

PURDUE UNIVERSITY RESEARCH CENTER IN ECONOMICS



ANNUAL REPORT 2021-22



Krannert School of Management



WELCOME

Over the past academic year, my fourth as Kozuch Director of PURCE, we have seen an increase in public interest in economic policy issues. The reduction in labor force participation, surge in government spending, variation in COVID restrictions, rise in the personal savings rate, new efforts to address learning loss, and the sharp increase in property taxes have been frequent topics of conversation. More than any of these, the high rate of inflation is a constant part of conversations as we all adjust to higher prices for groceries, services, durables, and travel. It's true that we have been through high periods of inflation before, but it has been a long time (I was a child the last time inflation was this high).

The changing economic conditions point to an even greater need for economic analysis of government policies. What information do we want government decision-makers to have when they make choices that affect all of us? Purdue University professors who are affiliated with PURCE conduct rigorous empirical evaluations of government programs, laws, and regulations; precisely the type of information that informs policy decisions. But this research is of little use if it is not shared more widely than in an academic journal. The center's mission is to facilitate sharing policy-relevant research through its information sessions at the Indiana Statehouse, the Economic Policy Luncheons on campus, the Econ Scholars program for undergraduate students, public-facing articles, and media interviews. We work to share this information with government leaders and with the public because we believe it will lead to better government policy.

Our faculty affiliates believe in PURCE's mission and, in addition to teaching, focus much of their time on policy-relevant research. The number of faculty affiliates continues to increase, with five new professors joining our center this year: Maria-Jose Carreras-Valle, Michael Eriksen, Aaron Hedlund, Lindsay Relihan, and Ben Zou. They will increase our ability to conduct empirical policy analysis as well as our influence with journalists and lawmakers as more of our research ends up in the news and more government leaders ask our faculty affiliates for policy advice.

Our ability to support empirical faculty research, hire students as research assistants, and provide outreach programs and events is a direct result of generous support from our donors. Your investment in PURCE has created a vibrant university center with an increasing ability to positively affect public policy. I offer my gratitude to the foundations and individuals who give to PURCE to support this important mission. Thank you!

Sincerely,

Kevin J. Mumford
Kozuch Director of PURCE





PURCE is home to select Krannert School of Management faculty who conduct data-driven research into how laws, regulations, and government programs affect the market economy and the well-being of individuals and society.

We share our research findings on crime, education, fiscal policy, health, trade, and more with policymakers and community and business leaders, not to push any particular agenda, but to provide data and information that can lead to more informed decisions.

OUR CENTER

- Provides resources to hire faculty who are trained in empirical economic methodologies and who apply them to policy evaluation
- Trains economics students in these methods with this research focus
- Supports 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

We have a reputation for first-rate, academic research demonstrated by our ongoing activities and publications.

As a nonprofit research organization, PURCE relies on the generous support of donors to accomplish its mission.

OUR HOME

PURCE is housed in Purdue University's Krannert School of Management, one of the top business schools in the country, with 2,698 undergraduate and 1,231 graduate students. 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 49,639, of which 75% are undergraduate students. Purdue students graduate in over 200 majors.



PURCE STAFF



KEVIN J. MUMFORD *Kozuch Director*



JODI AYERS Senior Administrative Assistant



NICOLE BROOKS Media Relations Specialist

WHO WE ARE

PURCE AFFILIATED FACULTY

Jonathan Black Assistant Professor of Accounting
Timothy Bond Associate Professor of Economics
Jillian Carr Associate Professor of Economics
Maria-Jose Carreras-Valle Assistant Professor of Economics

Mario CruciniSemler Chair and Professor of EconomicsMike EriksenProfessor of Economics and Director,
Dean V. White Real Estate Finance Program

Mara Faccio Duke Realty Chair in Finance and Professor of Finance

Farid FarrokhiAssistant Professor of EconomicsTrevor GallenAssistant Professor of Economics

Huseyin Gulen Professor of Finance

Aaron Hedlund Associate Professor of Economics

Russell Hillberry Professor of Agricultural Economics and Courtesy
Appointment with Department of Economics

David Hummels Dr. Samuel R. Allen Dean and

Distinguished Professor of Economics

Stephen Martin Professor of Economics

Joe Mazur Assistant Professor of Economics

John McConnell

Burton D. Morgan Distinguished Chair of
Private Enterprise and Professor of Finance

