

YALE UNIVERSITY

# Department of Economics

2024 ANNUAL MAGAZINE



## 03 YEAR IN REVIEW

Strack wins Clark Medal; Nobel laureate Nordhaus retires; The Department sets new milestones in teaching.

## 07 RESEARCH

Faculty members published research that puts them at the top of their fields. Read our summaries and interviews.

## 19 STUDENT LIFE

The Department's academic programs set new enrollment records, and students won significant awards.



## CONTENTS

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## 02 From the Chair

Tony Smith Celebrates Another Exceptional Year for the Department

## 03 Year in Review

Philipp Strack Wins 2024 Clark Medal

2024 Highlights in Teaching and Research

## 05 Faculty News

The Department of Economics Welcomes New Faculty

Nobel Laureate William Nordhaus Retires

## 07 Research Centers

Cowles Foundation: Pushing the Frontiers of Research in Economics

Economic Growth Center: The Value of Closing Gender Gaps

Tobin Center: Setting the Standard for Meaningful Public Impact

## 13 Research at Yale

Marriage Markets, Labor Markets, and Inequality

Meet Mayara Felix

Meet Joel Flynn

The Global Gender Distortions Index Measures Losses in Global Economic Growth

## 19 Student Life

Graduate Life: An Update From the DGS

Undergraduate Life: An Update From the DUS

## 23 Awards & Events

Major Awards Mark Faculty as Leaders in Their Fields

Top Academics Visit Yale to Present Cutting-Edge Research

## 25 Our Programs

The Tobin Center Leads One of the Nation's Largest Predoc Programs

Our Programs by the Numbers

# From the Chair

DEAR ALUMNI, FRIENDS, AND COLLEAGUES,

The 2024 Annual Magazine celebrates another exceptional year for the Department.

The Department continues to foster an unparalleled environment for teaching and research in economics. Students are enrolling in our courses in record numbers, and faculty are publishing in top journals and winning awards that put them at the top of their fields.

This year, I am especially proud to celebrate Philipp Strack, recipient of this year's John Bates Clark Medal, widely considered the most prestigious award bestowed on young American economists. The Medal recognizes his creative contributions across a wide spectrum of cutting-edge topics within microeconomic theory. Philipp is not only brilliant, but also a wonderful and generous colleague.

Our talented Department continues to grow, welcoming a number of new faculty and a Postdoctoral Associate who will later join as a faculty member. The new faculty members are Professor Timothy Christensen, an econometrician, Assistant Professor Mayara Felix, a trade and development economist, Assistant Professor Joel Flynn, a macroeconomist and economic theorist, Associate Professor Elliot Lipnowski, an economic theorist, and Associate Professor Pascual Restrepo, a macroeconomist and labor economist. We also welcome Cody Cook, a labor and public economist, who will serve as a Cowles Foundation Postdoctoral Associate and then join the faculty as an Assistant Professor in the 2025-26 academic year.

This year also included the retirement of William Nordhaus, who won the Nobel Prize in Economics in 2018 for integrating climate change into long-run macroeconomic analysis. A graduate of Yale College, he was one of the longest-serving faculty members at Yale, having received his Bachelor's degree at Yale in 1963 and then joining the faculty in 1967 after receiving his PhD in Economics from MIT. His contributions to Yale and to the field of economics are immense, and we will miss his presence even as he stays connected to the Yale community through his ongoing research.

Economics remains the largest undergraduate major at Yale, with over 350 senior majors in Economics or one of its joint majors. The Department's introductory courses are perennially among Yale College's most-enrolled courses, including Yale College's most popular courses in spring 2024, Introductory Macroeconomics taught by Fabrizio Zilibotti, and in fall 2024, Introductory Microeconomics taught by Cormac O'Dea. The faculty, graduate students, and staff who run not only these but all of our courses deserve enormous credit for their hard work and enthusiasm. I am proud of their contributions to Yale's economics community.

Our PhD program also continues to thrive. At this year's Commencement ceremony, the Department awarded 20 new PhDs, with excellent job placements at leading universities, businesses, and government agencies. Current students Carlo Cusumano and Ferdinand Pieroth published work in *The American Economic Review* and Nghiem Huynh and Jillian Stallman received prestigious Prize Teaching Fellowships from Yale.

The Department, in conjunction with the Tobin Center for Economic Policy, leads one of the nation's largest Predoctoral Fellows programs. Since 2019, we have recruited 219 Predoctoral Fellows to support 85 faculty, with 69 currently engaged in research assistance and professional development under the



“The 2024 Annual Magazine celebrates another exceptional year for the Department.”

supervision and mentorship of Senior Lecturer Rebecca Toseland.

Through our affiliated research centers, Yale continues to be a hub for pushing the frontiers of innovative research across many fields of interest. As highlighted elsewhere in this Magazine, each center hosted major conferences this year that supported cutting-edge research in fields such as deposit insurance, health economics, international development, market design, machine learning, supply chains, and more.

Reflecting on the five years during which I have been honored to serve as Departmental Chair, I've been excited to see the Department thrive and renew itself by welcoming new faculty, staff, and students in support of its central mission to engage in world-class research and teaching in economics. As always, we welcome you to stop by for a visit when you are next in New Haven.

Sincerely,

**TONY SMITH**

*William K. Lanman, Jr.*  
Professor of Economics

*Chair, Department of Economics*

# Yale Economist Philipp Strack Wins 2024 Clark Medal

*Widely considered the most prestigious award bestowed on young economists, the Medal recognizes Strack's work to solve long-standing questions in economic theory.*

Awarded by the American Economic Association (AEA), the medal honors an American economist under the age of 40 whose scholarship has made a significant contribution to economic thought and knowledge.



Strack is the third Yale Economist to be awarded the Clark Medal, and the first since 1969, following Marc Nerlove (1969) and James Tobin (1955).

### What research are you most excited about right now?

**Strack:** Something I'm really interested in are the different aspects of discrimination in markets. For example, with Kai Hao Yang (Yale SOM), we're working together to think about how different anti-discrimination laws affect decisions—what products firms sell, whom they sell them to, and at

what price. There are recent examples of firms setting higher prices for people from different racial or ethnic backgrounds, or genders, so we're looking at discrimination in different markets, as well as how firms will react to anti-discrimination laws.

For the laws being written, there are many different notions of what it means for a firm not to discriminate—should they, for example, aim to equalize outcomes or price offers? There is also wide societal disagreement about who discriminates, and who is discriminated against. There are many types of laws that address these issues in different domains in different counties, yet theoretically, we don't have a good understanding of how these various notions will affect markets. It's a good opportunity to do research in the area given that there are many open questions. 📖

"It's an incredible honor, and it's hard to believe," said Strack, "I'm just very happy and grateful."

Strack's work has "challenged conventional wisdom and significantly pushed the boundaries of theories of decision-making and behavioral economics outward," the AEA stated in its award announcement. Through his research on the formalization of information cost functions and privacy, as well as new analytical approaches to mechanism design, the AEA praised Strack's research as representing a new wave of the economics of information.

"Economic theory is a useful tool for so many important questions," said Strack, who studies economic theory and behavioral economics. "Through precise formalization, we can get much clearer on issues like discrimination, privacy, or climate change. For example, how can we measure whether firms are discriminating against employees? What do we mean by privacy? How do we ensure parties will adhere to climate change agreements? Theory gives us the tools to structure our thinking around these questions, and I'm really excited by the progress we're making and where the field is headed as a whole."

**“The Department is very proud to celebrate Philipp's Clark Medal, in recognition of his creative contributions across a wide spectrum of cutting-edge topics within microeconomic theory. Philipp is not only brilliant, but also a wonderful and generous colleague.**

**TONY SMITH, DEPARTMENT OF ECONOMICS CHAIR**

# 2024 Highlights in Teaching and Research

## Economics Continues to Lead Yale College in Popular Courses

2024 marked another year where the Department offered the most popular courses at Yale College. This year, Yale College's most popular course was fall 2024's Introductory Microeconomics ('ECON 115'), taught by Cormac O'Dea. It was also the College's most popular course last fall, and its enrollment has grown 7 percent since then.

In spring 2024, Introductory Macroeconomics taught by Fabrizio Zilibotti was Yale College's most enrolled course of the semester.

Overall enrollment numbers also continue to reach new highs: In fall 2024, the Department had over 3,000 students enrolled across all undergraduate economics courses, up from roughly 2,900 students in Fall 2023 and 2,600 in fall 2022.

*“Our course prepares students to understand a world where economics is pervasive. It provides the basic tools for understanding the daily debate on very topical questions in our society: growth, unemployment, inequality, inflation, poverty.” — Fabrizio Zilibotti*



## James A. Robinson '93 PhD wins the Nobel Prize in Economics

After learning that he had been awarded the 2024 Nobel Memorial Prize in Economic Sciences, the first person James A. Robinson '93 PhD texted was Truman Bewley, who was his thesis advisor at Yale more than 30 years ago.



