# **Department of Urban Studies and Planning**

# **Highlights**

In January, Eran Ben-Joseph succeeded Amy Glasmeier as head of MIT's Department of Urban Studies and Planning (DUSP).

Following an extensive review of all aspects of the program and an intensive three-day site visit, the department's master's in city planning degree was reaccredited by the national Planning Accreditation Board. (The reaccreditation will last for five years, with the possibility of a two-year extension.)

Three new faculty members started in the department: associate professor Albert Saiz, assistant professor Gabriella Carolini, and assistant professor Sarah Williams.

Most recently an associate professor at the Wharton School at the University of Pennsylvania, Professor Saiz studies the impact of immigration and the growth of the Hispanic population on housing markets, both across metropolitan areas and at the neighborhood level. His research also underlines the importance of education and consumer amenities as drivers of local population growth and housing demand. In addition, he has studied the impact of zoning regulations and rental market laws, the factors that drive differences in construction costs across markets, and the importance of geography as a key determinant of land scarcity and housing supply. He is interested in a broad array of other housing topics, including rental and multifamily markets, asset pricing models, the impact of housing on microeconomic behavior, the study of international housing outcomes and policies, and the interaction between household and firm location decisions and housing markets. He holds a PhD in economics from Harvard University.

Professor Carolini came to DUSP from Rutgers University, where she was an assistant professor in the Bloustein School of Planning and Public Policy. Her research centers on the dynamic relationship between social investments and current fiscal policies and public sector accounting practices, with a particular interest in slum upgrading, affordable housing, public health systems, and the adaptive capacity of communities of the urban poor to respond to growing environmental vulnerabilities. She served as an advisor and project director of a summit on urban development innovations for the Rockefeller Foundation and the Center for Sustainable Urban Development at Columbia University's Earth Institute; in addition, she was a senior associate to the UN Millennium Project's task force on slums (and was a lead author of the task force's final report) and has been a political-economic and financial consultant for firms in the United Kingdom and New York. She earned a bachelor's degree in international relations from Columbia, a master's degree in development studies from Oxford, and a PhD in urban planning from Columbia.

Professor Williams served as director of the Spatial Information Design Lab at Columbia University and taught at the university's Graduate School of Architecture, Planning

and Preservation. Her research interests focus on the intersection of technology and the urban realm, with a particular focus on using mobile computing to help better understand urban spaces. She holds a master's degree from MIT in city planning and urban design and a bachelor's degree in geography and history from Clark University.

A fourth new assistant professor hire from last year's multi-position faculty search, Jinhua Zhao, is scheduled to start in fall 2013.

Alan Berger was promoted to the rank of full professor, Brent Ryan was promoted to the rank of associate professor without tenure, and Annette Kim was granted tenure in the department. After more than 20 years of teaching economics in the planning program, Frank Levy officially retired and entered the ranks of the department's emeritus faculty.

The School of Architecture and Planning announced a major new research initiative, the Center for Advanced Urbanism (CAU), intended to tackle planning, design, construction, and retrofitting of urban environments for the 21st century. CAU's objective is to become the world's preeminent cultural center with respect to the design of metropolitan environments by integrating separate disciplinary agendas in architecture, landscape, ecology, transportation engineering, politics and political philosophy, technology, and real estate. It emphasizes a practice of eloquent design culture on various scales and complex infrastructural intersections, from the neighborhood to entire regional systems. Under the leadership of center director Alexander D'Hooghe and research director Alan Berger, CAU will coordinate collaborations among existing efforts in the School and with other MIT groups, as well as undertake new projects at the Institute and with sponsors in practice.

Along with colleagues from the School of Architecture and Planning and other MIT schools, multiple members of the department's faculty (including professors Ben-Joseph, Xav Briggs, Philip Clay, and Dennis Frenchman) were selected by the provost to help the Institute develop a comprehensive vision and plan for the future of East Campus and Kendall Square.

### **Research and Teaching**

The intellectual life of the department is organized largely around the activities of four program groups and several cross-cutting research initiatives. The program groups are City Design and Development (CDD); Environmental Policy and Planning; Housing, Community, and Economic Development; and the International Development Group. The cross-cutting initiatives—Urban Information Systems, Transportation Systems Planning, and Multi-Regional Systems Planning—are intended to bring together faculty from across the four main program groups.

