

PURDUE

2019-20 ANNUAL REPORT



PURDUE
UNIVERSITY®

Research Center in Economics

“*The Purdue University Research Center in Economics does not start with conclusions and work backwards. Its goal is to bring subjects of interest to policymakers and to those who might influence them and to shape their opinions and the opinions of the public – and to do so with an appreciation for freedom but always with data of unimpeachable academic quality.*”

PRESIDENT, PURDUE UNIVERSITY
MITCHELL E. DANIELS, JR.



WELCOME

I am pleased to present you with this year's report on the Purdue University Research Center in Economics. It describes our student programs, public events, faculty accomplishments, and our efforts to provide government leaders and the public with empirical economic research on the effects of laws, regulations, and government programs. Over the past year, my second as Kozuch Director of PURCE, we started an undergraduate student research assistantship program as well as a series of very successful information sessions at the Indiana Statehouse for lawmakers, executive branch leaders, and others who influence state policy. We also celebrated the graduation of the first group of economics PhD students whose fellowships were funded by PURCE.



As Purdue faculty members, the primary focus of PURCE faculty affiliates is the production of rigorous empirical policy-relevant research. Our scholars contribute research that shapes policy views in the areas of crime, education, employment, health, innovation, international trade, market competition, monetary policy, and racial discrimination. PURCE's mission is to disseminate this research to ensure that it does more than just sit in an academic journal waiting for a policymaker to take interest. We produce research summaries and policy briefs which we put in the hands of business, community, and government leaders and we engage with reporters to increase media coverage of faculty research. The PURCE twitter account @KrannertPURCE provides links to our scholars' news interviews, newly released papers, and our public events; I encourage you to follow.

Along with all the successes, this was also a challenging year as we adjusted our spring semester programs and events in response to the COVID-19 pandemic. We've reshaped our programs to be able to continue them over the next year in ways that comply with new restrictions. I'm especially pleased that our engagement with undergraduate students through the economic scholars and research assistant programs will continue. Our public events have moved online with a return to in-person events as soon as allowed.

Thanks to incredibly generous support from our donors, our fiscal health has increased. Your investment in PURCE has helped us move from a start-up into a functioning university center with increasing influence that improves our lives through better policies. I hope to see you at one of our events (either online or in-person) to continue the policy discussion.

Sincerely,

A handwritten signature in black ink that reads "K-J, Mumford". The signature is written in a cursive, slightly stylized font.

Kevin J. Mumford
Kozuch Director of PURCE

OUR MISSION

We create and share insights into how laws, regulations, and government programs affect the market economy and the well-being of individuals and society.

As a nonprofit research organization, PURCE relies on the generous support of donors to accomplish our mission of conducting policy-relevant economic research and sharing that research with decision makers.

We do this by:

- Providing resources to hire faculty who are trained in empirical economic methodologies and who apply them to policy evaluation
- Training economics students in these methods with this research focus
- Supporting the research of faculty and students by helping them distribute research findings in top academic journals as well as in other media to reach a general audience.

In summary, PURCE faculty and graduate students conduct data-driven economic research and share knowledge with academics, policymakers, the business community and the public. We have a reputation for first-rate, academic research demonstrated by our ongoing activities and publications.

OUR HOME

PURCE is housed in Purdue University's Krannert School of Management, one of the top business schools in the country, with 2,344 undergraduate and 569 graduate students. Krannert has been ranked as a top-25 undergraduate business program for 22 consecutive rankings by U.S. News and World Report. Krannert's strengths in analytical and quantitative analysis reflect Purdue's roots in science, technology, and engineering. The curriculum at both the undergraduate and graduate levels emphasizes calculus-based analytics and data analysis.

The presence of the Department of Economics within the business school is another factor that makes Krannert unique and has contributed to the overall focus on teaching students data-dependent empirical methodologies.

The center's mission of using empirical economic methodologies to analyze the effects of laws, regulations, and government programs fits perfectly with Purdue's strengths.

Located in West Lafayette, Indiana, Purdue University is a world-renowned, public research university. Student enrollment is 44,551, of which 76% are undergraduate students. Purdue students graduate in over 200 majors.



