Spring 2021



RICE ECON

News and Views from the Economics Department at Rice

Our heartiest congratulations to the roughly one hundred students who will be graduating in May with ECON and MTEC degrees – and to all of our departmental award winners who will be honored at our annual Rice Initiative for the Study of Economics or RISE Day celebration, which will be held via Zoom on Saturday April 24 (award winners will be named soon!). We are looking forward to a celebratory ending to a year that was incredibly difficult but through which students and professors alike have adapted skillfully, persevered tenaciously, and ultimately succeeded under the most trying circumstances.

We are having another one of our RISE "Conversations with Our Faculty" event on Wednesday, April 7 at 4:00 p.m. which will feature long-time faculty members Vivian Ho and Robin Sickles. Details are provided below – we hope you can join us! And if you are thinking of going on to graduate school in Economics but wondering about the advantages and disadvantages of a "pre-doc" research assistant position, see the perspective of Rice grad Meghana Gaur '19 in our "Beyond the Hedges" feature.

If you are interested in what your instructors have been doing lately, we have added a new feature to our department website that highlights recent <u>faculty achievements</u> that you may want to check out. And if you haven't visited our website recently, you might take a look at our listing of various <u>student</u> <u>opportunities</u>, as well as some pointers on <u>conducting research in economics</u>, and on getting your work published in <u>undergraduate economics journals</u>.

Hoping the rest of your spring semester goes well,

George Zodrow Chair, Department of Economics

Advising Corner

Spring 2021 Advising Office Hours

Monday 12:30–1:30 p.m. Mahmoud El-Gamal, <u>Zoom Link</u>

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

Wednesday 4:00–5:00 p.m James Brown, <u>Zoom Link</u>

Thursday 12:00–1:00 p.m. Maria Bejan, <u>Zoom Link</u>

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

RISE Event: Conversations with Our Faculty

We hope you can join us for our upcoming RISE event, a webinar entitled "Conversations with Our Faculty," which will be held on Wednesday, April 7th at 4:00 pm. The webinar will feature two of our most prominent scholars, Vivian Ho and Robin Sickles, who will be discussing their ongoing research projects.

Vivian's talk "COVID-19 and U.S. Health Care" will examine how COVID-19 was not just a shock to population health, but also a shock to the health care system. Just as the burden of the pandemic on patients was unequal, so was the burden on health care providers. She will discuss uneven stresses on different types of providers and the resulting pattern of financial gains and losses. She will also discuss the impacts of the pandemic on COVID and non-COVID patients and what problems to watch for in the near future.

Robin's talk "Productivity Growth, Economics Well-Being and Inequality" will examine several questions about how to define productivity and why it is so important. Why might productivity be measured incorrectly due to an overly simplistic number (GDP/ person) used to measure economic well-being? How is it trending and how do these trends affect between-country and within-country inequality? He will address each of these questions and others, drawing on a series of papers and books written over a career spanning 50 years of research and teaching.



Rice ECON Welcomes Two New Arrivals!

We are delighted to welcome two brand new members of the Rice ECON family. Alexis (Lexi) Bobkova was born on January 24 to Assistant Professor **Nina Bobkova** and her husband Georg, who is a cell biologist at the Baylor College of Medicine. Nina reports that Lexi's favorite things so far are long walks across the Rice campus, staring at the family dog, and, like a true owl, helping her parents develop Lexi-cographic preferences for sleep.

And a little more than a month later on March 3, Malav (pronounced Maa-luv) began his life of Pai as the second son of Associate Professor **Mallesh Pai** and his wife Akshta, who is a Transplant Nephrologist across the street in the medical center. After careful if limited observation, Mallesh notes that, "Malav, based on current evidence, is very,



very different from his older brother Abhav – so any hopes I had of leveraging



economies of scale/learning-by-doing are moot."

