

# RICE ECON

News and Views from the Economics Department at Rice

Greetings to all of our Economics students in Houston and around the world. As we all know too well, this has been a challenging semester like no other. We hope you and your families are coping well and that you are successfully completing your courses – and we thank those of you who are on campus for diligently following Rice's COVID-19 safety protocols.

We are expanding our newsletter to provide some information about our graduate programs – both the Ph.D. and Master of Energy Economics programs. And undergraduates: If you think that either of these programs might be of interest, please contact Hülya Eraslan (the Ph.D. program) or Peter Hartley (the MEECON program) and check out the detailed information about the programs on our <u>website</u>, which also has advice on applying to <u>econ grad programs</u> and on <u>doing research in economics</u> and <u>publishing it</u>.

Hoping that the rest of your fall semester goes well,

George Zodrow

Chair, Economics Department

#### Advising Corner Fall 2020

**Advising Office Hours** 

#### Monday

12:30–1:30 p.m. Nina Bobkova, Zoom Link

#### **Tuesday**

2:00–3:00 p.m. Peter Hartley, <u>Zoom Link</u>

#### Wednesday

4:00–5:00 p.m James Brown, Zoom Link

#### **Thursday**

12:00–1:00 p.m. Maria Bejan, Zoom Link

#### Friday

10:00–11:00 a.m. James DeNicco, <u>Zoom Link</u>

## Vivian Ho Elected to National Academy of Medicine

Congratulations to faculty member Vivian Ho who was recently elected to the National Academy of Medicine (NAM) and thus attained one of the highest honors that can be granted to individuals working in the fields of health and medicine. New members are elected to NAM each year by its current members and are chosen to recognize major contributions to

the advancement of the medical sciences, health care, and public health as well as a commitment to service over their careers. Vivian was recognized by NAM for "her scholarly work in providing insights on how economic factors and government regulations interact to influence the cost and quality of health care," and because, "Her work has shaped policy on state Certificate of Need regulations, hospital antitrust, and free-standing emergency departments."

Caught working on her lecture notes for her ongoing and perennially popular ECON 481 class in Health Economics, Vivian observed that, "Throughout my career, studies conducted by NAM have influenced my thinking on all aspects of health and health care. I am excited to join this vibrant group of scholars who are dedicated to advancing science that delivers improved health and well-being for everyone."

In addition to her long-time role as a professor in the Economics Department, Ho is the James A. Baker III Institute Chair in Health Economics, the director of the Institute's Center for Health and Biosciences, and a professor in the Department of Medicine at the Baylor College of Medicine. Her research has examined a wide variety of critical health issues, including the effects of economic incentives and



regulations on the quality and costs of health care, including the effects of the Affordable Care Act on insurance coverage, the costs of and regional variation in cancer treatment, the effects of smoking bans on hospitalization rates, and the effects of shared savings programs for physicians on health care costs. She has published in a wide variety of healthcare and economics journals, and her research has been funded by the National Institutes of Health, the Agency for Healthcare Research and Quality, the Texas Medical Center Health Policy Institute, and the American Cancer Society. She serves on numerous boards and is a founding member of the board of the American Society of Health Economists.

## Meet Our New Faculty: Maura Coughlin and Matt Thirkettle

We are delighted to welcome two new assistant professors to the Economics Department faculty, Maura Coughlin and Matt Thirkettle.

Maura specializes in applied microeconomics and applied econometrics, with a focus on empirical industrial organization, especially in health care and insurance markets. She earned her Ph.D. from Cornell University where she won two teaching awards as well as a graduate student research award. Her current research includes an analysis of consumer choice among alternative health plans when consumers consider only a limited set of the available options. She is also exploring regional and demographic variation in consumer choices regarding Medicare Part D. Maura will be teaching ECON 441, Empirical Methods for Industrial Organization, and ECON 598, a readings course designed to



prepare our second-year Ph.D. students for independent research, in the spring.

Matt is an econometrician who has interests in the economics of networks and industrial organization. He also earned his Ph.D. from Cornell (indeed, he and Maura shared an office), and won a teaching prize and two graduate student research awards. Matt's current research examines estimation issues that arise when social networks have missing links, as well as models of discrete choice



under conditions of risk and limited consideration of available choices. He is also working on an analysis of how social networks among software developers influence decisions to contribute to open source software on GitHub. Matt is teaching both parts of our first-year graduate econometrics sequence - ECON 510 this fall and ECON 511 in the spring.