"It's funny how these things take time for you to realize, but I realized how much of my attitude towards social science and research I got from being Truman's student," Robinson, an economist and political scientist, said during a news conference at the University of Chicago, where he is the Reverend Dr. Richard L. Pearson Professor of Global Conflict Studies.

The Royal Swedish Academy of Sciences honored Robinson for his work demonstrating the importance of societal institutions to a country's prosperity. Robinson is the third Yale-trained Nobel laureate in economics in the past three years, joining Douglas W. Diamond '80 PhD and Philip H. Dybvig '79 PhD, who shared the prize in 2022 for their work on bank runs. The latter two met while PhD students at Yale.

## CADMY Brings Together Economists and Computer Scientists to Push Frontiers of Research



The Center for Algorithms, Data, and Market Design at Yale (CADMY) hosted the 25th ACM Conference on Economics and Computation (EC'24), bringing together hundreds of economists and computer scientists to push the frontiers of research in areas like market design, machine learning, and information design.

The event featured technical paper presentations, in-person workshops on topics including decentralized finance, game theory, gender inclusion, and incentives in academia, and plenary talks by Mikhail Belkin (UC San Diego), Federico Echenique (UC Berkeley), Adam Kalai (Open AI), and Garrett van Ryzin (Amazon).

With Yale hosting this year's conference, many faculty members led and coordinated the event, including Dirk Bergemann (Economics) serving as the General Chair, and Yang Cai (Computer Science) and Vahideh Manshadi (SOM) serving as the Local Chairs. 📖

# The Department of Economics Welcomes New Faculty for Fall 2024

*The Department is excited to welcome five new professors to its faculty, and one new Postdoctoral Associate who will later join as a faculty member.*

These esteemed scholars bring a wealth of expertise and diverse perspectives that will create exciting new research opportunities within the Department, enrich our teaching curriculum, and contribute to the vibrant Yale economics community. We are thrilled to have them join our faculty!

## Timothy Christensen

Timothy Christensen joins the Department as a Professor of Economics. Before joining Yale, he was a Professor of Economics at University College London. His research interests lie broadly across theoretical and applied econometrics, financial econometrics, and statistics/data science. His recent research is at the intersection of econometrics and machine learning, where he works on the integration of unstructured data into quantitative economic modeling. Timothy received a PhD in Economics from Yale in 2014.



## Mayara Felix

Mayara Felix joins the Department as an Assistant Professor, after completing the 2023-2024 year as a Cowles Foundation Postdoctoral Associate. Her research is in the fields of development and international trade. She studies policies intended to improve market efficiency, such as import tariff reductions, free trade agreements, and outsourcing. A special focus of her research is firms' responses to these policies and their implications to competition, either in labor or product markets. Mayara received a PhD in Economics from MIT in June 2021.



## Joel Flynn

Joel Flynn joins the Department as an Assistant Professor, after completing the 2023-24 year as a Cowles Foundation Postdoctoral Associate. His research is in macroeconomics and economic theory with an emphasis



on business cycles and mechanism design. He has recently studied how economic uncertainty affects the transmission of monetary policy and how viral economic narratives cause macroeconomic boom-bust cycles. Joel received a PhD in Economics from MIT in June 2023.

## Elliot Lipnowski

Elliot Lipnowski joins the Department as an Associate Professor, studying microeconomic theory. His interests include information design, mechanism design, dynamic games, organizational economics, and strategic uncertainty. Before joining Yale, he was a faculty member at the University of Chicago and at Columbia University. Elliot received a PhD in Economics from the Stern School of Business at New York University in 2016.



## Pascual Restrepo

Pascual Restrepo joins the Department as an Associate Professor. Prior to Yale, Restrepo was a Professor at Boston University. His research explores the implications of technological change for inequality and productivity. His most recent work studies the development and adoption of new automation technologies and how they have affected the economy, firms, and labor markets. He received a PhD in Economics from MIT in 2016.



## Cody Cook

Cody Cook joins the Department as a Cowles Foundation Postdoctoral Associate before joining as an Assistant Professor in July 2025. He is an economist who works at the intersection of public, urban, and labor economics, often focusing on the design and evaluation of policies affecting inequality in cities. His research combines large-scale datasets with tools adapted from industrial organization. He received a PhD in Economics from Stanford GSB in 2024.



# Nobel Laureate William Nordhaus '63 Retires as Sterling Professor of Economics

*William Nordhaus won the Nobel Prize in Economics in 2018 for integrating climate change into long-run macroeconomic analysis.*

He received his Bachelor's degree at Yale in 1963 and joined the faculty in 1967. Below, Nordhaus reflects on his research and time in the Department.

## What is the most important question in climate economics right now?

Easy answer: the impacts or damages from climate change. Impact estimates are difficult for many reasons. They involve the distant future; they require understanding sectors that are rapidly changing, such as farming or manufacturing; we have no history to estimate damages; there are the possibilities of fat tailed impacts which undermine even the most sophisticated economic analyses; and we will learn about the uncertainties, but at an uncertain rate.

Here is an example. One of the most consequential impacts would be melting of the Greenland ice sheet. Completely melted, that would add approximately 7 meters (23 feet) to ocean levels. This would flood many of the world's large cities (Venice, New Orleans, Bangkok). Yet there are major uncertainties about the dynamics of the Greenland ice sheet. Are there multiple stable equilibria (here, I would guess that there are three)? If there is a tipping point, will it be at a 2 °C warming or a 5 °C warming? Is the time frame for half melt, say, 300 years or 1000 years?

## You graduated from Yale College and have spent most of your career at Yale. What memories stand out to you? What's kept you at Yale all these years?

What kept me at Yale? Quite simply, I have been happy here. I have great colleagues embedded in a great university. Sometimes, when my faculty friends complain about Yale, I think to myself that it can't be all that bad to be one of the top 5 universities out of 25,000 in the world. About half of my work has been outside of economics proper, so the quality of other schools has been central to my work here. I have worked with scholars in the Law School, the School of Management, and



the School of the Environment. Within the Faculty of Arts and Sciences, I have benefited from advice or collaboration with faculty from at least a half-dozen departments.

I would also emphasize the importance of mentorship and collaboration. Most of my teachers became friends and co-authors. I particularly benefited from James Tobin and Tjalling Koopmans (Yale), Paul Samuelson and Robert Solow (MIT), Dale Jorgenson and Martin Weitzman (Harvard), Steve Landefeld (Bureau of Economic Analysis), and Steve Schneider (Stanford). I am grateful for the support of the faculty and leaders of many institutions of the mind, such as Yale, MIT, the National Academy of Sciences, and the International Institute for Systems Analysis.

## What projects are you excited to continue working on?

Like most scholars, I find that the pipeline is full to bursting. Several of the projects are climate-related. But the major project is what I call the open textbook project, which provides high-quality, free, online textbooks for college students. I am working on a test case for economics. The background is that the textbook by Samuelson and Nordhaus, Economics, currently in its 19th edition, has been discontinued by its publisher, McGraw-Hill. The new edition deals with emerging issues such as the digital economy, artificial intelligence, and climate change, as well as ancient ones such as inequality and the tradeoff of guns and butter.

Some might think that writing a textbook is a dull business, but that has not been my experience. Because economics is such a vibrant subject, each edition is reborn as we can present the latest thinking and show how economics can help solve new and old problems of the world economy. I will leave the last word to Paul Samuelson who wrote, "Let others write a nation's laws if I can write its textbooks."

# Cowles Foundation: Pushing the Frontiers of Research in Economics

*The Cowles Foundation hosts several distinguished annual and bi-annual conferences serving different economic disciplines.*

This year, we welcomed over 500 visitors to Yale through these conferences and other seminars, lunch talks, and events.

## DEPOSIT INSURANCE

To advance our understanding of the trade-offs and considerations that shape the design of deposit insurance schemes—the Cowles Foundation, together with Yale’s Tobin Center and the Wharton Initiative on Financial Policy and Regulation—convened over 60 leading researchers and policymakers for the ‘Rethinking Optimal Deposit Insurance’ Conference. The full-day conference featured researcher presentations on bank fragility and failure, as well as new approaches to deposits and insurance.

## GENERAL EQUILIBRIUM

A stellar cast of speakers and 50+ attendees came together for the 18th Annual Conference on General Equilibrium (GE) and its Applications. This year’s conference explored an exceptionally wide range of themes, showcasing the relevance of General Equilibrium for other fields, including macroeconomics, financial economics, inequality, behavioral decision making, and externalities. With many repeat attendees at the conference, “Many people told me it was the best GE conference in years,” co-organizer John Geanakoplos said.



