# **Department of Economics**

The MIT Department of Economics is widely regarded as one of the world's premier institutions for economics research and education. Our faculty balance substantial commitments to training both undergraduates and doctoral students with active and influential research programs. With one of the youngest senior faculties among its peer institutions, the department plays a central role as an innovator in economics research and a source of exciting new directions in undergraduate and graduate economics education.

## **Highlights of the Year**

Many members of our faculty received academic recognition during the past year. Daron Acemoglu was elected to the National Academy of Sciences; this honor, one of the highest afforded to scientists and engineers, recognizes distinguished and continuing achievements in original research. Robert M. Solow professor Ivan Werning was elected a fellow of the Econometric Society for influential and pioneering contributions to macroeconomics. Paul A. Samuelson professor Bengt Holmstrom was awarded the eighth annual CME Group- Mathematical Sciences Research Institute (MSRI) Prize in Innovative Quantitative Applications; this award recognizes individuals who contribute original concepts in mathematical, statistical, or computational methods for the study of market behavior and global economics. Abhijit Banerjee, Ford international professor of economics; Esther Duflo, Abdul Latif Jameel professor of poverty alleviation and development economics; and the Abdul Latif Jameel Poverty Action Lab (J-PAL) at MIT were awarded the 2014 Albert O. Hirschman Prize from the Social Science Research Council for their commitment to producing new social scientific knowledge and expanding frontiers of discovery while also confronting deep practical and ethical issues.

Our faculty continue their high research productivity. From June 2013 through May 2014, we published approximately 16 papers in the top five economics journals.

## **Future Plans**

We are thrilled to have on our faculty a set of outstanding young leaders whose innovative research is highly influential and widely acclaimed. Nearly all of our young faculty members came to MIT as new assistant professors and have grown into remarkably influential scholars. For some years, our most distinguished faculty members have led the effort to recruit the best junior faculty on the market. This effort has yielded a substantial, sustained increase in the human capital of MIT Economics. The intellectual future of the department is very bright because of this remarkable new generation. They are poised to keep MIT Economics in the forefront of our profession.

Recent retirements and departures have created a continuing need for faculty renewal. We plan to continue to hire the best junior faculty we can find. We also plan to fill senior positions as opportunities arise with outstanding senior faculty, irrespective of field.

We are excited about the ongoing renovation of Building E52, and we look forward to moving back. We are currently situated on the second floor of Buildings E17 and E18 and the seventh floor of E19.

Generous donors continue to provide outstanding support for MIT Economics, especially with respect to graduate student support and the renovation of E52. We plan to accelerate our development efforts.

## **Undergraduate Education**

In spring 2014, the department again offered its massive open online course (MOOC), Professor Duflo's undergraduate course 14.73x The Challenges of Global Poverty. The course was hosted by edX, an initiative founded in 2012 and jointly operated by MIT and Harvard that seeks to offer interactive online learning on an expanding set of topics via the web.

The MIT Undergraduate Economics Association (UEA) continued to be a fertile ground for rounding out the economics education of our undergraduate students. UEA sponsored a public lecture on November 4 by Emily Oster, associate professor of economics at the University of Chicago. The title of her talk was "Do People Want to Know Their Lifespan? And What Happens When They Find Out?" The lecture was attended by many undergraduate majors as well as other interested students.

Graduate student teaching assistant Matthew Rognlie received the James A. and Ruth Levitan Award for Excellence in Teaching from the School of Humanities, Arts, and Social Sciences (SHASS). Recipients of this award, which honors SHASS teachers who make a profound difference in the educational experience of MIT undergraduates, are nominated by students themselves.

UEA presented its faculty and graduate student teaching awards to Alp Simsek and Su Wang.