For more information on Maura and Matt and the rest of our faculty, check out the faculty page on our website.

## Pathways to Research and Doctoral Careers - PREDOC Program

The Pathways to Research and Doctoral Careers (PREDOC) is a consortium of universities and research institutions that aims to foster a talented, diverse, and inclusive population in the quantitative social sciences, especially Economics. Consortium members offer graduating students a variety of post-baccalaureate, full-time, paid pre-doctoral research positions, where students work directly for faculty and are mentored and prepared for top doctoral programs and eventual careers in the academy, institutes of policy research, and industry. Institutions participating in the PREDOC program are committed to reaching out to, mentoring and recruiting individuals who are underrepresented in their fields with the goal of diversifying the pool of pre-doctoral candidates. Consortium members include Harvard, Princeton, MIT, University of Chicago, Stanford and Columbia among others, as well as the National Bureau of Economic Research and several Federal Reserve banks. If you are interested in the program, please check out PREDOC.

PREDOC Pathways to Research and Doctoral Careers



#### New Course on the Menu

Evaluation of Social Programs, ECON 320, examines various quantitative methods that researchers use to evaluate public policies or the impacts and costs of social programs. We cover experimental and quasi-experimental methods designed to assess program effects. The course's approach is through "learning-by-doing" as students implement in practice different experimental and quasi-experimental estimators using real-world data. In the second part of the course, we present and review the ingredients method of cost estimation. We describe the procedure to specify a program's input and consider different approaches to assigning prices to each element, whether there are markets for the inputs or not. We designed the course to attract students interested in data analysis, especially those interested in innovation in public policy and social programs. Students should have studied statistical tools such as ordinary least squares (OLS) and should be able to use R, Python, STATA, SAS, or SPSS (among other alternatives).

### Rice Economics Breaks into Top Ten in National Ranking



We are delighted to report that our undergraduate program was ranked 8th in the nation by Niche Magazine in its latest rankings of undergraduate economics programs in the United States – up from a 14th place ranking last year. According to the Niche website, it rankings of economics programs are based on "rigorous analysis of academic, admissions, financial, and student life data from the U.S. Department of Education along with millions of reviews from students and alumni." In addition, we maintained our 12th place in the nation ranking in the latest version of a similar evaluation of undergraduate economics degree programs by College Factual.

### **Jeremy Fox Awarded New NSF Grant**

Jeremy Fox is the principal investigator on a new three-year National Science Foundation grant that will support his research on repeated matching games, which models how economic agents form relationships in a multi-period setting. Matching models are currently one of the hottest topics in microeconomic theory and have many practical applications, ranging from marriage choices to employment relationships to business alliances.

Jeremy notes that most matching models are applied at single point in time, but because many matching relationships change over time, a dynamic model of repeated matching games will provide a more accurate representation of such behavior, especially since data sets tracking matching choices over time are becoming increasingly available. His grant research will focus on three empirical applications of the theoretical

results on matching behavior that he will develop: (1) a model of marriage, divorce and remarriage that considers how children and labor market success affect marital sorting and betweenhousehold inequality; (2) an analysis of the careers of engineers focusing on how job assignment and interfirm mobility affect promotion to more prestigious roles; and (3) an examination of how early rounds of venture capital funding, including accelerator participation, raise the probability of receiving later rounds of funding and eventual startup success. The research project will include the development of computer algorithms to find model solutions, and the creation of new estimators for the parameter values of the model.

Jeremy is a specialist in empirical industrial organization with interests in econometrics and labor economics. Over the summer, he was appointed



to the prestigious Shatto Endowed Chair of Economics. He has been on the economics department faculty at Rice since 2015 and is a Rice alumnus, receiving his B.A. in economics, political science, and statistics (Baker College, '98). This year he will be teaching the capstone course on research in econometrics for the MTEC program (ECON 597) and our graduate courses in empirical industrial organization (ECON 517) and computational economics (ECON 504).

#### **Recent RISE Event: Conversations with Our Faculty**

We hope you were able to attend our recent RISE (Rice Initiative for the Study of Economics) event, a webinar entitled "Conversations with Our Faculty," which was held on Tuesday October 27. The webinar featured two of our prominent scholars, Ted Temzelides and Mallesh Pai, who discussed their ongoing research projects. A video of the webinar is available on our website.

