

## **Department of Economics**

The [Department of Economics](#) at MIT is one of the world's top institutions for economics research and education. Our extraordinary faculty balance groundbreaking research with substantial commitments to undergraduate and graduate education, professional leadership, and public service. The department attracts exceptional students at both the graduate and undergraduate levels and prepares them, through world-class instruction and research opportunities, for further academic work and careers in academia, finance, and government.

### **Priorities and Highlights**

In the 2021 academic year, the department strove to maintain excellence in teaching and research while expanding its contributions to a more inclusive and diverse economics profession. Examples of focus areas are described below.

#### **Faculty Development**

The department has a faculty that is among the best in the profession across most fields of economics. This year Economics was delighted to finalize the hiring of Nina Roussille, a labor economist who will join the faculty following a postdoctoral fellowship with the London School of Economics.

#### **Faculty Research**

In an era of increasingly ambitious and sophisticated empirical research, economics research is becoming more expensive, just as funding large-scale research is becoming more difficult. To meet this growing need, department leadership worked closely this year with MIT's resource development teams to prepare for the launch of a new endowment campaign that will provide substantial and sustainable new investment in the groundbreaking research initiatives of Economics faculty members.

Following a well-received virtual event in June 2020, the department provided another opportunity for alumni to engage with faculty research at a live webinar, "Economic Insights on the Covid-19 Pandemic," in January 2021. In a panel discussion moderated by department head Glenn Ellison, David Autor, Sara Ellison, and Parag Pathak shared insights from their work on pandemic dynamics, policy responses, and the post-pandemic economy.

#### **Innovation in Education**

The department is committed to providing the best in economics education at the PhD, master's, and undergraduate levels. In academic year 2021, we continued to innovate and grow our curricula and course offerings with a continued focus on improving well-being, inclusivity, and diversity.

The department also expanded its Undergraduate Research Opportunities Program offerings to include experiential learning projects in which undergraduate students worked with a PhD student on their research. The program was a valuable hands-

on learning opportunity for undergraduates, gave graduate students the chance to receive additional assistance with their research, and provided positive collaborative relationships for student participants and supervisors alike.

### **Equity and Inclusion**

The Economics Department has committed time and resources to developing a more robust response to inclusion and equity issues within the department and the profession. A new graduate seminar, 14.193 Symposium on Discrimination, featured lectures from guest scholars and MIT faculty on topics related to discrimination and diversity and was well attended in fall 2020. The department appointed a new diversity officer, and a faculty committee was established to focus on antiracism education, outreach, and strategies in the contexts of hiring and recruitment. In January 2021, graduate students in economics worked with department leadership and MIT MindHandHeart to convene a department-wide dialogue on building an inclusive and welcoming department and profession. The department also facilitated a student-led mentoring program pairing current graduate students with PhD applicants from groups that have been historically underrepresented in economics.

### **Adapting to Pandemic-Era Teaching and Learning**

Although the Covid-19 pandemic brought another year of exceptional challenges, our faculty, students, and staff were largely successful in adapting to the new “normal,” with many aspects of research, teaching, learning, and collaboration taking place via virtual means. Faculty members further honed the digital learning techniques to which they quickly adapted in spring 2020, utilizing Zoom, professionally pre-recorded lectures, and hybrid teaching to continue delivering instruction of the highest caliber.

Faculty and students fostered collaboration and community through virtual field seminars, social events, and an “econ-sibs” program that matched incoming PhD students with a graduate student mentor. The department warmly welcomed opportunities in spring 2020 to slowly reintroduce certain face-to-face interactions that had been deeply missed, including a gathering of graduating students in May 2020 (paired with a virtual celebration for students outside Cambridge) and the resumption of some of the graduate student research lunches in June 2020.

## **Faculty**

### **Faculty and Teaching Staff**

In academic year 2021, Glenn Ellison succeeded Nancy Rose as Economics Department head. This is Ellison’s second year in the role, having previously served as head in 2016–2017. There were 39 Economics faculty members, excluding visitors, this year. Our faculty will grow to 40 in the 2022 academic year, reflecting the departure of Alp Simsek and the arrival of Assistant Professors Ian Ball and Christian Wolf in July 2021.

In spring 2021, the department finalized the hiring of Nina Roussille, a recent graduate of the University of California at Berkeley who works on topics in labor, gender and public economics. Roussille will join the MIT Economics faculty in July 2023 after a two-year postdoctoral fellowship.

## Chairs and Professorships

The department was delighted to appoint Benjamin Olken as the new Jane Berkowitz Carlton and Dennis William Carlton Professor of Microeconomics.

