

Department of Urban Studies and Planning

Highlights

On August 29, 2005, Department of Urban Studies and Planning (DUSP) graduate student orientation began at precisely the moment Hurricane Katrina hit the Gulf Coast of the United States. Since then, the challenges associated with New Orleans and the Gulf Region have engaged the substance of nearly every subject we teach in our curriculum. The department was instrumental in organizing the colloquium series “Big Questions after Big Hurricanes,” designed to educate the MIT community about the conditions and issues facing the region. Our students and faculty also got involved early in planning issues on the ground in New Orleans. Supported by funds raised primarily by Professor J. Phillip Thompson and two doctoral students, the department rented a house in the Uptown neighborhood from which graduate students worked on various projects. The students received support from local nonprofits and from grants distributed through the MIT Graduate Student Council and the MIT Public Service Center.

Professors Thompson, Ceasar McDowell, and JoAnn Carmin led a practicum focused on the Tremé neighborhood, working closely with Neighborhood Housing Services of New Orleans, NeighborWorks America, and other local organizations. This project focused on housing redevelopment in one devastated neighborhood and is linked to concurrent efforts to rebuild infrastructure and local services in ways that will help residents reinhabit their community. It is intended to become a model that can be adapted elsewhere and used to leverage further investment in housing by business leaders (such as the recent commitment of \$1.3 billion from the AFL-CIO). In addition, senior lecturer Karl Seidman taught an economic development finance class in parallel with a faculty member at the University of New Orleans. All told, about 40 DUSP graduate students were actively involved in New Orleans this year.

While the school year started with a focus on New Orleans, it concluded with DUSP’s involvement in planning issues 12 time zones away. We cosponsored, with the Chinese Ministry of Construction, the third annual China Planning Network Conference (held in Beijing), which drew more than a thousand planners from China and 20 other countries. Joined by two dozen current MIT students, a dozen MIT faculty members coordinated conference tracks on major issues affecting China’s urban and regional development.

The conference coincided with the opening of a major exhibition of the work of the MIT–Tsinghua Beijing planning studio over the past 20 years as well as a signing ceremony for the new MIT–Tsinghua Beijing Urbanization Laboratory (UrbLab). The content of the exhibition will be published in a book later this year. As an outgrowth of the studio, the School of Architecture and Planning and DUSP have signed an agreement with Tsinghua University to establish UrbLab, which will develop and conduct research on city planning and design for rapidly growing cities in China and other developing countries worldwide. Professor Dennis Frenchman will be codirector of the new lab. In addition to the ninth Beijing urban design studio, the department undertook a yearlong research studio project examining sustainable development issues on the outskirts of Shanghai.

Academic year 2005–2006 was an unusual one both for self-reflection and external examination occasioned by the confluence of the biannual Visiting Committee meeting and a visit by the Planning Accreditation Board. The Visiting Committee reported in November that it “found the Department of Urban Studies and Planning at MIT in very good health—overall in better shape than the last time we met two years ago, which was better than the two years before.” Likewise, the department’s professional master in city planning (MCP) program was enthusiastically reviewed by the accreditation site visit team.

One noteworthy highpoint of the year was the admissions yield for the MCP program, which hit a record high of 71 percent. Further, for next year’s class, 75 percent of admitted underrepresented minority applicants accepted our offer of admission. We also reached our target of enrolling a dozen new PhD candidates in the fall. However, a few top doctoral candidates reluctantly declined our offers, invariably owing to the prospect of more years of funding from some of our competitors. Increasing funding for our doctoral program remains a major priority.

Progress on Departmental Priorities

In September 2002, incoming department head Lawrence Vale set out seven priorities for DUSP over the next several years:

- Faculty and staff well-being
- Community diversity
- One department, not four separate groups
- Engagement with local communities
- Improved departmental communications
- Sustainable computing environment/urban information systems
- Progress on space and dollars

Academic year 2005–2006 brought some progress on each of these fronts.

Faculty and Staff Well-being

Associate professors J. Phillip Thompson and Eric Klopfer were granted tenure this year, and JoAnn Carmin was promoted to associate professor without tenure. All of these promotions go into effect July 1, 2006. The three successful tenure cases of the past two years bode well for the major challenge of completing the generational shift as our senior faculty reach retirement age.

Community Diversity

The department continues to press for a greater commitment of staff support and financial resources to continue its community diversity efforts. We had a successful year with Martin Luther King Jr. visiting professor Earthea Nance, whose work is described below.