### **City Design and Development**

The new Center for Advanced Urbanism launched a research collaboration with the American Institute of Architects (AIA) that will explore ways design can improve urban health. This research will support AIA's efforts through Decade of Design, part of the Clinton Global Initiative.

In the spring CAU staged its first symposium, "Infrastructural Monument: Infrastructure for the Long Haul," to consider how best to approach the challenge of replacing or reconstructing our urban infrastructure in ways that will address a widening range of urban problems. It was the first in a series devoted to a set of strategic design challenges facing cities worldwide. The event drew an audience of over 250 architects, planners, urban designers, investors, developers, academics, policymakers, and others to begin to explore the parameters of what might be possible, how much those parameters might be stretched, and how to work within them in a way that is both visionary and realistic.

Aaron Naparstek, journalist, media producer, and the founder of Streetsblog, spent the 2012–2013 year as a visiting researcher at CDD and CAU, working on urban transport transformation and web-enabled, citizen-driven initiatives for redesigning the urban interface.

Students from DUSP—including team coleader Annemarie Gray, Dara Yaskil, and Maggie Tishman—were on the winning team of the Federal Home Loan Bank of Boston's 2013 Affordable Housing Design Competition. The competition pairs teams of talented graduate students with affordable housing organizations to develop innovative and comprehensive development proposals addressing the needs of these organizations. The students partnered with six others from Harvard University and worked with Jeremy Wilkening of the Somerville Community Corporation as a client; DUSP's Peter Roth served as faculty advisor.

Professor Larry Vale's most recent book, *Purging the Poorest: Public Housing and the Design Politics of Twice-Cleared Communities*, offers a new narrative of the 75-year struggle to house the "deserving poor." In the 1930s, two iconic American cities, Atlanta and Chicago, demolished their slums and established some of this country's first public housing. Six decades later, these same cities led the way in clearing public housing itself.

Professor Ben-Joseph's *ReThinking a Lot: The Design and Culture of Parking* was nominated by the Royal Overseas League in London for a National Urban Design Award as one of six top books in urban design from 2012.

Professor Ryan's book *Design After Decline* was named by Planetizen as one of the top 10 planning books of the year. The book provides a clear and concise overview of the effects of the urban renewal policies of the 1950s to 1970s as well as subsequent rebuilding efforts, focusing on two similar yet distinct cases of shrinking cities: Detroit and Philadelphia.

#### **Environmental Policy and Planning**

In what was considered to be the first agreement of its kind, MIT, Harvard University, and the city of Cambridge entered into a compact to work collaboratively to address issues related to climate change on a local basis. The "Community Compact for a Sustainable Future" lays out a framework for the signatories—and other organizations that choose to join—to work in a more coordinated and robust fashion to tackle local sustainability challenges. The compact aims to leverage the different organizations'

core skills and competencies in research, best practices, and governance to generate new solutions in the areas of waste reduction, energy efficiency, climate mitigation and adaptation, water management, renewable energy, and green technology incubation.

In a new five-year project supported by the Malaysia government in partnership with the Universiti of Teknologi Malaysia (UTM), five faculty members from DUSP and five from UTM will select 10 senior scholars each year from universities in developing countries who will be supported for a year at UTM and MIT as they study the process of city development in Penang, Kuala Lumpur, and Johor. As part of the effort, fellows will transform their research findings into an online digital library. Additionally, the department will begin offering a Malaysian practicum over Independent Activities Period that will allow 10 students to study sustainable city development in Malaysia with that year's group of visiting scholars. Professor Lawrence Susskind is the leader of the MIT team, which is located in the Community Innovators Lab.

For the second consecutive year, teams from MIT won the US Department of Energy's Better Buildings Challenge, an effort to reduce energy use in commercial buildings. As part of the initiative, the Department of Energy runs the annual Better Buildings Case Competition, announced by secretary of energy Steven Chu at his visit to MIT in November 2011. The competition invites university energy clubs to propose the best and most innovative solutions to our nation's energy efficiency problems. The MIT team was challenged to develop an energy efficiency strategy for the city of Fort Worth and a business plan to upgrade heating and cooling systems in a big box retail chain. The team was recognized with awards in both categories. Lecturer Harvey Michaels advised the team with support from other faculty in the department.