Robin Sickles to Retire After 35 Years of Service



It is with mixed emotions that we announce that our long-time colleague and friend, Robin Sickles, who has been a professor in the Rice Economics Department since 1985 and was appointed to the Reginald Henry Hargrove Chair in Economics in 2008, is retiring this year and will become professor emeritus. Robin is one of our most productive scholars, specializing in econometrics, applied economics, and empirical measurement of productivity. He has published over a hundred and fifty articles, books and edited volumes, and most recently is the co-author of books on Measurement of Productivity and Efficiency: Theory and Practice,

which was published by Cambridge Press last year, and Advances in Efficiency and Productivity Analysis, which is forthcoming from Springer Publishing later this year. A clear indication of the impact of his work and the esteem in which he is held in the profession is that Robin has given no fewer than 21 keynote or plenary conference speeches in his distinguished career. In addition, Robin was editor-in-chief of the Journal of Productivity Analysis from 2002-2012 and has also served on the editorial boards of seven other journals over the years.

Robin has taught with distinction in both our graduate and undergraduate programs. He has supervised an incredible number of Rice Ph.D. students, serving as committee chair for some 50 Rice dissertations and as a mentor to countless others. Indeed, he is widely known as an indefatigable champion of our graduate program and its many students over the years, and was the recipient of the Rice Graduate Student Association Mentoring Award in 1998. More recently, Robin has been the only instructor of the "crown jewel" of our undergraduate program, the two-semester honors sequence that was introduced in 2015 when we revamped our undergraduate curriculum.

The honors sequence guides our best students through the research process in Economics, including forming a research idea and examining the literature in the area, formulating an economic model that provides insights into the issue(s) under consideration, specifying testable hypotheses, collecting data and performing econometric tests of the hypotheses, presenting preliminary and final results in a workshop setting, and ultimately preparing a clear, concise, and cogent research paper that presents those results. The students in our honors program have won all of our research paper prizes in recent years, and many are now graduate students at the most prestigious economics programs in the country.

In recognition of Robin's wide-ranging contributions to the department, the university, and the profession, the department presented him with the 2019 Ralph O'Connor Award for Distinction in Teaching and Research in Economics.

We gratefully thank Robin Sickles for his 35 years of dedicated service to the department and the university and wish him nothing but the best on the many adventures to come.

Spotlight on Our Faculty: Vivian Ho



You were recently elected to the National Academy of Medicine (NAM). What are the criteria for this honor and how has your election affected you?

The NAM elects no more than 90 regular members and 10 international members annually. Membership is based upon distinguished professional achievement in a field related to medicine and health; demonstrated and continued involvement with the issues of health care, prevention of disease, education, or research; and skills and resources likely to contribute to achieving the Academy's mission. I'm humbled by the recognition by many of my peers in NAM, and I am looking forward to participating in NAM's work. The Academy organizes multiple committees each year, researching and writing on timely issues ranging from genomic medicine to public health. I'm excited to learn about cutting edge medicine from the best minds in the country.

How did you first become interested in health economics?

I stumbled into health economics by accident. I knew that I was interested in industrial organization while in graduate school, and I was struggling to do research on the newspaper industry. Late one evening, one of my more opinionated professors poked his head into my office and said that newspapers were boring. He said he had just been talking with a colleague about the Medicare Hospice Benefit, and that I should research the hospice industry. Studying end-of-life care seemed foreign to me at first, but it turned out to be fascinating. And I was able to enter the field of health economics just as it was taking off in the U.S.

Vivian Ho, James A. Baker III Institute Chair in Health Economics and Professor of Economics

Research Areas: Health Economics and Industrial Organization

Vivian Ho is the James A. Baker III Institute Chair in Health Economics, Director of the Baker Institute Center for Health and Biosciences, and Professor in the Economics Department at Rice University, and a professor in the Department of Medicine at the Baylor College of Medicine. Her research examines the effects of economic incentives and regulations on the quality and costs of health care and is widely published in economics, medical and health services research journals. Ho's research has been funded by the National Institutes of Health (NIH), the Agency for Healthcare Research and Quality, the American Cancer Society, and the National Cancer Institute. Her course on Health Economics is a perennial favorite among Rice undergrads.