One Department, Not Four Separate Groups

As described in more detail subsequently, the very strength of DUSP's program groups threatens the department with unwelcome levels of division. We have made some progress in creating a department-wide identity by revamping the way we list classes to deemphasize the idea that particular classes "belong" to particular students within a program group. We continue to encourage students to link up with more than one program group and to develop thesis topics that cut across groups. More recently, we have actively encouraged faculty members to become part of more than one program group; this system of "affiliate members" seems like a promising way to enhance cross-fertilization.

We continue to organize crosscutting symposia on topics intended to be of interest to more than one program area. Moreover, many of our most recent faculty hires have been deliberately and explicitly crosscutting, resulting in faculty who have self-affiliated with more than one program group. This influx of new junior faculty (we now have nine) is slowly changing the culture of the department for the better.

In addition to the existing crosscutting program areas, Urban Information Systems and Transportation Policy and Planning, we are adding Regional Planning. This reflects that fact that a regional approach to planning issues is common to all of the program areas.

Engagement with Local Communities

The overriding goal of the MCP core practicum requirement, introduced in 2004, is to provide students with the opportunity to synthesize planning solutions within the constraints of real scenarios. These classes place students and faculty at the leading edge of planning practice by exploring innovative ways to integrate planning disciplines, work with communities, apply reflective practice, and connect theory and practice.

By participating in practicum subjects, students gain experience confronting difficult trade-offs while working on multidisciplinary planning problems in specific settings. In addition, the practicum courses expand on skills and concepts introduced in the MCP core and serve as the centerpiece for the department's sustained involvement in communities. The core practicum classes are intended to bridge the broad range of interests and expertise among DUSP faculty and students by fostering interdisciplinary learning and cutting across program groups. Students are required to complete at least one practicum subject during the course of their degree program.

These practicum subjects address planning problems in several planning contexts: distressed central city and suburban areas in the United States and international planning challenges in both developed and developing countries. In 2005–2006, the department offered practicum subjects in four Massachusetts cities (Springfield, Lawrence, Lowell, Boston) and New Orleans, as well as in China and India.

Improved Departmental Communications

The "Big Questions after Big Hurricanes" lecture series was streamed on the MIT World website, allowing thousands of additional people to have virtual access to

these presentations. The Myths about America lecture series, sponsored by the Special Program for Urban and Regional Studies (SPURS) and the Humphrey Fellowship Program was also streamed on MIT World. In addition, materials from 118 DUSP classes are posted on the OpenCourseWare site.

DUSP activities have been more regularly reported in MIT-sponsored media, including *Tech Talk*, *Technology Review*, *Spectrum*, and *Plan*, and featured on the Institute's home page "spotlight" and on the MIT Alumni Association's home page. The department continues to make better use of the MIT News Office to help feature faculty and student projects and achievements in the media.

Sustainable Computing Environment/Urban Information Systems

The computing infrastructure of the department has remained healthy as more and more students shift to the use of personal laptops for the vast majority of their computing needs. In terms of curriculum, DUSP is revamping its expectations about how and when students should acquire software expertise in the programs used by city planners. More important, the department has moved forward in addressing the research implications that information and communication technologies have for city and regional planning. In 2005–2006, the department conducted successful searches for a tenure-track assistant professor of urban technologies and for a principal research scientist/associate professor of the practice of urban technologies. This has been accompanied by a yearlong series of meetings among faculty from several program areas who are jointly developing crosscutting research proposals on the theme "The Responsive City" for submission to major foundations in the near future.

Progress on Space and Dollars

In summer 2005, the department obtained additional long-promised space on the fourth floor of Building 9. Although this space did not come with full renovations, it enabled the department to reunite the entire International Development and Regional Planning faculty in the same space and to link them in close proximity to the SPURS and Humphrey Fellows programs, greatly facilitating interaction between these midcareer fellows and our students and faculty. The additional space also has improved the department's ability to host the occasional visitor, reduced the amount of doubling up in offices, and generally marked an improvement in spatial coherence. As of fall 2005, for the first time, the faculty of the four major program groups had contiguous offices. The department anticipates receiving a few additional perimeter offices in Building 9. However, we are still short of space for funded research, still lack adequate space for workshops, and still do not have space for department-wide social activities.

In terms of student financial aid in 2005–2006, the best we have been able to accomplish (and it has been no mean feat) has been to keep the financial aid pool relatively stable. Still, for every student to whom we can offer a great competitive aid package, there is another who is offered little or nothing and must face the prospect of two years of tuition of more than \$33,000 in an expensive housing market. Despite this, during the past three years, approximately 70 percent of those offered admission to our MCP program have accepted. In short, despite the possibility of less expensive options elsewhere, most students continue to prefer to come to DUSP. We are not convinced, however, that this

pattern of preference can be sustained if we are unable to offer competitive financial aid packages to more of those we admit. Thus far, there is no discernible shift in our applicant pool or entering class toward wealthier students, so we still seem to be getting the same sorts of students who have joined us in the past, but the danger remains that DUSP could lose this capacity in the future.