Ted's talk "Ecology and Economics for Pandemic Prevention" examined how investments in limiting the associations between humans and wildlife disease reservoirs, such as preventing deforestation and regulating wildlife trade, could reduce the potential for the global spread of deadly viruses. He also showed that such relatively simple preventive efforts would cost substantially less than the economic and mortality costs of responding to these pathogens once they have emerged, such as the costs that have been incurred in battling COVID-19.

Mallesh's talk "Efficiency vs. Equality in Equilibrium" examined various tradeoffs between economic efficiency and social equality. For example, he showed that an anonymous auction, a commonly used auction approach designed to enforce fairness, may be totally ineffective as a seller can readily design such an auction to achieve unfair goals (e.g., to favor a preferred buyer). He also investigated how efficiency and fairness interact in designing the machine learning algorithms that are having an increasingly large impact on our lives.

### **Spotlight on Our Faculty: Peter Hartley**



## How did you first become interested in economics?

My undergraduate major was in mathematics, with minors in statistics and applied mathematics. I started out doing a science degree (physics and chemistry) but found that I was not good at running experiments. I retained an interest in using mathematics and statistics to model and analyze real-world phenomena, however, and in my senior year took economics to see if I could combine that interest with a growing interest in politics. Upon graduation, my statistical training enabled me to find employment in the Department of Prime Minister and Cabinet in the Australian Federal Government. I kept studying part-time and completed most of an undergraduate economics degree before being admitted to the Masters Degree in economics at the ANU. As I learned more economics, my official duties transitioned to a greater focus on economic policy.

## Can you us give a brief summary of your field of research?

I am interested in understanding the factors that influence energy prices, the production and trade of energy commodities, the evolution of energy technologies, the consequences of regulations and policies affecting energy markets, and the evolution of energy market institutions such as wholesale and futures markets, and spot and contract trades.

## What are some of your favorite current research projects?

I have recently been researching several issues related to the advent of US LNG exports. These include how such exports may affect global LNG markets and thereby markets for natural gas more generally. I have also been interested in the determinants of the profitability of LNG export projects and especially how

#### Peter Hartley, George A. Peterkin Professor of Economics

Peter R. Hartley, Ph.D., is the George A. Peterkin Professor of Economics at Rice University. He is also a Rice Scholar of Energy Economics at the Baker Institute. He has worked on energy economics issues for 35 years, focusing originally on electricity, but also including work on natural gas, oil, coal, nuclear and renewable energy. He has also published in other areas including theoretical and applied issues in money and banking, business cycles, and international finance. He received his PhD from the University of Chicago and was an Assistant Professor of Economics at Princeton University before coming to Rice. Originally from Australia, he has also held visiting appointments at

Monash University, Melbourne University, the Australian National University and the

Research Interests: Energy Economics; Energy and Growth; Money, Credit and Banking

they provide many opportunities to exploit temporary arbitrage and other trading opportunities. Another focus of my recent research has been the impact of wind and solar generating capacity on electricity markets.

University of Western Australia.

#### You are a Director of the Master of Energy Economics program. Can you tell us about that program and is it something that Rice undergrads might be interested in?

The Master of Energy Economics (MEECON) is a professional master's program designed to prepare students for successful careers in the energy sector. The MEECON program normally lasts 12 months, during which students are required to complete 40 credit hours (10 courses) in four sessions, including two sevenweek summer sessions. The program should be attractive to Rice undergraduates wanting to pursue a career in the energy sector. It may be especially valuable to students with an engineering or science degree who want to supplement their technical training with courses that will better equip them for management and strategic decision-making in the energy industry.

## Are you involved in any professional associations?

I have been involved with the International Association for Energy Economics (IAEE), and its US affiliate the United States Association for Energy Economics (USAEE), for many years. The IAEE is the main professional association for energy economists and has members from more than 120 countries. The IAEE also publishes The Energy Journal and Economics of Energy and Environment Policy, which are two leading field journals. Both the IAEE and USAEE also award prizes for research and contributions to the energy economics profession, some of which I have been fortunate to receive. I have served as President of both the USAEE and IAEE and am currently President-elect of the IAEE and will serve a

second term as President in 2022.

