DANIELS SCHOOL OF BUSINESS

PURDUE UNIVERSITY RESEARCH CENTER IN ECONOMICS

PURCE

ANNUAL

REPORT

2023-24





Our students get the chance to experience how modern research is conducted, and our faculty get much-needed assistance with their many research projects."

Kevin Mumford Kozuch Director of the Purdue University Research Center in Economics

WELCOME

I am pleased to present you with the annual report of the Purdue University Research Center in Economics. The professors who are affiliated with PURCE analyze data to better understand how laws, regulations, and government programs affect people's lives and the choices they make. For an organization of researchers studying public policy, something that makes us relatively unique is that we do not have a predefined policy agenda. We do not start with conclusions and then work backwards. Instead, the data directs us towards the conclusions that are supported by empirical evidence. This type of research is essential. Government policy often has unintended consequences that are only revealed after careful empirical work. The pace at which new regulations and programs are being created vastly exceeds the capacity for researchers to study them. Every additional research paper makes a difference.

This report highlights several of the outstanding peer-reviewed research articles that were recently published in top academic journals. Several years back, PURCE funded a wave of faculty hires that dramatically increased the number of policy-focused researchers. Today, PURCE continues to fund the faculty lines for several of our most productive researchers. The increase in the number of published research articles with a direct focus on public policy is one of the most important achievements of our center.

The report also describes our student programs, public events, and other achievements. It includes a great article on our newly enhanced Undergraduate Research Assistantship program. This program gives some of our best students the opportunity to interact with a professor and engage in real economic research. Dr. Karis Pressler mentors each cohort of research assistants to help them make the jump from learning about economics to actually doing economics.

Another achievement is the expansion of our Economic Scholars program, doubling the number of student participants each year from 24 to 48. These undergrads from across campus are introduced to important economic literature in a series of small-group discussions. Students get to see how economic concepts that first developed 200 years ago are still relevant to the problems we face today.

This is all because of the generous support of our donors. Your investments in PURCE have created a vibrant university center that provides wonderful and important experiences for students as well as support for vital policy-relevant research. I sincerely thank the individuals and foundations who have supported PURCE and continue to help us grow.





Select faculty are invited to become affiliates of the Purdue University Research Center in Economics. These top academics conduct data-driven research into how laws, regulations and government programs affect the market economy and the well-being of individuals and society.

Our center shares research findings in top academic journals and media, and also 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. As a nonprofit research organization, we rely on the generous support of donors to accomplish our mission.

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

- COMPETITION
- CRIME MONETARY POLICY
- EDUCATION
- REGULATION

MARKET SOLUTIONS

- FISCAL POLICY
- STATE POLICES
- HEALTH
- TRADE
- INNOVATION
- WORK

PURCE affiliates are often called upon to make sense of our world. In the 2023-2024 fiscal year, our faculty served as experts in publications and media outlets including the Associated Press, *Fortune* magazine, Indianapolis Business Journal, Inside INdiana Business, MarketWatch, *Newsweek*, NPR, Vox, and Yahoo! Finance.

We are housed in the Mitch Daniels School of Business, one of the top business schools in the country, with 3,516 undergraduate students and 1,158 graduate students. Our school's strengths in analytical and quantitative analysis reflect Purdue's roots in STEM. The Daniels School's curriculum at both the undergraduate and graduate levels emphasizes calculus-based analytics and data analysis.

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

With its main campus in West Lafayette, Indiana, Purdue University is a world-renowned, public R1 university. Student enrollment is 52,211, of which 75% are undergraduate students. Purdue students graduate in over 200 majors.

D+externality

PURCE STAFF



KEVIN J. MUMFORD *Kozuch Director*



JODI AYERS Senior Administrative Assistant



KARIS PRESSLER
UGRA Program Mentor



NICOLE BROOKS

Media Relations

Specialist

WHO WE ARE

PURCE AFFILIATED FACULTY

Timothy Bond Associate Professor of Economics

Jim Bullard Dr. Samuel R. Allen Dean, Distinguished Professor of

Service and Professor of Economics

Jillian Carr Associate Professor of Economics

Mario Crucini Jerry and Rosie Semler Chair in Economics and

Professor Economics

Mike Eriksen Professor of Economics and Director,

Dean V. White Real Estate Finance Program

Mara Faccio Tom and Patty Hefner Chair in Finance and Professor

of Finance

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 Distinguished Professor of Economics

Mohitosh KejriwalProfessor of EconomicsStephen MartinProfessor of Economics

Jonathon McClure Assistant Professor of Economics

John McConnell Burton D. Morgan Distinguished Chair of Private

Enterprise and Professor of Finance

Laura Montenovo Assistant Professor of Agricultural Economics

Timothy Moore Professor of Economics

Kevin Mumford Professor of Economics and Kozuch Director, PURCE

Seunghoon Na Assistant Professor of Economics

Victoria Prowse Marge Magner Chair and Professor of Economics

Mohommad Rahman Daniels Chair and Professor of Management

Lindsay Relihan Assistant Professor of Economics

Brian Roberson Professor of Economics, Senior Associate Dean and

Department Head, Economics

Ralph Siebert Professor of Economics

Anson Soderbery Associate Professor of Economics

Justin Tobias Loeb Chair in Economics and Professor of Economics

John Umbeck Professor of Economics
Chong Xiang Professor of Economics

Cathy Zhang Associate Professor of Economics

Ben Zou Associate Professor of Economics

PUBLICATIONS

ACADEMIC PUBLICATIONS

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

American Economic Journal: Economic Policy
American Economic Journal: Macroeconomics
Economic Journal
European Economic Review
Journal of Corporate Finance
Journal of International Economics
Journal of Political Economy
Journal of Political Economy Microeconomics
Real Estate Economics
Review of Economic Studies
Review of Finance

