Capital and Performance,” on September 21st and 22nd, 2005.

Professor Paul W. Wilson, *Department of Economics at Clemson University, South Carolina, USA*, entitled: “Bootstrap Methods for Inference about Efficiency,” on November 9th and 10th, 2006.