Timothy Moore Associate Professor of Economics

Kevin Mumford Director and Associate Professor of Economics

Seunghoon Na Assistant Professor of Economics

Victoria Prowse Marge Magner Chair and Professor of Economics

Mohammad RahmanAssociate Professor of ManagementLindsay RelihanAssistant Professor of Economics

Brian Roberson Professor of Economics

Miquel Sarzosa Assistant Professor of Economics

Ralph Siebert Professor of Economics

Anson Soderbery Associate Professor of Economics

Colin Sullivan Assistant Professor of Economics

Justin Tobias Loeb Chair and Professor of Economics

Head, Department of Economics

John UmbeckProfessor of EconomicsChong XiangProfessor of Economics

Cathy ZhangAssociate Professor of EconomicsBen ZouAssistant Professor of Economics

RESEARCH AREAS

Research produced by PURCE faculty affiliates can aid communities, businesses, and government in addressing economic challenges. Faculty research estimates the effects, both intended and unintended, of laws, regulations, and government programs in several focus areas:



COMPETITION

Research on market regulation and consumer protection policies measures the trade-offs between consumer welfare and firm productivity.



CRIME

Our research on the economics of crime and the criminal justice system provides insights on how to improve the system.



EDUCATION

At both the K-12 and higher-education levels, our researchers evaluate new approaches with the potential to improve learner outcomes.



FISCAL POLICY

Our research estimates how taxes affect households and employers and evaluates the effectiveness of government spending.



HEALTH

Our focus on health policy provides insights into how specific policies influence health outcomes, health spending, and health care providers.



INNOVATION

Innovation is the primary driver of economic growth; our researchers estimate the causes and consequences of new technologies and innovation policies.



MARKET SOLUTIONS

Our researchers evaluate market-based solutions to some of the country's most important social problems.



STATE POLICIES

Our research provides empirical estimates of the effects of welfare and other government programs that are primarily implemented at the state level.



TRADE

International trade policy affects what we buy, how we work, and the growth of the economy; our research identifies optimal policies and welfare losses from trade restrictions.



WORK

Our researchers examine the effects of government intervention in the labor market and how new technologies will impact the future of work.

PUBLICATIONS

ACADEMIC PUBLICATIONS

PURCE faculty affiliates had 44 peer-reviewed research papers accepted at top academic journals, including:

American Economic Journal: Economic Policy
American Economic Journal: Applied Economics
International Economic Review
Journal of Development Economics
Journal of Financial Economics
Journal of Human Resources
Journal of Public Economics
Management Science
The RAND Journal of Economics
Review of Economic Studies
Review of Financial Studies

SUMMARIES

Timothy Bond & Jillian Carr, "Hungry for success? SNAP timing, high-stakes exam performance, and college attendance," with coauthors Analisa Packham and Jonathan Smith, American Economic Journal: Policy. In this paper, two PURCE researchers collaborate to analyze how the timing of food availability impacts academic achievement. Different states distribute SNAP at different times of the month.

Bond and Carr found that when low-income students take the SAT in the last two weeks of the benefit cycle, they get lower test scores and have a lower probability of attending a 4-year college. Since there is evidence that lower SAT scores lead to students attending lower-quality colleges resulting in lower lifetime wages, researchers find that the timing of SNAP distribution may be related to achievement gaps for low-income students.

Mara Faccio, "Political Determinants of Competition in the Mobile Telecommunication Industry," with coauthor Luigi Zingales, *Review of Financial Studies*. Faccio examines how political connections affect competition in the mobile telecommunication industry. She finds that, in countries where mobile service operators have deeper connections with local politicians, legislation promotes competition less.

Conversely, Faccio also found that rules that promote competition are associated with lower prices and a market that is less dominated by large companies. The evidence indicates that political connections are a form of rent-seeking. That is, if a mobile service operator can limit it's competition through favorable regulation, it can reap wealth without any reciprocal contribution of productivity.

Russell Hillberry, "Risk Management in Border Inspection," with coauthors Bilgehan Karabay and Shawn W. Tan, Journal of Development Economics. Hillberry and his fellow researchers analyze how implementing risk management strategies can streamline the import inspection process. They explain how implementing IT systems would allow inspecting agencies to dramatically decrease inspections while ensuring shipments comply with import regulations.