SUMMARIES

Timothy N. Bond, "Stalled Racial Progress and Japanese Trade in the 1970s and 1980s," with coauthor Mary Kate Batistich, *Review of Economic Studies*. Batistich earned her PhD in Economics at Purdue and was supported by PURCE. In this paper, the authors assess the impact of increased import competition from Japan on racial disparities among American workers in the late 1970s and early 1980s.

The researchers find strong evidence that the surge of American imports of Japanese manufactured goods played a sizable role in reducing manufacturing employment, labor force participation, and median male earnings among black workers. For every \$1,000 increase in imports exposure per worker, manufacturing employment decreased by .59 percentage points, labor force non-participation rose .46 percentage points, and median household earnings decreased by approximately 2.8 log points for black workers.

David Gill & Victoria L. Prowse, "The Creativity Premium: Exploring the Link Between Childhood Creativity and Life Outcomes," Journal of Political Economy Microeconomics. In this paper, the researchers study the relationship between someone's creativity in childhood on their life outcomes in adulthood.

They find that more creative individuals have higher career earnings, better practical skills in adulthood, and are more likely to work in jobs that require experience. These results suggest training people to be more creative and motivating them to engage in creative thinking could have substantial positive economic impacts.



Russell Hillberry, "The Geography of Payment Activity on PayPal," with coauthors Kornel Mahlstein and Simon Schropp, Review of International Economics. In this paper, the researchers use data from PayPal to study the geography of international payments.

They find that the distance elasticity for payment value, a measure of how much the value of payments changes as the distance between the buyer and seller changes, is 40% lower than typically observed in conventional trade data. This suggests that payments for e-commerce transactions may be less sensitive to distance than those in conventional international trade.

John J. McConnell, "Guilty by Political Association: The Impact of Political Scandals on Connected Firms," with coauthors April Knill, Baixiao Liu, and Cayman Seagraves, Journal of Law and Economics. In this paper, the authors investigate the economic impact of congresspersons involved in scandals on companies connected to the "scandal-tainted" politician.

They find that once the media reports on a scandal, the companies connected to a scandal-tainted congressperson lose market value relative to companies that contributed to congresspersons not involved in scandals. These declines are even greater when the involved congressperson does not step down from office following the scandal.



Anson Soderbery, "Heteroskedastic Supply and Demand Estimation: Analysis and Testing," with coauthor Matthew Grant, in the *Journal of International Economics'* special issue on modern advances in international trade. In this paper, the authors consider import demand elasticity, arguably the most important parameter in international economics. This elasticity of substitution is key to a wide range of results including the gains from trade and microeconomic and macroeconomic adjustments to shocks.

The authors provide a review of the Feenstra (1994) method, which is widely used in the international trade literature to estimate supply and demand elasticities. The method relies on two core assumptions: first that supply and demand shocks are heteroskedastic across exporters, and second that supply and demand shocks are uncorrelated within an exporter. Soderbery and Grant note that to their knowledge, no prior work examines whether these assumptions are valid



in practice. In their paper, they expand on the insight that the Feenstra (1994) method is effectively an instrumental variables strategy, and demonstrate that this has important implications for assessing the application and reliability of the method.

Cathy Zhang, "Inflation, Output, and Welfare in the Laboratory," with coauthors Janet Hua Jiang and Daniela Puzzello, European Economic Review. In this paper, the authors use controlled laboratory experiments to study the real effects of inflation on economic output and welfare.

Inflation is introduced by anticipated changes in the money supply, and three methods of engineering money growth are tested in the experiment: government spending, lump-sum transfers, and proportional transfers. Overall, they find that, consistent with the quantity theory of money, higher money growth leads to higher inflation. Contrary to theory, they find that output and welfare are lower with government spending than with lump-sum transfers, suggesting the real effects of inflation depend on the money injection scheme.



Redefining retail and disrupting downtowns: How work-from-home has changed our economic landscapes

While the rise of work-from-home jobs has transformed the lives of workers by eliminating their commute and improving their work-life balance, employers now wrestle with questions about productivity and effective management. Not only that, but new research by **Lindsay Relihan** indicates that the popularization of remote work is physically altering the economic landscape of downtowns. The increasing ability to work from anywhere impacts where people choose to shop, live and do business.

In her paper "The Impact of Work-from-Home on Brickand-Mortar Retail Establishments: Evidence from Card Transactions," Relihan analyzes how the emergence of COVID-19-induced work-from-home arrangements affects the location of retail businesses. In conjunction with James Duguid, Bryan Kim and Chris Wheat from the JPMorgan Chase Institute, Relihan built a high-frequency dataset with a distinctive level of geographic granularity to evaluate the entry and exit of 1.7 million retail establishments across 16 major American cities.