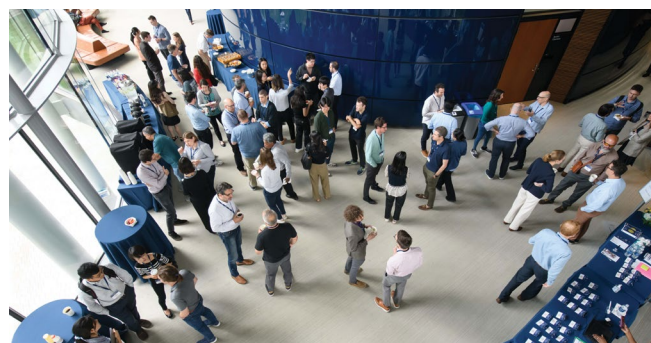
Jian Li (Columbia University) presenting “Intermediation via Credit Chains” at the GE Conference



GE Conference co-organizer Eduardo Dávila

## SUMMER CONFERENCES

Each summer the Cowles Foundation brings together leading economists from around the world to push the frontiers of research in many key fields of economics. The 2024 Summer Conferences at Yale SOM welcomed over 350 economists to Yale’s campus to take part in lively discussion of over 60 new and ongoing research papers. The week-long event advances the Cowles Foundation’s goal of developing and applying rigorous logical, mathematical, and statistical methods of analysis in economics in the areas of international trade, economic theory, labor & public economics, econometrics, industrial organization, and macroeconomics.



Summer Conference participants gather during a coffee break inside Yale SOM’s Evans Hall

## HIGHLIGHTS FROM 2024 SUMMER CONFERENCES

“What’s special about the Summer Conferences is how they tap experts from diverse fields for an intense week engaging with new research. All of us at Cowles are proud to see the conferences flourish, with continued enthusiasm from participants. This year featured exciting work on a wide range of topics such as exploring issues in trade and the environment, applying machine learning and AI tools to research, examining the inner workings of labor markets, and using novel datasets to measure and predict important features of the macroeconomy.”

— Samuel Kortum, Cowles Foundation Director



Barbara Biasi (Yale SOM) presented ‘What Works and For Whom? Effectiveness and Efficiency of School Capital Investments Across The U.S.’ at the Labor & Public Economics Conference, organized by Winnie van Dijk (Yale) and Seth Zimmerman (Yale)



Drew Fudenberg (MIT) presented ‘Endogenous Attention and the Spread of False News,’ as part of this year’s Economic Theory Conference, organized by Philipp Strack (Yale)



On the final two days, David Argente (Yale) and Jón Steinsson (UC Berkeley) organized the 2024 Macroeconomics Conference, featuring over 50 participants and 8 new papers. Hie Joo Ahn (Federal Reserve Board) presented ‘Disagreement about the Term Structure of Inflation Expectations’

# Research Center Overview

The Department of Economics is home to three major centers that conduct, fund, and promote cutting-edge research across multiple fields domestically and internationally. Working across disciplines and policy issue areas, and through meaningful policy partnerships, the centers work to advance a research and data driven policy debate. Each center is led by a Faculty Director, who is supported by a team of faculty affiliates and staff.

## THE COWLES FOUNDATION FOR RESEARCH IN ECONOMICS

Led by Samuel Kortum, The Cowles Foundation for Research in Economics fosters the development and application of rigorous logical, mathematical, and statistical methods of analysis in economics and related fields.

## THE ECONOMIC GROWTH CENTER

Led by Rohini Pande, The Economic Growth Center supports the economic advancement of poor and marginalized people in developing countries through innovative research at Yale and around the world.

## THE TOBIN CENTER FOR ECONOMIC POLICY

Led by Steven Berry and Zack Cooper, The Tobin Center for Economic Policy plays a vital role in informing data-driven discussions of public policy by supporting Yale’s emphasis on using empirical approaches in the social sciences to address the greatest challenges of today.

# Economic Growth Center: The Value of Closing Gender Gaps

*Gender inequalities remain globally, including in labor markets, technology use, and vulnerability to climate breakdown, and have significant macroeconomic effects.*

EGC researchers are investigating the drivers of gender disparities in labor markets and within households, as well as what fixing them can mean for society and economies.

Over the past century, many countries have seen remarkable economic growth and narrowing gender gaps in labor markets, as women increasingly participate in the economy. So, how do these two trends interact? More broadly, how can economics speak to women's lives—the determinants of their economic, social, and political power; their vulnerability to climate, health, and other shocks—and inform policies that provide new opportunities and mitigate risks in lower-income countries?

Researchers at Yale's Economic Growth Center are generating theoretical frameworks and evidence to inform answers to these questions.

EGC's Gender and Growth Gaps project brings together micro and macroeconomists to investigate causes and consequences of gender inequality in lower-income countries. Their research has revealed remarkable heterogeneity across countries in how gender disparities in wages, paid work, and other economic activities evolve as the economy grows. With multiple research outputs underway including the Global Gender Distortions Index (see the story on page 17), the project has also involved multiple Yale PhD students.

Yale Inclusion Economics, a collaboration across EGC and the MacMillin Center for International and Area Studies, is advancing a large portfolio of gender-focused research in collaboration with local partners. In Kenya, this includes research on women's access and use of digital technology and Costas Meghir's research on the impacts of public pre-kindergarten for three-year-olds on women's economic empowerment. In India, research examines the effects of establishing women as local banking agents and social auditors. In Nepal, the Inclusion Economics team is researching women's electoral participation as voters and politicians. And across South Asia, Inclusion Economics researchers are investigating disaster responses, and how to engage women in early warning systems—vital research, as evidence grows that the effects of climate change will disproportionately impact women and girls.

Ilse Lindenlaub is looking at married couples' home production, its links to labor and marriage markets, and impacts on inequality. Kaivan Munshi is examining the role of social status in depressing female labor force participation in India. Orazio Attanasio and Costas Meghir's wide-ranging research on the impacts of parental engagement on early childhood development touches on the economic well-being of women and girls in multiple ways. Several of our postdocs, including Patrick Agte, Nina Buchmann, Lisa Ho, and Maria Kogelnik, are working in this area and co-organizing a gender reading group for our PhD students.

EGC affiliates' research on gender dynamics is also making its way to peer-reviewed journals. Penny Goldberg's work with Yale PhD graduate Gaurav Chiplunkar on how barriers to women's entrepreneurship constrain employment of other women in India is published in *Econometrica*. Rohini Pande and Yale postdoc Patrick Agte's work with coauthors on the intergenerational impacts of income gains associated with flexible microfinance was published in *The American Economic Review*.

More broadly, EGC research, activities, and events continue to inform issues of central importance for international development. The Climate, Energy, & Growth Initiative is fostering vital research on climate, market, and institutional challenges to green growth—such as Nicholas Ryan's work on the procurement of solar energy in India and Mushfiq Mobarak's work on pollution-induced migration in China. The Markets and Development Initiative is uniting methodologies for a deeper understanding of market structure and functioning in lower-income countries—and highlighting new research at the Firms, Trade, and Development Conference, which we hosted at Yale for the second year, in collaboration with IGC.

Chris Udry, a former director of EGC, returned to Yale in April 2024 to deliver the Kuznets Memorial Lecture followed by a mini-conference, both focusing on agriculture and development. Oriana Bandiera of the London School of Economics will deliver the 33rd Kuznets Lecture on "Development and the Organization of Labor," February 27, 2025. We hope to engage with many of you at that event and our many others over the coming year.

## Convening Researchers, Policymakers, and Practitioners on Issues of Gender and Opportunity: EGC and Inclusion Economics



**WOMEN AND THE DIGITAL ECONOMY: WHAT DOES IT TAKE TO REACH WOMEN AT THE LAST MILE?**

**FEBRUARY 26, 2024  
NEW DELHI, INDIA**

Despite progress on closing some gender gaps in India, women are still 40% less likely than men to access mobile internet. A policy dialogue in Delhi asked how to close the gaps.



**GENDER AND GROWTH GAPS IN SUB-SAHARAN AFRICA—RESEARCH AND POLICY DIALOGUE**

**JUNE 13, 2024  
ACCRA, GHANA**

What drives gender gaps in labor market engagement and returns in sub-Saharan Africa, and what are the consequences of these disparities? EGC and Inclusion Economics partnered with the African Center for Economic Transformation (ACET) for a day of insights.



**GENDER AND GROWTH GAPS IN INDIA—RESEARCH AND POLICY DIALOGUE**

**AUGUST 8, 2024  
NEW DELHI, INDIA**

Gender gaps represent a dominant friction in India's labor markets. This interactive event explored how policy can address this friction to better enable the country's economic transformation.