Joe Mazur, "Repositioning and Market Power After Airline Mergers," with coauthors Sophia Li, Yongjoon Park, James Roberts, Andrew Sweeting, and Jun Zhang, The RAND Journal of Economics. Mergers between air carriers can now be analyzed in a new way. Mazur and his fellow researchers present a new model that quantifies "selection," which is the idea that the distribution of costs and service quality is different for carriers that have chosen to launch transportation services along a route postmerger than those who have chosen to stay out.

Timothy Moore, "Guns and Violence: The Enduring Impact of Crack Cocaine Markets on Young Black Males," with coauthors William N. Evans and Craig Garthwaite, Journal of Public Economics. This paper outlines the effects of violence associated with crack cocaine markets in the 1980s and 1990s on young black males today. The researchers show that 17 years after the emergence of crack cocaine markets, the U.S. murder rate of black males aged 15-24 was 70 percent higher than it otherwise would have been. They also estimate that the social cost of the excess deaths due to crack cocaine is \$467 billion.

RESEARCH HIGHLIGHTS

GPAs, college graduation rates are up — while our standards are down

More and more college students are getting good grades, and more and more college students are passing the graduation finish line, diploma in hand. These trends cannot be explained by improved school resources or student characteristics like time spent studying, employment during college, or better college prep courses.

GPAs have been rising and college graduation rates have increased because standards have been lowered.

"Relaxed standards account for much of the increase in college graduation rates across institution types, including public and private universities and elite and non-elite schools," says Kevin Mumford, associate professor of economics at Purdue University's Krannert School of Management and director of the Purdue University Research Center in Economics.

His research paper, "Why Have College Completion Rates Increased?", published in the *American Economic Journal: Applied Economics*, is coauthored by researchers from Brigham Young University, the United States Military Academy, and Stanford University.

They show that from 1990 to 2010, college completion rates have increased – for both men and women – and that grade inflation accounts for 95 percent of the increase in graduation rates.

The data used for this study comes from two large, nationally-representative student surveys from 1988 (NELS) and 2002 (ELS). The study also incorporates student-level data from 1990 to 2014 obtained from several universities. Unfortunately, nationally-representative student data for more recent years was not available.

The researchers examine potential explanations for the increase in graduation rates.

"In the end, the data tells us that the lowering of standards for receiving a degree most likely explains increasing graduation rates," Mumford says.

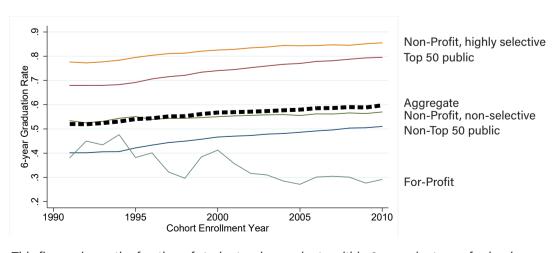
There are possible incentives for faculty and administration to inflate grades or increase GPAs for reasons other than student performance. Instructors who give students higher grades get better teaching evaluations. Departments that increase grades see higher student enrollment.

College completion rates declined from the 1970s to the 1990s and while they have been rising since the 1990s, the six-year graduation rate at four-year schools was only 67 percent in 2016. This "college completion crisis" inspired scrutiny, and some institutions may have responded by taking action to increase graduation rates.

"Changing standards for degree receipt is a low-cost way to increase graduation rates," Mumford says. And while grades have risen at all school types, the increase in graduation rates is concentrated at public schools, where more of their funding is tied to degree completion.

Lowering academic standards likely caused some harm, Mumford says. But, college-educated workers are in demand and the college wage premium is large. Higher graduation rates mean more workers with a college degree – even if lower academic standards mean that these grads have less skill on average than prior cohorts.

More research must be done to identify the causes of grade inflation as well as its effect on learning and the skills of college-educated workers, Mumford says.



This figure shows the fraction of students who graduate within 6 years by type of school.

Bullying in school hampers skill development, healthy adulthood

Kids who experience bullying are victims of injury or discomfort from peer teasing, harassment, and physical abuse. While some costs of bullying – school absenteeism, suicidal thoughts and actions – have been documented, little research has been done on the two-way relationship between bullying and skill accumulation in children.