WHO WE ARE

PURCE STAFF



Kevin J. Mumford
Kozuch Director



Jodi Ayers
Senior Administrative
Assistant



Nicole Brooks
Media Relations
Specialist

PURCE- AFFILIATED FACULTY

Jack Barron	Professor of Economics
Jonathan Black	Assistant Professor of Accounting
Timothy Bond	Associate Professor of Economics
Jillian Carr	Assistant Professor of Economics
Mara Faccio	Duke Realty Chair in Finance and Professor of Finance
Farid Farrokhi	Assistant Professor of Economics
Clifford Fisher	Clinical Professor of Management
Trevor Gallen	Assistant Professor of Economics
Huseyin Gulen	Professor of Finance
David Hummels	Dr. Samuel R. Allen Dean and Distinguished Professor of Economics
Stephen Martin	Professor of Economics
Joe Mazur	Assistant Professor of Economics
William B. McCartney	Assistant Professor of Finance
John McConnell	Burton D. Morgan Distinguished Chair of Private Enterprise and Professor of Finance
Timothy Moore	Associate Professor of Economics
Kevin Mumford	Director & Associate Professor of Economics
Victoria Prowse	Marge Magner Chair and Associate Professor of Economics
Mohammad Rahman	Associate Professor of Management
Brian Roberson	Professor of Economics
Miguel Sarzosa	Assistant Professor of Economics
Ralph Siebert	Professor of Economics
Anson Soderbery	Associate Professor of Economics
Justin Tobias	Loeb Chair and Professor of Economics
John Umbeck	Professor of Economics
Chong Xiang	Professor of Economics
Cathy Zhang	Associate Professor of Economics

OUR RESEARCH

PURCE faculty affiliate research helps community groups, businesses, and government address economic challenges by estimating the effects, both intended and unintended, of laws, regulations, and government programs in several focus areas:

COMPETITION

Research in this area focuses on consumer protection, market regulation, and antitrust policy.

CRIME

Our researchers study the economics of crime and criminal justice reform, with published papers on gun violence, juvenile curfews and more.

EDUCATION

PURCE researchers are studying K-12 teacher pay-for-performance programs, student motivation, the unintended consequences of free college, and the use of income share agreements to pay for college.

FISCAL POLICY

Research in this area examines federal taxation and government spending.

HEALTH

Our research covers health economics and health care policy, with papers on quality of care in non-profit hospitals, Social Security reforms, pharmaceutical regulation and more.

INNOVATION

Research in this area covers technological development and innovation policy.

MARKET SOLUTIONS

Faculty affiliates research market-based solutions to public policy problems.

STATE POLICIES

Our state-level policy analysis considers policies to reduce opioid use and improve welfare program outcomes in addition to our work on health care, education, crime, and employment policies.