## EGC Affiliates Present Research at Rwanda Policy Dialogue with Outgoing Yale President Peter Salovey

**MARCH 11, 2024  
KIGALI, RWANDA**

EGC researchers Lauren Falcao Bergquist and Kevin Donovan shared findings on industrial policies to boost exports and rural infrastructure investments to mitigate the effects of climate change to an audience that included high-level policymakers at an event organized by EGC and Inclusion Economics in collaboration with IGC Rwanda.



# Tobin Center: Setting the Standard for Meaningful Public Impact

*The Tobin Center continues to set a new standard for how a university research center can impact the world through policy.*

Founded in 2018, the Tobin Center has embarked on a mission to harness Yale expertise to inform policies that substantially improve outcomes for individuals, communities, and the nation.

Today, the center is firmly on that path: The Tobin Center has advanced the frontiers of high-impact, policy-relevant economics by matching the unique capabilities of Yale scholars with the real-world challenges faced by policymakers and communities. Its open lines of communication with the White House on critical issues such as health, childcare, public safety, and supply chains have positioned the center as a trusted advisor at the highest levels of government. It has become a go-to source for reliable, impartial knowledge for the US Congress in areas like health and digital markets.

The center's successful collaboration with the state of Connecticut exemplifies its commitment to making a tangible difference at the state and local level. By embedding multiple fellows and data scientists within state agencies, the Tobin Center is building and acting on evidence across various issue areas. This hands-on approach not only benefits Connecticut residents but also serves as a model for state-university partnerships nationwide.

Emerging as a distinctive leader among peer organizations, the Tobin Center is recognized by both peers and philanthropic entities for advancing the foundational infrastructure required to serve the country more effectively.

At a time when higher education is often viewed as insular and detached, the Tobin Center embodies Yale President McInnis' broader vision to promote collaboration and practical policy solutions that make a real difference in Americans' daily lives. Looking ahead, the center remains committed to creating value beyond the ivory tower, setting the standard for meaningful public impact. The Tobin Center is just getting started, and here we provide key highlights from our work on tariffs, climate, education, health, and supply chains.

## TARIFFS

At a moment when tariffs are in the national spotlight, Tobin-supported research by faculty affiliate Professor Amit Khandelwal shed new light on a 95-year-old tariff exception on “de minimis” imports now proposed for elimination by Congress and administration. Such imports have grown from \$50 million to \$54.5 billion in 10 years and represent 19% of e-commerce sales. Covered in *The New York Times*, *The Economist*, and elsewhere, they find ending the exemption will most significantly impact low income and minority consumers.



Professor Khandelwal and US Treasury Secretary Janet Yellen

## CLIMATE

The Tobin Center's energy and climate vertical tackles society's most complex and pressing environmental challenges by producing pioneering research and developing actionable, implementation-focused policy solutions.

- Faculty affiliates have successfully assembled the most comprehensive electric vehicle (EV) data set in the country, set to generate new research with insights for government and industry.
- Faculty affiliate Professor Costas Arkolakis' Tobin-supported work estimating the pace of renewable uptake on the grid, cited in the 2024 Economic Report of the

President, has been called the most detailed projection of the pace of renewable energy adoption.

- Tobin Founding Advisor Professor Bill Nordhaus and coauthor Lint Barrage (PhD '13) updated the celebrated DICE model, the most widely used model of its kind in assessing policy and climate goals.
- Faculty Director Steven Berry et al.'s recent findings on the impacts of US biofuel policy on deforestation captured attention of the highly influential California Air Resources Board and internationally.



## ECONOMICS OF EDUCATION

Tobin Center faculty released groundbreaking research on the impact of free, full-day, universal early care on family earnings—which *The Washington Post* lauded as one of the most effective pro-work policies ever evaluated in the United States. Professors John Eric Humphries, Christopher Neilson, and Seth D. Zimmerman linked 20 years of randomized school district lottery data with state earnings and educational outcomes, and found the strongest evidence to date of the positive and lasting effect early care has on family earnings.

- Parents are able to work more and earn a lot more money (up 22%).
- Higher earnings continue for years, improving families long-term economic well-being.
- There is high ROI for the public: \$6 for every \$1 government invests.



Families who access free, full-day, universal early care earn more—for years to come

## HEALTH ECONOMICS

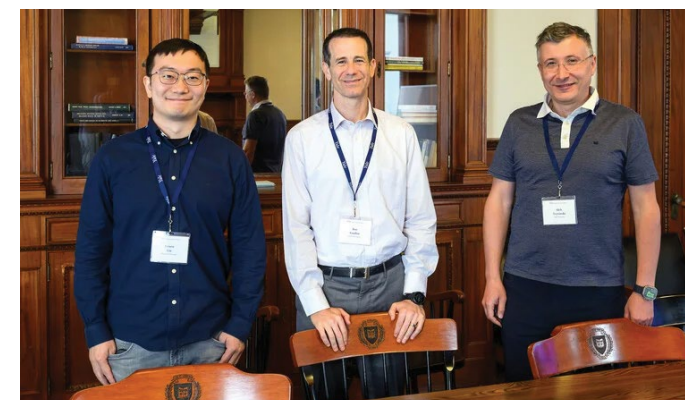
Under Professor Zack Cooper's leadership, the Health Economics team has developed a leading research agenda focused on rising healthcare spending, including hospital consolidation and its impacts on local economies, employers, and individuals. Professor Cooper and his coauthors have significantly influenced national conversations and policies, engaging with key policymakers at the White House, CMS, FTC, DOJ, HHS, and Congress. A featured exclusive in *The Wall Street Journal* highlighted Professor Cooper's research showing that rising healthcare prices from hospital mergers lead employers outside the healthcare sector to reduce payrolls and employees.

## SUPPLY CHAINS

In June 2024, the Tobin Center and Cowles Foundation hosted a conference featuring academic and business experts discussing how to predict, avoid, and manage supply chain disruptions. Organized by Yale Economist Aleh Tsyvinski and Princeton Economist Ernest Liu, the conference featured a keynote by Benjamin Gordon '95, managing partner and CEO of Cambridge Capital and a leading advisor to, and investor in, supply chain companies.

*“This conference focused the attention of a new generation of scholars on questions concerning supply chains. This is a topic of central importance to scholars interested in public policy and those interested in theoretical questions—as well as to business leaders, like Ben, whose firms focus on well-functioning supply chains. We aim to move academia from its echo chamber and keep us informed of the most relevant and important decisions being made by folks on the cutting edge of industry. It's about people operating on two different frontiers working together synergistically, which is very exciting.”*

— Aleh Tsyvinski, the Arthur M. Okun Professor of Economics and Global Affairs



Ernest Liu, Benjamin Gordon, and Aleh Tsyvinski at the Supply Chain Conference

# Marriage Markets, Labor Markets, and Inequality

## How do people's marriage choices affect their labor market choices, and ultimately gender wage gaps and income inequality?

Despite achieving gradual progress closing gender gaps in recent decades, women around the world still lag behind men in wages earned. Meanwhile, income inequality has increased—rapidly, in some countries.

In new research released in the November 2024 *Review of Economic Studies*, Yale Economist Ilse Lindenlaub and coauthors ask a novel question: How do people's marriage choices affect the labor market, and ultimately gender wage gaps and income inequality?

The research explores how people 'sort,' or select into, romantic relationships and jobs. In marriage, similarly educated individuals tend to marry each other, which puts upward pressure on between-household inequality and downward pressure on within-household inequality. In the labor market, more skilled workers are employed in more demanding jobs and work for more productive firms, which has been shown to fuel wage inequality across individuals.

*"Who matches with whom on the marriage market impacts how many hours each spouse will devote to their jobs as opposed to household duties. In the labor market, employers care about workers' skills but also how many hours they are willing to work, so labor supply choices have an impact on the labor market match. How households decide to allocate their time is the link between the marriage and the labor market."*

— Ilse Lindenlaub

Lindenlaub worked with two Yale economics PhD graduates, Paula Calvo '22 (now at Arizona State University) and Ana Reynoso '18 (now at University of Michigan), to build a model incorporating both the marriage and labor markets, based on three decisions faced by individuals: whether and whom to marry; how much time to allocate to work as opposed to childcare or housework; and which job to choose (which



determines wages). Their analysis suggested that partners with similar education are more likely to work a similar number of hours and share household duties, particularly childcare, more equally than couples with different education levels, where the better-educated spouse is the primary breadwinner—and that these factors can affect gender gaps and income inequality.

A growing body of research examines the link between the labor market and gender earnings gaps, particularly the effects of reduced labor force participation by women. Other areas of research explore the marriage market, including who marries whom and women's disproportionate role in home production duties (e.g. childcare, cooking, and chores). Until now, however, no analysis had featured both markets in equilibrium, with the households' labor supply decisions as the link.

