Berkeley professor's predictions

of behavior honored

MCFADDEN'S METHODS FOCUS ON HUMAN CHOICE, HELPED DESIGN BART

By Becky Bartindale and Lisa Fernandez
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Fourteen frenzied hours after the fateful phone call from Stockholm, Daniel McFadden was back in front of a University of California-Berkeley blackboard Wednesday, a newly minted Nobel Prize winner down to the business of teaching graduate students the economic models that had just earned him the top prize in his field.

Quiet, self-effacing, even a little shy, McFadden was honored by the Royal Swedish Academy of Sciences for his pioneering work in microeconometrics, a field he helped transform over four decades by developing better ways to predict how people make life choices.

He will share the $915,000 prize in economics with University of Chicago economist James Heckman, who is best known for his studies of labor patterns.

Nobel Day for McFadden began at 2:30 a.m. with a phone call from Sweden, which quickly had his wife, Beverlee Tito Simboli, jumping on the bed.

"I wouldn't have put my chances of winning this prize at zero," admitted McFadden, 63. "But I was shocked."

By 4 a.m., there were four TV vans lined up outside the McFadden home in the Berkeley hills, and the media deluge continued throughout the day. By 8 a.m., he'd received more than 100 congratulatory e-mail messages and was still trying to reply to them. He rolled his bright-blue eyes when colleagues gave him a standing ovation at a morning campus press conference. It was followed by an afternoon reception.

McFadden was back to work at 4 p.m., teaching a small advanced econometrics seminar.

He spent the evening celebrating with his family at the chic Baywolf Restaurant in Oakland.

"It was always clear to me that my dad seemed like a genius," said his son, Ray, the youngest of three children and director of product marketing at Excite@Home. "He'd always be thinking."

As a change of pace from university life, the McFaddens often retreat to their small farm on Napa Valley's Silverado Trail. There they grow figs, olives and grapes, and often entertain friends.

"I can go to work in the vineyard and think about my problems more effectively than sitting at my desk," McFadden said.

For his colleagues across the country, McFadden's Nobel Prize honor comes as no surprise; the only question had been when it would happen.

McFadden is a unusual because he has contributed to economic theory and econometrics, both theoretical and applied, in a field known for narrow niches.

"He fits the image of a Renaissance man in economics better than anyone I can think of," said Paul Rudd, a former graduate student who now is also an economics professor at Berkeley.

McFadden is the 17th Berkeley professor to win a Nobel since 1939, and the third in economics.

Berkeley Chancellor Robert Berdahl praised McFadden for doing work that is "squarely in the service of society, helping us to understand many of society's complex challenges."

Perhaps even more important than the Nobel Prize, Berdahl joked, McFadden will now get a lifetime parking space.

McFadden grew up on a farm in North Carolina, where his family had lived through the Depression. They

didn't have much money and McFadden recalls that reading was the family's favorite pastime. He left home at age 16 to study physics at the University of Minnesota.

McFadden stumbled into the work that earned him the Nobel Prize very early in his academic career. In 1964, he was working with a graduate student who was collecting data on how California picked one freeway route over another. He helped develop an analytical technique she could use for her thesis.

"At the time, I thought it was an attempt to do something that fit the problem," he said, with no inkling that it would shape the rest of his academic career.

One of the first important practical applications of his work came in the early 1970s when the Bay Area was looking at building a subway line. Funded by a National Science Foundation grant, McFadden tested his new techniques to forecast demand for what would later become BART. By all accounts, his ridership projections were accurate.

The method, blending behavioral models with statistical analysis, turned out to be much more accurate than those used at the time.

The work of McFadden and Heckman have given social scientists tools to predict how people decide everything from when to get married and how many children to have to when to keep or sell a house or what occupation to pursue. Their methods are widely used in government to shape environmental, energy and transportation policy, and are increasingly used by business to decide what new products to release.

Heckman, a Chicago native, was in Brazil to present a paper on the relationship between government policy and unemployment. He and McFadden have been friends for three decades. They've exchanged ideas often but never worked on any joint papers.

McFadden spent much of his early career at Berkeley but was lured away by the Massachusetts Institute of Technology for 14 years. Even as a young researcher, McFadden was never predictable, remembers John Rust, a Yale University economics professor who was a graduate student of his at MIT.

"He is always working in so many areas, making fundamental breakthroughs," Rust said. "He is doing state-of-the-art statistical work, but his work is very relative to real problems."

A highly personal view comes from Grace Katagira, who runs Berkeley's Econometrics Laboratory and has worked with McFadden for 30 years. The lab, a computational facility with two dozen Sun Microsystems workstations, was established as a condition of McFadden's return to Berkeley from MIT in 1990 after a decade of courting by Cal.

McFadden is a great teacher and mentor who is skilled at helping people

Nobel Prize in economics

U.S. economists James Heckman and Daniel McFadden won the prize for developing theory and methods of statistical analysis of individual and household behavior.

McFadden
He contributed key insights to econometrics.

Heckman
He studies labor patterns at University of Chicago.

grow and meet their potential, said Katagira, who began her career as McFadden's administrative assistant, where she expected to stay. But she was promoted through the ranks as he delegated more and more to her and helped her struggle through advanced math classes. "He doesn't say much, but he challenges you," Katagira said.

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