## THE PROFESSION

## **Economists and the Real World**

BY TIM SABLIK

ow important is it for economists to gain real experience with the markets they study in theory? Many of the founders of the discipline held other jobs before becoming professors. Nineteenth century French economist Léon Walras, who developed general equilibrium theory, worked as a journalist, novelist, railroad clerk, and bank director before becoming a professor at the age of 36. William Stanley Jevons, the 19th century British economist who helped develop the theory of marginal utility, initially studied the physical sciences and spent five years as a metallurgical assayer in Australia.

For much of the modern era, however, the careers of economists have seemed to stay close to the ivory tower of academia. Although hard data is limited, the typical path for a research economist appears to go from college straight into doctoral study with little or no experience outside the profession along the way. And according to a 2013 Inomics survey, employers of economists in the United States and Canada said that of nine factors in the selection of a job candidate, "experience in the private sector" was by far the least important.

Some critics have argued that such isolation from the real world is a cause for concern. For example, many claimed that economists failed to predict the 2007-2008 financial crisis because their models had become too detached from the way real financial markets operate.

But that image of academic isolation may not be wholly accurate today. Many academic economists have begun collaborating more actively with private firms and public institutions. This practice has become common in the discipline of market design, for example. Robert Wilson of Stanford University helped design auctions for the oil, communications, and power industries. Along with his former student Paul Milgrom of Stanford University and with Preston McAfee, who is now the chief economist at Microsoft, Wilson received the 2014 Golden Goose Award for designing the first spectrum auctions used by the Federal Communications Commission in 1994. Alvin Roth of Stanford University and co-winner of the 2012 Nobel Prize in economics collaborated with public schools in New York City and Boston to design algorithms to improve student placement in preferred schools and with doctors to arrange kidney transplant exchanges between pairs of donors and recipients.

"Market design is a team sport," Roth said in his Nobel acceptance speech. "And it is a team sport in which it is hard to tell who are theorists or practitioners because it blurs those lines."

Susan Athey of Stanford University says that it is "not an accident" that economists studying market design and industrial organization have collaborated heavily with realworld firms and institutions. "If you're trying to solve a real problem, you need to understand the full set of constraints to propose the best solution," she says. Her role as a consultant for Microsoft has influenced her research on Internet markets, such as online advertising.

Still, the choice to work in or collaborate with the private sector is not without downsides. Stints in the private sector, while providing valuable experience, can delay an economist's publication of papers, hampering his or her progress as a researcher. And economists who do publish research based on their private-sector work or collaboration can find themselves criticized for bias. Luigi Zingales of the University of Chicago has argued that economists who work with private firms face the same pressures and risk of "capture" as regulators. Since obtaining proprietary data often means establishing a good rapport with the firms that hold those data, economists may be more inclined to evaluate such firms favorably in their research.

This criticism was also levied against some financial economists following the 2007-2008 crisis. Athey says that for this reason, it has generally been easier for microeconomists studying questions unrelated to public policy to collaborate with industry. But even those economists can face stigma from their academic peers. "I got the impression that many of my peers thought I was selling out," she says. "They couldn't really understand why I was so confident my work with Microsoft was going to come back and improve my research."

Today, many of the leading empirical studies rely on large datasets collected by firms and government agencies. As a result, more economists seem willing to risk some criticism to obtain access to these data. In a 2014 article in *Science* magazine, Liran Einav and Jonathan Levin of Stanford University reported that 46 percent of papers published in the *American Economic Review* in 2014 relied on private or non-public administrative datasets, compared with just 8 percent in 2006.

"I think the profession is starting to normalize the idea of working with a firm to get access to data," says Athey. "Increasingly, people are recognizing that without this private sector data, we're just not going to be able to get a complete picture of trends which could end up being very important to the economy."

Such collaboration has helped enable research on consumer behavior, economic mobility, and high-frequency trading, among other topics. While most academic economists may never hold jobs in other fields, as Jevons and Walras did, collaboration with firms is increasingly bringing the real world into economic research.