The paper outlines a key dynamic: whether the time spouses work at home is more productive when both make similar time investments—for example, if children do better when both parents invest equally—had important associations with who marries whom, and the spouses' decisions over how much to work and which job to choose. When it is more productive for both partners to share household duties—due to complementarities of spouses home production time—spouses are more likely to have similar education levels, share childcare and housework, and be part of dual-career couples. This reduces gender gaps and inequality within households—reflecting “progressive” marital roles.

On the contrary, when specialization in household duties by one partner is more productive, spouses are more likely to form single-earner households, with greater disparities in education levels and one partner assuming the bulk of household duties, reflecting “traditional” marital roles. This widens gender gaps and inequality within households. Thus, whether household duties are more productive when shared or specialized—which can depend on many factors, such as the availability of modern appliances, the nature

of childcare, or even government policies like paid parental leave—affects gender and household inequality.

Despite finding that sharing household roles can promote gender and income equality within households, the model predicted that it increased inequality between households.

*“With stronger complementarities in home production among spouses, highly educated people increasingly marry other highly educated people, while less-educated people increasingly marry other less-educated people. This reduces gender gaps in labor market outcomes, since similarly educated partners tend to work similar hours compared to couples with big differences in education. But this shift increases inequality between households, since less-educated households earn increasingly lower wages than higher-educated households.”*

— Paula Calvo '22 PhD

Lindenlaub, Calvo, and Reynoso utilized data from the German national household survey to investigate the model's predictions empirically. The analysis confirmed their hypotheses: German spouses' household roles had indeed become more complementary over time, driven by time



Paula Calvo

Ilse Lindenlaub

Ana Reynoso

investments in childcare, alongside the model's predicted effects on gender gaps and inequality. They documented a large decline in gender and within-household income inequality and the increase in between-household inequality in Germany between 1990 and 2016.

This recently published paper charts new ground in the family economics literature and has significant real-world implications. Policies affecting who marries whom (e.g. tax policies) or how households allocate time and labor (e.g. parental leave or universal childcare) have the power to mitigate or amplify gender gaps and income inequality—underscoring the need for a better understanding of these spillovers across both markets. 📖

## 2024 Selected Publications by Department Faculty

### BIAS AND SENSITIVITY UNDER AMBIGUITY

Published in the December 2024 *American Economic Review*, by Zhen Huo (Yale), Marcelo Pedroni (U. of Amsterdam), and Guangyu Pei (Chinese U. of Hong Kong). The authors examine the macroeconomic effects of ambiguity, and whether ambiguity helps explain deviations from rational expectations observed in survey data.



### HETEROGENEITY AND AGGREGATE FLUCTUATIONS

Published in the December 2024 *Journal of Political Economy*, by Minsu Chang (UPenn), Xiaohong Chen (Yale), and Frank Schorfheide (UPenn). The authors develop a state-space model that provides semistructural evidence about the interaction of aggregate and distributional dynamics at business-cycle frequencies.



### A DYNAMIC MODEL OF INPUT-OUTPUT NETWORKS

Published in the November 2024 *Review of Economic Studies*, by Ernest Liu (Princeton) and Aleh Tsyvinski (Yale). The authors develop a dynamic model of input-output networks that incorporates adjustment costs of changing inputs, and conduct a spectral analysis of the US.



### DATA, COMPETITION, AND DIGITAL PLATFORMS

Published in the August 2024 *American Economic Review*, by Dirk Bergemann (Yale) and Alessandro Bonatti (MIT). The authors provide a tractable and flexible framework to study digital markets where different privacy regimes can be compared.





# Meet Mayara Felix: The Economist Helping Make Markets More Efficient in Latin America and Beyond

*“I think it’s more important today than ever to understand how developing countries could leverage trade and access to global markets to grow,” says new faculty member Mayara Felix, an expert on international trade and economic development.*

Her research focuses on developing, middle-income countries such as Brazil, Colombia, and Indonesia. These countries face challenges to their growth, says Felix, but also have considerable state capacity and the opportunity to address economic obstacles with evidence-based policy.

“There’s a lot of inequality in these countries, and there’s a lot of poverty. But there’s also plenty of richness in them, and an actual role for the state,” Felix says. The governments in these countries have pursued various policies to increase economic growth, and she wants to better understand what works and what doesn’t.

A sequence of graduate courses in international economics helped her realize “the incredible power that international trade and globalization have to change people’s lives, especially those in low- and middle-income countries,” she says. She went on to specialize in economic development and international trade so that she could “focus on a corner of research that seeks to understand problems and propose solutions to issues faced by low- and middle- income countries through the lens of market forces.”

The seed of Felix’s interest in these questions was planted early. Growing up in Brazil in the mid-nineties in an era of trade liberalization, she didn’t understand why some communities had so much wealth while others were just scraping by.

“I grew up in a poor community in Northeast Brazil, and in that context I was only able to understand the issues around me through a zero-sum lens,” she recalls. As Brazil



opened its economy to the world, she thought the only solution to poverty in her country would be to “take from the rich and give to the poor.” But by high school, she says, “I had matured enough to understand that the world is complex. I needed more knowledge and more tools—not only to better see the issues around me, but to know how to come up with solutions.”

Felix’s desire to understand and solve economic problems led her to explore economics as an undergraduate. She became hooked on the field after a class on game theory at Mount Holyoke College, and then went on to earn her PhD in Economics from MIT.

Now Felix studies policies intended to improve market efficiency, such as import tariff reductions, free trade agreements, and outsourcing. She’s especially

intrigued by the ways even well-designed policies can have unexpected consequences, and how firms respond to policies that affect their ability to compete with other firms.

In the classroom, she wants her students to develop a strong understanding of when and why countries might need to use policy to intervene in markets. “Students are really connected with policy,” she says. She plans to teach classes that allow students to engage critically with economic policy around the world. “I’d like to look at the intersection of trade and development and ask, ‘where across the globe have we seen these types of policies, and have they been successful or unsuccessful? What does policy evaluation look like in this space?’”

“I am so, so happy that I ended up here,” she says. “I think it’s my dream placement.”

# Meet Joel Flynn: The Macroeconomist Asking Whether a Negative Mood Can Tank the Economy

*Recently, discussion about a ‘vibe-cession’, or an episode of negative sentiment that might cause poor economic performance, has gained prominence in the financial press and drawn serious attention from policymakers struggling to read contradictory macroeconomic signals.*

In recent research, new faculty member Joel Flynn together with Karthik Sastry (Princeton) make a first attempt to understand the macroeconomic consequences of narratives. They introduce new tools for measuring and quantifying economic narratives and use these tools to assess narratives’ importance for the US business cycle.

*“The idea that sentiment matters for business cycles is an old one, going back at least to Keynes and Pigou. We had read Shiller’s book on Narrative Economics and it really inspired us to test and quantify some of the hypotheses he put forward. These ideas seemed very reasonable to us and coming up with a framework within which we could combine theory and data to test the ideas seemed like a very fun challenge.”*

To measure narratives, they use resources not available to Keynes: large textual databases of what economic decision makers are saying and natural language-processing tools that can translate this text into hard data. Specifically, they study the text of US public firms’ SEC Form 10-K, a regulatory filing in which managers share “perspectives on [their] business results and what is driving them,” and their earnings report conference calls. To process these data, they used sentiment analysis, textual similarity analysis, and a fully algorithmic ‘latent dirichlet allocation’ model that looks for any repeating patterns in firms’ language. They then obtained quantitative proxies for things like firms’ general optimism about the future, their excitement about artificial intelligence trends, or their adoption of new digital marketing techniques.

They found that firms with more optimistic narratives tend to accelerate hiring and capital investment. This effect is above

and beyond what would be predicted by firms’ productivity or recent financial success. Strikingly, firms with optimistic narratives do not see higher stock returns or profitability in the future and also make over-optimistic forecasts to investors. That is, firms’ optimistic and pessimistic narratives bear the hallmarks of Keynes’ ‘animal spirits’: forces that compel managers to expand or contract their business but do not predict future fundamentals.



They estimate that narratives explain about 20% of the US business cycle since 1995. In particular, narratives explain about 32% of the early 2000s recession and 18% of the Great Recession. This is consistent with the idea that contagious stories of technological optimism fuelled the 1990s Dot-Com Bubble and mid-2000s Housing Bubble, while contagious stories of collapse and despair led to the corresponding crashes.

*“I would say the most important takeaway from our research is that contagious sentiment could, and much more research on this topic is needed, be one of the primary drivers of boom-bust behavior in the economy.”*

## How does this study fit into your broader research portfolio?

My broader research across macroeconomics and theory is often concerned with how frictions in decision making and strategic interaction at the microeconomic level generate emergent phenomena both at the level of the markets and the wider economy. The approach that we took in this paper is one example of that broader approach of focusing on a friction (here, it was misspecified beliefs that spread contagiously) and seeing how that can matter for important questions (here, why business cycles happen).