Through careful examination of billions of credit and debit card transactions between 2017 and 2022, Relihan finds that retail establishments have generally moved from larger, more expensive cities and city centers to smaller cities and suburbs. This exodus of businesses from the big cities mirrors the movement of people in the same direction.

From 2019 to 2021, the downtown core population growth consistently decreased, while the outer suburbs saw an increase for the same time period. Population growth near

the city center ended up declining by about 9%, but the population of the outer suburbs grew by 5% by the end of Q4 2021.

Overall, Relihan finds that retail establishments have relocated from downtowns to the suburbs in the short term and that this movement could last into the long term if new developments are spurred by this exodus of people and businesses. If this happens, the suburbs and smaller cities could attract new residents, which would amplify the initial migration due to COVID-19-induced work-from-home policies.

Relihan notes that policymakers may be tempted to implement policies that mandate a return to the office, but these policies ignore the potential productivity and income gains of work-from-home that impact businesses and their employees. Instead, she recommends more nuanced policy solutions like flexible zoning, redevelopment grants and taxes on extended vacancies to combat the negative effects that remote work has had on downtown economies.

Despite all the changes that remote work means for cities, Relihan remains optimistic. "I'm bullish on cities in general," she says. "Every time a new technology is invented people love to predict the death of cities. Through all of these technological innovations cities as a whole have just gotten bigger and denser and have taken up a larger slice of the pie of the American economy."

Data shows political connections cause resource misallocation: New study looks at the fall of fascism in 1940s Italy

It is no secret that lines are often blurred between politics and business. The connection between corporate interests and political power has long been explored by journalists and evidenced by academic literature.

Previous economic research on the subject shows that corporate political connections generally increase the profits and value of businesses whose owners, managers or directors have political ties. However, determining whether politically connected businesses harm the overall economy through misallocation of resources is a more complex undertaking. By studying the fall of fascism in Italy from 1943-1944, two Purdue researchers have found compelling evidence that political connections cause resource misallocation.

The results from **Mara Faccio** and **John McConnell** are outlined in "Political Connections Cause Resource Misallocation: Evidence from the Fall of Fascism in Italy."

It may seem natural to assume that an economy where politically connected companies have more resources is a bad thing, but this conclusion must be based on evidence. For example, what if the connected companies that receive preferential treatment from the government are the best businesses in the economy? We know that an increased sharing of information can sometimes help reduce market frictions. Does this apply to the information shared between corporate and political interests? Or does it do more harm than good?

The real impact of corporate political connections on the allocation of economic resources is difficult to measure. That is why Faccio and McConnell use the collapse of the fascist government in Italy during World War II to study this relationship. Corporate political connections were pervasive during the fascist regime, but upon its demise, these connections were severed almost completely. This allows Faccio and McConnell to evaluate how previously politically connected businesses perform once they can no longer enjoy the benefits political connections provide.

In 1941, the beginning of the end for fascist Italy under the authoritarian rule of Benito Mussolini, 80% of the largest 150 Italian companies had a politician serving as an officer or a director. By 1944, a royal decree deemed fascist politicians ineligible for political office. This decree was further cemented into law by the Constitution of the Republic of Italy in 1948, which formally established Italy as a democratic republic.

Politicians holding key positions within companies at the officer and director level were now largely a thing of the past, as new laws prevented this intertwining of corporate and political interests. So, what happened to the companies that were previously politically connected?

Faccio and McConnell found a robust, economically large, and highly statistically significant drop in performance for these companies after their political ties were severed. In presenting their finding that previously connected companies perform much worse when they are no longer politically connected, the researchers have provided direct systematic evidence that political connections cause resource misallocation.

This misallocation of resources can lead to negative consequences for the economy and the people who comprise it. For example, if politically connected companies receive preferential treatment, it may give them an unfair advantage over their competitors. This can discourage fair competition, as resources could be diverted away from the most innovative and efficient companies toward businesses with better political ties.



Risky Business: Regulating big-tech to rein in gamblinglike behavior in the stock market

Not all dangerous trading comes from insider trading practices, fraud or false and misleading information. Social media and tech platforms can also cause people to engage in risky trading, a new study by **Mohammad Rahman** demonstrates.

When Yahoo! abruptly shut down its free Finance API on November 1, 2017, without any official announcements or reasons, longtime retail investor users were left without clear alternatives. The widely popular service had provided institutional investor-grade real-time stock quotes, historical data, and financial news for stocks, bonds, currencies, commodities, and indices. Institutional investors pay significant amounts to get access to such data and utilize them for trading advantages. Interestingly, in the period in which retail investors were searching for suitable free/cheap comparable alternatives, they changed their gambling-like behaviors in making investments, the study found.

The study notes that the Yahoo! Finance API gave retail investors access to huge data sets that the self-taught investors potentially mined for information using code from Github. With tutorials from YouTube, they could create models to draw insights, often flawed. Without understanding the technology's limitations and the data's historical context, these investors equated their knowledge with expertise, leading them to invest and trade overconfidently.