Miguel Sarzosa, an assistant professor of economics at Purdue University, finds that victimization depletes an average middle school child's non-cognitive skills by 40 percent. This skill depletion causes the child to become 34 percent more likely to experience bullying again.

"Bullying triggers a self-reinforcing mechanism that opens the skill gap," Sarzosa says. "This self-reinforcing mechanism creates a vicious cycle and an enormous burden on the bullied, and they carry this burden into adulthood."

In his research paper "Victimization and Skill Accumulation: The Case of School Bullying," published in *The Journal of Human Resources*, Sarzosa considers the cognitive and non-cognitive skill sets and skill accumulation processes of 3,449 schoolaged kids, interviewed over six years, as part of the Junior High School Panel of the Korean Youth Panel Survey.

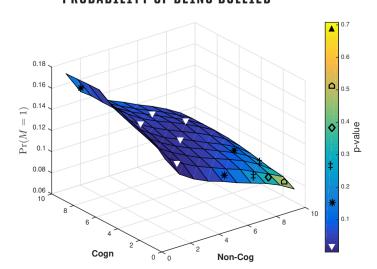
While bullying negatively impacts the development of both cognitive and non-cognitive skills, the effects of victimization are much more severe for non-cognitive skill accumulation. Non-cognitive skills — also referred to as socioemotional or soft skills — include the ability to recognize and control emotions and reactions, establish and maintain positive relationships, make responsible decisions, and set and achieve positive goals. Sarzosa measures them using scales of locus of control, responsibility, and self-esteem. Cognitive skills are measured through academic performance in math, science and language, and a comprehensive end-of-year exam.

Sarzosa finds that children who start middle school with less developed non-cognitive skills are more likely to be bullied – those scoring in the bottom 10 percent for non-cognitive skills are twice as likely to be bullied than those in the top 10 percent and are 36 percent more likely to be bullied than the average student.

This poses a serious problem. Kids who are bullied experience a decrease in non-cognitive skills, skills they were already lacking. This snowball effect can continue into adulthood and puts those who experience bullying at higher risk for depression, substance abuse, and suicidal ideation.

Sarzosa points to two tools to reduce victimization's negative effects: Invest in helping children develop non-cognitive skills at a younger age, and group students with similar non-cognitive skill levels. This classroom arrangement, he finds, decreases the likelihood of being bullied from 11.5 percent to 2.8 percent.

PROBABILITY OF BEING BULLIED



Note: Results based on 40,000 simulations based on the estimated parameters of the model of skill formation.

IMPACT

In 2021, PURCE faculty affiliates represented the center and the Krannert School of Management at more than 100 conferences and research seminars. Many events, like the American Finance Association annual meeting, were virtual; here we represent both the in-person presentation locations and the virtual conferences' host locations.



ARIZONA

North-American Economic Science Association Conference, Tucson



CALIFORNIA

INFORMS, Anaheim
Loyola Marymount University
RAND Conference, Santa Monica
University of California, Davis
University of California, Riverside
University of California, Santa Barbara
University of Southern California, Los Angeles



COLORADO

Financial Management Association, Denver University of Colorado



CONNECTICUT

Wesleyan University



GEORGIA

Kennesaw State University



ILLINOIS

University of Chicago



INDIANA

Ball State University
Family Impact Institute
Indiana Statehouse, Indianapolis
Indiana University
Purdue University



MASSACHUSETTS

National Bureau of Economic Research, Cambridge



MICHIGAN

Michigan State University University of Michigan



MINNESOTA

Society for Economic Dynamics, Minneapolis



MISSOURI

Washington University in St. Louis



NEW JERSEY

Princeton University



NEW YORK

Baruch College Cornell University



PENNSYLVANIA

Drexel University
Federal Reserve Bank of Philadelphia
Pennsylvania State University
Pittsburgh University
Villanova University



TEXAS

Agricultural & Applied Economics Association, Austin Southern Economic Association, Houston

Southern Economic Association, Houston Workshop on Information Systems and Economics, Austin



VIRGINIA

Federal Reserve Bank of Richmond



VERMONT

Middlebury College



WASHINGTON

Washington State University



WASHINGTON, D.C.