# The Global Gender Distortions Index Measures Losses in Global Economic Growth

## How much could an economy grow from improvements in women's labor market opportunities?

Around the world, there are many settings where women are excluded from market activity—in entirety or in specific domains. Would those economies do better if women were integrated on an equal footing into labor markets and the allocation of non-market work was less gendered? Do gender inequalities in the labor market impede productivity?

Historically in the United States, policies that reduced labor market barriers for women and African Americans have led to significant increases in productivity and economic growth by reducing the misallocation of talent (Hsieh et al. (2024), *Econometrica*). But how can today's low- and middle-income countries (LMICs) evaluate the economic dividends of progress toward equal opportunity? How can policy makers identify barriers within their labor markets that need to be prioritized? And how much economic progress is left on the table by the existence of gendered labor market distortions?

As part of the Economic Growth Center's (EGC) Gender and Growth Gaps project—which brings together economists to investigate causes and consequences of gender inequality—the Global Gender Distortions Index (GGDI) links changes in gender gaps in the labor market to productivity growth through improvements in the allocation of women's talent. The GGDI measures how much an economy has grown, or could grow, from improvements in women's labor market opportunities.

In previous work (Agte et al. (2024)), researchers associated with the Gender and Growth Gaps project investigated the reverse relationship, namely whether growth contributes to gender equality.

In a new EGC Discussion Paper, Goldberg, Gottlieb, Lall, Mehta, Peters, and Lakshmi Ratan build a framework to quantify the productivity losses of gendered misallocation across the globe. The index they develop in this paper highlights that women often do not make the choices that best match their skills and preferences because of 1) distortions on the demand side (e.g. discrimination by

employers) that lead to a wedge between the wages they receive and the value of what they produce; and 2) distortions on the supply side that may reflect among other things social norms, safety concerns, lack of child care options, and limit women's ability to participate in the labor market.



*“From a policy perspective one relevant question is, can we trust growth to close gender gaps? If so, perhaps we shouldn't worry—from a purely economic standpoint—about gender discrimination and other gender distortions, because growth is going to take care of them. But looking at recent trends with better data—the World Bank's Global Jobs Indicator (JOIN) database—and using many different metrics of women's economic standing, we get a nuanced answer to the above question. What emerged from our analysis was, essentially, that there is no clear takeaway. If you look over time across countries, there's no clear relationship between growth and gender gaps—the relationships vary a lot by region.”*

— Pinelopi (Penny) Koujianou Goldberg, the Elihu Professor of Economics and Global Affairs and an EGC affiliate

The GGDI is computed by using observed differences in women's wages, labor supply, and employment across job types (formal versus informal) to derive an estimate of economy-wide productivity losses or gains. By quantifying growth losses stemming from gender inequality and



identifying their sources, the GGDI allows policymakers to quantify the economic costs of barriers in labor markets, and make comparisons across time and space that can inform policy decisions.

*“Integrating women into the labor market is widely believed to be beneficial not only for women but for the entire economy,” explains Pinelopi Koujianou Goldberg, “The GGDI operationalizes this idea. It is the product of a successful collaboration between Yale's Economic Growth Center and the World Bank, and we hope that it will help guide policy decisions—especially in developing countries where gender gaps in the labor market remain significant.”*

The GGDI was applied in a proof-of-concept exercise analyzing Indian states for 2018. The results showed that both demand distortions and supply distortions are negatively related to state-level economic development. Equalizing distortions across Indian states could raise state-level productivity by up to 15 percent.

This proof-of-concept analysis focusing on Indian states was presented at a research-policy dialogue organized by EGC in New Delhi in August 2024, in partnership with the Institute of Economic Growth and Inclusion Economics India Centre. The World Bank's 2024 World Development Report featured the GGDI, highlighting how reduced gender inequality could enable middle-income countries experiencing stagnating growth to transition to higher income levels. The GGDI complements the World Bank's Women, Business, and the Law



(WBL) index, which measures formal legal barriers to women's labor market participation. The GGDI addresses the broader, de facto constraints that result in measurable economic losses.

The project is expanding through a partnership with Charles Gottlieb, Associate Professor of Economics at the Aix-Marseille School of Economics. Together, the researchers are applying the GGDI to approximately 45 countries over multiple years, using data from the Harmonized World Labor Force Surveys (HWLFS). An updated version of their discussion paper that includes cross-country panel results in addition to the cross-state analysis for India is expected in early 2025. The team is also exploring opportunities with the World Bank to transition the GGDI from a proof of concept to a widely used and continuously updated application.

*“Working on the GGDI project has been a very rewarding experience. The proof-of-concept exercise on Indian states unraveled substantial heterogeneity in the level of gendered labor market distortions across states. I attended the workshop in New Delhi where these results were presented and discussed. As a PhD student in the early stages of my program, this experience showcased how good research can influence discussions on important policy relevant topics.”*

— Meet Mehta, Yale Economics PhD Student

Research by Pinelopi Goldberg, Charles Gottlieb, Somik Lall, Meet Mehta, Michael Peters, Aishwarya Lakshmi Ratan.



# Graduate Life: An Update From the DGS

*It is my pleasure to report that our PhD program continues to thrive.*

Twenty-two highly talented students joined us this September, bringing new energy to our vibrant research community. I am happy to note that this hard-working group is also very collegial, as witnessed at our annual First Year student welcome pizza party in October. With this incoming class, our total program size stands at 137.

The Commencement ceremony in May offered us a wonderful opportunity to celebrate the impressive achievements of our graduating students. This year 20 students were awarded doctoral degrees. We also honored six students with Trimis Prizes; given annually to doctoral students in the Department of Economics, the Trimis Prize recognizes outstanding academic achievement. The recipients were Tan Gan, Rodrigo Guerrero, Sid Kankanala, Ryungha Oh, Bernardo Ribeiro, and Wei Xiang.

Reflecting the exceptionally high quality of research done by this cohort, we had yet another fantastic year in terms of placement. This year's graduates, notwithstanding the hurdles posed by COVID during their thesis writing stages, did exceedingly well on the job market. They had strong offers from top research universities (including



**YUICHI KITAMURA**  
Director of  
Graduate Studies

two placements at Chicago Booth, as well as LSE and Michigan), excellent liberal arts colleges, leading research institutions, superb industry opportunities, as well as outstanding postdoc positions. Placement Directors John Eric Humphries and Fabrizio Zilibotti did a masterful job of overseeing placement and guiding our students through the highly complex and competitive job market, culminating in successful outcomes.

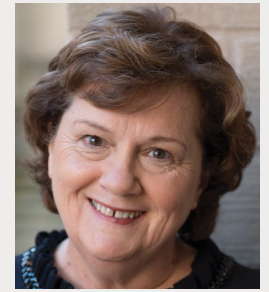
The Cowles Foundation selected five of our current students for the Anderson Fellowship: Davide Bordoli (micro theory), Jingyi Cui (labor/IO), Honcheng Li (micro theory), Christina Qiu (trade/development), and Zhichun Wang (IO/urban). The Anderson Fellowship Prize is awarded annually to pre-doctoral or post-doctoral students who are selected by a committee of Cowles professors in the Department of Economics with the approval of the Dean of the Graduate School. I also am happy to report that Kim Cheolhwan, Miho Hong, Nicolas Jimenez, Lorenzo Kaaks, Shoki Kusaka, Jared Stolove, and Pamela Torola were selected by the Economic Growth Center (EGC) for the 2024-25 Sylff Fellowships, which recognize outstanding economics PhD students in development economics and trade at Yale.

Earlier in the fall the Department awarded the Raymond Powell Prize for excellence in teaching. Raymond Powell, for whom the prize is named, was a distinguished member of our faculty and an exemplary teacher of undergraduates. The recipients for the 2022-23 academic year were Daniel Graves, Tim Hersey, and Tuyetanh Tran. Moreover, we are proud to note that the Graduate School of Arts and Sciences (GSAS) named two of our PhD students, Nghiem Huynh and Jillian Stallman, as their prestigious Prize Teaching Fellows based upon their outstanding performance and promise as teachers. Congratulations to Daniel, Jillian, Nghiem, Tim, and Tuyetanh!