## Faculty Searches

All search committees are instructed to identify outstanding women and minority candidates for potential faculty appointments. During academic year 2021, the MIT Economics faculty included six women: one junior faculty member (Clare Balboni), four tenured faculty members (Esther Duflo, Amy Finkelstein, Anna Mikusheva, and Nancy Rose), and one senior lecturer (Sara F. Ellison).

During the past year, the department received a total of 352 applications as part of the regular recruitment process for junior faculty. The Economics Department hiring committee, consisting of Professors Daron Acemoglu (chair), Nikhil Agarwal, Marios Angeletos, and Drew Fudenberg, reviewed all applications. Twenty-nine applicants (18 men and 11 women) were selected to be interviewed by the faculty in their respective subfields. The candidates were interviewed virtually following the American Economic Association's annual meeting, which took place virtually on January 6–7, 2021. The department invited six candidates (three men and three women) from the interview pool to present virtual seminars during Independent Activities Period. The faculty voted to extend offers to Nina Roussille (PhD in economics, University of California, Berkeley, 2021) and Nano Barahona (PhD in economics, Stanford University, 2021). Barahona declined MIT's offer; as noted, Roussille accepted a position to begin July 1, 2023.

## Visiting Faculty

Each year, the MIT Economics Department enjoys the presence of a number of visiting faculty and scholars. Given the restrictions on travel and in-person collaboration, our visiting contingent was smaller in academic year 2021. Nevertheless, the department's faculty and students benefited from the virtual and in-person appointments of five visiting faculty, one visiting scholar, and three postdoctoral economists for all or part of the year. The department's annual visitor, Nobel laureate Jean Tirole PhD '82, continued his usual weeklong visits in fall 2020 and spring 2021 virtually and will again be virtually teaching a well-attended advanced topics course in July 2021.

Visitors who taught departmental courses in academic year 2021 included Assistant Professor Lauren Falcao Bergquist (University of Michigan), who taught half of 14.76 Firms, Markets, Trade and Growth and half of the 14.772 Development Economics: Macroeconomics graduate course; Professor Jishnu Das (Georgetown University), who taught half of 14.771 Development Economics: Microeconomic Issues; Professor Leopoldo Fergusson (Universidad de los Andes), who co-taught 14.773 Political Economy of Institutions and Development; Nicolas Lambert (Stanford University), who taught 14.03 Microeconomic Theory and Public Policy and 14.19 Market Design; postdoctoral associate Ro'ee Levy, who taught 14.33 Research and Communication in Economics and half of 14.770 Introduction to Collective Choice and Political Economy; and Dmitry Taubinsky (University of California at Berkeley), who taught half of 14.13 Psychology and Economics and half of 14.160 Behavioral Economics.

Students and faculty in the department's economic theory section benefited from the opportunity to engage with Professor Mehmet Ekmekci (Boston College), who was a visiting scholar with the department in spring 2021.

### Honors and Awards

Our faculty excellence was again recognized with a wide range of honors and awards over the past academic year. Some highlights are presented below.

- Daron Acemoglu was awarded the CME Group-MSRI Prize in Innovative Quantitative Applications and joined the membership of the Group of Thirty (G30).
- Joshua Angrist delivered a keynote address at the annual meeting of the French Economic Association in June 2021.
- David Autor received a John Heinz 25th Anniversary Special Recognition Award “for transforming understanding of how globalization and technological change are impacting jobs and earning prospects for American workers.”
- Abhijit Banerjee and Esther Duflo’s *Good Economics for Hard Times* received the Deutscher Wirtschaftsbuchpreis (German Business Book Prize). Also, Banerjee was a keynote speaker at the World Health Organization’s Covid-19 Global Research and Innovation Forum and Duflo delivered the Fisher-Schultz Lecture at the World Congress of the Econometric Society.
- Sara Fisher Ellison was presented a Levitan Teaching Award by the MIT School of Humanities, Arts, and Social Sciences (SHASS).
- Amy Finkelstein received a Method to Extend Research in Time (MERIT) Award from the National Institutes of Health and was elected a member of the Council of the Econometric Society (North America Region).
- Anna Mikusheva was elected a fellow of the International Association of Applied Econometrics and received a Teaching with Digital Technology Award from MIT Open Learning and the Office of the Vice Chancellor.
- Stephen Morris was elected a member of the National Academy of Sciences.
- James Poterba was selected as the 2021 American Finance Association Fellow.
- Nancy Rose was presented the Carolyn Shaw Bell Award by the American Economic Association’s Committee on the Status of Women in the Economics Profession and received a fellowship from the Radcliffe Institute for Advanced Study.
- Robert Townsend was named a Distinguished Fellow of the American Economic Association.
- Ivan Werning delivered a keynote address at the National Tax Association’s Annual Conference on Taxation in November 2020.
- Muhamet Yildiz was elected a fellow of the Econometric Society and named an Economic Theory Fellow by the Society for the Advancement of Economic Theory.