We made a concerted effort to raise substantial funds toward an endowment for loan forgiveness but have so far fallen well short of goals. Nonetheless, each year we do award two or three modest loan forgiveness grants to recent alums receiving our Excellence in Public Service awards. We continue to seek funding for this effort and continue to press hard annually for all possible financial aid resources. We have redoubled our efforts to increase externally funded research by faculty—this is still our best way to generate substantial funding to support graduate students. We have also expanded efforts to provide students with information about fellowships available externally, and we encourage them to apply.

Faculty Awards

At the fall annual conference of the Association of Collegiate Schools of Planning (ACSP), Professor Lawrence Susskind won the ACSP Distinguished Educator Award, while professor and department head Lawrence J. Vale won the Paul Davidoff Award for his book *Reclaiming Public Housing: A Half Century of Struggle in Three Public Neighborhoods*. Chancellor and professor Phillip L. Clay was named one of the 100 most important blacks in technology for 2006 by *US Black Engineer and Information Technology Magazine*. Professor Karen R. Polenske was the first woman to be appointed a fellow of the Regional Science Association International.

DUSP's Contribution to MIT-wide Efforts

In addition to individual faculty achievements, DUSP contributed to the following MIT-wide efforts: Alliance for Global Sustainability, Cambridge–MIT Institute (CMI), Just Jerusalem project, MIT Energy Forum, New Century Cities, Program on Human Rights and Justice, Teacher Education Program (TEP), and more.

Professor Polenske and her team completed a seven-year project that culminated in an edited book titled *The Technology-Energy-Environment-Health (TEEH) Chain in China: A Case Study of Cokemaking* (Springer, 2006). This research was mainly supported by the Alliance for Global Sustainability (AGS) and several foundations. The team's members, 15 faculty and students from multiple disciplines, are from China, Japan, Switzerland, and the United States. They are now preparing a translation of the book into Chinese and are negotiating with a major publisher in China to publish it.

Under the auspices of CMI, nine of our graduate students received travel grants to attend the two-day Interdisciplinary Workshop on Regional Innovation at King's College in Cambridge, England. These students are working on, or have an interest in, theoretical, applied, and policy research on the topic of regional innovation. The Enterprising Places project, also under the umbrella of CMI, is studying the relative competitive success of different areas in the United States and the United Kingdom where technology-producing companies are choosing to concentrate. The focus has

been on how key players in these areas have intervened in the local economy to effect change. The work is the subject of a chapter, "Facilitating Enterprising Places: The Role of Intermediaries in the US and the UK," by Christie Baxter and Peter Tyler in the forthcoming book edited by Professor Polenske, *Geographies of Innovation* (Cambridge University Press).

Just Jerusalem is an interdisciplinary initiative led by DUSP and MIT's Center for International Studies (CIS). The project is a competition designed to reimagine Jerusalem, real and symbolic, as a just, humanist, and livable city. All entries will be expected to describe what it would take to create this type of urban arena by the year 2050. The winning entries will be assembled and disseminated both in print and through a series of exhibitions that will promote policy discussions and public debate.

Professor Polenske was one of the 16 faculty on the MIT Energy Research Council (ERC), established by President Susan Hockfield. Professor Polenske gave a talk at the MIT Energy Forum in May 2006 titled "China: New Energy Technologies and Energy-Intensity Trends."

Professor Frenchman, with Professor William Mitchell of the Media Lab, led a cross-campus interdisciplinary research effort involving design of the Digital Mile in Zaragoza, Spain, as part of the New Century Cities initiative. The Digital Mile will integrate advanced communications and media into the public environment of this ancient Spanish city, resulting in new activities, patterns of work, and urban structure. Students and faculty from DUSP, the Media Lab, the Department of Architecture, and the Center for Real Estate participated in the project, which has been recognized as one of the leading efforts worldwide to design "digital space." The results of the research and recommendations have been published in a book in both English and Spanish. On the basis of this work, two follow-up projects have been funded: exploration of the concept of "open source space" as a paradigm for physical planning, and design of a demonstration digital public space at the main gateway to Expo 2008, which will be held in Zaragoza. Professor Frenchman was selected to serve as a member of the International Advisory Committee on the Digital Mile.