TRADE

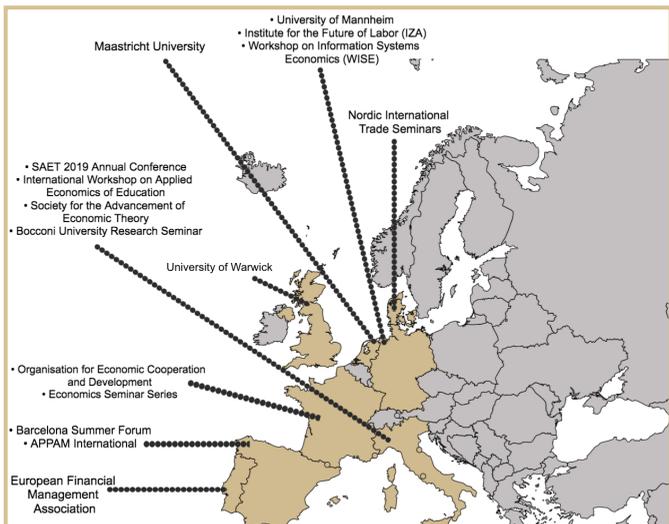
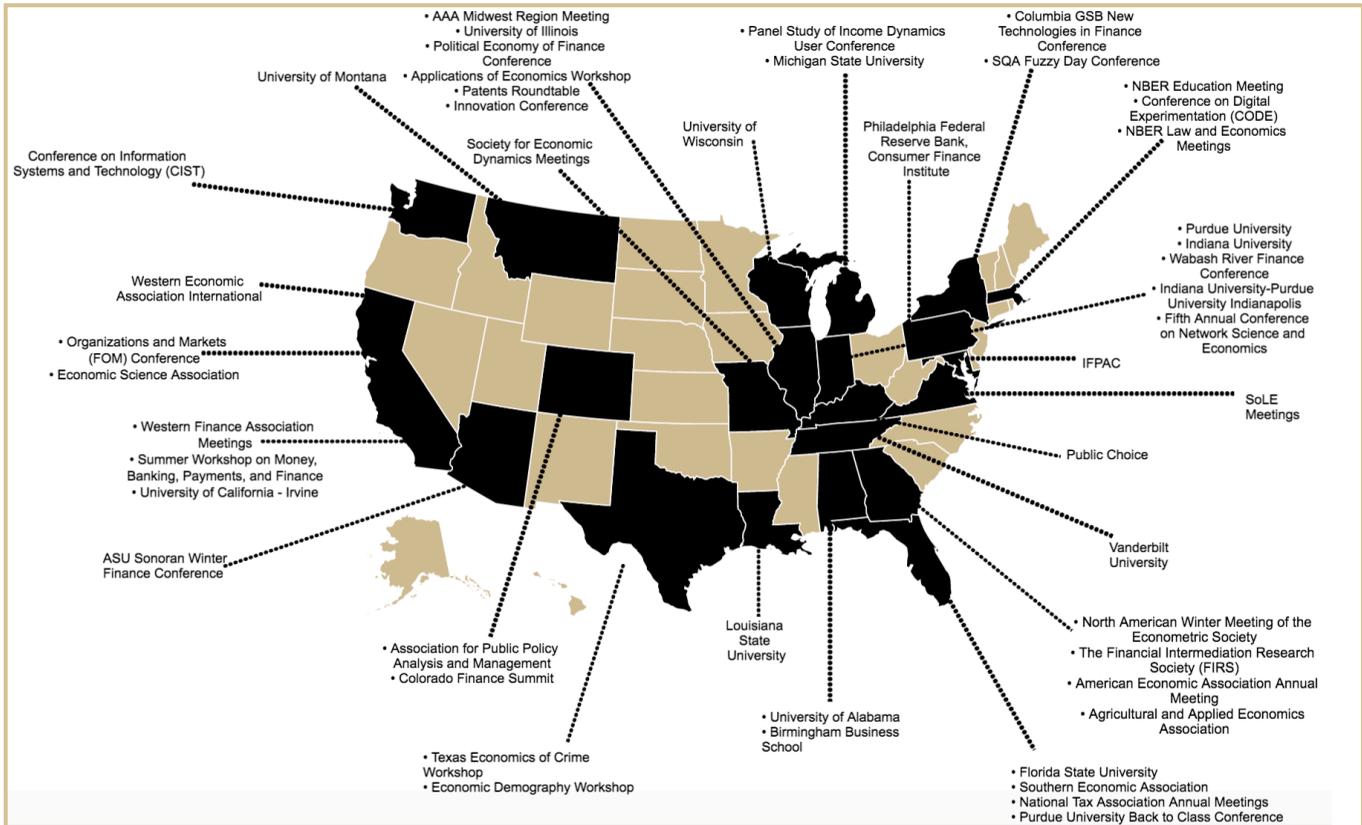
Several PURCE faculty affiliates are experts in aspects of international trade policy.

WORK

Research in this area includes labor market policy and the future of work.

RESEARCH PRESENTATIONS

PURCE-affiliated faculty presented their research at 111 conferences and university research seminars across the globe.