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

My research examines the effect of economic incentives and regulations on the quality and cost of healthcare. I've published several papers measuring the "volume-outcome relationship" where I was testing whether hospitals or surgeons that performed complex operations more frequently had better outcomes. I found that the link wasn't strong enough to justify state regulations or recommendations to centralize complex surgery at a smaller number of locations. That centralization can reduce competition and raise prices for patients, with little or no health benefits.

What are some of your favorite current research projects and what impact do you hope your research achieves?

Healthcare costs have continued to escalate throughout my career, which is why we have so many Americans who can't afford health insurance. I now choose research topics that have the potential to restrain cost growth. Recently I've published a series of papers showing how freestanding emergency departments and vertical integration of physicians and hospitals raise costs for patients. I'm now looking at upcoding of emergency room visits, as well as the growing costs for trauma care. I am deeply puzzled by the lack of success by employers to control the costs of employer-sponsored health insurance, and I am tackling this issue with the help of the Houston Business Coalition on Health and the National Academy for State Health Policy. I hope to shape policy recommendations that will reduce the growth in U.S. healthcare costs to a rate lower than GDP, while improving Americans' health in the coming years.

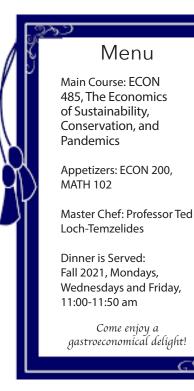
Are you involved in any professional associations?

I am a member of the Board of Directors for Community Health Choice, which is Harris County's nonprofit insurance arm. CHC sells Medicaid and Obamacare health insurance plans that are targeted to the needs of lowincome households in the Greater Houston area. It's rewarding using my economic expertise to support a \$1 billion company that is committed to improving health and access to healthcare for all Houstonians.

What are your favorite hobbies?

I enjoy getting up before dawn and jogging in my neighborhood before the city wakes up. Health policy and world news have been so sobering lately, that I escape by watching light-hearted TV shows. This year I enjoyed watching the Mandalorian and WandaVision with my teenage son. I'm also a big fan of Zoey's Extraordinary Playlist.

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



New Course on the Menu

ECON 485 will cover issues related to conservation, sustainability, and pandemics from an economics point of view. This means that, in addition to discussing the need for conservation policies, we will emphasize the requirement that, in order to be effective, such policies need to be compatible with economic incentives. Topics will include the need for conservation policies and planning, how science informs conservation strategies, incentives and the design of conservation agreements, and the role of agriculture and climate change. We will also study biodiversity, the value of ecosystem services, and the effects of climate change. COVID-19 is the most recent in a long sequence of pandemics affecting human health and well-being. It will not be the last. Policies to reduce the likelihood of pandemic emergence, as well as the effects of pandemics like influenza, HIV, and COVID-19 on the global economy will also be discussed. We will emphasize the need for cooperation across national boundaries, as well as how policies related to deforestation and wildlife markets can affect the likelihood of zoonotic pandemic emergence. The course should be of interest to students studying economics, global health policy, conservation, sustainability, and environmental issues.

New Summer Course Offering

We are delighted to announce that our summer school course lineup will include a course that has not been offered by the department for some time – ECON 415, Labor Economics (we will also offer our familiar standbys, ECON 100 (Principles of Economics) taught by Jimmy DeNicco and ECON 203 (Macroeconomics) taught by Amelie Carlton). Labor Economics will be taught by Rice graduate student Hira Farooqi, who is writing her dissertation under the supervision of Professor Flávio Cunha. RICE ECON had a few questions for Hira:

Hira, can you tell us a little bit about yourself?

I am a 5th year student in the Economics PhD program. I grew up in Pakistan where I completed my undergraduate education. The US has been my second home since 2012 when I came here to study for my Master's degree in economics at New York University on a Fulbright Scholarship. My research focuses on the economics of gender and family. I am particularly interested in studying how culture and institutions affect women's decisions regarding labor supply, human capital investment, fertility and marriage.