The Program on Human Rights and Justice, sponsored by DUSP and CIS, hosted human rights fellows from around the world, including a scholar at risk from Afghanistan; cohosted human rights events; and supported summer human rights internships with organizations around the world. Strategic planning on human rights and biological science/technology was a priority, and substantial time and effort were spent on fund-raising.

In 2005–2006, MIT's Teacher Education Program, led by Professor Klopfer, continued to provide MIT students with a pathway to licensure entirely at MIT. This year, TEP sustained consistent numbers of students seeking licensure. The program has demonstrated continued student interest, and several of TEP students have been hired into local schools, demonstrating the program's value to the Boston metro community.

TEP has taken on many new educational technology research and development projects over the past year. Professor Klopfer continued to run a project, funded by the National Science Foundation (NSF), to train teachers using new technologies to improve science learning in New Mexico. Two new grants funded by the US Department of Education's StarSchools initiative also began this year. One, titled Augmented Reality Games for Learning, is a partnership among MIT, the University of Wisconsin at Madison, and Harvard in which handheld technologies developed in TEP are used to build the math and literacy skills of middle school students. The other, titled Learning Games to Go, is a partnership with Maryland Public Television and Johns Hopkins University that is building online and mobile learning games. TEP is also collaborating with the MIT Museum on a Microsoft iCampus project designed to engage students in controversial issues in science, technology, and society using handheld technologies (for more information on TEP, see education.mit.edu).

Research and Teaching on Urban Planning

The intellectual life of the department is organized largely around the activities of four program groups and several crosscutting research initiatives. The program groups are City Design and Development (CDD); Environmental Policy (EPG); Housing, Community, and Economic Development (HCED); and International Development and Regional Planning (IDRP). In recognition of the many ways that information technologies permeate the research and professional interests of faculty and students in all four program groups, we established Urban Information Systems (UIS) as a crosscutting initiative rather than a separate program group. Transportation Policy and Planning is treated similarly, as an area that cuts across different groups and also is integrated into the work of the Center for Transportation and Logistics. Beginning next year, we are also designating Regional Planning as a crosscutting area.

City Design and Development

CDD continued its aggressive program of urban design studios and workshops in the United States and abroad. Professor Dennis Frenchman led the ninth Beijing Urban Design Studio with professors Jan Wampler from the Department of Architecture and Chris Zegras from DUSP. The studio took 20 MIT architecture, planning, real estate, and transportation students to Beijing for five weeks in the summer of 2006 to work with counterparts at Tsinghua University on a difficult urban design issue facing the city. The group studied transit-oriented development along a new subway connecting to the site of the 2008 Olympics. Results of the Beijing studio will be published in *World Architecture*, the leading design publication in China.

Professors John de Monchaux (DUSP) and Julian Beinart (Department of Architecture) led a fall urban design studio in the city of Kiev, Ukraine, focused on revitalization of the city's waterfront and former industrial areas. This continues our long record of involvement with urban design issues and solutions in major cities throughout the world. The studio was sponsored by the city of Kiev and a private developer.

Students of Professors Terry Szold and Eran Ben-Joseph examined the revitalization of a distressed neighborhood in Lowell, MA. Their proposals for land use, development, and transportation improvements were prepared in concert with local stakeholders and

received wide press coverage. This DUSP practicum built on the work of Ben-Joseph and Szold on the topic of their book *Regulating Place*, published by Routledge in 2004, and Ben-Joseph's recent book, *The Code of the City*, published by MIT Press in 2005.

The site-planning workshop taught by Ben-Joseph generated concepts for developing and preserving more than 600 acres of sensitive land in Hopkinton, MA, in concert with the town and local residents. The work formed the basis for evaluating professional planning proposals submitted to the town.

Large-scale development in Bergen County, New Jersey, was the focus of work in the spring urban design studio, a joint CDD class under the direction of architecture professor Alexander d'Hooghe. Students proposed strategic options for transit-oriented development, a new university campus, housing, and large-scale mixed-use development.

Professor Tunney Lee and visiting lecturer Liang Zhao led a yearlong research initiative, coupled with the spring planning studio, on housing in Shanghai, China. The project examined the quality of housing projects that have been built in suburban areas of China, conducted post-occupancy evaluations, and made recommendations for improving the design and planning of these projects for the residents who reside within them. The work was sponsored by the Vanke Corporation, the largest housing developer in China.