PURCE faculty affiliates also presented their research at:

- Deakin University, Geelong, Australia
- University of Melbourne, Melbourne, Australia
- University of Technology-Sydney, Sydney, Australia
- University of British Columbia, Vancouver, British Columbia
- Bank of Canada, Ottawa, Canada
- Peking University, Beijing, China
- Tel Aviv University Finance Conference, Tel Aviv, Israel

PUBLICATIONS AND RESEARCH HIGHLIGHTS

ACADEMIC PUBLICATIONS

PURCE-affiliated faculty had 25 peer-reviewed articles accepted at top academic journals, including:

- Economic Theory
- ILR Review
- Journal of Behavioral and Experimental Finance
- Journal of International Economics
- Journal of Political Economy
- Journal of Urban Economics
- Review of Economics and Statistics
- Review of Industrial Organization

RESEARCH HIGHLIGHTS

Jillian Carr and Timothy Bond, **“Hungry for Success? SNAP Timing, High-Stakes Exam Performance, and College Attendance,”** with coauthors Analisa Packham and Jonathan Smith. This working paper shows that low-income students who take the SAT more than two weeks after Supplemental Nutrition Assistance Program (SNAP) benefits are distributed perform worse than those who take the SAT soon after SNAP benefits are distributed.

Mara Faccio, **“Political Determinants of Competition in the Mobile Telecommunication Industry,”** with coauthor Luigi Zingales. This working paper finds mobile telecommunication regulations are more pro-competitive in Germany than in the U.S. where politically connected operators have restricted competition, costing consumers \$65 billion in higher costs per year.

Farid Farrokhi, **“Global Sourcing in Oil Markets,”** Journal of International Economics. In 2016, the U.S. ended a 40-year ban on exporting domestically-produced crude oil, which benefitted U.S. oil producers, reduced profits for U.S. oil refineries, and resulted in a less than 1% increase in consumer prices.

Huseyin Gulen, **“The Selective Enforcement of Government Regulation: Battleground States and the EPA,”** with coauthor Brett W. Myers. This working paper finds EPA regulators are less likely to determine that a

production facility is in violation of the Clean Water Act if it is in a “battleground state” that is more influential in presidential elections.

David Hummels and Chong Xiang, **“No Pain, No Gain: The Effects of Exports on Effort, Injury, and Illness,”** a working paper with coauthor Jakob Munch. When the demand for goods produced at a particular firm increases, workers increase work hours and suffer higher rates of adverse health events.

W. Ben McCartney, **“Household Financial Distress and Voter Participation,”** a working paper that shows households going through financial distress are less likely to vote.

Timothy Moore, **“Disability Insurance Income Saves Lives,”** a working paper coauthored by Alexander Gelber and Alexander Strand that shows increasing U.S. Disability Insurance payments by \$1,000 annually reduces the mortality rate by 0.1 to 0.25 percentage points.

Kevin Mumford, **“Why Have College Completion Rates Increased?”** A working paper with coauthors Jeffrey T. Denning, Eric R. Eide, Richard W. Patterson, and Merrill Warnick. College completion rates have increased since 1990 and the primary reason is college grade inflation.

Victoria Prowse, **“Using Goals to Motivate College Students: Theory and Evidence from Field Experiments,”** an accepted paper in the Review of Economics and Statistics that finds asking college students to set task-based goals has large effects on task completion. With coauthors Damon Clark, David Gill, and Mark Rush.

Miguel Sarzosa, **“Unintended Consequences of Free College: Self-Selection into the Teaching Profession,”** with coauthors Rosa Castro-Zarzur and Ricardo Espinoza. This working paper finds making college tuition free caused an increase in students in high-wage majors and a decrease of students in lower-wage majors that had pre-existing scholarship programs, such as teaching.

MEDIA IMPACT

We use a media monitoring service to measure news mentions of PURCE-affiliated faculty in newspapers, magazines, radio, television, and online news sites.

In the 2019-2020 fiscal year, our research was covered in our local media market by the Indianapolis Business Journal, WLFI, The Tribune-Star, and others.

Several stories were picked up by national and international media including Bloomberg News, Yahoo Finance, The New York Times, and BizEd.

TOP MEDIA PLACEMENTS

The Fed is becoming a 'lender of last resort' during COVID-19 pandemic: Cathy Zhang, an expert in monetary policy and its effect on small business financing, was called upon to make sense of the Federal Reserve's responses to the pandemic's effect on small businesses and rising unemployment.

Voting could be of least concern for Americans facing housing crisis: Ben McCartney, an expert in household finance and voter participation, commented on the connection between financially distressed households and voter turnout.