# **Housing, Community, and Economic Development**

In a talk at MIT organized by DUSP on May 7, 2013, housing and urban development secretary Shaun Donovan called for a new wave of creative urban planning to help cities evolve during a time of economic hardship. In the words of the secretary, "the role of the urban planner today is more important than it was 25 or 50 or 80 years ago."

On April 14, Professor Briggs delivered the opening keynote address at the American Planning Association's national conference in Chicago. The title of his talk was "Inventing the Next American Economy: Why Planning Matters and Where the Pitfalls Lie."

Karl Seidman's latest book, *Coming Home to New Orleans*, documents grassroots rebuilding efforts in New Orleans neighborhoods after Hurricane Katrina and draws lessons on their contributions to the post-disaster recovery of cities. The book summarizes Katrina's impact and the planning and public sector recovery policies that set the context for neighborhood recovery; it also describes and analyzes the rebuilding process in six New Orleans neighborhoods.

Distinguished activist, practitioner, politician, scholar, and long-standing DUSP faculty member Mel King was named as the inaugural winner of the Edward J. Blakely Award, presented by the Planners of Color Interest Group of the Association of Collegiate

Schools of Planning. King received the award at the association's fall conference in Cincinnati in November.

The department worked with the MIT Museum to develop an exhibition on the work of DUSP and MIT in New Orleans in the eight years since Hurricane Katrina. These projects have been sustained and have evolved through the entrepreneurship of faculty and students who developed and built on relationships in the city and dedicated teaching, studies, and community service work toward post-Katrina rebuilding efforts. At the opening of the exhibition, Seth Knudsen MCP '08, project manager with the New Orleans Redevelopment Authority, presented a Certificate of Recognition from the city of New Orleans signed by mayor Mitchell Landrieu; the certificate noted that the department "has been unparalleled in the breadth and depth of its commitment to the City of New Orleans."

#### **International Development Group**

MIT will receive up to \$25 million in funding from the United States Agency for International Development as part of a new five-year project intended to fight poverty by developing and evaluating useful technologies for communities around the globe. MIT's role in the new program will involve two related but distinct enterprises. First, D-Lab will help lead a consortium of higher education institutions in creating the International Development Innovation Network, which aims to foster and provide structure for technological innovation in developing countries. Second, the Comprehensive Initiative on Technology Evaluation—which DUSP and six other groups within MIT will develop under the leadership of professor Bish Sanyal—will assess technologies intended to alleviate poverty and determine which of them will have the most impact.

Professor Frenchman and professor Chris Zegras completed work on their "Energy Proforma," an online analysis and design tool based on their work in China that estimates the energy use of a city's residents based on their neighborhood's design characteristics.

Recent research by Professor Kim explores the adaptive reuse of former bomb shelters in Beijing as a de facto affordable housing option to meet the needs of an estimated two million residents in the growing city.

In October the department hosted a daylong symposium and memorial service honoring the legacy of professor Alice Amsden, who died in 2012. In May the department celebrated the 45th anniversary of the Special Program for Urban and Regional Studies (SPURS), holding a major conference on "Unconventional Wisdom: Learning in International Development Practice" that brought alumni and other practitioners from around the globe to reflect on the program's past and chart the course of international development in the future.

The SPURS/Humphrey Fellows Program continues to provide an important link between MIT and the international community, fostering a mutual exchange of knowledge and understanding about issues of common concern in the United States and

other countries around the world. During the academic year, SPURS hosted 17 SPURS and Humphrey fellows in the Department of Urban Studies and Planning.

As of June 2013, Professor Kim will be leaving DUSP for a new faculty position at the University of Southern California.

# **Urban Information Systems/SENSEable City Laboratory**

Working across the campus and across the globe, Professor Zegras and professor Joseph Ferreira, through their SMART SimMobility project, seek to integrate various mobility-sensitive behavioral models with state-of-the-art simulators to predict the impact of mobility demands on transportation networks, services, and vehicular emissions. As part of this work, researchers will be able to simulate the effects of a portfolio of technology, policy, and investment options under alternative future scenarios to inform policy and development.