George Washington University Inter-American Development Bank



WISCONSIN

University of Wisconsin



AUSTRALIA

La Trobe University Monash University



CANADA

University of Alberta University of Ottawa University of Waterloo Wilfrid Laurier University



CHINA

City University of Hong Kong Peking University Xiamen University



COLOMBIA

Latin American and Caribbean Economic Association Universidad de Antioquia



GERMANY

University of Bonn University of Cologne University of Wuppertal WHU – Otto Beisheim School of Management



ISRAEL

Bar-Ilan University Ben Gurion University



ITALY

Universita Cattolicà



NETHERLANDS

Maastricht University University of Groningen



PORTUGAL

University of Porto



SINGAPORE

National University of Singapore



SOUTH KOREA

Korea Development Institute



SPAIN

Pompeu Fabra University



SWEDEN

University of Gothenburg



UNITED KINGDOM

London School of Economics

MEDIA REACH

In the 2021-2022 fiscal year, our faculty were called upon to serve as experts in publications and media outlets including the Associated Press, CBS, *Education Week, The Indianapolis Star*, NPR, and Indianapolis' WTHR, WIBC, and Fox 59, among others.

PURCE affiliates are called upon to make sense of our world. Associate Professor Cathy Zhang was interviewed by Yahoo! Finance for her take on the Federal Reserve's balance sheet. This story was viewed by more than 33 million people. More than 15 media outlets published news stories on Associate Professor Jillian Carr's findings on the increase in domestic violence-related 911 calls during the pandemic lockdown. Associate Professor Tim Bond was interviewed by *The Torch*, a Chicago-area high school newspaper, for a piece on the student-worker labor shortage. Professor Victoria Prowse started a blog on *Psychology Today*.

OUR 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.

The COVID-19 pandemic caused us to adapt and expand our offerings into a virtual space. While this past year brought a "return to normal," we opted to offer most of our events both in-person and virtually to best serve the public and PURCE supporters.

ECONOMIC POLICY LUNCHEONS

We were glad to revive our monthly in-person policy luncheons in Purdue's fall 2021 and spring 2022 semesters. Invited guests joined us for networking, a catered lunch, a research presentation, and a Q&A with the faculty or guest speaker. We also streamed these talks for our virtual audience. The slate featured:

- September 2021: Brian Roberson on "Interlinked Contests & Decision Making"
- October 2021: Cathy Zhang on "Demystifying Money, Cryptocurrency, and Central Bank Digital Currency"
- November 2021: Mara Faccio on "The Revolving Door Between Government & Private Sector"
- December 2021: Larry DeBoer on "Property Taxes & Local Government Budgets: What's the Outlook?"
- January 2022: Ananth Iyer on "Understanding Recent Supply Chain Challenges"
- February 2022: Colin Sullivan on "New Tools for Measuring Labor Market Discrimination"
- March 2022: Stephen Martin on "Antitrust in a Time of Populism: After the Big Five."
- April 2022: James Nunns on "A Federal Tax and Transfer System by Design." Nunns is an associate in the Urban-Brookings Tax Policy Center at the Urban Institute who earned both his master's degree and a PhD in Economics from Krannert. He visited campus for Krannert's annual alumni conference and to be a guest speaker for this PURCE event. He also met with select faculty and students during his visit.



SPECTAL EVENTS

PURCE funds, or partially funds, and hosts academic conferences that bring together top faculty researchers. Educators and leading scholars from Indiana University, Michigan State University, the University of Illinois, the University of Notre Dame, and more gathered at Krannert this past year for our Mid-Midwest Applied Microeconomics workshop.



Above, Jillian Carr speaks at the microeconomics workshop about her research on public school teacher strikes and risky teen behavior. For this paper, she has teamed up with four Purdue alumni.

We also contributed funds and provided support for the Midwest Economic Theory & International Trade conference, and for the Empirical Investigations in International Trade conference, both organized by PURCE faculty affiliates.

INDIANA STATEHOUSE

For the third consecutive year we offered sessions at the Statehouse, either in-person, virtually, or both, for state policy and decision-makers.



PROVIDING EMPIRICAL RESEARCH ON POLICY ISSUES

In service of our mission to share good data and information with decision makers, PURCE again presented research findings at the Indiana Statehouse.

We collaborated with Purdue's Government Relations and Public Affairs office to offer three information sessions during the 2022 Indiana General Assembly. Committee members, elected officials, state department employees, and other interested parties were invited to sessions on resignations, retirements, and the labor shortage; bullying in schools; and cryptocurrencies and the future of money.