Three ways malls and department stores can survive the growing number of COVID-19 lockdowns: Mohammad Rahman provided data-driven guidance on how retailers can better manage their physical and digital storefronts amid lockdowns. Media benefitted from Rahman's analysis of millions of online transactions and reviews.

Research examines negative impact of economic policy uncertainty: Huseyin Gulen drew from findings in his paper, "Policy Uncertainty and Corporate Investment," which was published as an Editor's Choice lead article in The Review of Financial Studies. Gulen shows that the impact of uncertainty on corporate investment is particularly negative, from both short-and long-term perspectives.

VALUE OF MEDIA PLACEMENTS

We track the news advertisement value (the cost to purchase an equivalent amount of advertising space) and the size of the news audience for each media placement.

The first year PURCE started tracking this data, fiscal year 2016-17, our advertisement value was \$67,078 and the audience reached was 81,496,306.

This fiscal year, our advertisement value is \$134,648, and our audience reach totaled 322,975,902.



OUR PROGRAMS

RESEARCH PROGRAMS

Graduate Research Assistantships Program

Funding is available for Economics Department PhD students being advised by a PURCE faculty affiliate. This funding covers university tuition and fees as well as a teaching/research assistantship.

Research Grants Program

Research grants are available to PURCE faculty affiliates as well as PhD students being advised by a PURCE faculty affiliate. Recipients produce policy-relevant research papers that are published in top academic journals.

UNDERGRADUATE STUDENT ENGAGEMENT PROGRAMS

Economic Scholars Program

Students who have completed a principles of economics course are invited to apply for the program, with a preference for students who are not economics majors. The selected students complete a one credit hour independent study course in which they complete readings and have a weekly discussion. They are each awarded a \$1,000 scholarship.

Economics Honors Courses

PURCE provides overload teaching payments to fund the teaching of honors courses in economics with a focus on attracting students from other majors. These courses use innovative teaching methods.

OUTREACH PROGRAMS

Economic Ideas Forum

This annual conference finds PURCE faculty affiliates sharing their insights about the effects of government policy with an audience of government, business, and community leaders, as well as the general public. A nationally recognized policy scholar is invited to provide a keynote address.

Economic Policy Luncheon Series

This monthly lunch brings together community leaders from the Greater Lafayette area for a faculty presentation, networking, and a Q&A session. These luncheons have evolved into a live, monthly webinar series.

Distinguished Lecture Program

World-renowned scholars come to Purdue to give public lectures on government policy topics. PURCE generally partners with the University President, the School of Management, or other university entity.

PURDUE CENTER FOR ECONOMIC EDUCATION

Since 1966, the Purdue Center for Economic Education (PCEE) has been a national leader in promoting economic literacy. Housed in Krannert's Department of Economics, this center shares with PURCE a passion for economics, but one largely focused on K-12 economic education. PCEE is part of a network of university centers for economic education established by the Indiana Council for Economic Education.

Outreach

In coordination with PCEE's teacher advocates, PCEE hosted several teacher outreach events this year, including "Creating a Classroom Mini-Economy" and "Teaching Economics Using Children's Literature," as well as a full-day workshop focused on developing classroom businesses. "EconVersations" workshops for middle and high school teachers featured PURCE's own faculty affiliates Tim Moore and Jillian Carr, who provided timely information on issues in healthcare reform and the impact of SNAP benefits on student SAT scores, respectively.

Impact

This year, PCEE programming provided resources for 44 teachers who collectively teach more than 4,000 Indiana K-12 students. The center established a mentoring program to connect teachers with various levels of experience and created a Facebook group for educators developing classroom businesses.

Reach out to pcee@purdue.edu for a full annual report and to learn more about this special center and its activities.

STUDENT SUPPORT

Since our founding, approximately 20% of PURCE expenditures, from all sources, supported Economics PhD students. In the 2019-2020 academic year, PURCE provided full fellowships to these PhD students, who are trained in empirical methodologies and are pursuing a research agenda that is primarily focused on evaluating government regulations and programs:

Abigail Banan
Mary Kate Batistich
Svetlana Beilfuss
Daniel Bonin
Clint Harris

Brandon Norton
Mason Reasner
Amrita Sanyal
Danyang Zhang

PURCE also provides for its PhD students in unique ways, including funding trips to conferences and purchasing data access needed for research projects.