## **Graduate Education**

During the first quarter of the year, the Economics Department had yet another successful record of recruiting and admitting a very promising class. The department received 794 applications; 47 applicants were offered admission, and 24 accepted and enrolled. The group of admitted students consisted of seven women and 11 international students. The department was also happy to see members of its graduating class thrive while they received multiple job offers (81% in academia) from distinguished employers. For instance, Stefanie Stantcheva was offered a three-year postdoctoral position as a junior fellow at Harvard University's Society of Fellows, one of the most prestigious postdoctoral positions in all of academia. After completion of this program, Stefanie will begin her assistant professorship at Harvard. Isaiah Andrews also received a prestigious junior fellowship in the Harvard Society of Fellows and was represented on the highly competitive *Review of Economic Studies* European tour, an honor reserved for the top seven new economics PhDs across North America and Europe.

Several faculty members, students, and staff were recognized during the past year for their outstanding service to the Economics Department and MIT. Glenn Ellison won the Graduate Economic Association (GEA) award for best professor. Benjamin Olken was honored as outstanding dissertation advisor. Graduate student Adrien Auclert was honored as the most outstanding teaching assistant by GEA. This year the Robert Solow Prize for Excellence in Teaching and Research was awarded to Isaiah Andrews.

#### Lectures

During the fall semester, the department hosted Pete Klenow from Stanford University, who delivered a department-wide lecture titled "Firms and Development." Matt Gentzkow from the University of Chicago's Booth School of Business delivered the spring departmental lecture, "Partisan Media and Democracy: Historical Evidence from U.S. Newspapers." In addition, during the spring semester, Thomas Piketty from the Paris School of Economics spoke at a special macroeconomics seminar about work related to his book *Capital in the Twenty-First Century*.

## **Research and Service**

Faculty members have carried out research on a broad array of frontier topics in economics, the span of which is illustrated below with a selection of recent academic publications. This research has attracted attention within the academic sphere and, in many cases, in the national and international press as well.

MIT faculty members continue to provide leadership and service to the economics profession. Mitsui professor James Poterba continues as president of the Eastern Economic Association and as president and CEO of the National Bureau of Economic Research (NBER). Professor Acemoglu is a member of the Executive Committee of the American Economic Association. David Autor was elected to the Executive Board of the Society of Labor Economics, Jonathan Gruber was elected as president of the American Society of Health Economics, Whitney Newey was elected to the Council of the Econometric Society, and Professor Olken was appointed to the board of the Bureau of Research and Economic Analysis Development. Bill Wheaton serves on the board of the American Real Estate and Urban Economics Association, and Heidi Williams is an associate member of the Broad Institute of MIT and Harvard.

Professor Acemoglu serves as editor in chief of *Econometrica*. George-Marios Angeletos is co-editor of the *Journal of the European Economic Association*. Professor Autor serves as editor in chief of the *Journal of Economic Perspectives*. Arnaud Costinot is an associate editor at the *Journal of Economic Literature*. Professor Olken was appointed to the Board of Reviewing Editors of *Science* magazine. Parag Pathak serves as associate editor at both the *American Economic Review* and *Econometrica*. Professor Duflo has had great success in building the *American Economic Journal: Microeconomics* as the founding editor. Other faculty members serve on various editorial boards.

Professor Autor serves as associate director of the NBER Disability Research Center. Professor Duflo is the director of the Development Program at the Center for Economic Policy Research. Amy Finkelstein is co-director of NBER's Public Economics Program, and Professor Gruber serves as director of the bureau's Program on Health Care. Professor Pathak continues as the founding co-director of the Market Design Working Group at NBER. Charles P. Kindleberger professor of applied economics Nancy Rose serves as director of NBER's Research Program on Industrial Organization.

Other faculty members continue the department's tradition of broader public service. Professor Acemoglu serves as chair of the nominating committee of the American Academy of Arts and Sciences. Professor Autor serves on the Research Advisory Board

of the Washington Center for Equitable Growth. Professor Duflo is a member of the President's Global Development Council, advising Barak Obama. Professor Finkelstein serves on the Congressional Budget Office's Panel of Health Advisers, while Professor Poterba serves on the office's Panel of Economic Advisers.