Funded research efforts in CDD also continued across a wide spectrum. Professors Frenchman and Mark Schuster continued their long-standing collaboration with colleagues at the Universitat Politècnica de Catalunya. This year's work included publication of the first issue of a new journal, *Cultural Landscapes*, which will report on regional planning for culturally sensitive preservation and development in the United States and Europe, a rapidly growing area of study and practice.

Media Technology and the City continues to gain momentum as a research area. A fall research seminar led by Dennis Frenchman and William Mitchell assisted in the development of the Zaragoza Digital Mile project, already described. The SENSEable City Laboratory, headed by research scientist Carlo Ratti, engaged in a host of projects involving new ways of understanding and representing the city, tools for design and decision making, and incorporation of new media into city functions. Work under way this year included the I-SPOT project mapping wireless activity and space utilization in real time on the MIT campus and real-time mapping of cell phone usage in Milan, Italy, and Gras, Austria, revealing patterns of activity in the city as well as individual movements of people. The work of the SENSEable City Lab and DUSP in the technology area will be featured as a major theme exhibit in the Venice Biennale in the fall.

In the aftermath of Hurricane Katrina, Professor Lawrence Vale was widely cited in the media, largely as a result of the timeliness of his coedited book, *The Resilient City: How Modern Cities Recover from Disaster* (2005). He was interviewed approximately 70 times by print journalists, appeared many times on radio and television, and gave a series of presentations and lectures at various universities throughout the spring term of 2006.

Students and faculty in CDD continued their support of and participation in national competitions. Four interdisciplinary teams submitted proposals as part of the Urban Land Institute Urban Design Competition. Many other teams participated in the Federal Home Loan Bank Affordable Housing Development Competition in 2006. In addition, the Seoul Digital Media City design was selected for the Shenzhen Biennale International Exhibition of Architecture and Urbanism, and Professor Ralph Gakenheimer was appointed chair of the National Academies' Transportation Research Board's Committee on Transportation in the Developing Countries.

Environmental Policy Group

EPG was pleased to have James Hamilton join the group this year as a lecturer. He expanded the focus on brownfields development and involved a team of students in the city of Lynn, MA — working with city stakeholders to find ways of encouraging environmental cleanup while simultaneously stimulating much-needed economic development.

Three visiting scholars also joined the group this year. Shizuka Hashimoto, a visiting postdoctoral fellow supported by the Japan Society for Promotion of Science, focused his research on methods of environmental dispute resolution in the United States and their possible application in Japan. Professor Artur Demchuk from Moscow State University joined as a Fulbright fellow and focused on negotiation, mediation, and environmental conflict resolution techniques in the United States. Marianella Scavi, professor of sociology at Politecnico di Milano in Italy, spent several months investigating the modes of communication employed in tense conflict situations.

This year's incoming master's students were the first to experience the newly redesigned Environmental Policy and Planning introductory class, 11.601. The class, which is a requirement for EPG students, focused in past years exclusively on the US regulatory environment. This year's class gave a broader context to environmental decision making by incorporating discussions of environmental ethics and environmental philosophy in addition to surveying the techniques of environmental planning. 11.601 is possibly the first class at the Institute to incorporate blogging technology. In lieu of periodic written assignments, students maintained a shared class blog in which they continued the thread of discussions started in class.

Also for the first time, DUSP offered a course (11.257) exploring the land claims of indigenous peoples around the world. Eighteen students, including several from Harvard Law School, worked with Professor Susskind to look closely at the sovereignty and autonomy claims of more than 15 different indigenous peoples in Latin America, Asia, Africa, and North America. The class's case study findings and the results of a semester-long dialogue will be published as an article in a new journal, *Alternatives: Global, Local, Political*, published by the Political Science Department of the University of Hawaii at Manoa.

The MIT-US Geological Survey Science Impact Collaborative (MUSIC) continues to evolve, develop, and build new partnerships. Four new interns will be welcomed into MUSIC in the fall of 2006, joining the four returning interns. The US Bureau of

Reclamation recently joined MUSIC as a partner. The Reclamation Bureau will support an incoming doctoral student working on water conflicts in the western part of the United States. This incoming doctoral student, who will serve as assistant director to MUSIC codirectors Lawrence Susskind and Herman Karl, will test a multiagent-based simulation model developed within a stakeholder-driven collaborative process as a tool to address value-laden conflicts. MUSIC also continues to work on public involvement in environmental decision making and to evaluate alternative environmental conflict resolution techniques in federal natural resource management. A third project focuses on water allocation on the island of Maui in Hawaii.

