Experimenting in Economics
Hands-on learning environment is popular with students and instructors

By Melody Galen

Ron Harstad, J. Rhoads Foster Professor in the Economics of Regulated Industries, has been experimenting on his students. With his students. That is to say — students in his large microprinciples of economics classes do lab experiments at the end of the week rather than having a recitation class and rehashing what they’d learned earlier.

Computer technology makes it possible to teach difficult-to-grasp economics principles in a more concrete way, and Harstad is taking advantage of that with larger classes than ever before. For 30 years he has been involved with the research side of laboratory economics, studying whether economic theories are correct. Recently he tried using computer experiments with his 500-student classes, when previously such teaching methods had only been used with much smaller classes — maybe 12 people.

“These labs are getting higher attendance than recitations, and the teaching assistants like doing them more. This is a more hands-on approach,” Harstad says. “They’re taking part in carefully designed economies that show them what they’re learning.”

Generally, the students do experiments that have been well studied for research purposes, and the expected outcome is known. The difference here is that Harstad is using 500 people. He and his teaching assistants began trying this method in spring 2005 using pencil-and-paper experiments, then in spring 2007 they tried using computer labs for their work. Two things are happening: economists can see whether real people’s behavior is consistent with theory, and they’re expanding the teaching experience.

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The left panel shows, trade by trade, the prices at which a student acting as a buyer bought from one acting as a seller. The right panel compiles the values buyers were willing to pay and costs sellers had to incur. While no student knew this information, the right panel yields the “supply and demand” prediction that about 30 trades will occur at a price of $5. Over time, the actual trades come close.
It has been several years since the department's last newsletter. This issue is dedicated to reconnecting with friends and alumni by updating you on the many exciting changes that have swept through the department. We want to hear from you as well and hope you will write or e-mail us with your current activities.

Perhaps the most significant change this year is the faculty. Relatively recent retirements include Charles Geiss, Whitney Hicks, Walter Johnson, Maw Lin Lee, David Loschky, Carmen Menezes, Don Schilling and Richard Wallace. These longtime standard-bearers are greatly missed and, indeed, the department continues to rely on Carmen to teach the mathematical reasoning proficiency version of introductory microeconomics, Don to help administer the undergraduate programs and Richard to maintain contact with friends and alumni. More than half of the current 21 full-time faculty members joined the department in the past five years. These new faculty members are conducting path-breaking research and excellent teaching. Please take a few minutes to learn about them in the Meet the Faculty section.

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Meet the Faculty

Saku Aura received bachelor’s and master’s degrees in economics from the University of Helsinki and a doctorate from the Massachusetts Institute of Technology in 2001. His research focuses on applied microeconomics and public economics. Recently he has worked on topics relating to taxation of land and real estate, household decision making, inducing security, and law and tax theory. His work has been published in prominent academic journals including The American Economic Review and the Journal of Public Economics.

Emek Basker received a bachelor’s degree from the University of North Carolina in 1996 and a doctorate from the Massachusetts Institute of Technology in 2002. Her research has focused on the economics of the retail sector, in particular the causes and consequences of the growth of the “big box” retail format. Her papers examining the causes and consequences of Wal-Mart’s growth have been published in several refereed journals and most recently in the summer 2007 issue of the Journal of Economic Perspectives. Basker’s research on Wal-Mart has also been widely cited in the popular press, including in the Economist, Business Week, Newsweek, the Wall Street Journal, The New York Times and The Wall Street Journal.

Chao Gu received a doctorate from Cornell University in 2007. Her research interests are macroeconomics, money and banking and economic theory.

Ron Harstad joined the department in 2004 as the J. Rhoads Foster Professor in the Economics of Regulated Industries. Harstad’s study of auctions fits modern regulatory concerns; his research has focused on the flow and discerning of information during auctions when bidders behave strategically. His work has been published in such prestigious journals as the Journal of Money, Credit, and Banking; The Review of Economics and Statistics; the International Economic Review; and the Review of Economic Dynamics.