The Abdul Latif Jameel Poverty Action Lab, directed by Professors Banerjee, Duflo, and Olken, continues to expand the scope and influence of its research. J-PAL is widely recognized as one of the leading global institutions for research on poverty alleviation. The publication of Banerjee and Duflo's widely lauded book *Poor Economics* brought even greater prominence to J-PAL's research, education, and policy successes. That book has been followed by the recent publication of *Running Randomized Evaluations* by J-PAL executive director Rachel Glennerster. J-PAL's 102 affiliated research faculty are leading or have completed more than 550 randomized evaluations in 56 countries with the goal of finding the most effective approaches to critical development issues, including how to reduce the spread of AIDS, increase student attendance, reduce industrial pollution, and decrease corruption in government projects.

J-PAL North America, recently established within the Economics Department under the direction of Professor Finkelstein and Harvard professor Larry Katz, grew significantly in its first year, receiving significant funding from the Laura and John Arnold Foundation and the Sloan Foundation. J-PAL North America works to improve the effectiveness of social programs in the United States and Canada through J-PAL's three core activities: research, policy outreach, and capacity building. Specifically, the office supports researchers conducting randomized evaluations in the region, helps decision makers use research evidence in policy decisions and program design, and provides training courses on the value of impact evaluation.

## **Personnel**

The department promoted Parag Pathak to the rank of tenured professor and Mihai Manea to the rank of untenured associate professor. Alexander G. Wolitzky PhD '11, formerly an assistant professor at the Stanford University Department of Economics, will be joining us in the spring of 2015.

Three faculty members are moving on to other pursuits. Untenured associate professor David J. Donaldson has taken a position at Stanford University. 3M professor of environmental economics Michael Greenstone has gone to the University of Chicago's Booth School of Business. Professor of economics and urban studies William C. Wheaton is retiring from teaching in the Economics Department in fall 2014. These faculty members have been outstanding researchers, educators, and citizens of the department and the Institute. We will greatly miss them.

There were 40 nonvisiting MIT Economics faculty members in AY2014. This number will decrease to 38 in AY2015, reflecting the hiring of Professor Wolitzky and the departure of three faculty members.

Nine faculty members visited the MIT Economics Department for all or part of AY2014. The department's annual visitors continued to participate in central ways in our

educational programs. Visiting professor Jean Tirole PhD '82 was a guest lecturer for 14.271 Industrial Organization I and 14.272 Industrial Organization II and taught an advanced seminar in economics.

A number of other visitors played important roles in our educational program. Visiting assistant professor Yingying Dong of the University of California, Irvine, taught 14.32 Econometrics. Visiting associate professor Arindrajit Dube of the University of Massachusetts, Amherst, taught 14.64 Labor Economics and Public Policy and 14.662 Labor Economics II. Kirill Evdokimov, a visiting assistant professor from Princeton University, taught 14.381 Statistical Method in Economics and 14.385 Nonlinear Econometric Analysis. Visiting professor Emmanuel Farhi PhD '06 of Harvard University taught half of 14.453 Economic Fluctuations, 14.462 Advanced Macroeconomics II, and 14.582 International Economics II. One of our frequent visiting professors, Francesco Giavazzi PhD '78 of Università Bocconi, taught 14.02 Principles of Macroeconomics in the spring semester. Visiting assistant professor Suresh Naidu from Columbia University taught 14.73 The Challenge of World Poverty and 14.770 Introduction to Collective Choice and Political Economy. Visiting professor M. Daniele Paserman of Boston University taught 14.03 Microeconomic Theory and Public Policy and 14.661 Labor Economics I. Finally, visiting associate professor Paul Willen, senior economist and policy advisor at the Federal Reserve Bank of Boston, taught 14.02 Principles of Macroeconomics during the fall.

We also had several visitors who came to conduct research and work with economics faculty at MIT. These visitors included Gokce Akin Olcum, a postdoctoral associate at Boston University; Martin Spindler, a senior researcher at the Max Planck Society in Munich, Germany; Andrea Vingidni, an associate professor of political economy at the IMT Institute for Advanced Studies in Lucca, Italy; David Yanagazawa-Drott, an associate professor of public policy at the Harvard University Kennedy School; and Pablo Kurlat PhD '10, an assistant professor at Stanford University.