## Professional Service

MIT Economics faculty extend their professional impact through leadership at top economics journals and national and international professional societies. Faculty contributions to nonprofit and governmental initiatives are a testament to the department's continued commitment to broader public service. In academic year 2021, faculty were involved in public service and professional activities related specifically to the far-reaching economic impacts of the Covid-19 pandemic.

## Journals

Esther Duflo is editor of the *American Economic Review*, Amy Finkelstein is the founding editor of the *American Economic Review: Insights*, and Benjamin Olken is editor of the *American Economic Journal: Applied Economics*.

Co-editorships include Victor Chernozhukov at the *Econometrics Journal*, Dave Donaldson at *Econometrica*, and Anna Mikusheva at *Econometric Theory*. Mikusheva is also a foreign editor of the *Review of Economic Studies* along with Alexander Wolitzky.

Associate editorships and editorial board positions include the following: Alberto Abadie, *Econometrica* and *American Economic Review: Insights*; Nikhil Agarwal, *American Economic Journal: Microeconomics*; Joshua Angrist, *Labour Economics*; David Atkin, *American Economic Review*, *Journal of International Economics*, and *Quarterly Journal of Economics*; Arnaud Costinot, *American Economic Review* and *Journal of International Economics*; Sara Fisher Ellison, *Journal of Industrial Economics*, *Review of Industrial Organization*, and *International Journal of Industrial Organization*; Drew Fudenberg, *Theoretical Economics*; Paul Joskow, *Energy Journal* and *Journal of Law, Economics, and Organization*; Anna Mikusheva, *Econometrica*, *Econometrics Journal*, and *Journal of Econometric Methods*; Stephen Morris, *Annual Review of Economics*; Benjamin Olken, *Journal of Development Economics* and *Review of Economics and Statistics*; Parag Pathak, *Journal of Political Economy*; Nancy Rose, *Journal of Economic Perspectives*; Alexander Wolitzky, *Econometrica* and *American Economic Journal: Microeconomics*; and Muhamet Yildiz, *Journal of Economic Theory*.

## Professional Organizations

In academic year 2021, several faculty held leadership positions with key professional organizations. Robert Gibbons was the president-elect of the Society for Institutional and Organizational Economics, Stephen Morris served as past president of the Econometric Society and Daron Acemoglu was a member of its executive committee, Benjamin Olken served on the board of directors of the Bureau for Research and Economic Analysis of Development, and David Atkin and Dave Donaldson served as research program directors for the International Growth Center.

Nancy Rose was vice president of the Industrial Organization Society and served on the advisory council of the Brookings Institution's Hamilton Project. Rose was also a leading voice on antitrust enforcement and policy, serving on the advisory bodies of the American Antitrust Institute and the Brookings Institution's Center on Regulation and Markets, serving as a member of the Washington Center for Equitable Growth's Antitrust Transition Policy task force, and testifying at a hearing of the Senate Judiciary Committee's Subcommittee on Competition Policy, Antitrust, and Consumer Rights in March 2021.

The National Bureau of Economic Research (NBER), the top academic economic research organization in the country, continued to be led by MIT professor of economics James Poterba. The following faculty members served as directors or co-directors of NBER research programs during the 2021 academic year: Benjamin Olken (Development Economics), Amy Finkelstein (Health Care), and David Autor (Labor Studies). Additionally, Parag Pathak co-directed the NBER Market Design Working Group and Robert Gibbons directed the Organizational Economics Working Group.

### **Public Service**

In December 2020, Esther Duflo was selected as president of the French Government's new Fonds d'Innovation pour le Developpement (Fund for Innovation in Development), established to ensure that governmental policies affecting the world's poorest people are as effective as possible.

Bengt Holmstrom, Nobel laureate and professor emeritus of economics, participated in a working group established by Finland's Ministry of Finance to assess Covid-19's impact on the Finnish economy.

Other public service by faculty in the 2021 academic year included the following: David Autor served on the Board of Economic Advisors for the Opportunity and Inclusive Growth Initiative of the Federal Reserve Bank of Minneapolis and as a board member of the Urban Institute in Washington, DC; David Autor and James Poterba served on the Congressional Budget Office's Panel of Economic Advisors and Amy Finkelstein was a member of its Panel of Health Advisors; Abhijit Banerjee served as a trustee for Save the Children and as co-chair of the Global Education Evidence Advisory Panel; Ricardo Caballero advised the president of Chile on the country's response to the Covid-19 crisis; Dave Donaldson was a member of the UK government's task force on Covid-19 in low-income economies; and Benjamin Olken provided anti-poverty policy guidance through a number of governmental bodies in Indonesia. Olken also continued to advise the government of Pakistan on improving the country's anti-poverty program.