What do you plan to teach in ECON 415 and what are the prerequisites?

Econ 415 is an introductory course in labor economics. It is structured in two parts. The first introduces the basic theoretical tools needed to analyze the supply and demand of labor and the nature of equilibria in the labor markets. The second part focuses on the application of these tools to study central themes in the labor economics literature, including topics such as trends in the participation of women in the labor market, returns to investment in human capital, and evidence of labor market discrimination. The prerequisite is intermediate microeconomics (ECON 200).

Who is the course designed for – or, for our English double majors, for whom is the course designed?

The course is designed for any student with an interest in labor markets, including empirical analyses of critical labor market issues, as well as students with interests in public policy. For example, we will examine topics such as the ongoing debate surrounding the effects of minimum wages and supply side interventions in education provision. The course will also be particularly helpful for students who are planning to pursue graduate studies in economics.



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

Ph.D. Program

Daniel Prudencio is a Ph.D. candidate in our department who is planning to graduate in May 2021. He has recently accepted a position as an assistant professor in the economics department at Tecnológico de Monterrey in Mexico City, where he will be teaching classes on industrial organization and development economics in the fall of 2021.

Daniel's research focuses on the economics of education, and on the intersection of applied industrial organization and development economics. In the latter area, he uses tools usually related to industrial organization and labor economics, such as procurement auction models and discrete choice models, to answer questions often posed in development economics. For example, he has studied how local governments in Mexico allocate street pavement contracts when they exercise greater discretion over the hiring practices of the firms that bid on the contracts. He analyzes a novel approach to monitoring and oversight that involves indirectly estimating the cost profile of the firms competing for public contracts. He finds that local governments choose firms well in terms of minimizing costs to the governments for complex



pavement contracts, but that for simpler projects, which represent the vast majority of contracts, firm selection is significantly suboptimal. Regarding education, his research focuses on the importance of socio-emotional skills in child development, the development of students' educational choices and aspirations, and the impact of the international child sponsorship program, Compassion International, on educational outcomes.



Kerda Varaku is also a Ph.D. candidate in Economics graduating this spring. Her research interests are in financial econometrics, microeconometrics and causal inference with machine learning, especially data analytics and artificial intelligence. After graduation, she will be joining KPMG as a Senior Associate in their Economic and Valuation Services practice, where her work will focus on providing both private and public sector clients with economic and statistical insights using advanced mathematical and computational models.

Kerda's dissertation research uses European firm-level data to explore the effects of public subsidies to firms' research and development (R&D) inputs and outputs. In order to promote economic growth, many governments attempt to stimulate R&D through direct funding or tax breaks, designed to offset market imperfections that result in private R&D levels below socially optimal levels. Since such interventions are costly, it is crucial to precisely measure their effects. The current literature on this issue is inconclusive and suffers from various serious econometric limitations involving model misspecification bias, non-tractability for high dimension data sets,

and endogeneity bias. Kerda employs recently developed sophisticated methods that resolve these issues – specifically, double machine learning with deep neural networks, a method that allows learning of the unknown underlying model from the data, is tractable for high dimensional datasets, and is able to deal with the endogeneity bias. Her results show that current public policies in the EU promoting R&D stimulate both R&D inputs and outputs.

MEECON Program

The MEECON Program faculty and staff were excited to hear that **Umer Shahryar** ('16), a graduate of our first class, has taken the position of Petroleum Economist at Ministry of Energy (Petroleum Division) Policy Wing, Government of Pakistan. Umer worked with Presson Descon International Ltd. as the Head of Oil and Gas Business Development after he graduated, and then moved on to Chuanqing Drilling Engineering Company as a Management Consultant before taking his most recent position.

Luka Vukomanovic ('18) who started working at Stratas Advisors as an Oil Markets Analyst in the Houston and Singapore offices after graduating, is now working at McKinsey & Company in Houston as a Capability and Insights Analyst.