There were six women on the MIT Economics faculty during AY2014: three tenured faculty members (Duflo, Finkelstein, and Rose), one associate professor (Anna Mikusheva), one assistant professor (Williams), and one senior lecturer (Sara F. Ellison). The proportion of MIT Economics faculty who are women is greater than that at any other leading economics department. We have no African American faculty members. All search committees are instructed to identify outstanding women and minority candidates as part of their search process.

As part of the regular recruitment process for junior faculty, the department solicited or received 371 curriculum vitae. Twenty-seven candidates were selected for interviews, and seven candidates were invited to the department to present seminars. We made an offer this year to PhD candidate Gautam Rao from the University of California, Berkeley, who declined.

## **Honors and Awards**

Ford professor Joshua Angrist was named the Thomson Reuters Citation Laureate. He gave the Bogen Lecture in Jerusalem, the Clark Lecture at Queens University, and the Adam Smith Lecture at the European Association of Labour Economists conference.

Professor Autor received the Faculty Appreciation Award from the MIT Technology and Public Policy Student Society. He was the keynote speaker at the Nordic Summer Institute in Labor Economics in Helsinki, the Centre for European Economic Research TASKS conference in Nuremberg, and the Institute for Research on Public Policy/ Canadian Labour Market and Skills Researcher Network Conference on Inequality in Ottawa. He also presented the Economic Journal Lecture at the Royal Economic Society meeting in Manchester.

Professor Banerjee received the Gabarron Foundation Award for Economy.

Professor Victor Chernozhukov gave the semi-plenary lecture, "Program Evaluation with High-Dimensional Data," at the Northern American summer meeting of the Econometric Society in Minneapolis.

Professor Costinot received an Excellence in Refereeing Award from the American Economic Review.

Professor Duflo presented the Kapuscinski Lecture at Columbia University and the Arrow Lecture at Stanford University.

Gregory K. Palm (1970) professor Glenn Ellison received the MIT Graduate Student Council Graduate Teaching Award, the MIT Graduate Economics Association Professor of the Year Award, and an honorable mention for the *Journal of Law, Economics, & Organization* 2014 Oliver E. Williamson Prize.

Senior lecturer Sara Ellison presented "Match Quality, Search, and the Internet Market for Used Books" at the NBER Digitization Conference in Palo Alto. She also presented the keynote address at the Applied Economics: Empirical Analysis of Markets and Enterprises conference in Perm, Russia.

Professor Finkelstein received the ASHEcon Medal, an Excellence in Refereeing Award from the American Economic Review, the Hinks Tinberger Award, and the Arrow Award for Best Paper in Health Economics from the International Health Economics Association (iHEA).

Professor Gruber received the 2013 American Public Health Association Kenneth Arrow Award (for the outstanding health economics paper of 2012).

Professor Jeffrey Harris (along with Ramón Corbalán of Pontificia Universidad Católica and Carolina Nazzal of the Universidad de Chile) received an MIT International Science and Technology Initiatives (MISTI)/Chile grant for "Smoke-Free Legislation and Heart Attack Incidence in Chile."

John and Jennie S. MacDonald professor Jerry Hausman was the keynote speaker at the Cambridge University Conference on Panel Data; the Conference in Honor of Jerry Hausman, Curtin University, Fremantle, Australia; the Africa-Asia-Australia Telecommunications Conference in Perth, Australia; the Conference on TOU Prices, Nenching, China; and the Conference in Honor of Jerry Hausman, Xiamen University, China.

Professor Holmstrom was named a fellow of the Society for the Advancement of Economic Theory (SAET). He was the Froystein Gjesdal lecturer at the Norwegian School of Economics and received the Stephen A. Ross Prize in Financial Economics (with Jean Tirole).

Silverman (1968) family career development associate professor Mihai Manea received a National Science Foundation grant for "Intermediation, Information, and Diversity in Networks." He lectured at the SAET meeting in Paris, Caltech, the University of Hawaii, the International Monetary Fund conference, Stanford University, and the Second European Meeting of Network Economics in Essex, England.