Corey Koedel received a doctorate in economics from the University of California, San Diego, in 2007. His research interests include the economics of education and labor economics. Koedel recently co-wrote a book Does School Choice Work? Effects on Integration and Achievement, which evaluates the effects of school choice on student outcomes. His current work focuses on teacher value-added assessments and the measurement of teacher quality. In 2005, he received the Spencer Foundation’s prestigious dissertation fellowship.

Myoung Lee is a teaching assistant professor and serves as the director of undergraduate studies in the department. She received a doctorate in economics in 2003 at MU. Her research areas include post-secondary educational policy and its labor market impacts, health policy and tourism economics. She has presented her research in several journal articles on applications of these tools to economic research problems. She teaches graduate and undergraduate microeconomics as well as undergraduate microeconomics. Lee received a doctorate at the University of California, Berkeley, and is beginning his third year at MU. He was awarded an honorable mention of the 2006 International Scientific Advisory Committee for the Third International Conference on Computational Finance.

J. Isaac Miller joined the department in 2005 after completing a doctorate at Rice University. He specializes in time series econometrics. Research interests include cointegration regressions with messy regressors, linear and nonlinear filtering of latent integrated processes, and panel vector autoregressions with cointegrated processes.

Jeffrey Miltyo earned a doctorate from Stanford University in 1994 and holds an appointment in the Department of Economics and the Truman School of Public Affairs. He arrived at Mizzou in 2004 and became a full professor in 2007. He is also a senior research fellow at the Cato Institute in Washington, D.C. Miltyo studies the effects of regulatory and political institutions, recent work has examined the effects of ownership on media markets, the measurement of media bias, the efficacy of campaign finance regulations and social determinants of health. Miltyo has published in several leading scholarly journals, including The American Economic Review, The Quarterly Journal of Economics, the American Journal of Public Health, and The Journal of Law and Economics. His work has been frequently cited in the national media, including The New York Times, The Washington Post, and on CNN and Fox News.

Joe Haslag started at Mizzou in fall 2000. He earned a MU bachelor’s degree in business logistics in 1982 and a doctorate in economics from Southern Methodist University (SMU) in 1987. Prior to his appointment at MU, Haslag spent 12 years in the research department at the Federal Reserve Bank of Dallas. While there, he concurrently taught graduate and undergraduate courses in the economics department at SMU from 1988 through 1998. Haslag’s research primarily focuses on several aspects of monetary economics. One interest is the effect of final inflations and consequences of the growth of the “big box” retail format. His papers examining the causes and consequences of Wal-Mart’s growth have been published in several refereed journals and most recently in the summer 2007 issue of the Journal of Economic Perspectives. Basker’s research on Wal-Mart has also been widely cited in the popular press, including in the Economist, Business Week, Newsweek, the Wall Street Journal, The New York Times and The Wall Street Journal.

Douglas Miller conducts research on information theory and econometrics and has co-written two books and several journal articles on applications of these tools to economic research problems. He teaches graduate and undergraduate microeconomics as well as undergraduate microeconomics. He earned a doctorate at the University of California, Berkeley, and is beginning his third year at MU. He was awarded an honorable mention of the 2006 International Scientific Advisory Committee for the Third International Conference on Computational Finance.

Oksana Loginova joined the MU faculty in fall 2005 after finishing a doctorate in economics at Duke University. A Russian native, Loginova received her master’s in mathematics from Moscow State University and a doctorate in economics from the New Economic School in Moscow. Her research interests are in the fields of industrial organization and microeconomics, in particular game theory, contract theory and e-commerce. She currently teaches quantitative economics and game theory.