"People who don't know how to consume, process or apply the data in the context in which it sits end up losing immense amounts of money and skew stock values using the technology," says Rahman.

While Yahoo! API was up and running, untrained investors felt they'd overcome their informational disadvantage, giving them the illusion of control, because they personally involved themselves in the decision-making without realizing how the technologies might amplify deficiencies while mining the data, modeling, and drawing insights from it.

"They uncover inaccurate patterns in the data and equate the patterns with knowledge, thus believing themselves to be more knowledgeable than the average investor. Access to huge data sets gives them a sense that they are more precise, when in fact, their errors in interpreting the data reduce their accuracy," says Rahman. Cognitive biases noted in the study – an illusion of knowledge, control, and precision – have

been broadly discussed in media and haven't led retail investors to recognize flaws in their investing, which Rahman says raises key policy questions about unregulated sources of data.

Where investment firms pay thousands of dollars to obtain up-to-the-minute data and employ highly trained teams of analysts, individual retail investors fall prey to meme-stock trading schemes, rely on "spurious" patterns, and use fintech with negative outcomes for themselves and the markets.

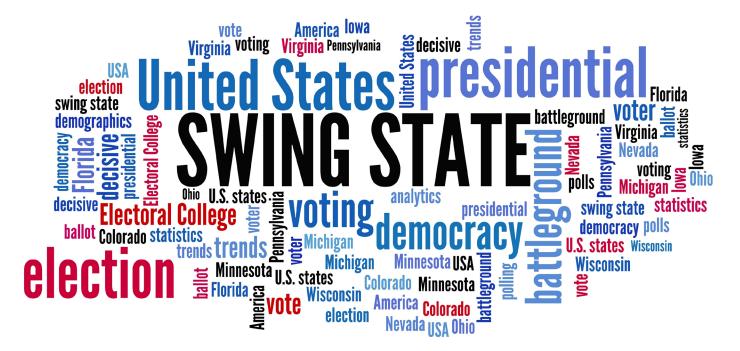
It's time for the U.S. Securities and Exchange Commission (SEC) to adapt, Rahman believes. Just as Congress and Artificial Intelligence tech leaders are holding necessary conversations about AI technologies, Rahman believes policymakers should discuss the mandate of the SEC to fulfill its mission regarding fintech, especially in the rapidly evolving environment.

Rahman says that regulators should be thinking more broadly about information sources, what can influence investors, how to safeguard retail investors, and how to challenge tech companies about their responsibilities. How are companies influencing markets and regulating themselves? What ethical guidelines should they put in place before the SEC vets even more stringent ones?

People who don't know how to consume, process or apply the data in the context in which it sits end up losing immense amounts of money and skew stock values using the technology."

MOHAMMAD RAHMAN

Daniels School Chair in Management



Regulatory Battlegrounds: How Clean Water Act enforcement varies between states

With the 2024 presidential election looming, battleground states are getting a lot of attention from candidates on both sides of the aisle because the outcome can swing either way. State regulators and politicians who have incentives to selectively enforce regulations and policy are also paying attention.

Huseyin Gulen examines these incentives in "The Selective Enforcement of Government Regulation: Battleground States, State Regulators, and the EPA," which he coauthored with Brett W. Myers from the Rawls College of Business at Texas Tech University.

"Anecdotal evidence suggests that federal political favors are directed towards battleground states, including the selective enforcement of regulation to ease the economic or political costs associated with compliance," Gulen says. An example is a 2018 regulatory decision to rescind a ban on offshore oil drilling that was opposed by several states. However, only one state was granted an exception — the state of Florida, an important battleground state.

According to Gulen and his coauthor, the political incentives that result in some states being treated differently from others are related to the way that presidential elections are structured. In the U.S., the outcome of a presidential election is determined by the Electoral College system, with the candidate who receives a plurality of votes within a state typically receiving all of that state's electoral votes.

The winner-take-all nature of the system provides a clear set of incentives for presidents and presidential candidates to direct both policy favors and campaign resources toward battleground states. Further, because

of the importance of the office of president, these incentives also affect the behavior of allied politicians and political parties, as well as regulators and other interest groups.

The researchers examined violation rates of the Clean Water Act (CWA) in battleground states to determine if regulation is selectively enforced. The EPA is responsible for enforcing the CWA, which requires facilities to obtain permits to discharge water into surface waters. The study uses permit data from the EPA to identify and compare 6,763 unique facilities along the border between battleground and non-battleground states. The research shows that facilities located in battleground states experience lower violation rates of the Clean Water Act relative to facilities in non-battleground states.

"We find that the Electoral College system creates incentives that result in widespread selective enforcement of government regulation in battleground states, from politicians asserting control over regulatory agencies to risk-averse regulators seeking to avoid conflict with politicians to attempts by regulators to affect electoral outcomes," Gulen says. "Our evidence is consistent with the idea that government regulators – in our case, the EPA and state-level regulators – do not uniformly enforce economically important regulations, supporting our results of a causal relationship between battleground state status and favorable treatment."

Gulen and his coauthor note that regulation often creates winners and losers, and to the extent that regulatory enforcement imposes economic costs, the selective reduction of regulatory burdens can present a tangible economic benefit to critical voters in battleground states.