Castle-Krob career development associate professor Anna Mikusheva gave lectures at the University of Indiana, Michigan State University, the American Economic Association meetings in Philadelphia, the University of Oxford, Cambridge University, University College London, the London School of Economics, the CIREQ Conference on Time Series and Financial Econometrics in Montreal, and the University of Chicago.

Professor Olken was named the MIT Graduate Economics Association Graduate Advisor of the Year.

Professor Pathak gave the Condorect Lecture at the Social Choice and Welfare Conference.

Professor Poterba presented the Richard T. Ely Lecture at the American Economic Association meetings.

Professor Rose continues as a Margaret MacVicar Faculty Fellow.

Rudi Dornbusch career development assistant professor Alp Simsek won the Young Scholar Award (Junior Faculty Level) from the Turkish American Scientists and Scholars Association . He was also named the MIT Undergraduate Economics Association Professor of the Year.

Assistant professor Paulo Somaini lectured at the Stanford Institute for Theoretical Economics, the Latin American and Caribbean Economic Association meeting at El Colegio de México, Johns Hopkins University, the University of Texas at Austin, Vanderbilt University, Universidad Torcuato DiTella in Argentina, and Universidad de San Andres.

Assistant professor Juuso Toikka presented lectures at Yale University, Stanford University, University College London, the University of Chicago, Harvard University, the University of Pennsylvania, the London School of Economics, Ohio State University, and the University of California, Berkeley.

Elizabeth and James Killian professor Robert M. Townsend was named a fellow of the Society for Economic Measurement, a member of the North American Council for the Econometric Society, and an Economic Theory Fellow of the Society for the Advancement of Economic Theory.

Professor Werning was the plenary speaker at the Society of Economic Dynamics annual conference. He was also the recipient of the Young Research in Economics Prize, awarded by the Banque de France Foundation.

Professor Wheaton received the George Bloom Award from the American Real Estate and Urban Economics Association.

Assistant professor Heidi Williams received the Kauffman/iHEA Award for Health Care Entrepreneurship and Innovation Research. She was also the recipient of a Kauffman Junior Faculty Fellowship in Entrepreneurship Research.

### **Publications**

The following selection of publications during AY2014 illustrates the scope of the department's research activities.

Professor Acemoglu published two articles in the *American Economic Review*, "Cycles of Trust: An Economic Model" (with A. Wolitzky) and "The Environment and Directed Technical Change" (with P. Aghion and D. Hemous). He also published "Chiefs: Elite Capture of Civil Society and Economic Development in Sierra Leone" (with T. Reed and J. Robinson) in the *Journal of Political Economy*, "A Political Theory of Populism" (with G. Egorov and K. Sonin) in the *Quarterly Journal of Economics*, and "Why Do Voters Dismantle Checks and Balances?" (with J. Robinson and R. Torvik) in *The Review of Economic Studies*.

Professors Angrist and Pathak published "The Elite Illusion: Achievement Effects at Boston and New York Exam Schools" (with A. Abdulkadiroglu) in *Econometrica* and "Explaining Charter School Effectiveness" (with C. Walters) in the *American Economic Journal: Applied Economics*.

Professor Autor published two articles in the *American Economic Review*: "Inequality and Specialization: The Growth of Low Skill Service Jobs and the Polarization of the U.S. Labor Market" (with D. Dorn), the lead article in the August 2013 issue, and "The China Syndrome: Local Labor Effects of Import Competition in the United States" (with D. Dorn and G. Hanson). He also published "Skills, Education, and the Rise of Earnings Inequality Among the 'Other 99 Percent'" in *Science* magazine and "Housing Market Spillovers: Evidence from the End of Rent Control in Cambridge, Massachusetts" (with C. Palmer and Professor Pathak) in the *Journal of Political Economy*.

Professors Banerjee and Duflo published several articles together, including "The Diffusion of Microfinance" (with A.G. Chandrasekhar and M.O. Jackson) in *Science* magazine and "(Dis)organization and Success in an Economics MOOC" and "Bundling Health Insurance and Microfinance in India: There Cannot Be Adverse Selection if There Is No Demand" (with R. Hornbeck) in the *American Economic Review: Papers and Proceedings*.