Without PURCE, fewer PhD students would have been admitted to Krannert's Economics Department, and certainly far fewer students with empirical policy research interests would have been admitted.

We were proud to graduate the first class of PURCE-supported PhD students in May 2020. Among the group is our first supported PhD student, Mary Kate Batistich, who was highly sought after on the job market – she had nine job offers from universities and government agencies. Mary Kate is now an Assistant Research Professor in the University of Notre Dame's Department of Economics, focusing on domestic poverty through the department's Wilson Sheehan Lab for Economic Opportunities, or LEO.

This past year we bolstered our support of students by creating the Undergraduate Research Assistantship Program. Undergraduates meeting strong criteria – including completion of at least three upper division econ courses – are employed as hourly researchers. They learn best practices and assist faculty with real-world research projects.



“Assisting economics professors on real research has been an incredible opportunity to apply what I learn in my econ classes. Even as an undergrad, I am able to interact with faculty, such as Dr. Mumford, in a manner expected from a graduate economics program. The economics professors at Purdue are more than willing to help students interested in empirical research.

In my first semester as a research assistant, my assignment involved researching evidence for risk aversion, moral hazard, and adverse selection in Income Share Agreements. I look forward to future research that excites my curiosity in economics.”

-Julian Gammon, Krannert Economics & Finance major and PURCE Undergraduate Research Assistant

THIS YEAR'S EVENTS

PURCE hosts public and private events each year that highlight our faculty, their research, and the research's ability to inform the public about the effects of policies. We are excited to add virtual events to our offerings. A new Economic Policy Webinar series will replace our popular luncheon series for the foreseeable future.

ECONOMIC POLICY LUNCHEONS



Average attendance at our on-campus networking lunchtime talks increased to 50 participants this year.

- September: Jillian Carr, at left, "Oh SNAP!: How Government Policies Can Make Crime Less Appealing"
- October: Chong Xiang, "A Guide to the Trump Tariffs and their Impact"
- November: Keith Hall, "Government Deficits and Debt: Why They're So Large and Why They Matter"
- December: Trevor Gallen, "U.S. Income Inequality: What Do We Know?"
- January: Kevin Mumford, "Income Share Agreements: The Wave of the Future?"
- February: Anson Soderbery, "The Trump Tariffs: What Economic Incentives are at Play?"
- March: Joe Mazur, "Competition Policy & Anticompetitive Mergers"

Due to the outbreak of COVID-19, we canceled our planned April 2020 Economic Ideas Forum. We look forward to relaunching this daylong research conference.

INDIANA STATEHOUSE

Working in partnership with the Purdue University Office of Government Relations, we hosted a successful series of information sessions at the Indiana Statehouse. These intimate faculty presentations were held during the state legislative session and drew key department heads and elected officials, who were able to ask questions about research on crucial, timely public policy topics.

- February: Jillian Carr, "SNAP Policy & Implementation: States have the Power to Effect Change"
- February: Kevin Mumford, "Teacher Pay-For-Performance: Is It Effective?"
- March: David Hummels, "U.S. Tariffs and their Effect on Hoosier Consumers, Producers"

SPECIAL EVENTS

In November, Krannert Economics PhD alumnus **Keith Hall** joined us on campus for two days of faculty and graduate student meetings and was our luncheon policy speaker. Dr. Hall is a Professor of Practice at Georgetown University, and has served in a number of prominent government positions including as director of the Congressional Budget Office.

We hosted **Robert Doar**, President of the American Enterprise Institute (AEI), in November for a presentation and Q&A with undergraduate students on welfare reform. Doar also met with key administrators at Purdue and Krannert, as well as faculty and econ graduate students.

We hosted the **Mid-Midwest Microeconomics Workshop**, with faculty and student researchers from peer institutions, including Indiana University, the University of Notre Dame and the University of Illinois at Urbana-Champaign, sharing their latest research findings.

