



# IBER Bulletin

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## Daniel McFadden Wins Nobel Prize in Economics

Daniel L. McFadden, Director of IBER's Econometrics Laboratory and the E. Morris Cox Professor of Economics, has been awarded the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel. McFadden, 63, shares the award with James J. Heckman of

the University of Chicago.

The Nobel Prize announcement cited McFadden for having developed theory and methods that are widely used in the statistical analysis of individual and household behavior, within economics as well as other social sciences. In particular, he was cited for his "development of theory and methods for analyzing discrete choice."

Micro data—economic information about large groups of individuals, households, or firms—and increasingly powerful computers have enabled empirical studies of many new issues. For example, what determines whether an individual decides to work and, if so, how many hours? How do economic incentives affect choices

of education, occupation, and place of residence? What are the effects of different educational programs on income and employment? Methods developed by McFadden have resolved fundamental problems that arise in the statistical analysis of micro data, and such methods are now standard tools, not only among economists but also among other social scientists.

Micro data often reflect discrete choice. For instance, data regarding individuals' occupation or place of residence reflect choices they have made among a limited number of alternatives. Prior to McFadden's contributions, empirical studies of such choices lacked a foundation in economic theory. A new theory of discrete choice and the statistical methods developed by McFadden have transformed empirical research. His methods have been used to evaluate changes in communication systems and have been applied in McFadden's own work on the design of the San Francisco BART system, as well as investments in phone service and housing for the elderly.

For further information on McFadden's award, his research, and the Econometrics Laboratory, see the IBER web page at <http://haas.berkeley.edu/groups/iber/>

### Wow! Congratulations From IBER's Director

Berkeley's own Dan McFadden has just won the 2000 Nobel Memorial Prize in Economic Science, a prize he shares with University of Chicago economist James Heckman. McFadden's path-breaking work has truly opened up entire fields of study, allowing researchers to better model and study the factors underlying a wide range of important choices. His work has allowed researchers to go well beyond traditional continuous choices, such as the choice of how many gallons of gas to buy, to larger, discrete choices, such as which model car to buy or where to build a new highway.

While the world now knows McFadden for his pioneering research in econometrics, we at IBER also know Dan as Director of IBER's Econometrics Laboratory. Indeed, a decade of economics students at Berkeley owe the very existence of the Econometrics Laboratory to McFadden, who established the Lab after he returned to Berkeley from M.I.T. in 1990. Dan's leadership of the Econometrics Laboratory reflects his deep commitment to serious empirical work, to top-flight instruction, and to hands-on learning. Furthermore, McFadden's recent research on using the Internet to improve survey methods demonstrates how the Lab's facilities can be used effectively, illustrates Dan's knack for exploiting advances in computing technology to conduct empirical research and is a reminder of his ability to identify and pursue new and creative research questions.

On a more personal note, I have had the pleasure of knowing Dan McFadden for over twenty years, back to when I was a student and Dan was on the faculty at M.I.T. I have never forgotten his quiet precision, nor his obvious concern for students' well being. IBER and the Econometrics Lab are blessed to have Dan McFadden as a colleague and mentor. Please join me in congratulating Dan on this well-deserved recognition.

*Carl Shapiro*