### **Seminars and Colloquia**

The Covid-19 pandemic, while curtailing many forms of collaboration and engagement, also facilitated the development of new online seminar series accessible to broad audiences across the profession. MIT faculty played a leading role in several such seminars: Alberto Abadie and Anna Mikusheva were organizers of the Gary Chamberlain Online Seminar in Econometrics, Clare Balboni was a founder of the Urban Economics Association's Online Spatial and Urban Seminar, and Ivan Werning was one of three organizers of a new Health and Pandemic (HELP!) economic webinar series connecting researchers working on pandemic-related subjects from across a number of institutions and fields.

### **Selected Publications**

The publication record of MIT Economics faculty illustrates the scope of the department's research activities and the eminence of its scholarship. Economics faculty members work in a broad array of topics in economics and have attracted notice within the academic sphere and, in many cases, from the national and international press.

Department faculty have also provided valuable contributions to the literature on the economics of Covid-19, providing incisive research and public commentary on topics ranging from the pandemic's acceleration of workplace automation (Daron Acemoglu, David Autor) to the importance of global coordination and equity in vaccine accessibility (Esther Duflo, Abhijit Banerjee), equitable allocation of scarce medical resources (Parag Pathak), and the efficacy of public mask mandates (Victor Chernozhukov).

Department faculty members had 71 papers published during the 2021 academic year, including 24 in the five economic journals widely considered the most prominent in the profession. A selection includes the following:

- Alberto Abadie published “Robust Post-Matching Inference” (with Jann Spiess) in the *Journal of the American Statistical Association*.
- Daron Acemoglu published “The Political Agenda Effect and State Centralization” (with James A. Robinson and Ragnar Torvik) in the *Journal of Comparative Economics*, “Population and Conflict” (with Leopoldo Fergusson and Simon Johnson) in the *Review of Economic Studies*, and “Trust in State and Non-State Actors: Evidence from Dispute Resolution in Pakistan” (with Ali Cheema, Asim I. Khwaja, and James A. Robinson) in the *Journal of Political Economy*.
- Nikhil Agarwal published “Equilibrium Allocations Under Alternative Waitlist Designs: Evidence from Deceased Donor Kidneys” (with Itai Ashlagi, Paulo Somaini, Michael A. Rees, and Daniel Waldinger) in *Econometrica* and “Revealed Preference Analysis of School Choice Models” (with Paulo Somaini) in the *Annual Review of Economics*.
- George-Marios Angeletos published “Myopia and Anchoring” (with Zhen Huo) and “Business-Cycle Anatomy” (with Fabrice Collard and Harris Dellas) in the *American Economic Review* and “Learning Over the Business Cycle: Policy Implications” (with Luigi Iovino and Jennifer La’O) in the *Journal of Economic Theory*.
- David Atkin published “How Do We Choose Our Identity? A Revealed Preference Approach Using Food Consumption” (with Eve Colson-Sihra and Moses Shayo) in the *Journal of Political Economy*.
- David Autor published “The Fall of the Labor Share and the Rise of Superstar Firms” (with David Dorn, Lawrence Katz, Christina Patterson, and John Van Reenen) in the *Quarterly Journal of Economics* and “Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure” (with David Dorn, Gordon Hanson, and Kaveh Majlesi) and “Foreign Competition and Domestic Innovation: Evidence from US Patents” (with David Dorn, Gordon H. Hanson, Gary Pisano, and Pian Shu) in the *American Economic Review*.
- Clare Balboni published “Cycles of Fire? Politics and Forest Burning in Indonesia” (with Robin Burgess, Anton Heil, Jonathan Old, and Benjamin Olken) in *American Economic Association Papers and Proceedings*.
- Abhijit Banerjee published “Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy and Training” (with Raghavendra Chattopadhyay, Esther Duflo, Daniel Keniston, and Nina Singh) in the *American Economic Journal: Economic Policy* and “E-governance, Accountability, and Leakage in Public Programs: Experimental Evidence from a Financial