For the first time, four EPG doctoral students graduated in the same year. Jill Blockhus focused on decentralization of forest management policy and management in Vietnam. Boyd Fuller examined efforts to resolve deeply rooted value conflicts in the context of water resource and ecosystem management in Florida and California. Dong-Young Kim examined efforts to build consensus on air quality management policies in South Korea. And, Pia Kohler examined the way in which scientific advice giving operates in the context of global environmental treaty implementation.

Professor JoAnn Carmin was part of the New Orleans practicum already described. An environmental subgroup of the class focused its attention on compiling and creating educational materials for Tremé residents on the post-Katrina contaminants that exist in their neighborhood. Research scientist David Laws involved a group of EPG students in a Rotterdam practicum that explored the ways in which group learning can enhance the sustainability of environmental decision making at the local level.

Finally, EPG faculty were actively involved in MIT's efforts to strengthen teaching and research in the energy field. Plans are in place to add a new DUSP course on renewable energy. EPG continues to push for more of a policy- and practice-oriented approach to energy development under the banner of sustainable environmental management. The group will be changing its name to Environmental Policy and Planning (EPP) in July 2006.

Housing, Community, and Economic Development

A major focus of HCED faculty and student work this year was assisting with rebuilding efforts in New Orleans. As already described, professors Thompson and McDowell and EPG professor Carmin cotaught a practicum course on housing and environment issues in the historic African American neighborhood of Tremé. Students in Karl Seidman's Economic Development Finance class completed six reports on economic recovery issues for three clients. Two MCP and two PhD students spent much of the spring semester working in New Orleans on housing and community organizing projects. Professor Thompson has also been active on a demonstration project to develop effective approaches to building affordable housing and in working to help coordinate rebuilding efforts among several national organizations and national community development intermediaries.

HCED faculty completed several significant publications this past year. Professor Thompson's new book, *Double Trouble: Black Mayors, Black Communities, and the Call for*

a Deep Democracy, was published by Oxford University Press. As principal investigator of the Forgotten Cities project, which sought to identify and analyze innovative community economic revitalization projects in small, formerly industrial cities, Professor Lorlene Hoyt published *Voices from Forgotten Cities*, a compendium of talks from local practitioners. Professor Hoyt also published several journal articles on her research on business improvement districts and is coediting a major new volume on the subject. Professor Xavier de Souza Briggs published two pieces on rebuilding after Katrina, an opinion piece in the *Boston Globe*, and a paper for *City and Community* (June 2006). In addition, he is continuing his research and practitioner-oriented work on community problem solving—writing a book and launching a self-directed learning website with support from the MacArthur Foundation.

HCED faculty also continued their work with community-based organizations in Boston, Lawrence, and Springfield. A three-year, \$400,000 Community Opportunity Partnership Center grant from the US Department of Housing and Community Development is supporting MIT@Lawrence, a major expansion of work in Lawrence, MA, conducted by professors Hoyt and Langley Keyes. MIT@Lawrence will encompass 30 projects related to affordable housing production, community asset building, and youth pathways to career and education. In the fall of 2005, the Lawrence practicum course developed strategies to better manage information and facilitate the reuse of Lawrence's large inventory of abandoned property. Professors McDowell and Seidman continued work in Springfield's North End community, supervising students preparing an economic development plan for the neighborhood. Seidman joined the Board of Boston Main Streets Foundation and is working with lecturer Susan Silberberg on a proposal to study the introduction of public Wi-Fi service in Boston Main Street districts.

Finally, HCED faculty held a retreat and several discussions with students and the broader DUSP community on its long-term plans. Priorities include strengthening relationships with the Center for Real Estate, expanding the mission of the Center for Reflective Practice to include support for faculty work in local communities, conducting practitioner training on and convening policy discussions of major urban community development issues, and formulating a research agenda linked to growing work in New Orleans. In other news, Professor Briggs was elected to a four-year term on the board of the Association for Public Policy Analysis and Management.

International Development and Regional Planning

In September 2005, IDRIP faculty met in Maine for the Vision Retreat, which resulted in two important decisions. First, the faculty selected a new name, the International Development Group (IDG); second, they selected a new head for the group, Professor Diane E. Davis. Both of these changes go into effect on July 1, 2006. Professor Karen R. Polenske has led IDRIP for the past 10 years and is taking on new research responsibilities to conduct major regional research in Brazil, China, and India as well as the United States.