Ford international professor Ricardo Caballero and Professor Simsek published "Fire Sales in a Model of Complexity" in *The Journal of Finance*.

Professor Chernozhukov and Jane Berkowitz Carlton and Dennis William Carlton professor of microeconomics Whitney Newey published "Identification in Semiparametric and Nonparametric Conditional Moment Models" (with X. Chen and S. Lee) in *Econometrica*. Professor Chernozhukov also published "Inference on Treatment Effects with High-Dimensional Controls, with Application to Abortion and Crime" (with A. Belloni and C. Hansen) in *The Review of Economic Studies*.

Professors Costinot and Werning published "A Theory of Capital Controls as Dynamic Terms-of-Trade Manipulation" (with G. Lorenzoni) in the *Journal of Political Economy*.

Professors Duflo and Greenstone published "Truth-telling by Third-party Auditors and the Response of the Polluting Firms: Experimental Evidence from India" (with R. Pande and N. Ryan) in the *Quarterly Journal of Economics*.

Professor Glenn Ellison published "Dynamics of Open Source Movements" (with S. Athey) in the *Journal of Economics & Management Strategy* and "How Does the Market Use Citation Data? The Hirsch Index in Economics" in the *American Economic Journal: Applied Economics*.

Senior lecturer Sara Ellison published "Diversity, Social Goods Provision, and Performance in the Firm" (with W. Mullin) in the *Journal of Economics & Management Strategy*.

Professor Finkelstein published "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment" (with S. Taubman, H. Allen, B. Wright, and K. Baicker) in *Science* magazine.

Professor Gruber published "A Tax-Based Estimate of the Elasticity of Intertemporal Substitution" in the *Quarterly Journal of Finance*.

Professor Harris published "Importantes diferencias entre Facultades de Medicina. Implicaciones para la Medicina Familiar y Comunitaria" (with B.G. Lopez-Valcárcel, V. Ortún, and P. Barber) in *Atención Primaria*. He also published "Ranking Spain's Medical Schools by Their Performance in the National Residency Examination" (with B.G. Lopez-Valcárcel, V. Ortún, P. Barber, and B. García) in *Revista Clínica Española*.

Professors Hausman and Newey published "Testing Overidentifying Restrictions Using Many Moments" (with J. Chao, N. Swanson, and T. Woutersen) in the *Journal of Econometrics*. Professor Hausman also published "A Bayesian Competing Risk Model with Unobserved Heterogeneity" (with M. Burda and M. Harding) in the *Journal of Applied Econometrics*.

Professor Mikusheva published "Weak Identification in Maximum Likelihood: A Question of Information" (with I. Andrews) in the *American Economic Review: Papers and Proceedings*.

Professor Newey published "Neglected Heterogeneity in Moment Condition Models" (with J. Hahn and R. Smith) in the *Journal of Econometrics*.

Professor Poterba published "Health, Education, and the Post-Retirement Evolution of Household Assets" (with S. Venti and D. Wise) in the *Journal of Human Capital* and "Retirement Security in an Aging Society" in the *American Economic Review: Papers and Proceedings*.

Professor Simsek published "Speculation and Risk Sharing with New Financial Assets" in the *Quarterly Journal of Economics*.

Professor Somaini published "Market Power in Customer Markets" (with L. Einav) in the *Journal of Industrial Economics*.

Professor Toikka published two articles in *Econometrica*, "Efficiency in Games with Markovian Private Information" (with J. Escobar) and "Dynamic Mechanism Design: A Myersonian Approach" (with A. Pavan and I. Segal).

Professor Townsend published "Dynamic Financial Constraints: Distinguishing Mechanism Design from Exogenously Incomplete Regimes" (with A. Karaivanov) in *Econometrica* and "Barriers to Household Risk Management: Evidence from India" (with S. Cole, X. Gine, J. Tobacman, P. Topalova, and J. Vickery) in the *American Economic Journal: Applied Economics*.

Professor Muhamet Yildiz published "Robust Predictions in Infinite-Horizon Games—An Unrefinable Folk Theorem" (with J. Weinstein) in *The Review of Economic Studies*.

Whitney K. Newey Department Head