- Management Reform in India” (with Esther Duflo, Clement Imbert, Santhosh Mathew, and Rohini Pande) in the *American Economic Journal: Applied Economics*.
- Ricardo Caballero published “A Risk-centric Model of Demand Recessions and Speculation” (with Alp Simsek) in the *Quarterly Journal of Economics*.
  - Victor Chernozhukov published “Identification of Hedonic Equilibrium and Nonseparable Simultaneous Equations” (with Alfred Galichon, Marc Henry, and Brendan Pass) in the *Journal of Political Economy*; “Causal Impact of Masks, Policies, Behavior on Early Covid-19 Pandemic in the US” (with Hiroyuki Kasahara and Paul Schrimpf) in the *Journal of Econometrics*; and “Vector Quantile Regression and Optimal Transport, From Theory to Numerics” (with Guillaume Carlier, Gwendoline De Bie, and Alfred Galichon) in *Empirical Economics*.
  - Arnaud Costinot published “Micro to Macro: Optimal Trade Policy with Firm Heterogeneity” (with Andres Rodriguez-Clare and Ivan Werning) in *Econometrica*.
  - Esther Duflo published “Comparison of Knowledge and Information-Seeking Behavior After General Covid-19 Public Health Messages and Messages Tailored for Black and Latinx Communities: A Randomized Controlled Trial” (with Marcella Alsan, Fatima Cody Stanford, Abhijit Banerjee, Emily Breza, Arun G. Chandrasekhar, Sarah Eichmeyer, Paul Goldsmith-Pinkham, Lucy Ogbu-Nwobodo, Benjamin Olken, Carlos Torres, Anirudh Sankar, and Pierre-Luc Vautrey) in *Annals of Internal Medicine* and “Field Experiments and the Practice of Policy” in the *American Economic Review*.
  - Glenn Ellison published “The Efficiency of Race-Neutral Alternatives to Race-Based Affirmative Action: Evidence from Chicago’s Exam Schools” (with Parag Pathak) in the *American Economic Review*.
  - Sara Fisher Ellison published “An Economist’s Guide to Epidemiology Models of Infectious Disease” (with Christopher Avery, William Bossert, Adam Clark, and Glenn Ellison) in the *Journal of Economic Perspectives*.
  - Amy Finkelstein published “Racial Disparities in Excess All-Cause Mortality During the Early Covid-19 Pandemic Varied Substantially Across States” (with Maria Polyakova, Victoria Udalova, Geoffrey Kocks, Katie Genadek, and Keith Finlay) in *Health Affairs*, “Screening and Selection: The Case of Mammograms” (with Liran Einav, Tamar Oostrom, Abigail Ostriker, and Heidi Williams) in the *American Economic Review*, and “Welfare Analysis Meets Causal Inference” (with Nathan Hendren) in the *Journal of Economic Perspectives*.
  - Drew Fudenberg published “Player-Compatible Learning and Player-Compatible Equilibrium” (with Kevin He) in the *Journal of Economic Theory* and “Limit Points of Endogenous Misspecified Learning” (with Giacomo Lanzani and Philipp Strack) in *Econometrica*.
  - Jonathan Gruber published “Do People Respond to the Mortgage Interest Deduction? Quasi-Experimental Evidence from Denmark” (with Amalie Jensen and Henrik Kleven) in the *American Economic Journal: Economic Policy*.
  - Simon Jaeger published “Wages and the Value of Nonemployment” (with Benjamin Schoefer, Samuel Young, and Josef Zweimuller) and “Labor in the Boardroom” (with Benjamin Schoefer and Jorg Heining) in the *Quarterly Journal of Economics*.



- Stephen Morris published “Countering the Winner’s Curse: Optimal Auction Design in a Common Value Model” (with Dirk Bergemann and Ben Brooks) in *Theoretical Economics* and “Information, Market Power and Price Volatility” (with Dirk Bergemann and Tibor Heumann) in the *Rand Journal of Economics*.
- Whitney Newey published “A Recentering Approach for Interpreting Interaction Effects from Logit, Probit, and Other Nonlinear Models” (with Yujin Jeong, Jordan I. Siegel, and Sophie Yu-Pu Chen) in the *Strategic Management Journal* and “Control Variables, Discrete Instruments, and Identification of Structural Functions” (with Sami Stouli) in the *Journal of Econometrics*.
- Benjamin Olken published “Cumulative Impacts of Conditional Cash Transfer Programs: Experimental Evidence from Indonesia” (with Nur Cahyadi, Rema Hanna, Rizal Adi Prima, Elan Satriawan, and Ekki Syamsulhakim) in the *American Economic Journal: Economic Policy*.
- Parag Pathak published “Efficiency, Justified Envy, and Incentives in Priority-Based Matching” (with Atila Abdulkadiroğlu, Yeon-Koo Che, Alvin Roth, and Olivier Tercieux) in the *American Economic Review: Insights*; “Covid-19: How to Prioritize Worse-off Populations in Allocating Safe and Effective Vaccines” (with Harald Schmidt, Tayfun Sönmez, and M. Utku Ünver) in the *British Medical Journal*; and “The Distributional Consequences of Public-School Choice” (with Christopher Avery) in the *American Economic Review*.
- James Poterba published “Economists Tackle the Challenges of a Pandemic” (with Diane Swonk, Lisa D. Cook, Julia Coronado, Emily Kolinski Morris, Anna Paulson, Claudia Sahm, Michael R. Strain, and Ellen Zentner) in *Business Economics*.
- Robert Townsend published “A Market Based Solution for Fire Sales and Other Pecuniary Externalities” (with Weerachart T. Kilenthong) and “Curbing Shocks to Corporate Liquidity: The Role of Trade Credit” (with Niklas Amberg, Tor Jacobson, and Eric von Schedvin) in the *Journal of Political Economy*. Townsend also published a new book, *Distributed Ledgers: Design and Regulation of Financial Infrastructure and Payment Systems*.
- Alexander Wolitzky published “The Revelation Principle in Multistage Games” (with Takuo Sugaya) in the *Review of Economic Studies*, “Deterrence with Imperfect Attribution” (with Sandeep Baliga and Ethan Bueno de Mesquita) in the *American Political Science Review*, and “A Theory of Equality Before the Law” (with Daron Acemoglu) in *The Economic Journal*.