Lastly, we are excited that some of our current students have secured great opportunities before graduating this August. Emmanuel Castro ('21) has taken a position at Power Advocate. Mitch Holcomb ('21) was selected to join Trafigura's prestigious Graduate Development Program after graduation.



Beyond the Hedges: Is a "Pre-Doc" in Your Future?



After graduating from Rice, you elected to work as a research assistant (RA) for two years before applying to PhD programs in economics. What are the advantages and disadvantages of this approach?

There are several factors to consider when deciding whether to apply for RA positions or directly to PhD programs after graduating from Rice. It is also important to remember that there is no one "right" path that guarantees entrance to top PhD programs!

With that said, admittance to PhD programs in the economics programs is becoming increasingly competitive, even for students with near-perfect academic records. While you are not expected to have fully formed research interests at the start of grad school, you should try to demonstrate in your application that you are familiar with the research process, have clear research interests, and explain why you are a good fit for the departments to which you are applying.

Working as an RA allowed me to refine my research interests, gain valuable programming skills, and become familiar with various datasets and different stages of the research process. The experience also enabled my recommendation writers to speak more precisely speak about my potential as a researcher in their letters of support, especially since I didn't seriously consider a PhD in economics until my junior year at Rice. Other advantages of an RA job include the opportunity to explore a new city for 1-2 years, make new friends including some with similar research interests, and gain some "real-life" experiences.

Meghana Gaur is a Senior Research Analyst in the Macroeconomics and Monetary Studies Function of the Federal Reserve Bank of New York. She graduated from Rice in 2019 (Lovett College) with majors in MTEC and Math and will start her PhD in Economics at either Princeton or Stanford (not a bad choice set!) as a National Science Foundation Graduate Research Fellow in the Fall.

The main disadvantage of taking a predoctoral RA position is the extra 1-2 years added onto the PhD timeline. On the other hand, getting a PhD is very long process, so I think it can be beneficial to figure out whether this is really something you want to do beforehand. Some important considerations when deciding between different RA jobs are the position's benefits (health insurance, tuition reimbursement policy, etc.) and, of course, the compensation and the extent to which your assignments will help prepare you for graduate school study.

What kind of work do you do at the Fed and how does it better prepare you for grad school in Economics?

As a member of the Real Macro Team at the NY Fed, my work consists of different "policy" and "research" tasks. The "policy" work is analysis that contributes to the Bank's day-to-day operations and/or informs monetary policy. The "research" side of the job involves assisting economists on my team with papers that they intend to submit for publication in academic journals. As you might guess, there is often significant overlap between the policy and research work, and in my two years at the Fed, I have explored interesting questions relating to market concentration, household consumption, and labor market and firm dynamics. This will help me both with my course work at grad school and in choosing the fields in which I will specialize.

What is your advice to undergraduates interested in pursuing a PhD in economics?

If you are considering an economics PhD, try to get as much exposure to math and to research in economics as early as possible. The latter might take the form of taking electives in areas of economics that you are interested in or finding research opportunities with economists who are working in those areas. The department's two-semester Honors Program is a great opportunity to pursue independent research, and I used my senior honors thesis as a writing sample for some applications.

I also found it helpful to reach out to my professors as soon as I realized a PhD was something I might be interested in, as they offered valuable guidance on the application process, such as what programs I should consider applying to, based on my interests.

Last but not least, I recommend applying to external fellowships, such as the National Science Foundation Graduate Research Fellowship Program, whenever you end up deciding to apply to graduate school. I also strongly encourage you to reach out to former Rice undergrads who are currently in the process of completing their PhD to learn about their experiences!



Economics Faculty: Recent Achievements

HONORS AND AWARDS IN 2020 & 2021

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 Researchin 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).

Maura Coughlin, "Heterogeneous Choice Sets and Preferences," *Econometrica*, forthcoming (with Levon Barseghyan, Francesca Molinari and Joshua C. Teitelbaum).