David Mandy has been department chair since August 2006. His research interests are in applied microeconomic theory, especially the study of concentrated industries, and econometrics. Recent published research focuses on the incentives regulation places on sellers in the telecommunications industry. Current projects study the relationship between local politics and migration in response to economic incentives, and techniques for estimating econometric models when the unobserved variables have a moving average component. Mandy serves on the editorial board of the Journal of Regulatory Economics, the University of Missouri Research Board, and the College of Arts and Science Strategic Development Board. He also graduates microeconomic theory and microeconomics for MBA students. When away from work, he is often at a soccer tournament watching his 10-year-old son, Trevor, play or at a swim meet watching his 14-year-old daughter, Jill, compete.

Peter Mueser received a doctorate from the University of Chicago in 1982 and joined the department two years later. Over the next 10 years, his work focused on internal migration and the role of amenities in explaining mobility trends. Why were people moving to the south? Why were rural and urban areas growing at different rates? Beginning in the late 1990s, his work turned to the evaluation of job training and job training programs for the economically disadvantaged. In fall 2007, he was on research leave in Washington, D.C., undertaking research for the U.S. Department of Labor. This was a study extending, for at least a year, that looks at the effects of the largest government-sponsored job training program in the U.S. (the Workforce Investment Act), bringing together administrative data for more than 20 states. Returning to his earlier work on migration, he also recently edited a special journal issue on interdisciplinary work in migration, and he completed a paper co-written with David Mandy, on the efficiency and politics of city growth.

Shawn Ni received a doctorate in economics from the University of Minnesota in 1991 and has been teaching at Mizzou since 1990. He is professor of economics and adjunct research professor of statistics. Ni has published a variety of papers in macroeconomics and econometrics. His recent research concerns empiri-
cal analysis of disaggregated data such as household consumption and teacher effects on student achievements. These problems involve analysis of dynamic panel data with limited numbers of observations on each unit (e.g., a household or a student) and measure- ment error, an environment that renders conventional estimators deficient. Ni develops Bayesian approaches to these problems that produce sharper and more reliable inference on parameters of interest.

Michael Podgursky is professor of economics and served as department chair from 1996 to 2005. He has written many articles and reports on education policy, teacher quality and teacher compensation. His work on education has been supported by federal and state agencies as well as numerous private foundations. He serves on the board of editors of Education Finance and Policy and on technical advisory boards for numerous education organizations including the National Center for Education Statistics, the National Research Council, the Institute for Education Sciences (IES), the National Center for Teacher Quality, American Board of Certification of Teacher Excellence and Mathematica Policy Research. He is a co-investigator at the National Center for Performance Incentives at Vanderbilt University and at the Center for Analysis of Longitudinal Data in Education Research at the Urban Institute, two IES-funded research centers.

Ron Ratti continues to teach the large class in money and banking and a graduate class in monetary economics. During 2007 he appeared in a paper at a June conference at Trinity College, Dublin. In fall 2007 Ratti visited Australia and Taiwan. He presented seminars during September and early October at Sydney University; Macquarie University; the University of Western Sydney; National Tsing Hua University, Hsinchu; and National Chung Cheng University, Chia-Yi, Taiwan. Leaving Taiwan turned into an adventure when he was forced onto the HSRR (a new high-speed train), which was the only train running. The trip turned into an adventure when he was forced onto the train. They had to change trains at a June conference at Trinity College, Dublin. In fall 2007 Ratti visited Australia and Taiwan. He presented seminars during September and early October at Sydney University; Macquarie University; the University of Western Sydney; National Tsing Hua University, Hsinchu; and National Chung Cheng University, Chia-Yi, Taiwan. Leaving Taiwan turned into an adventure when he was forced onto the HSRR (a new high-speed train), which was the only train running. The trip turned into an adventure when he was forced onto the train. They had to change trains.