## Research

### Abdul Latif Jameel Poverty Action Lab

The Abdul Latif Jameel Poverty Action Lab (J-PAL), directed by Economics faculty members Abhijit Banerjee, Esther Duflo, and Benjamin Olken, seeks to reduce poverty by ensuring that policy is based on scientific evidence. Banerjee and Duflo, along with J-PAL affiliate Michael Kremer, were awarded the 2019 Nobel Prize in economics for “their experimental approach to alleviating global poverty.”

J-PAL aims to set a new standard of rigorous evaluations to identify effective programs across various sectors including agriculture, education, energy and environment, finance, governance, health, gender, firms, and labor markets. J-PAL continues to expand the scope and influence of its research. Since its launch in 2003, the lab has grown into a network of 224 affiliated professors and seven regional offices worldwide, including a new regional office at American University in Cairo to carry out work in the Middle East (funded by a generous gift from Mohamed Jameel).

To date, J-PAL's affiliated research faculty have led or completed over 1,000 randomized evaluations in 69 countries to find the most effective approaches to critical development issues. Examples include helping people leave extreme poverty, reducing the spread of AIDS, increasing student attendance, decreasing industrial pollution, and reducing corruption in government projects. Programs evaluated by J-PAL affiliates and found to be effective have been scaled up, and these programs are currently reaching 400 million people worldwide. J-PAL is working with governments in 11 countries to institutionalize the use of evidence in decision making.

Covid-19 had a major impact on J-PAL's ability to do field work around the world during the 2021 academic year. Many studies were able to continue by pivoting to remote data collection, but many were put on hold. In spite of this, important new work was done to support government partners in responding to Covid, including significant work in Indonesia on distribution of aid (building on J-PAL's long-term work in the country) and in India on outreach for public health efforts (including drawing on the publicity of Abhijit Banerjee's recent Nobel Prize). J-PAL has also seen new interest from donors in social protection, an area the lab has been working to develop for several years. Significant new grants, including support from the Australian government, will enable the launch of a new social protection initiative to fund research and government partnerships around the world. Another new donor, the Target Foundation, has provided support for J-PAL's Jobs and Opportunity Initiative; J-PAL's partner office in Latin America also received a major new grant for work under this initiative in Brazil.

### **J-PAL North America**

J-PAL North America, led by Amy Finkelstein and Harvard professor Lawrence Katz, brings randomized program evaluation methods to policy in North America across a wide variety of areas. Among its major efforts are catalyzing research on how use of health care services affects patient outcomes and costs (through the Health Care Delivery Initiative), evaluating innovative practices that can address the changing nature of work (through the Work of the Future Initiative), and conducting research designed to provide an understanding of how best to help communities recover in the wake of Covid-19 (through the new Covid-19 Recovery and Resilience Initiative). Through the State and Local Innovation Initiative, the organization works closely with leaders in government to provide funding, technical support, and collaboration with preeminent researchers to answer high-priority policy questions. J-PAL North America is also leading efforts to improve the ways in which high-quality research is conducted by developing research resources that give teams concrete guidance on how to run randomized evaluations. In July 2020, J-PAL North America launched the Economics Transformation Project to broaden support for underrepresented voices in the field of economics at every stage of the education and career pipeline.

Since its launch, J-PAL North America has catalyzed over 100 new projects to study major policy issues related to poverty, ranging from innovations in health care delivery to programs in homelessness. Its studies have received widespread coverage from major media outlets such as the *New York Times*, the *Washington Post*, and *The Economist*, among many others.