"There are a lot of voices offering opinions about government policy, but facts are often in short supply," says Kozuch Director of PURCE Kevin Mumford.

"We are bridging the gap by hosting these information sessions at the Statehouse and then making professors available for direct follow-up with government leaders," he says. "The center seeks to become a go-to resource for legislators and executive branch leaders wanting reputable and unbiased empirical evidence on specific government policies."

Empirical research on the effects of government policy — both intended and unintended — frequently fails to make the jump from academic journals into the hands of policymakers, Mumford notes.

While PURCE is not a think tank with particular policy agendas, the center does want to encourage increased interaction between Purdue professors and Indiana government leaders, as this interaction can lead to better government policies.

State Representative Beau Baird, House District 44, attended PURCE's session on cryptocurrency and the evolution of money.

"Elected officials have a responsibility to craft public policy in the best interest of all people," Baird says. "As such, it is critical we have access to expert knowledge and non-partisan information, such as that provided to us by PURCE."

The center offered the following during the short 2022 legislative session:

- Kevin Mumford presented data on resignations and retirements that illustrated the large ratio of job openings to hires, and discussed the causes of current labor shortages.
- Miguel Sarzosa, assistant professor of economics, discussed the long-term consequences of bullying on middle-school children and possible interventions that could reduce bullying and its devasting effects.
- Cathy Zhang, associate professor of economics, provided an overview of the economics behind cryptocurrencies, the future of money, and the ongoing debate about whether central banks should issue their own digital currencies.

"Events such as the PURCE Statehouse series are a great way to showcase our expertise and knowledge available to state lawmakers about some of the most pressing issues facing Indiana," says Anne Hazlett, senior director of Purdue Government Relations and Public Affairs.

"As Indiana's land grant institution, Purdue University plays a vital role in helping to strengthen Hoosier communities."

OUR PROGRAMS



RESEARCH PROGRAMS

GRADUATE RESEARCH ASSISTANTSHIP 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.



OUTREACH PROGRAMS

ECONOMIC POLICY LUNCHEONS

This monthly event brings together community, business, and academic leaders from the Greater Lafayette area for a faculty research presentation, networking, and a Q&A session.

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 entities.

SPECIAL WORKSHOPS

PURCE hosts, funds, or partially funds presentations and discussions for specific audiences, including our series for Indiana state law and policymakers and academic conferences like the Mid-Midwest Applied Microeconomics Workshop and the Empirical Investigations in International Trade annual conference. We also participate in the Krannert School's annual alumni conference, which is a valuable event for reconnecting with our school's econ and other alumni.



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 take 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.

In Fall 2021, Professor Mario Crucini taught Econ Scholars, and focused on "Better Living Through Economics." Associate Professor Tim Moore taught the course in Spring 2022 and focused on the benefits and challenges related to the role of large corporations in the economy. Keeping in the spirit of this unique academic experience, both professors stressed discussion and close reading, and grades were based largely on in-class participation.

UNDERGRADUATE RESEARCH ASSISTANTSHIP PROGRAM

Undergraduates meeting strong criteria are employed as hourly researchers. They learn best practices and assist faculty with realworld research projects.

STUDENT SUPPORT

PURCE's **Undergraduate Research Assistantship Program** built upon the success of its inaugural year. Undergraduates meeting strong criteria - including completion of at least three upper division economics courses can apply to be hourly researchers. They learn best practices and assist faculty with real-world research projects.

Thanks to donors who supported this program, PURCE was able to pay 13 undergraduates to assist faculty with research in the 2021-22 academic year, up from nine students the previous year. These research assistants were able to build upon classroom learning, work with large data sets, and hone critical research skills.

We also hired two undergraduates to work part-time in administrative roles. These students were invaluable in helping the center run smoothly and gained organizational skills.



LEVERAGING TALENT

To support the center's mission of sharing research with the public, PURCE created and funded a new student role. We created a communications specialist position and advertised it to Krannert's economics master's students. Interested candidates had to read a PURCE faculty affiliate research paper and distill its most impactful findings into a one-page summary.

The competition was fierce, with MS Economics student Wolf Williams landing the hourly position. He wrote research stories on topics including how risk management streamlines import inspections and on how Covid-19 policies should vary by location to mitigate negative economic effects.