Flávio Cunha, "The Econometrics of Early Childhood Human Capital and Investments," Annual Review of Economics, forthcoming (with Eric Nielsen and Benjamin Williams).

Flávio Cunha, "You are What Your Parents Think: Height and Local Reference Points," *Journal of Econometrics*, forthcoming (with Fan Wang, Esteban Puentes and Jere Behrman).

Flávio Cunha, "Maternal Subjective Expectations about the Technology of Skill Formation Predict Investments in Children One Year Later," *Journal of Econometrics*, forthcoming (with Irma Elo and Jennifer Culhane).

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*, edited by Kyle Hyndman and Emin Karagozoglu, London: Palgrave Macmillan (with Kirill Evdokimov and Jan Zapal).

Jeremy Fox, "A Note on Nonparametric Identification of Distributions of Random Coefficients in Multinomial Choice Models," Annals of Economics and Statistics, forthcoming.

Peter Hartley, "Electricity Reform and Retail Pricing in Texas," Energy Economics, forthcoming (with Kenneth Medlock and Olivera Jankovska).

Peter Hartley, "Western Australia Domestic Gas Reservation Policy: Modeling the Economic Impact with a CGE Approach," *Economics Record*, forthcoming (with Kelly Neill, Rod Tyers and Philip Adams).

Yunmi Kong, "Sequential Auctions with Synergy and Affiliation Across Auctions, *Journal of Political Economy*, January 2021, pp. 148-181.

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

Ted Loch-Temzelides, "A Double Slit Experiment with Human Subjects," PLOS ONE, February 11, 2021 (with John Duffy).

Ted Loch-Temzelides, "Conservation, Risk Aversion, and Livestock Insurance: The Case of the Snow Leopard," Conservation Letters, February 4, 2021.

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).

Mallesh Pai, "Algorithmic Collusion: Supra-Competitive Prices via Independent Algorithms," *Marketing Science*, January 2021 (with Karsten Hansen and Kanishka Misra).

Economics Faculty: Recent Achievements

Mallesh Pai, "Fair Prediction with Endogenous Behavior," *Economics and Computation*, July 2020 (with Chris Jung, Sampath Kannan, Changhwa Lee, Aaron Roth, and Rakesh Vohra).

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*, edited by Alexander Chudik, Cheng Hsiao, Allan Timmerman, Bingley, UK: Emerald Publishing Ltd., forthcoming (with W. Liu and H. Zhao).

Matthew Thirkettle, "Discrete Choice under Risk with Limited Consideration," *American Economic Review*, forthcoming (with Levon Barseghyan and Francesca Molinari).

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).

George Zodrow, "Carbon Taxes: Macroeconomic and Distributional Effects" (with John W. Diamond), in *Prospects for Economic Growth in the United States*, edited by John W. Diamond and George R. Zodrow, Cambridge UK: Cambridge University Press, forthcoming.

George Zodrow, "A Perspective on the Prospects for Economic Growth in the United States" (with John W. Diamond), in *Prospects for Economic Growth in the United States*, edited by John W. Diamond and George R. Zodrow, Cambridge UK: Cambridge University Press, forthcoming.

GRANTS AWARDED OR ONGOING IN 2020 & 2021

Rossella Calvi and Hülya Eraslan, "Political Alignment and COVID-19 Response of Local Governments," Rice University (with Dibya Mishra and Ritika Sethi).

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

Vivian Ho, "Does Physician-Hospital Integration Affect the Quality and Price of Hospital Care?," Agency for Healthcare Research and Quality.

Vivian Ho, "Examining the Impact of Laws Aiming to Curb Balance Billing in the Emergency Department," Health Care Service Corporation.

Mallesh Pai, "Foundations of Fair Analysis," National Science Foundation.

Xun Tang, "Empirical Analysis of Social Networks with Unreported Links," National Science Foundation.

BOOKS PUBLISHED IN 2020 & 2021

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

George Zodrow, *Prospects for Economic Growth in the United States*, Cambridge UK: Cambridge University Press, forthcoming (edited with John W. Diamond).

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