Last but not least, I would like to thank Bronwen MacArthur and Pam O'Donnell for their dedicated support for our Department. Bronwen joined our Department as the new registrar at the beginning of this year. She has become the pillar of the PhD program, quickly earning the trust of our students and faculty members alike. She manages complex tasks effectively and efficiently, while learning—at a remarkable speed—the granular details of how our PhD program operates. We are so fortunate to have her as our new registrar. I also would like to express my sincerest gratitude to Pam, who selflessly stepped in to cover the vacancy left by the departure of the previous registrar, Scott Runner, last November. Furthermore, Pam remained in the Department until the end of May this year to help Bronwen's transition as the new registrar—all after her official retirement in 2022 as our long-serving registrar. We will be forever grateful for Pam's dedication and service to our PhD program.



Graduate Registrar  
Bronwen MacArthur



Graduate Registrar  
Pam O'Donnell



The Economics PhD Class of 2024

STUDENT LIFE



Ana Cecilia Fieler is a Lecturer and the Faculty Co-Director in the IDE MA Program



John Geanakoplos, left, is the James Tobin Professor of Economics

## THE INTERNATIONAL AND DEVELOPMENT ECONOMICS ONE-YEAR MASTER'S PROGRAM



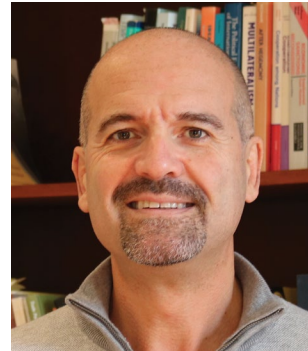
The IDE one-year Master's program welcomed 27 students from 15 countries for the 2024-25 academic year. Co-directed by Michael Boozer and Ana Cecilia Fieler, the IDE Program exposes students to a quantitative approach to economics, and prepares them to make an impact in global development. Our alumni network is strong, and graduating students go on to make an impact across the global development landscape:

- **Academia:** graduates have gone on to do PhDs at Berkeley, Harvard, LSE, MIT, Yale, and more, with many now holding tenured faculty positions.
- **Governmental or International Organizations:** such as Singaporean ministries, Bank of Japan, or the United Nations.
- **Policy and Research Groups:** including J-PAL, IPA, EPoD, IDinsight, the World Bank, and the IMF.
- **Private sector:** including consulting (McKinsey, Compass Lexecon) and finance (Nomura, Goldman Sachs, Wise).

# Undergraduate Life: An Update From the DUS

*The Undergraduate Program is wrapping up another exciting year that set milestones for the Department.*

Economics continues to be Yale's largest major, and in each of this year's semesters, two out of the three most popular courses in Yale College were economics classes. In fall 2024, we had over 3,000 students enrolled across all undergraduate courses—an increase of over 100 students from fall 2023, and up from roughly 2,600 in fall 2022. I'm thankful to all the faculty and staff who contribute to making this happen. We should all be extremely proud.



**GIOVANNI MAGGI**  
Director of Undergraduate Studies

## The Major

We had an impressive group of graduating seniors in 2024, with 267 total economics degrees granted across Economics, Economics and Math, and Economics and Computer Science. We had an additional 68 seniors graduate with degrees in Ethics, Politics, and Economics.

I'm delighted to see continued enthusiasm about our courses by students inside and outside of the economics major. I'm also excited that we've added course offerings to match current interests and trends, including topics like Development Economics, Technology and Society, Economic Inequality and Poverty, and the Economics of Climate Adaptation.

We've continued to support students to pursue their own research through the Senior Essay. In the 2023-24 academic year, 40 seniors completed Senior Essays spanning topics across all fields of economics, including econometrics, environmental economics, finance, macroeconomics, and spatial economics.

## Awards and Prizes

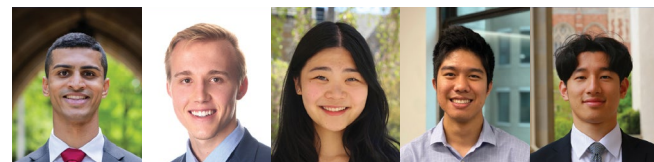
This year, five seniors received prizes at graduation: Anup Bottu, Jorn Dammann, Iris Li, Kyle Shin, and Rock Zhu. Both the Dickerman Prize for the best departmental essay and the Ellington Prize for the best essay in finance went to Rock Zhu. The Meltzer/Awdziejewicz Prize, the runner up for the Dickerman Prize, went to Iris Li. Jorn Dammann won the Laun prize for an outstanding course record in all courses taken at Yale College, and Kyle Shin and Anup Bottu won the Masee Prize for outstanding record in economics courses.

For the first time, the Computer Science and Economics (CSEC) major awarded prizes for outstanding coursework and senior essays. The Donald Brown Prize for outstanding academic records was awarded to Alexander Abinader, Drew Beckmen, and Ziyu Zhu. The Herbert Scarf Prize for the best CS senior thesis was awarded to Cody Neiman. The Martin Shubik Prize for excellence in the senior thesis was awarded to Kelvin Kang.

Grace Miller '24 received one of ten Y-Work Awards for Outstanding Undergraduate Student Employees, awarded for her key contributions as a Peer Mentor. Additionally, Yale economics graduates Jack Kelly '22,

Sarah Moon '23, and Naomi Shimberg '23 were honored through the National Science Foundation's (NSF) Graduate Research Fellowship Program (GRFP), which recognizes and supports outstanding students who are pursuing research-based graduate degrees.

Congratulations to all of these students for their exceptional accomplishments!



*The 2024 senior prizes winners, from left to right: Anup Bottu, Jorn Dammann, Iris Li, Kyle Shin, and Rock Zhu.*

## Research Programs

We run two programs designed to give Yale students an opportunity to get hands-on experience and immerse themselves in ongoing economics research. In the summer of 2024, we had 33 participants in the Herb Scarf Summer Research Opportunities program, which also runs workshops on programming, research, and the economics profession. In the past three academic years, we've also had 259 students participate in the Tobin Undergraduate Research Assistantships program, which runs during the school year. Through these programs, RAs work directly

with faculty on projects related to migration, health policy, ESG investing, machine learning, social security reform, housing instability and policy, taxation, behavioral finance, and more.

## Peer Mentor Program

For the seventh year, the Department is participating in the Peer Mentor program, made up of juniors and seniors selected and trained to convey advice and information to their peers, as a way of increasing and diversifying mentoring resources within the major. This year, we have an outstanding group of economics peer mentors: Elisabetta Formenton (Class of 2025), Logan George (Class of 2025), Cameron Greene (Class of 2025), Kylie Kim (Class of 2026), and Nastaran Moghimi (Class of 2025).



*The 2024-25 Peer Mentors, from left to right: Elisabetta Formenton, Logan George, Cameron Greene, Kylie Kim, and Nastaran Moghimi.*

## Women in Economics (WiE) Student Organization

The Yale Undergraduate Women in Economics (WiE) group, now in its eighth academic year, works to empower women and gender minorities in economics. Seeking to foster a stronger community of economics students of diverse backgrounds here at Yale, WiE hosts speaker events and panels with academic scholars, industry professionals, and leaders across many careers and interest areas. They host study sessions and social events, have created a mentorship program that pairs upperclassmen with freshmen and sophomores, and help with the process of choosing classes and getting involved with economics research at Yale.

The group also continues to maintain a strong partnership with Seeds of Fortune, a non-profit that financially empowers young women of color from underserved backgrounds by helping them to apply for college scholarships and by teaching them career and financial management skills. Scholars are paired with Yale student mentors throughout the year, culminating in a gathering at Yale in which scholars deliver their capstone presentations. 📍



*The Women in Economics Board, from left to right: Ella Fuentes Guerrero, Nina Gaither, Michelle Arguello (Co-President), Julia Wotjkowski, Lauren Kim (Co-President). Other board members include Emily Zhang, Logan George, Ella Saputra, Ella Warden, and Laura Lin.*



*Yale College's most popular course, ECON 115*

Total Economics Degrees Granted in 2024

267

Completed Senior Essays in 2024

40

# Economics Faculty Continue To Win Awards for Their Research

## Eduardo Dávila Wins Banco Sabadell Foundation Award; Sloan Fellowship

Eduardo Dávila was awarded the 23rd Banco Sabadell Foundation Award for Economic Research, a prize recognizing the best Spanish economist under 40. In their announcement, Banco Sabadell praised Dávila's innovative contributions to financial economics and the economics of information and market imperfections.



The Foundation highlighted Dávila's application of mechanism design (also known as implementation theory), as it provides "an innovative approach enabling improved regulation of the financial sector." They noted that "recognising market imperfections, his research explores which financial regulations offer the optimal balance between the positive and negative effects on different people and businesses."

The Alfred P. Sloan Foundation also named Dávila a 2024 Sloan Research Fellow, an honor that recognizes outstanding early-career scientists and scholars. According to the Sloan Foundation, Fellows "represent the most promising scientific researchers working today." Their achievements and potential place them among the next generation of scientific leaders in the US and Canada. He was among 5 Yale faculty members and 126 researchers total from the US and Canada selected to receive a fellowship in 2024.

