

Cambridge University Press

978-0-521-13100-1 - Analysis of Panels and Limited Dependent Variable Models

Edited by Cheng Hsiao, Kajal Lahiri, Lung-Fei Lee, and M. Hashem Pesaran

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## **Analysis of panels and limited dependent variable models**

This important collection brings together leading econometricians to discuss recent advances in the areas of the econometrics of panel data, limited dependent variable models, and limited dependent variable models with panel data.

The chapters in this collection can be grouped into two broad categories. The chapters by Amemiya; Arellano, Bover, and Labeaga; Geweke and Keane; Lee; and El-Gamal and Grether primarily deal with different aspects of limited dependent variable models and sample selectivity. The second group of chapters, by Nerlove; Ahn and Schmidt; Kiviet; Davies and Lahiri; Baillie and Baltagi; Hsiao, Pesaran, and Tahmiscioglu; and Pesaran and Zhao, consider issues that arise in estimation of dynamic (possibly) heterogeneous panel data models.

Overall, the contributors focus on the issues of simplifying complex real world phenomena into easily generalizable inferences from individual outcomes. As the contributions of G.S. Maddala in the fields of limited dependent variables and panel data have been particularly influential, it is a fitting tribute that this volume is dedicated to him.

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In honour of G.S. Maddala

Edited by

CHENG HSIAO, KAJAL LAHIRI,

LUNG-FEI LEE, AND

M. HASHEM PESARAN



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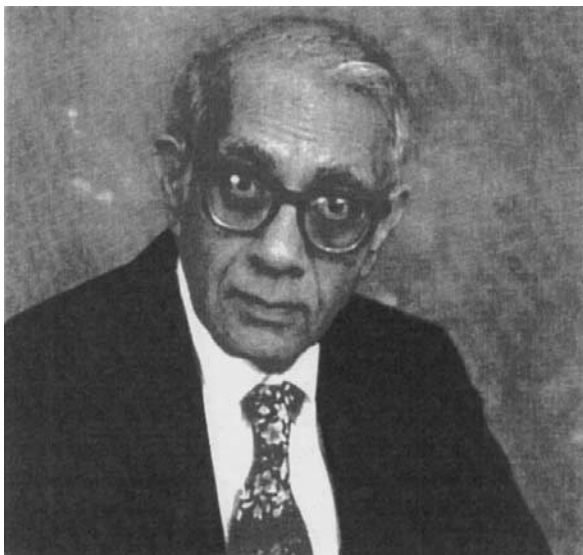
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[More information](#)**G.S. Maddala, 1933–1999**

On June 4, 1999 G.S. Maddala (universally known as “G.S.”) passed away in Columbus, Ohio just a few months before this *Festschrift* could come out. We had hoped very much to dedicate this volume to him in person, but this was not to be. At the time of his death, G.S. held the University Eminent Scholar Professorship in the Department of Economics at Ohio State University. He is survived by his wife Kameswari, “Kay”, and several members of his immediate family: his daughter, Tara, and his son, Vivek, both of San Francisco; and two sisters who live in India.

The curriculum vita that is appended at the end of this volume traces G.S.’s long and productive career, and his research contributions. In an interview conducted a month before his death (*Econometric Theory*, Vol 15, 1999, pp. 753–776), G.S. discussed the influences that shaped his academic life and work, and the salient features of his philosophy. The readers will be happy to know that his colleagues at the Ohio State University have launched a University endowed G.S. Maddala Memorial Lecture Series, and an Award to an outstanding econometrics graduate student. Also, the proceedings of the 2nd Workshop on Applied Bayesian Methods in Econometrics and Forecasting recently held at the Indian Statistical Institute, Bangalore have been dedicated in honour and memory of him. G.S.’s family have donated his personal collections of books and journals to the economics department of Andhra University (India), which has dedicated a part of their library to his memory.

With a deep sense of loss we also note the death of Zvi Griliches, the Paul M. Warburg Professor of Economics at Harvard University, on November 4, 1999. Zvi was G.S.’s mentor at the University of Chicago in the early 60s, and very kindly wrote an affectionate “Foreword” to this volume.

We are delighted to see that the *Festschrift* is being reprinted within a year of its first publication, reflecting the significant interest in G.S.’s work and legacy that exists in the economics profession today.

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## Foreword

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GS [G.S. Maddala] came to Chicago with a very strong statistical background (a BA in Mathematics from Andhra University and an MA in Statistics from Bombay University) and immediately impressed everyone who came into contact with him. When he showed up in my econometrics class it was clear that here was somebody from whom I could learn. A teacher is lucky when that happens. His first published paper (*Econometrica*, 1962) on the quarterly consumption function came out of this class. It was joint work with Robert Lucas, Neil Wallace, and myself. Not bad company.

At Chicago, we tried to convert GS to empirical work. He did a first-rate dissertation on “Productivity and Technological Change in the Bituminous Coal Industry” (*Journal of Political Economy*, 1965) and a pioneering study of international diffusion of new steel making techniques (*Economic Journal*, 1967). But whether it was the profession’s cool reception to empirical work in general or the pull of his first love, almost all of his subsequent work has been in econometric methodology, where he has been both an innovator and a great expositor and synthesizer. He has worked in almost all areas of econometrics: distributed lags, generalized least squares, panel data, simultaneous equations, errors in variables, tests of significance, switching and market disequilibrium models, qualitative and limited dependent variable models, selection and self-selection biases, exact small sample distributions of estimators, outliers and bootstrap methods, Bayesian econometrics, and more. A veritable textbook of econometrics, which he proceeded to write most successfully in several versions. Nor was it all just pure methodology. Substantive issues were also examined: estimates of liquid asset demands, functional forms for income distributions and production functions, returns to education and discrimination in loan markets, the meaning of rationality in expectations, and issues in the estimation of rational expectations models. All of his papers are serious papers where an effort is made to grapple with substantive and important questions.



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Through his textbooks and the book on limited and dependent qualitative variables and his many students, he became the preeminent teacher of econometrics in this country and an authority on almost every question that he touched. His influence has been widely felt. He is one of the “fathers” of modern panel data analysis (together with Yair Mundlak and Marc Nerlove) and he was one of the early proponents of Bayesian techniques in econometrics. And he is probably the most widely cited econometrician today. At least, he is cited more times (325 and 348) in the years that I examined the Social Sciences Citation Index (1994 and 1996) than each of the six econometricians who won the Clark Medal during the last 30 years or so. True, his citations are heavily concentrated (146 to the Limited Dependent Variables book, 43 to the Introduction to Econometrics, and 47 to the Variance Components Pooling of Cross-Section and Time-Series Data paper), but even if one were to exclude the book citations, he is still being cited at about the same rate as the median Clark medalist. Quite an achievement and a testimony to his influence.

GS has an unassuming and quiet way. But he also has something that is close to perfect pitch in econometrics: when he sees work that is “off,” that strikes somehow the wrong note, it bothers him, and his irritation often produces pearls of papers. While much of his work is constructive, much is also critical of many current fads in econometrics. In this he reminds me of a story told about Morris Cohen, the City College philosopher who was accused of being too critical and not constructive enough. Cohen replied: “I am a plumber, I unstop toilets.” That is also a very important contribution. A contribution which may not have been appreciated enough. For many years GS toiled on the periphery of the academic circus. The recognition of his contributions reflected by this volume is, therefore, both overdue and most welcome. It could not have happened to a nicer guy.

*Zvi Griliches*  
*Harvard University*