When Appraisers Lie: Inaccuracies harm financial institutions, buyers and taxpayers

The inaccuracies of real estate appraisers, whether accidental or purposeful, harm both financial institutions and those seeking to buy properties and can even trickle down to taxpayers. As a result, a study co-authored by a Purdue University professor suggests that a national database of property transactions and reported attributes should be created.

Mike Eriksen teamed with two co-authors on "Attribute Misreporting and Appraisal Bias," published in the *Review of Finance*. The researchers studied whether appraisers consistently reported objective property features, such as square footage, bedrooms and bathrooms, and lot size, to justify valuations associated with loan applications.

They found the assessments were often inconsistent, but for different reasons.

"Sometimes different appraisers can disagree in both subjective and objective assessments of a property, but it can be due to alternative access to the property or different approaches to measurement," Eriksen says. "But in some cases, there is evidence of the same appraiser reporting different attributes for the same property. It's a purposeful action to manipulate valuations to counter evidence that the purchase price would otherwise not have been justified."

Eriksen and his fellow researchers, Chun Kuang, associate professor at the University of International Business and Economics, and Wenyu Zhu, associate professor at Renmin University of China, partnered with a large financial institution to create a database of reported property attributes associated with 4.6 million loan applications from 2013-2017. The database of attributes included both the property associated with the loan application and the reported attributes of nearby recent property transactions selected by the appraiser to assign the value.

The study found that most of the manipulated differences were likely to occur in the reported living area. Eriksen says that while most of the manipulations were upward and may seem like a victimless crime, there were consequences to the actions.

"Although foreclosures were relatively rare during the sample period, the borrowers of properties with manipulated values were eventually 9.8 percent more likely to become seriously delinquent in their subsequent loan payments," he says. "There is harm done to financial institutions due to increased delinquency, but there is also a cost to other borrowers, who will pay slightly higher interest rates on their mortgage loans as a result."

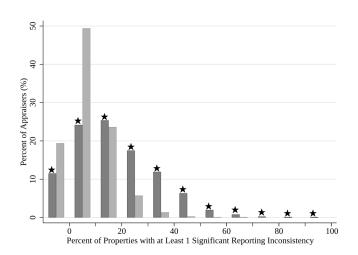
The study found that about two-thirds of appraisers have at least one significant reporting anomaly associated with 10 percent of their appraisals.

Eriksen says the financial crisis of 2008 was spurred by the overvaluation of residential properties, although the evidence is unclear whether it was driven by appraisers' naivety or fraudulent actions. In addition, with an everincreasing reliance on data to help make decisions, the underlying sources of that information should be scrutinized.

One solution is a national database of property transactions. Providing appraisers access and holding them accountable to use consistent attributes of comparable transactions could lower potential bias and enhance the liquidity of mortgage loans supported by those valuations.

Eriksen says the risks of not providing such access go beyond borrower and lender.

"Failure to price properties correctly could lead to lower capital reserves and greater exposure of taxpayers to future crises. If valuations are more accurate, it could prevent some inexperienced borrowers from paying a purchase price above market value, which will save the economic costs of foreclosure upon themselves and surrounding property owners," he says.



Both sets of estimates are based on reporting inconsistencies for a transaction by the same appraiser. ★ Dark grey bars represent the distribution of appraisers with reporting discrepancies for subject-comp pairs. Light grey bars represent the distribution of appraisers with reporting discrepancies for repeated-comp pairs. Both samples are restricted to appraisers with at least 10 properties within each sample. A significant reporting error is defined as a 100-square-foot or larger discrepancy in GLA or lot size, or a different value reported for property condition, design quality, bedrooms, full bathrooms, or view. The bars left of 0 indicate the percent of appraisers with no reporting inconsistencies.

IMPACT

PURCE faculty affiliates represent the center and the business school at conferences and research seminars around the world.

These include the World Bank DECTI seminar; the Center for Regional Economic Development's Workshop on Regional and Urban Economics; Southern Economic Association meetings, among many more:

CALIFORNIA

Stanford Institute for
Theoretical Economics,
Stanford University
Stanford Remote Work
Conference, Stanford
University
Conference on Housing

Conference on Housing, Financial Markets, and Monetary Policy, UCLA

COLORADO
Colorado Finance Summit

GFORGIA

Midwest International Trade Conference, Georgia Tech

ILLINOIS

University of Chicago & London School of Economics Conference on the Economics of Crime, University of Chicago

INDIANA

Mid-Midwest Applied Economics Workshop Mid-Midwest Applied Microeconomics Workshop

LOUISIANA

Agricultural & Applied
Economics Association
American Economic
Association Annual Meeting
American Real Estate and
Urban Economics
Association
Southern Economic

Association Meetings and Conference

MASSACHUSETTS

National Bureau of Economic Research (NBER) Summer Institute

NBER Summer Institute: Environmental & Energy Economics

Urban Economics and Public Finance Conference, Lincoln Institute of Land Policy

MICHIGAN

International Economics
Conference, University of
Michigan
MISSOURI
Liquidity in Macroeconomics
Workshop, Federal Reserve

Bank of St. Louis

NEW YORK

Northeast Workshop on Energy Policy and Environmental Economics, Cornell University