*"I am truly honored to receive the Banco Sabadell Foundation Award and to join the distinguished group of past winners. We must remember that economics is unique in its ability to provide a rigorous framework for assessing policies and understanding their societal impact, and I am grateful to the foundation and the prize jury for recognizing my research in this area. This prize reinforces my commitment to advancing the understanding of financial, regulatory, and macroeconomic policies and their effects on society."*

— Eduardo Dávila



## Zhen Huo And Coauthors Win Best Paper Award for Work on Supply Chains

The *Journal of International Economics* awarded their biennial best paper prize—The Bhagwati Award for International Trade—to "Global supply chains in the pandemic," work that quantifies the role of global supply chains in the impact of the COVID-19 pandemic. The paper, by Yale Economist Zhen Huo and coauthors Barthélémy Bonadio (University of Lausanne), Andrei Levchenko (Michigan), and Nitya Pandalai-Nayar (UT-Austin), uses a world trade model covering 64 countries and 33 sectors spanning all economic activities.




*"A big question in macroeconomics is: how much should countries rely on domestic vs. international supply chains? While this is a hot topic in general, it came into focus during COVID-19 because the whole global supply chain was interrupted. Many countries asked themselves: should we re-nationalize the supply chain? Our study combines theoretical and empirical models to answer this question, and our result is that re-nationalizing the supply chain—i.e., reducing international trade—made economies worse off."*

— Zhen Huo

## Diana Van Patten Wins Award For Research on International Trade

Diana Van Patten, Assistant Professor at the Yale School of Management and Department Affiliate, received the 2024 Excellence Award in Global Economic Affairs from the Kiel Institute for the World Economy in Germany for her "outstanding research in international trade and development." The award recognizes Van Patten's work on the impact of multinationals on local economies, the determinants of local attitudes towards international trade, and the role of migrant networks in determining local imports of foreign products.



Launched in 2007, the Excellence Awards in Global Economic Affairs recognize the work of four economists under the age of 37 each year. Van Patten will receive the Theodor Wille and Heinrich-Diederichsen "Fair Trade" Fellowship, which is awarded every two years. 

# Top Academics Visit Yale to Present Cutting-Edge Research

## EGC HOSTS CHRISTOPHER UDRY FOR ANNUAL SIMON KUZNETS MEMORIAL LECTURE AND MINI-CONFERENCE

This year, Yale welcomed Christopher Udry back to campus for a lecture on "Structural Change and Declining Agricultural Productivity: Evidence from sub-Saharan Africa." He discussed new research on agriculture in sub-Saharan Africa, analyzing a high-quality, plot-level dataset that aggregates survey data for nearly 60,000 farmers over a 10-15 year period across six countries: Ethiopia, Malawi, Mali, Niger, Nigeria, and Tanzania.



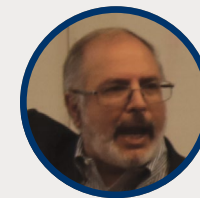
The Economic Growth Center also hosted the Kuznets Mini-Conference on Agriculture and Development, co-organized by Christopher Udry and EGC faculty affiliate Lauren Falcao Bergquist, bringing together early-career researchers studying agricultural markets in low- and middle-income countries. Researchers presented fresh insights from recent and ongoing studies looking at the determinants of agricultural productivity and market efficiency, and their implications for welfare-related outcomes in LMICs.

*"This actually is what makes me so excited to be a development economist now. The field has grown so tremendously, and you see the melding of really good theory, fieldwork, data, and econometrics."*

— Christopher Udry

## ANIL KASHYAP (UNIVERSITY OF CHICAGO) DELIVERS OKUN LECTURE ANTI-MONEY LAUNDERING REGIMES


Anil Kashyal visited Yale in April to deliver the Arthur M. Okun Memorial Lectures: "Assessing the US Anti-Money Laundering Regime" and "Crypto as a Window into Why AML Is Not Stopping Money Laundering." He outlined how the current US anti-money laundering (AML) regime is expansive, expensive, and plays a pivotal role in facilitating law enforcement, strengthening efforts to combat corruption around the world and facilitating the use of sanctions. Despite the myriad public values at play and benefits from making the system work well, he argued that the public and academic debate on the topic is extremely limited.



*"Economists are good at thinking about regulatory problems where the purpose of the regulation is to fix some distortion. For example where the market solution doesn't align with societal interests. The whole logic for money laundering and regulation is not just correcting a market failure, but there's a criminal element. If you think about how we do sanctions, which is increasingly part of the AML tool kit, the theory of sanctions looks nothing like an economic theory—it's motivated by other considerations. Our research begins to lay the groundwork needed to enable a broader, more informed debate about the design and contours of the US AML regime, and how economics can be useful."* — Anil Kashyap

## JEFFREY ELY (NORTHWESTERN UNIVERSITY) DELIVERS KOOPMANS LECTURE ON "MANAGING INFORMATION OVER TIME"

Jeffrey Ely visited Yale in March for this year's Tjalling C. Koopmans Memorial Lecture, where he presented a body of research about how to manage information over time—for example, how do we think of information as a service, or a policy lever?

*"Anytime we talk about policy, we're really talking about how to change what people would do if they were left to their own devices. But sometimes it's enough to just present information in the right way to people. The subtle point is that information is double edged. If the goal of information is to induce you to do something you otherwise wouldn't do, it could actually lead you to do the exact opposite of what I wanted. Information is only information—it's only news, and we can develop probabilistic models around how people might react. If I'm trying to influence you by exposing you to some information, I'm risking that the information may push you in another direction."* — Jeffrey Ely 



Jeffrey Ely delivering the 2024 Koopmans Lecture

# The Tobin Center Leads One of the Nation's Largest Predoc Programs

*The Tobin Center Pre-Doctoral Fellowship Program advances critical policy-relevant research while training the next generation of leading social scientists.*

To date, the Predoc Program has recruited and onboarded **219 predoctoral fellows** who have supported **85 faculty**, with **69 currently engaged in research assistance and professional development** under the supervision and mentorship of faculty and the Tobin Center's Director of Research Support, Rebecca Toseland.

The program is a global exemplar, frequently advising faculty and program leaders at other schools on how to build and run a successful program. Most Fellows go on to join top PhD programs in economics, business, and political science, as well as other disciplines including health policy, education, and sociology. Some Fellows instead choose to pursue graduate programs in law, business, and public policy,

or pursue careers in government, nonprofit, and the private sector. Below, hear from three Predoc Program alumni.



Members of the 2023-24 Predoc Program

**Deniz Dutz**  
PhD Student  
in Economics at  
the University  
of Chicago



"One main reason I chose the program was the opportunity to be jointly supervised by Professors John Eric Humphries and Ed Vytlačil. Both professors have research that intersects empirical research and econometric methods, and I was very excited to learn from how they approach this work. Early on, I remember realizing how I both loved what I was doing as a predoc while also being excited for what comes next. I got to work on projects that push the frontier of research, but these experiences also helped me realize how much I still had to learn. Ever since then, I've been motivated by how fun it is to continue to learn and contribute to research as well."

**Maria Elena Guerrero Amezaga**  
PhD student  
in Economics  
at University  
of California  
Los Angeles



"I gained exposure to a prolific team of Yale researchers, namely Professors Chris Neilson, John Eric Humphries, and Seth Zimmerman. Professor Neilson would involve RAs in every stage of a project—in addition to the usual tables and footnotes, I helped with grant applications, pre-analysis plans, responses to referees, replication documentation, all of which is super helpful now as a PhD student. With him and other collaborators, I co-authored a paper in the *Journal of Development Economics* on the effects of the COVID-19 pandemic on 35,000 small businesses in Latin America."

**Elena Stacy**  
PhD Student in  
Agricultural and  
Resource Economics  
at the University of  
California Berkeley



"The predoc community made the time especially valuable and enjoyable. I built great relationships with other fellows that have lasted for years, and my faculty PIs have continued to provide support after the program. I worked on several projects, mostly related to female labor force participation in India, including a paper published in *The American Economic Review*: "On Her Own Account: How Strengthening Women's Financial Control Impacts Labor Supply and Gender Norms." Working with faculty gave me experience doing field work and working on RCTs, and working through all steps of the research process that I now do on my own as a PhD student." 🙌

# Our Programs by the Numbers

Economics is Yale's largest major, with over **350 seniors** majoring either in Economics or one of its joint majors.

## THE YALE DEPARTMENT OF ECONOMICS AT A GLANCE



### FALL 2024 COURSES



### SPRING 2024 COURSES



## The Tobin Center / Economics Predoc Program



## Predoc Alumni



## Herb Scarf Summer Research Opportunities Program



## Tobin Undergraduate Research Assistantship Program





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