IMPACT



"As a Krannert alum living in West Lafayette, there are many opportunities available on campus. When I received an email regarding a PURCE event, with a relevant topic and a complimentary lunch, this Scottish accountant was intrigued. What I discovered was a thought-provoking economic policy lecture on a crucial current issue. I am grateful for the opportunity to attend PURCE's events, which provide excellent value received. How could I not be supportive of such an admirable endeavor: sharing their research with all of us. I felt compelled to contribute to PURCE so they could continue their fine work."

- Janet (Mackenzie) Schweikher, Asset Manager, Wabash Center

Janet Schweikher is a cherished PURCE supporter, part of a broad base of donors. PURCE's generous donors include individuals, foundations and corporations, and we are grateful to all.

FACULTY UPDATES

Jonathan Black's "Does Fair Value Accounting Affect How Banks Convey Information About Future Performance? Evidence from SFAS 115" received the Best Paper Award at the 2019 AAA Midwest Meeting.

Jillian Carr earned the Krannert Faculty Scholar Award.

Mara Faccio was named an Editorial Board Member, Journal of International Business Studies.

Huseyin Gulen was named an Associate Editor at the International Review of Finance.

W. Ben McCartney became a committee member, Purdue Federal Credit Union Supervisory Committee.

John McConnell is the winner of Krannert's Salgo-Noren Outstanding MBA Teacher Award.

Timothy Moore received the Australian Research Council Discovery Early Career Researcher Award.

Justin Tobias was named Loeb Professor of Economics, and became Chair of the Economics, Finance and Business section of the International Society for Bayesian Analysis.



PURCE FACULTY LINES

Since the center's founding, generous donors have funded the academic year salary, summer salary and benefits for several Department of Economics faculty members. During the 2019-20 academic year, PURCE funded six faculty members.

Without PURCE funds, these faculty lines would not exist.

PURCE-funded faculty teach economics to both undergraduate and graduate students at Purdue. Without PURCE-funded faculty lines, the Department of Economics would not be able to offer as many courses, meaning fewer students would have the opportunity to learn empirical policy analysis methodologies.

NUMBER OF STUDENTS TAUGHT BY PURCE-FUNDED FACULTY

	Undergraduate	MS or MBA	PhD
Fall 2019	169	-	50
Spring 2020	225	1	22
Summer 2020	81	29	9
Total	475	30	81

In the 2019-20 academic year, PURCE-funded faculty taught these courses:



Jillian Carr

Economics of Public Policy (undergraduate), Public Economics (PhD)



Farid Farrokhi

International Economics (undergraduate), International Economics (MS), International Trade (PhD)



Trevor Gallen

Intermediate Macroeconomics (undergraduate), Computational Economics (PhD)



Joe Mazur

Industrial Organization (undergraduate), Senior Honors Thesis (undergraduate)



Timothy Moore

Health Economics (undergraduate)



Victoria Prowse

Econometrics (undergraduate), Topics in Empirical Labor and Public Economics (PhD)

FUTURE VISION

Over the past two academic years, PURCE launched its monthly Economic Policy Luncheon Series, information sessions for state government leaders at the Indiana Statehouse, the Economic Scholars Program, the Undergraduate Research Assistant program, and graduated its first PURCE-funded Economics PhD students. It has been a very successful period of growth for the center.

Looking forward, we seek to become a go-to resource for journalists, lawmakers, and other thought leaders who need empirical evidence on the effects of laws, regulations, and government programs. To accomplish this, we will increase our production of research summaries and policy briefs, increase the number of people attending our events, increase our interactions with government leaders, and increase media coverage of faculty research. Too often, the reason that facts seem to be in short supply is that lawmakers don't know where to find relevant economic research. PURCE is becoming part of the solution.

We also seek to have a greater influence on attracting students to economics and using data and econometric methods to evaluate economic policy. We plan to hire additional students as research assistants and double the size of our Economic Scholars Program. Through a much closer relationship with the Purdue Center for Economic Education, we will increase our outreach to high school teachers, where we have the opportunity to reach thousands of high school students.

We invite you to help PURCE with our mission to share empirical policy-relevant research findings.





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Research Center in Economics