OHIO

Midwest Economic Association Annual Meetings (SOLE Session)

OREGON

Southern Oregon Creativity Conference

PENNSYLVANIA New Faces in International

Economics, The
Pennsylvania State
University
Society of Labor Economists
Annual Meetings
Spring Behavioral and
Experimental
Economic Research
Conference

SOUTH CAROLINA

Midwest Macroeconomics Meetings, Clemson University

TENNESSEE

Midwest International Trade and Theory Meetings, University of Tennessee, Knoxville Midwest Trade Meetings, University of Tennessee, Knoxville

TEXAS

American Real Estate Society Midwest Macroeconomics Meetings, Texas Tech University

UTAH

Innovations in Affordable
Housing Summit
International Institute of Public
Finance Annual Congress
VIRGINIA

Theory and Experiments in Monetary Economics Conference

WASHINGTON, D.C.

American Real Estate and Urban Economics Association National Meeting NBER Economics of Education Program Spring Meeting NIFA Project Directors meeting, AAEA meetings

CANADA

Bank of Canada Access to Cash and Financial Services Workshop Urban Economics Association COLOMBIA

IEA World Congress Society for Economic Dynamics

ENGLAND

Workshop on Labor and Human Capital Accumulation, Royal Holloway, University of London

FRANCE

GTAP conference on Global Economic Analysis SABE Conference

GERMANY

Behavioral Macro Workshop, University of Bamberg

ITALY

European Urban Economics Association Meeting

JAPAN

Conference on Infrastructure and Urban Development in the Developing World, University of Tokyo

SCOTLAND

Royal Economic Society/ Scottish Economic Society Annual Conference, University of Glasgow

SOUTH KOREA

Korea-America Economic Association-VSS Macro

SPAIN

International Corporate
Governance Society
Conference, IE University in
Madrid, Spain

SWITZERLAND

Summer Workshop in Money, Payments, Banking, and Finance

OUR EVENTS

PURCE hosts events for the public and for select groups that highlight our faculty, their research, and the research's ability to explain the effects, both intended and unintended, of policies.

ECONOMIC POLICY LUNCHEONS

Our monthly luncheons on Purdue's West Lafayette campus continue to draw local elected officials, business and community leaders, students, and fellow academic peers. Each event offers a catered lunch, research presentation, and a Q&A with the faculty or guest speaker. Our lineup for the university's fall 2023 and spring 2024 brought in record attendance and featured:

- September 2023: Ben Zou on "Urbanization in Developing Countries"
- October 2023: Jillian Carr on "Measuring Crime"
- November 2023: Mohammad Rahman on "Regulating Tech"
- December 2023: Kevin Mumford on "The College-Going Rate in Indiana is Decreasing: Why?"
- January 2024: David Malpass on "Urgent Global Challenges"
- February 2024: Tim Bond on "Causes and Consequences of Racial Gaps in Elementary School, College, and the Labor Market"
- March 2024: Cathy Zhang on "The Changing Nature and Role of Payment Systems"
- April 2024: Anson Soderbery on "U.S. Protectionism from Trump to Biden"



David Malpass, former president of the World Bank, spoke to the PURCE crowd during a visit to campus. Malpass joined the business school in January 2023 as a Distinguished Fellow of International Finance.

MID-MIDWEST WORKSHOP

We hosted our popular Mid-Midwest Applied Microeconomics Workshops on October 27, 2023, and on March 22, 2024, bringing to campus researchers from the University of Illinois at Urbana-Champaign, Indiana University and Notre Dame. In October, discussion sessions centered on research on the direct and indirect effects of vaccines; the effect of graduate school loans on access, attainment, and prices; habit formation in health behaviors, and much more. In March, researchers presented data on the gentrification effect of "premium stores" like Whole Foods and Trader Joe's; immigration and labor market effects of the Mexican drug war; and the effect of unemployment insurance generosity on migration.

SPECIAL EVENTS

The center and its faculty affiliates plan or participate in numerous events for public and private audiences each year, including the Greater Lafayette Chamber of Commerce's annual Economic Forecast Luncheon. On October 31, 2023, Kozuch Director Kevin Mumford and Dr. Samuel R. Allen Dean Jim Bullard spoke to hundreds of Greater Lafayette leaders about college-going and completion rates in Indiana and the state's economic outlook, respectively.

Mario Crucini brought to the Daniels School in early September 2024 the 30th anniversary meeting of the Midwest Macroeconomics Group. The prestigious meeting, started by Crucini, Indiana University Professor Gerhard Glomm and Washington University's Seigle Family Professor in Arts and Sciences Ping Wang, encourages frontier academic research in macroeconomics and is restricted to chosen presenting authors.



PHD STUDENT RESEARCH FUNDING

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.

ECONOMIC SCHOLARS PROGRAM

Students who have successfully completed a principles of economics course are invited to apply for the Economic Scholars Program, a one-credit hour independent study course, typically capped at 12 students, that meets weekly to discuss readings. The program is taught by a different professor each semester, and focuses on a different economic topic. Formative texts, including Frédéric Bastiat and John Rawls, are read and discussed alongside recent economic works. Grades are based largely on participation — the quality and rigor of class discussions — and an essay.