### **Blueprint Labs and School Effectiveness and Inequality Initiative**

Over the past decade, MIT's School Effectiveness and Inequality Initiative has strengthened schools and skills through research. As the team has grown, with 18 faculty affiliates, 11 full-time staff members, 13 PhD students, 93 studies, and 142 media citations, so has the scope of its research.

With support from the Economics Department, MIT SHASS, and the Deans' Council, the School Effectiveness and Inequality Initiative prepared in academic year 2021 to relaunch as MIT Blueprint Labs in the year ahead. Under the direction of Parag Pathak, Josh Angrist, David Autor, Nikhil Agarwal, and Executive Director Eryn Heying, the new lab's expanded scope will allow research on a wider range of urgent, policy-relevant challenges.

Blueprint Labs uses data, economics, and analytic tools to uncover the consequences of policy decisions and improve society. Its scholars bring their unique expertise in market design and research design to study pressing challenges in education, health care, and the workforce.

During academic year 2021, researchers engaged in groundbreaking studies and policy outreach efforts related to the ongoing Covid-19 pandemic. Blueprint Labs director Parag Pathak led a team of researchers in studying how to allocate scarce medical resources such as ventilators, remdesivir, and vaccines. Through partnerships with state departments of public health and large hospital networks, Blueprint's economic research was put into action to help broaden equitable access to lifesaving Covid-19 treatments. This work was featured in leading media outlets including Bloomberg, Freakonomics, and the *New York Times*, among others.

Blueprint Labs also continued its efforts to convene policymakers and researchers and put MIT's groundbreaking research into practice. At the 2021 MIT School Summit, superintendents from the nation's largest urban school districts discussed their efforts to put the evidence about Covid-19 transmission in schools to work in their regions. The event was featured in coverage in the *Boston Globe*. In the health care realm, Blueprint led a team from MIT, Harvard, Georgetown, and the University of Pennsylvania to convene the nation's top vaccine experts and practitioners in December 2020. The event focused on how to ensure equitable vaccine allocation for communities especially hard hit by the pandemic.

Blueprint Labs will be publicly relaunching with new faculty collaborators and fundraising efforts in the upcoming year. Blueprint scholars will continue to conduct groundbreaking, rigorous social science research that addresses today's critical policy challenges.

### **Task Force on the Work of the Future**

MIT's Task Force on the Work of the Future, launched by MIT president Rafael Reif in February 2018, was established to study how technological and societal developments

are reshaping traditional jobs and building a future workplace. The task force addressed three broad questions: How are emerging technologies transforming the nature of human work and the skills that enable people to thrive in the digital economy? How can we shape and catalyze technological innovation to complement and augment human potential? How can civic institutions—existing and new—act to ensure that the gains from technology innovation contribute to equality of opportunity, social inclusion, and shared prosperity? The task force was co-directed by Economics faculty member David Autor and David Mindell (Aeronautics and Astronautics), with Elisabeth Reynolds serving as executive director. Following the release of a series of briefing papers, the task force culminated in fall 2020 with the release of its [final report](#) and the MIT Work of the Future Congress, held in November 2020.

## Education and Students

### Graduate Education

MIT Economics continues to attract the very best students to its doctoral program. In the 2021 PhD admissions cycle, the department received 920 applications, an increase of 30% from the previous year. A total of 35 prospective students were offered admission, of whom 19 accepted and enrolled and two deferred to fall 2022. Two additional students enrolled from 2020 deferrals. The group of 21 matriculating students for fall 2021 includes seven women and 11 international students. The department was delighted by this outcome, particularly given that our usual two-day visit program for prospective PhD students (March 31–April 1, 2021) was again converted to an entirely online experience due to ongoing Covid-19 restrictions. Our academic administration staff, admissions and recruiting chairs, faculty, and current students mobilized to convey the MIT experience to admitted students who had never been to the campus and implemented a well-received program on the scheduled days.

Commensurate with the selectivity of our admissions process and the quality of MIT training, the department's graduating PhD students do exceptionally well in placement. Despite the difficult market created by the pandemic in 2021 and a smaller cohort of graduating students, newly minted MIT PhDs joined the faculties at Boston University, Princeton University, the University of California at Berkeley, and other outstanding institutions. Others accepted positions at finance and consulting organizations including the Federal Housing Finance Agency and the International Monetary Fund. The department's highest honor for doctoral students, the Robert M. Solow Prize for Graduate Student Excellence in Teaching and Research, was awarded to graduating students Allan Hsiao (joining the faculty at Princeton University's Department of Economics) and Carolyn Stein (joining the faculty at the University of California at Berkeley with a joint appointment in the Haas School of Business and the Department of Economics).

The department does not take these outcomes for granted. Sustaining this record requires quality and depth in our curriculum and investment of significant time and effort in doctoral advising. The department's commitment to advanced students includes support of advanced topics courses and reading groups and institution of weekly student-faculty advising lunches at which students can present research in progress for feedback from faculty and other students in their field. Individual faculty make substantial investments of their time and energy through these channels in addition to formal advising.