IDRIP faculty members, including four new affiliate faculty from other groups, continue to work on multiyear research and teaching activities, each involving two to seven graduate students and/or SPURS/Humphrey fellows. Many of the IDRIP faculty focus

their research on comparative studies between industrialized and developing countries, with alumni working in many different parts of the world in critical positions. Two of our alums, for example, are ministers in developing countries, helping to lead economic and financial planning reforms in Guatemala and Nigeria. One of our alums is head of mission for the World Bank in Russia. At least 10 of the group's master's and PhD students had papers accepted for presentation at international conferences in Brazil, China, India, Italy, Korea, Mexico, Spain, Sweden, and Thailand. Again this year, two IDRP PhD students have been accepted into the World Bank Young Professionals Program from the 10,000 people who applied.

Following are brief highlights of work by IDRP faculty. Professor Alice Amsden was on sabbatical this spring working on a new book, *Heaven to Hell: America's Empire in the Developing World*. Professor Briggs gave the keynote address in March at Planning Africa, an international conference sponsored by the nascent African Planners Network in Cape Town, South Africa, drawing on his multicountry study of democracy and civic capacity at the local level—now a book under advance contract at MIT Press. Professor Davis continues working with a group of IDRP students and SPURS fellows who are interested in cities in conflict owing to war and other political upheavals that fundamentally alter conditions and structures of urban governance. This project builds on her prior research on violence and public insecurity in cities in countries undergoing political and economic transition. Professor Polenske continues to give numerous talks to classes and outside groups on the reasons why China is reducing energy intensity (energy use per unit of output) so rapidly. She and Professor Ferreira and five students are completing their research on the growth/decline of the 410 counties in Appalachia. They are especially focusing on 70 depressed counties in the region.

Professor Ralph Gakenheimer is currently preparing a book in collaboration with Professor Harry Dimitriou of University College London on transportation in cities of the developing world. He continues studies of rapid motorization and related systems in developing cities. He is chair of the International Scientific Committee of CODATU, a French-based nongovernmental organization focusing on improvement of urban transport in cities of the developing world. Professor Annette M. Kim was on maternity and research leave during 2005–2006. She has been working on a book manuscript, *Learning to Be Capitalists: The Social Construction of a Market Economy in Vietnam*, that examines how private real estate developers emerge and do business in a communist country. In 2005–2006, Earthea B. Nance served as a Dr. Martin Luther King Jr. fellow in the department. During her year at DUSP, she wrote a book on participatory sanitation in Brazil, taught two courses on international water and sanitation planning, and founded the People's Environmental Center in New Orleans to help residents return to their homes after hurricanes Katrina and Rita. Her organization works on environmental justice issues and gives people direct access to information about the environmental conditions in their living and working environments. Nance intends to utilize her center to establish an action-based research program on environmental justice.

Professor Balakrishnan Rajagopal continues work on the human rights of Dalits (so-called “untouchables”) in India to water, health, and sanitation with Professor Susan Murcott from the Department of Civil and Environmental Engineering. This project,

with the participation of students from both departments, was supported initially by the Robert Kennedy Memorial Center for Human Rights and is offered by DUSP as a practicum option in its curriculum. Professor Bish Sanyal's work is explained in the SPURS section of this report. Professor Judith Tandler is a member of the Research Advisory Board of the Center for Global Development in Washington, DC, and a research advisor to the Centre for the Future State at the Institute for Development Studies in Sussex, England, as well as a member of an oversight committee for this multiyear project with the UK government project funder. Chris Zegras joined the faculty this year as an assistant professor and is teaching both the core quantitative reasoning class for master's students and transportation classes. He teaches the latter jointly with Department of Civil and Environmental Engineering faculty. Recently he was awarded a grant to carry out research on the influence of gated communities on travel behavior in Santiago de Chile. He has also received seed funding to develop a research project on metropolitan transportation energy futures in China.

Urban Information Systems

UIS research and teaching continues to examine and shape the growing effects of information and communications technologies (ICT) on urban planning, metropolitan governance, and our sense of community. ICT has greatly facilitated the capacity to study neighborhood-scale planning interventions and to understand and model the key factors that influence urban spatial structure and use patterns. Advances in information technologies have also enabled the location and spatial interaction of people, buildings, and events to be tracked, modeled, visualized, and manipulated as never before. The result has been a rapid growth in new opportunities and risks.

Some UIS-related research has already been described under the various program groups and centers. In addition, UIS-affiliated faculty have been researching collaborative information infrastructures for community and metropolitan planning; new models of urban spatial structure and land use and transportation interactions; and improved methods for participatory planning. Most of these projects have involved master's and Undergraduate Research Opportunities Program students as well as PhD students, and several have provided real-world contexts and partners for class projects, workshops, and seminars.