## What do you enjoy most about being at Rice?

Rice is an especially good university for an economist interested in energy markets. The Center for Energy Studies (CES) at the Baker Institute provides many colleagues, financial support and ideas for research, and support for graduate students. I also value having colleagues in the Economics Department specializing in applied microeconomics. Rice also attracts many bright students, who are a joy to teach. The campus is beautiful, and the facilities and support provided by the university are first rate.

## What advice do you have for students as to how they might better cope with the many challenges of remote learning this year?

Students who are remote from campus should attend the lectures in real time and ask more questions. It is all too easy to assume that one can look at the recording of the lectures later, but once you get behind it is difficult to catch up. Also, it is more difficult to contact a professor several days after the lecture has been given to ask for clarification of a point you do not understand.

#### What are your favorite hobbies?

The two main things my wife and I enjoy doing in our leisure time are classical music performances (attending symphony concerts, the opera and ballet) and international travel. Sadly, both activities have been severely impacted by the Coronavirus...

For more information on Professor Hartley's research projects, including his current working papers and his C.V., see the <u>Faculty Page</u> on the Economics Department website.

## **Grad Student Highlights from Our Ph.D. and MEECON Programs**

## Kirill Evdokimov Awarded Lodieska Stockbridge Vaughn Fellowship

Kirill Evdokimov, a sixth-year Ph.D. student, is the recipient of a Lodieska Stockbridge Vaughn Fellowship for 2020-2021. This university-level award is given to only five Rice graduate students each year and honors students who have demonstrated outstanding achievement and promise.

Kirill studies theoretical models of collective decision-making, focusing on bargaining procedures, legislative institutions, and voting. He examines the effects of decision-making procedures on the equality and efficiency of decisions made in committees and other small groups. When group members differ in their ability to contribute to the joint product of their cooperation, the procedures used to make decisions have a tangible effect on whether the group members are compensated in accordance

with their ability or equally despite the differences in their contributions. Kirill shows that more inclusive decision rules promote equality but lead to outcomes that are less reflective of the abilities of group members.

Kirill is also interested in the power of voting institutions to aggregate the private knowledge of voters about the effects of policies and in describing the benefits of coordination among voters when policy proposals are made by politicians with selfish motives. When many voters act individually but share the same goals, they give a tremendous amount of control to the politician in eliciting their private knowledge. Cooperation through information sharing and organizing voting blocs allows voters to partially or completely break this control, especially when voters align



themselves with two voting blocs with conflicting goals.

Kirill has recently published articles in Economics Letters and the Annual Review of Economics.

## **MEECON Graduates Land Jobs at Amazon and Other Top Companies**



The MEECON program faculty and staff were recently excited to hear that Sid Battacharya ('18) has taken on the role of Worldwide Head of Energy Solutions at Amazon. Sid worked with Accenture Al during his time in the MEECON program and continued as a Digital Innovation Strategist in their Houston Innovation Hub before becoming Director of Oil and Gas at Darcy Partners, an energy industry technology scouting and innovation advisory firm.

Other recent stars of the program who have kept us informed of their progress include Valentina Izquierdo ('19) who started at Genscape in Houston as a summer intern and was then hired by them to be an Energy Equity Analyst. Genscape was later acquired by Wood Mackenzie, and this past summer Valentina became Senior Research Analyst for Latin America Solar at Wood Mackenzie Power & Renewables in Mexico City.

Anna Temple ('17) was working at Wood Mackenzie while completing her MEECON degree. After graduation, she moved to Singapore as their Director of Asia Pacific Downstream Consulting. Now she is working at Shell in Singapore as a Senior Strategy Consultant.

Travis Wilson ('16) is the Executive VP of Operations at Marea Energy Partners where he is also responsible for EPC (engineering, procurement and construction) negotiations, economic analysis, and corporate strategy.

#### **Economics Faculty: Recent Achievements**

#### Honors and Awards in 2020

Vivian Ho was elected to the National Academy of Medicine.

Jeremy Fox was awarded the Shatto Endowed Chair of Economics.

Mallesh Pai won the 2020 award for the best paper published in the *American Economic Journal: Microeconomics* for his paper "Discrimination via Symmetric Auctions" (with Rahul Deb).

Michele Biavati won the 2020 Malcolm Gillis Award for Distinction in Undergraduate Teaching in Economics.