Gunjan Sharma joined MU in 2006 after finishing her doctorate at the University of California, Maryland College Park. Her research interests are in international trade and development. A lot of the research questions that she addresses are motivated by her own experiences as a citizen of a developing country and by the huge socio-economic and cultural changes that economic growth and international integration bring with them. Vitor Trindade is an associate professor who joined the department in fall 2008. He received a doctorate from the University of California, San Diego, in 2000, and was an assistant professor at Syracuse University from 2000 to 2005. His interests lie primarily in the area of international trade, with a side interest in economic development. Recently, his work has helped uncover the positive impact that the presence of ethnic Chinese in various countries has on international trade flows between those countries. This is intriguing because it shows indirectly that there are barriers to trade that are difficult to measure (the barriers that the ethnic Chinese help overcome). More recently, Trindade’s work has centered on the role that the demand side plays in international trade. When not busy pushing back the frontier of knowledge in economics, Trindade enjoys relaxing with his wife, his 8-year-old son and his 6-year-old daughter.

Xinghe Wang received a doctorate in economics from the University of Iowa in 1990. He joined the department in the same year. His research area is microeconomic theory. He conducts research in the economics of peer-to-peer markets, standardization and network effects, and multiproduct oligopoly. Wang was promoted to professor in 2006 and serves as director of graduate studies.

MU professor challenges some entrenched practices in K–12 education

By Melody Galen

Since the early ’90s Professor Michael Podgursky, a labor economist by trade, has studied teacher quality, teacher pay and teacher markets. Though findings of economists aren’t always well received on these issues, Podgursky believes that the labor teacher market is at last showing signs of accepting what they have to say. Economists study teacher markets through the lens of the most basic of economic principles: supply and demand. What they have seen is that there is inefficiency associated with teacher pay scales and with the way they are licensed.

Podgursky boils it down to three areas of weakness: the suppression of differentials by field, school-based differentials and failure to differentiate on quality of performance. These problems have been illustrated in numerous studies and in markets all over the nation.

Teacher markets typically suppress differentials by field. For example, on average, a high school math teacher has more college credits than a sociology teacher, yet is paid less. Their training is very different, and, of course, what they do is different. The question of whether teachers are overpaid is looked at assuming that teachers are homogeneous. They are not — they have varying levels of education, experience and specialization.

There is often an abundance of qualified applicants at the elementary level but not relatively few secondary math and science applicants. The market-based solution to this would differentiate pay according to field — for instance, pay science and math teachers higher salaries, but this is suppressed. This, in turn, results in more high-quality elementary teachers but fewer qualified math and science teachers. They can go elsewhere to do a meaningful job Source productivity — the climate is beginning to change,” Podgursky says. Many who sneered when it was initially suggested that pay might better be based on performance are at least willing to stick a toe in the water. Some schools are looking at performance-based pay for principals now. Podgursky asks, “If we can show that one school is producing dramatically better results, why should all principals get the same pay?” He thinks it’s a modest, but important, step forward.

The depth and breadth of the issues surrounding teacher quality and teacher pay is immense, but changes in recent years in the education system, for good or bad, have required school systems to re-evaluate their performance standards. Podgursky is pleased that the tenets of economics can be used to ultimately provide children with better education.
One topic that often confounds students initially is the burden of a tax. If, for example, a tax is levied on gasoline, to what extent do the oil companies or their retail divisions incur the cost of that tax, and to what extent do drivers incur the cost of the tax? Harstad says this is an easy concept to illustrate in a lab.

Some of the students act as buyers and some as sellers of gasoline. They perform those actions for a few cycles, then a $1-per-unit tax is introduced. The sellers have to pay the $1 out of their profits. Participants see an increase of 60 cents in cost to the buyers and a decrease of 40 cents in profit to the sellers.

Students proceed that way for several minutes, then they switch so that the sellers don’t pay the tax, but the buyers have to pay for a ration card that gives them the right to buy the gas — $1 per unit for everything they buy goes straight to the government. Either way, the government collects its taxes. The buyers see the price fall by 40 cents so that after they buy the ration card they’re still paying 60 cents more than they were before the tax was instituted. This illustrates to the students that the impact is the same no matter which side pays the tax.

“And one of the toughest lectures in a principles class for the whole semester becomes one that students can grasp in an afternoon,” Harstad says. It pleases him that when they explain what they learned from the experiment, they use essentially the same concepts and words he would have used in teaching them.