In fall 2023, Mario Crucini taught Econ Scholars, focusing on better living through economics. Students read about and discussed examples of economic research leading to a tangible improvement in economic well-being. Adam Smith's "The Wealth of Nations" was among their required texts.

In spring 2024, Tim Bond taught the class, focusing on the historical economic underpinnings of racial disparities in the United States. The group begin by studying the institution of slavery, which led to the initial conditions for economic disparities between blacks and whites. They then considered the Great Migration, the movement of large numbers of black families out of the South and into the more prosperous North, one of the most salient events in black economic progress.

Starting in fall 2024, PURCE has expanded Econ Scholars to two sections each semester. Now, up to 24 undergraduate students have the opportunity to each earn up to \$750 in scholarship money while exploring economics topics in great depth.

UNDERGRADUATE RESEARCH ASSISTANTSHIP PROGRAM

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

In fall 2023 and spring 2024, we paid 10 undergraduates to assist with faculty affiliate research projects. Read more about these exceptional students and their experiences in the next few pages.

The assistantship program continues, with six juniors and six seniors, all majoring in economics, eager to work with and learn from econ faculty in the 2024-2025 academic year.

MAKING CONNECTIONS

PURCE's undergraduate research program goes beyond the numbers



I'm seeing the students' confidence grow. They're taking it upon themselves to be curious and remain curious in their research.

KARIS PRESSLER

UGRA Program Mentor

Data is often considered impersonal and scientific, but a Purdue business school research assistantship program for undergraduate students proves that data analysis can do more than drive decisions — it can serve as a catalyst for confidence and connection.

The Undergraduate Research Assistantship (UGRA) program, organized and funded by the Daniels School's Purdue University Research Center in Economics (PURCE), launched in August 2023 with a cohort of 10 economics students. The program arose out of a desire to give undergraduates more direct exposure to economic research — something that's typically reserved for graduate students.

Students are paired with a professor from Purdue's department of economics and are paid for up to 10 hours a week to assist with real research projects. Through hands-on work and weekly cohort meetings, UGRAs learn research design, quantitative data analysis, database management, and presentation skills.

"Before joining the program, I had no research experience and was curious about the systematic procedures involved in conducting research," says Ruilin Chang, who is majoring in economics with a minor in mathematics. "I was aware that undergraduate opportunities for engaging in research are relatively scarce. Fortunately, the UGRA program offered an excellent opportunity to learn the necessary skills for research."

In the 2023-2024 academic year, Chang examined the decision-making impact of noisy factors in time series models, particularly in terms of overreactions to specific events. This research has potential applications in the financial market, where it could provide insights into behavioral patterns related to buying and selling stocks.

For most students, the UGRA program was their first opportunity to engage in research. "My biggest takeaway has been the realization that research is very different from most of the work I've done up to this point," says economics major Andy Kim.

Kim worked with Associate Professor of Economics Timothy Bond on a project measuring the impact of the Great Migration on national labor markets and racial inequality. Kim is translating census data across decades into comparable data sets and developing code in Stata to calculate labor demand and migration.

"Whereas a lot of classes as an undergraduate student teach you the broad methods used in research, actually applying those skills involves nuances I didn't expect," he says. "Everything I'm doing as a UGRA feels very open-ended, which can be challenging, but the ability to use my own skills to come up with solutions and overcome roadblocks has been very empowering."

Kim's observation reflects the ethos that UGRA Program Mentor Karis Pressler has been trying to foster. "With the students, I've talked a lot about the



importance of advocating for oneself," Pressler says. "And now I'm seeing the students' confidence grow. I'm noticing more students taking charge, taking initiative, and taking it upon themselves to be curious and remain curious in their research."

Pressler herself does not come from a background in economics. She graduated from Purdue with a dualtitle PhD in sociology and gerontology, the study of aging, in 2014. This background has enabled Pressler to bring a unique perspective to the program.

Her weekly meetings, which include a free lunch for the students, start with dedicated time for the UGRAs to get to know each other. Following this casual conversation, Pressler invites the students to share one good thing about their research, one "okay" thing about their research, and one good thing about their week, a process she calls "Good Okay Good," or GOG, that helps students discover common connections. Then she gives the floor to the students for brief presentations on the research they've been doing and the challenges they've encountered.

Economics major Jakub Jasinski reflects on the importance of these lunch sessions. "If it wasn't for the weekly lunch meetings with the other UGRAs to talk about our research, learn more about data analysis, and just catch up with one another, I don't believe I would have been so invested in the program," he says.

When asked if they would recommend the program, student responses were unanimous. "Absolutely do it," says Jasinski. "If you are considering graduate school or just want to try research, this is the best time to try. We are all rooting for one another. Being in an environment where everyone cares has made me a better researcher."

PURCE Kozuch Director Kevin Mumford says the UGRA program involves carefully considered "matchmaking" between professor and student, and benefits both.

"Our undergraduates get the chance to experience how modern research is conducted, and our faculty get much-needed assistance with their many research projects," Mumford says. "We have long employed UGRAs, but Karis has taken the program to the next level by creating a cohesive cohort and meeting inperson with the students each week to discuss their progress and any challenges."