The department has also focused in recent years on refreshing elements of its PhD curriculum. This year, the department carried out an interim assessment of significant curriculum changes implemented in fall 2019, which included revisions to the core curriculum and general exam requirements and the addition of a new course, 14.192 Advanced Research and Communication, that guides second-year students through the process of writing an original research paper. New graduate courses introduced in academic year 2021 included 14.388 Inference on Causal and Structural Parameters Using ML and AI and 14.193 Symposium on Discrimination, featuring lectures by MIT faculty and guest scholars.

The department continues to advance its program for master's-level education. MIT Economics and the Abdul Latif Jameel Poverty Action Lab created the MITx MicroMasters Program in Data, Economics, and Development Policy (DEDP) in 2017. Through a series of five online courses and proctored exams, learners from around the world gain a strong foundation in microeconomics, development economics, and data analysis. More than 45,000 learners from over 200 countries and territories have enrolled in at least one of the DEDP courses, and to date 614 learners have completed the series of five courses to earn the full MicroMasters credential.

Top students earning the MITx MicroMasters DEDP credential have the opportunity to apply to the DEDP master's program at MIT. In 2021, the DEDP program enrolled its second class of students in this residential master's program. Students admitted to the program gain credit for their online coursework, enabling them to earn an MIT master of applied science in data, economics, and development policy in just eight months. In January 2021, the program safely welcomed 13 students to a blended virtual and in-person campus experience. After completing their capstone internships in summer 2021, the students will receive their degrees in September.

In June 2021, the department was excited to announce Sara Fisher Ellison, senior lecturer in economics, as the new faculty director of the DEDP MicroMasters and master's programs. Sara will oversee both the online MicroMasters and the on-campus master's degree programs, which we hope to further expand.

### **Undergraduate Education**

Enhancing our undergraduate program remains a focal initiative for the department. Student response to the computer science, economics, and data science (6-14) major, launched in fall 2017 with the Department of Electrical Engineering and Computer Science, has been very positive. During the 2021 academic year, 104 students were enrolled as 6-14 majors, and 22 students received the first MIT degrees in computer science, economics, and data science in May 2021.

The department has also focused on refreshing and expanding its undergraduate curriculum in the traditional economics major (14-1) and the mathematical economics major (14-2). For many undergraduates, the introductory microeconomics (14.01) and macroeconomics (14.02) courses are an initial point of contact with the department, and we have put considerable effort into enhancing both courses, staffing them with faculty and graduate students who we think will be compelling teachers. Pre-recorded lectures, available on demand, now complement faculty-led discussions and small group and one-on-one support from graduate teaching staff.

A recently added first-year student discovery class, 14.009 Economics and Society's Toughest Problems, continued to be well received; 166 students enrolled in fall 2020, when the class was taught by Glenn Ellison. Abhijit Banerjee and Esther Duflo will lead the class in fall 2021, and we hope that it, along with 14.01, 14.02, and 14.73 The Challenge of World Poverty, will continue to entice students into the study of economics. The department also debuted two new upper-level electives: Clare Balboni developed 14.42 Environmental Policy and Economics, and Victor Chernozhukov developed 14.38/14.388 Inference on Causal and Structural Parameters Using ML and AI. The department offered 14.18 Mathematical Economic Modeling (taught by Muhamet Yildiz) for just the second time, providing another option for students to meet their requirement for Communication Intensive courses.

Undergraduate enrollments in economics decreased slightly in the 2021 academic year, with a total of 1,938 students enrolled in economics courses (relative to the previous year's 2,019). The number of majors remained steady, with 24 students enrolled in the traditional economics major, 24 as mathematical economics majors, and 104 as 6-14 majors.

The MIT Undergraduate Economics Association (UEA) supports outside-the-classroom education through its public economics lecture series. While public lectures were not possible during the 2021 academic year, UEA held a number of virtual events, including a speaker series with faculty from MIT, the University of California at San Diego, and Harvard; a panel discussion on pursuing an economics PhD; and talks by Sally Sadoff of the University of California at San Diego and MIT's Parag Pathak.

## **Conclusion**

The Department of Economics continues to uphold the traditions of excellence in research and education that make it one of the strongest economics programs in the world. Looking ahead to academic year 2022, the department will continue to prioritize strategic growth of the economics faculty, working with MIT leadership and Resource Development to strengthen the department's financial base and secure additional funds for faculty research, and innovation in undergraduate and graduate education and support.

**Glenn Ellison**

**Department Head**

**Gregory K. Palm (1970) Professor of Economics**