He graduated from his online master's program in summer 2022, and will stay on with PURCE part-time in a similar but elevated role as the center's communications consultant. Williams is a content developer with an educational publishing company, a position his PURCE experience helped him land.

"Being able to give them a writing portfolio was a big factor in getting the job," he says.

Williams' valuable experience, first as an econ student and now as a young professional, is possible thanks to the support of PURCE donors. These generous individuals help us create opportunities for talented students.



It was great to interview professors and learn about their research. That's not something most students get to do, so I feel fortunate to have had the opportunity."

WOLF WILLIAMS

MS Economics '22 **PURCE Communications Consultant**

FACULTY UPDATES

We are so pleased to announce the addition of five faculty affiliates, all new to Purdue University. These distinguished researchers will strengthen PURCE's mission and the Krannert School's economics department.



MARIA-JOSE CARRERAS-VALLE

Maria-Jose Carreras-Valle joins Krannert from the University of Minnesota Twin Cities, where she earned her PhD in Economics. Her research interests are international economics and trade, with a

particular focus on the effects of uncertainty on trade. She has taught courses on macroeconomic theory at UMN and on public economics and intermediate microeconomics at the Instituto Tecnológico Autónomo de México, where she earned her undergraduate degree in economics. She has worked as a research assistant at the Federal Reserve Bank of Minneapolis.



MIKE ERIKSEN

Mike Eriksen is an urban economist who joins Krannert after serving as the West Shell Associate Professor of Real Estate at the University of Cincinnati and academic director of the UC Real Estate Center. At Purdue, Eriksen

will direct Krannert's new Dean V. White Real Estate Finance Program. He holds a bachelor's degree in economics and biology from Gonzaga University and a PhD in economics from Syracuse University. He was previously on the faculty at the University of Georgia and Texas Tech University and was a visiting scholar at the Federal Reserve Bank of Cleveland. Eriksen has published in top academic journals and has been cited in both national media and U.S. Congressional testimony about potential reforms to real estate markets.



AARON HEDLUND

Aaron Hedlund comes to Krannert from the University of Missouri, where he was an associate professor of economics. He is also a research fellow at the Federal Reserve Bank of St. Louis and served as senior adviser and chief domestic economist at the White House Council of Economic Advisers from 2020-21. Hedlund's research focuses primarily on the intersection of real estate, finance, and macroeconomics. He received his PhD in economics from the University of Pennsylvania and a bachelor's degree in economics and mathematics from Duke University. He and fellow new faculty affiliate Lindsay Relihan will help Eriksen build the Dean V. White Real Estate Finance Program.



LINDSAY RELIHAN

Lindsay Relihan arrives at Krannert from the London School of Economics, where she was an assistant professor of real estate economics and finance. She is an applied microeconomist with interests in urban

economics, household finance, and real estate. She graduated with a PhD in Applied Economics from The Wharton School, University of Pennsylvania. Relihan has served as a research assistant at the Federal Reserve Board in Washington, D.C. She and Hedlund are instrumental in the building of the school's new Dean V. White Real Estate Finance Program. Among the courses they will teach is a required, introductory course, Real Estate Fundamentals, that will cover real estate terminology, roles in the industry, and tools used to make informed decisions.



BEN ZOU

Ben Zou is an empirical economist whose research interests include labor economics, urban economics, and economic development. He joins Krannert from Michigan State University, where

he was an assistant professor of economics. Zou earned his undergraduate and master's degrees at Peking University, and his PhD in economics at the University of Maryland. He has published research papers on subways and road congestion, and on local economic development in China's hinterlands.

FACULTY LINES

Since PURCE's founding, generous donors have funded the academic year salary, summer salary, and benefits for several Department of Economics faculty members. During the 2021-22 academic year, the center funded seven 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.



In the 2021-22 academic year, PURCE-funded faculty taught these courses:



JILLIAN CARR
Economics of Public Policy
(undergraduate),
Public Economics (MS)



MARIO CRUCINI
Economic Scholars Program
(undergraduate), Honors Research
Seminar (undergraduate), International
Macroeconomics (PhD)



FARID FARROKHI
International Economics
(undergraduate), International
Economics (MS)



TREVOR GALLEN
Intermediate Macroeconomics
(undergraduate),
Current Topics in Macroeconomic Policy (MS),
Computational Economics (PhD)



JOE MAZUR Industrial Organization (undergraduate) Industrial Organization (PhD)



TIM MOORE

Health Economics (undergraduate),
Economic Scholars Program
(undergraduate),
Health Economics (MS)



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

JACK BARRON BIDS ADIEU TO THE KRANNERT SCHOOL



A founding member of the Purdue University Research Center in Economics has retired from teaching after 47 years on the Krannert faculty.