With the UGRAs, Pressler strikes a balance between teaching, encouraging, and asking questions, but she leaves it up to them to make the experience what they want it to be. "It's as much a learning experience for them as it is for me. We're all learning and growing together."

My biggest takeaway has been the realization that research is very different from most of the work I've done up to this point.

ANDY KIM

Economics '24

FACULTY UPDATES

We are pleased to announce the addition of three faculty affiliates.



James Bullard came to Purdue in August 2023 from the Federal Reserve Bank of St. Louis, where he was sitting president and chief executive officer for 15 years. The Dr. Samuel R. Allen Dean of the Mitch Daniels School of Business is a noted economist and scholar who earned significant praise and accolades for his long-standing leadership and innovative thinking as part of the Federal Open Market Committee in guiding the direction of U.S. monetary policy.



Jonathon McClure is an assistant professor of economics, new to Purdue in fall 2024. His research focuses on industrial organization and topics in competition and consumer behavior. Born in New York City, McClure grew up in Singapore, returning to the U.S. as an adult. He worked in consulting at Compass Lexecon in D.C. for three years prior to starting his doctoral program, and earned his PhD in Economics from the University of Wisconsin-Madison in 2024.



Laura Montenovo is an assistant professor at Purdue's Agricultural Economics department. Her research focuses on labor economics and how large reforms and regulations affect workers, firms, and overall economic development. Montenovo also looks at public finance and social inequality questions and how public policies impact the overall well-being of various socio-demographic groups and organizations. She was born and raised in Italy and earned her PhD in Public Affairs from Indiana University in 2023.

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. We are able to fund these stellar faculty members:



MARIO CRUCINI

The Daniels School's Jerry and Rosie Semler Chair in Economics teaches PhD-level courses in international macroeconomics and an Honors Thesis economics course, in which undergraduates write an honors thesis during their senior year. Crucini structures the thesis course to include eight one-on-one meetings with each student. This gives them a more experiential learning experience as they can be helped over hurdles while being required to seek their topic, data and structured model more independently than in a standard course. His research papers in progress include: "Sugar Highs and Sugar Lows: U.S. Interwar Tariff Policy and Cuba's Great Depression" and "Which U.S. States Suffered a Greater Great Depression and Why?"



TIM MOORE

Moore, a Professor of Economics, formally mentored late-stage graduate students and early-career researchers from under-represented groups through being a mentor and presenter at the Howard University/University of Wisconsin at Madison Junior Scholars Intensive Training program. He teaches Health Economics and Public Economics. Moore's research on disability insurance was cited in the 2023 Economic Report of the President, and his research on fentanyl overdoses was featured in an article in The Economist. His research in progress includes "Opioid Use, Health and Crime: Insights from a Reduction in Heroin Supply" and "Tariffs, Transport Costs and Tax Evasion."



VICTORIA PROWSE

A course our Marge Magner Chair and Professor of Economics recently developed, ECON 463: Advanced Data Analysis and Machine Learning, was approved to be included in the Purdue Data Science Certificate. Prowse organized preparation activities for the team of Daniels School undergraduates participating in the Econometrics Games in Chicago in Spring 2023. Preparation activities included mentoring the students on their application packet and advice on software, methods, and identification strategies. Her research papers in progress include "Insurance, Redistribution, and the Inequality of Lifetime Income" and "How Cognitive Skills Affect Strategic Behavior: Cognitive Ability, Fluid Intelligence and Judgment."

FACULTY ACCOLADES

PURCE affiliates are continuously recognized by organizations for their expertise. Here are just a few recent highlights.

TIM BOND & KEVIN MUMFORD

along with Mary Kate Batistich and Sebastian Linde co-authored "Statistical Discrimination and Optimal Mismatch in College Major Selection," which was the 2024 recipient of the European Economic Association's Minorities in Economics (MinE) Best Paper Award.

JILLIAN CARR

was invited to the Indiana Statehouse to speak to state agency officials and legislators about the effects of SNAP (Supplemental Nutrition Assistance Program) disbursement schedules at the Indiana Family Impact Seminar "Reducing Poverty and Producing Prosperity in Indiana."

MARA FACCIO

was selected president-elect of the Financial Management Association International, whose membership includes finance practitioners, academics and students who are interested in the techniques and advances which define the field of finance. The association consists of more than 4,000 professional members.

JOHN MCCONNELL

was honored by the *Journal of Applied*Corporate Finance when they dedicated their winter 2023 issue to him. Published in January 2023, the entire issue featured only his authored or coauthored papers.

VICTORIA PROWSE

was among the authors of five research papers shortlisted for the Exeter Prize. The Exeter Prize is awarded annually by the University of Exeter for outstanding articles published in a refereed journal in the previous year on experimental economics, decision theory or behavioral economics. Prowse coauthored "Cognitive Skills, Strategic Sophistication, and Life Outcomes," published in the *Journal of Political Economy*.





765-494-3782



purce@purdue.edu



business.purdue.edu/centers/purce @PurduePURCE



Research Center in Economics

403 Mitch Daniels Blvd. West Lafayette, IN 47907

LEARN MORE ON THE PURCE WEBSITE

business.purdue.edu/centers/purce