New research projects emerging from the SENSEable City Laboratory range from those focused on large-scale data analytics to projects examining the role of digital technologies in creating bottom-up urban infrastructure and research that is developing new tools for data visualization. In total, the lab was responsible for over 45 publications and two books on urban information, visualization, and spatial analysis. Of note, "Putting Matter in Place: Measuring Tradeoffs in Waste Disposal and Recycling" (Dietmar Offenhuber, David Lee, Santi Phithakkimukoon, Malima Wolf, Assaf Biderman, and Carlo Ratti) was awarded Best Article of 2012 by the American Planning Association. Several of the lab's projects also garnered international interest and were featured in the popular press, including CNN, *The Guardian*, the BBC World Service, National Public Radio, the *Boston Globe*, and the *New York Times*.

The SENSEable City Lab also organized several international workshops in cities such as Medellín, Colombia, and Cape Town, South Africa, that brought together MIT students and civic leaders in those cities to consider how technology could improve citizen services. In Berlin, the lab organized several workshops, talks, and seminars as part of the BMW Guggenheim Lab. In November the lab hosted UrbanCode, a forum that brought together leading thinkers in academia, industry, and government from around the world for a series of talks exploring multiple dimensions relating to "big urban data."

In partnership with academic and nonprofit partners, Professor Williams' Civic Data and Design Project is standardizing and opening transit data for Nairobi's informal bus system. The project uses Nairobi's active mobile phone community to produce a comprehensive framework for collecting, opening, and mapping matatu (minibus) transportation data.

Ezra Glenn released version 1.1 of his "acs.R" suite for the R programming language. The package provides a set of open-source software tools allowing planners and researchers to download, manipulate, analyze, and present data from the US Census American Community Survey in statistically appropriate ways.

# **Graduate Degree Program Enrollment and Activities**

The department's graduate programs enrolled 60 new MCP students, two new SM students, and 10 new doctoral students. The department granted 67 MCP, two SM, and 13 PhD degrees.

The following table reports data on the 2012–2013 admissions cycle for the department.

**DUSP Admissions Cycle, 2012–2013** 

	Applications	Admitted students	To be enrolled
MCP (including dual)	376	91	67
SM	3	3	1
PhD	102	12	12

Particularly noteworthy, the yield for admitted students in the doctoral program was 100%.

In the spring, the department convened the new Online Learning and Education Committee, chaired by Professor Susskind. This committee was charged with facilitating DUSP's exploration and experimentation of new teaching practices within the framework of the MITx initiative. The committee's first task was to review a proposal by professor Eric Klopfer for a new master of science in technology-enabled education, which was subsequently approved by DUSP and the School Council of the School of Architecture and Planning. The committee is also planning an MITx informational and idea-generating workshop for DUSP faculty and students this fall.

#### **Undergraduate Program**

In August, the department partnered with the Department of Architecture to participate in MIT's Freshmen Pre-Orientation Program, offering 20 new freshmen a two-day session to learn about cities and design.

In 2012–2013, five undergraduate students declared Course 11 as their major.

#### **Alumni Outreach**

Local alumni continue to play an active role in sponsoring internships for students, providing career advice at the alumni career forums organized by each of the program groups, and participating as guest lecturers in numerous classes. Alumni across the country offered summer positions for current students and served as employers for recent graduates. Alumni also continue to play a role in the implementation of the practicum requirement, a significant element in the revised MCP core curriculum.

DUSP maintains connections with alumni across the country. In 2012–2013 the department held alumni events in Cambridge, San Francisco, New York, Chicago, Cincinnati, and New Orleans and hosted an on-site reunion of alumni from 1983.

Alumni in New York City also opened their doors once again for the annual DUSP@ NYC Career Development Trek.

Alumni once again participated as panelists in each of the four annual alumni career forums associated with the department's four program groups, as well as serving on panels for alumni in transportation planning and the seventh annual Real Estate Career Day, organized with the Center for Real Estate and the Harvard Design School. They also served on a panel examining professional practice in the public, private, and nonprofit sectors; participated in the inaugural PhD Alumni/ae Career Forum; and were involved in a pilot PhD alumni mentoring program.

The DUSP career resources website and the DUSP career development director, Mary Jane Daly, continue to serve alumni and current students seeking continued professional development. They also meet the needs of potential employers of DUSP students and graduates. Over the past year, the department organized a number of alumni employer information sessions on campus for students.

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