PURCE faculty affiliate Jack Barron was instrumental in launching the center in 2013, with John Umbeck and Justin Tobias, both Krannert economics professors. He retired from Purdue at the end of the 2021-22 academic year.

Barron joined Purdue in 1975 after earning his MA and PhD in economics from Brown University and spending his fourth year of graduate school at the Brookings Institution in Washington, D.C. "I enjoyed both the college experience and the discipline of economics, so pursuing graduate school in economics and an academic position afterward were natural choices," he says.

He was impressed by the Purdue faculty on his first visit to the university. "They were congenial, but at the same time had produced both high-quality research and established a high-quality PhD program," he says. "Also, the college-town setting was attractive as my wife and I had a growing family."

Barron's primary teaching interests include the economics of information and macroeconomics, while his research interests are labor economics and contract theory. He has served as the Loeb Professor of Economics as well as head of the Department of Economics.

He has had numerous articles published, including papers in the American Economic Review, Journal of Human Resources, Journal of Law and Economics, International Economic Review, Review of Economics and Statistics, and the Journal of Labor Economics.



Jack invested a lot of time in his students and provided valuable guidance. They would come to his office and he would pull up their code and their data and they would work on it together. He trained several very successful economists. Jack is also an excellent researcher and a quiet leader. I frequently went to him for advice as a new faculty member."

KEVIN MUMFORD Kozuch Director of PURCE

ACCOLADES

Our faculty affiliates continue to be recognized by organizations for their expertise. Here are just a few highlights.

JONATHAN D BLACK

was honored by the American Tax Association. Black's paper, "Does Organized Labor Influence How Firms Use Tax Savings? Evidence from the Tax Cuts and Jobs Act of 2017," with Thomas Godwin and Rick Laux, won the 2021 ATA Public Interest Paper of the Year Award, for being the most relevant in serving the public interest.

JILLIAN CARR

joined the editorial board at Oxford Open Economics. She serves as an associate editor.

BRIAN ROBERSON

became an editor of the journal Social Choice and Welfare.

COLIN SULLIVAN

was awarded more than \$43k to further his research of paternalistic discrimination.

CATHY ZHANG

was invited to join the editorial board at Economic Inquiry as a co-editor.



FUTURE VISION

From the director:

When it comes to government policy, there are many voices offering opinions, but facts are too often in short supply. PURCE is helping to fill that gap by bringing economic data and rigorous analysis into the policy debate. We do not start with conclusions and work backwards. Instead, we follow the empirical evidence to the results that are supported by the data. As a group of scholars, our purpose is to produce objective and independent empirical analysis of laws, regulations, and government programs. Our leadership does not edit or restrict what we write and we do not speak with one voice. An essential part of our vision for the future is holding fast to these principles in order to provide reliable information to policymakers and to the public.

Next year will be our tenth anniversary as a university center. Throughout 2023, we will take a grateful look back at those who founded PURCE: President Mitch Daniels, Dean David Hummels, Department Head Justin Tobias, Professor Jack Barron, and Center Director John Umbeck. We will celebrate our growth and achievements while also recalling some of the growing pains and what we learned by overcoming various challenges. I hope that you will join in this celebration by sharing something you have learned from PURCE with someone else. It may be something you learned while reading this annual report or from attending an Economic Policy Luncheon or from interacting with one of the Center's faculty affiliates. As you share potentially surprising insights about how government policy affects our lives, you are helping to advance the Center's mission which in turn will help to bring about better government policy.

In addition to inviting you to our upcoming events, I also invite you to follow the PURCE Twitter account at @KrannertPURCE which provides links to recently published papers, summaries of faculty research, and news about the center. Please also check out our website at **krannert.purdue.edu/centers/purce** and read about the transformative opportunities we are providing to Purdue students through our Research Assistant and Econ Scholars programs.

Lastly, I invite you to consider providing financial support to PURCE. Your donation to the center is an investment in Purdue students and in our capacity to provide information that is essential in a well-functioning system of representative government.



Research Center in Economics

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