Rossella Calvi won the 2020 Ralph O'Connor Award for Distinction in Teaching and Research in Economics.

#### **ARTICLES ACCEPTED OR PUBLISHED SINCE JULY 1, 2020**

Rossella Calvi, "Why Are Older Women Missing in India? The Age Profile of Bargaining Power and Poverty," *Journal of Political Economy*, July 2020, pp. 2453-2501.

Rossella Calvi, ""The Protestant Legacy: Missions, Gender, and Human Capital in India," *Journal of Human Resources*, forthcoming (with Lauren Hoehn-Velasco and Federico Mantovanelli).

Hülya Eraslan, "Learning While Setting Precedent," Rand Journal of Economics, forthcoming (with Ying Chen).

Hülya Eraslan, "Dynamic Legislative Bargaining," forthcoming in *Current Research and Future Directions in Bargaining*, Kyle Hyndman and Emin Karagozoglu (eds.), London: Palgrave Macmillan (with Kirill Evdokimov and Jan Zapal).

Yunmi Kong, "Sequential Auctions with Synergy and Affiliation Across Auctions, Journal of Political Economy, forthcoming.

Yunmi Kong, "Not Knowing the Competition: Evidence and Implications for Auction Design," *Rand Journal of Economics*, Fall 2020, pp. 840-867.

Ted Loch-Temzelides, "Ecology and Economics for Pandemic Prevention," *Science*, July 2020, pp. 379-381 (with Andrew P. Dobson, Stuart Pimm, Lee Hannah, Les Kauffman, Jorge A. Ahumada, Amy W. Ando, Aaron Bernstein, Jonah Busch, Peter Daszak, Jens Engelman, Margaret Kinnaird, Binbin Li, Thomas Lovejoy, Katarzyna Nowak, Patrick R. Roehrdanz, and Mariana M. Vale).

Ted Loch-Temzelides, "A Cost-Benefit Analysis of the Jones Act: The Case of Global Tankers," *Journal of Transport Economics and Policy*, forthcoming (with Igor Hernandez, Ken Medlock, and Anna Mikulska).

Ted Loch-Temzelides, "Hurricane Surge Risk Assessment of Petroleum Infrastructure under Changing Climate Conditions," *Frontiers in Built Environment: Wind Engineering and Science*, July 2020 (with Majid Ebad Sichani, Katherine A. Anarde, Kendall Capshaw, Pedram Hassanzadeh, Rachel A. Meidl, Jamie E. Padgett, and Philip B. Bedient).

Isabelle Perrigne, "Econometrics of Scoring Auctions," *Advances in Econometrics*, 2020, pp. 285-320 (with Jean-Jacques Laffont, Michel Simioni and Quang Vuong).

Robin Sickles, "The Agency Problem Revisited: A Structural Analysis of Managerial Productivity and CEO Compensation in Large U.S. Commercial Banks," *Empirical Economics, Special Issue in Honor of Badi Baltagi*, forthcoming (with Shasha Liu).

Robin Sickles, "Measuring the Productivity Growth and Technology Spillover through the Global Value Chain: The Impact of US-Sino Decoupling," in *Essays in Honor of Hashem Pesaran, Advances in Econometrics*, Volume 42, Alexander Chudik, Cheng Hsiao, Allan Timmerman (eds.), Bingley, UK: Emerald Publishing Ltd., forthcoming, with (W. Liu and H. Zhao).

Xun Tang, "Uncovering Heterogeneous Social Effects in Binary Choices," *Journal of Econometrics*, forthcoming (with Zhongjian Lin and Ning Yu).

Xun Tang, "Estimating Unobserved Individual Heterogeneity through Pairwise Comparisons," *Journal of Econometrics*, forthcoming (with Elena Krasnokutskaya and Kyungchul Song).

#### **GRANTS AWARDED IN 2020**

Jeremy Fox, "Repeated Matching Games: An Empirical Framework," National Science Foundation.

#### **BOOKS PUBLISHED IN 2020**

Robin Sickles, *Methodological Contributions to the Advancement of Productivity and Efficiency Analysis, Springer Proceedings in Business and Economics*, New York: Springer, forthcoming (co-edited with Christopher Parmeter).

George Zodrow, Taxation in Theory and Practice: Selected Essays of George R. Zodrow, London: World Scientific Press.