Professor Ferreira has led a group of faculty and students working on a project to develop "intelligent middleware" for understanding neighborhood markets. The project is experimenting with new technologies for improved data sharing and neighborhood analyses. The effort involves collaboration with metro Boston's regional planning council (MAPC), the Open Geospatial Consortium, Boston's Department of Neighborhood Development, the Boston Foundation, and local nongovernmental organizations. It is supported through the Brookings Institution and several Living Cities foundations and is part of a national effort to improve the infrastructure for community statistics.

Professor Ferreira is also working with Boston's MetroFuture efforts and with other MIT Center for Transportation and Logistics faculty on studies of metropolitan growth, and of land use and transportation interactions. One study, with Professor Nigel Wilson and PhD students, examines congestion pricing in London, and another involves the effects

of station design and pedestrian-friendly land use on transit demand and path choice behavior. In both cases, the research required the development and use of new, spatially detailed data sets and improved geographic information systems (GIS) technologies.

Graduate Degree Program Enrollment and Activities

Our graduate programs enrolled 194 students this year. Of this total, 55 percent were women, 32 percent were international students, and 17 percent of US students were members of underrepresented minority groups. The department granted 64 MCP, 4 SM, and 15 PhD degrees.

Inspired by the intensive review of goals, courses, and efforts to cut across the program groups undertaken by the Environmental Policy Group, the Master's in City Planning Committee opened its year's activities by looking at that set of issues as they related to the other program groups. At the center of the extended discussion was a concern with maintaining the integrity of the program groups while simultaneously ensuring flexibility both within and across them. In addition, the committee focused on the status of the practicum requirement, which has moved from being a controversial aspect of the MCP program to a widely accepted and supported element. The major challenge has been to pay for and orchestrate practica that involve work overseas.

During the spring term, the committee focused on ways to clarify the admissions process involving issues of consistency and availability of admissions information, how and when to apply to more than one program group, and how we select students and allocate financial aid. At the end of the term, a survey was taken of graduating MCP students that inquired about their thesis experience. At present, the thesis is a successful process for many students and less than satisfactory for others. A sample response indicates that work is necessary to clarify the expectations of the faculty thesis advisor and the student. After considerable review of 11.204 Planning, Communication, and Digital Media, the committee determined that a better approach to the subject would be to break the course into self-taught online elements, create a small module for GIS work required of all students, and focus the communication part of the course as a capstone experience within the Gateway course—another course required of all entering students. The new approach will be carried out in the fall of 2006. Issues associated with minority recruitment, financial aid, and course availability continue to occupy space on the committee's agenda.

In 2004–2005, the faculty voted to approve a new structure for general exams in which virtually all PhD students will have completed their generals by the end of their second year. During the past year, the major work of the PhD Committee involved implementing this structure—in particular, rewriting and updating the requirements for each of the main general examination fields so that they can be completed within two years. This work was scheduled for completion by the end of September 2006. The revised generals schedule is part of the department's efforts to shorten the time required to earn a PhD, an important initiative when resources are tight. The committee also worked to provide increased information for PhD candidates, including a 20-page summary of frequently asked questions for incoming students, a continued updating and expansion of the website that lists fellowship opportunities, and a series of sessions

with first-year PhD students on topics including how to apply for outside aid and how to submit articles to refereed journals. Finally, the committee will upgrade the website, first mounted this year, that describes each DUSP PhD candidate who is on the job market.

Undergraduate Program Activities

During 2005–2006, the Undergraduate Committee (UG) worked with DUSP undergraduate majors to expand opportunities for contact among DUSP faculty and undergraduates and to enhance the visibility of the program among undergraduates. This year Course 11 majors increased markedly, with the number of freshmen selecting urban studies jumping by 50 percent relative to last year. Among the new initiatives under way are an effort to introduce an international development track among undergraduate urban studies majors, minors, and concentrators; a commitment to expanding the number of UG course offerings; and a plan to introduce greater flexibility in the selection of concentration streams. In addition to scheduling seminars for undergraduates with new DUSP faculty, UG hosted several social occasions to foster faculty–student dialogue.

Undergraduate Committee head Diane Davis received a grant from the D’Arbeloff Fund for Educational Excellence to develop a new, freshman-level, project-based course called Cityscope. The class is intended to introduce new undergraduate students to the challenges of cities at risk. It will be designed to educate students about the relationships among science, technology, and urban planning innovation, and its hands-on ethos will give first-year students an opportunity to try their hand at problem solving in complex urban environments. The class’s focus for the first several years will be New Orleans.

The department offers an annual study trip to an international city where students can visit diverse neighborhoods, institutions, and organizations and meet with local planners and academics who show them how the city has been planned and built. Starting this year, this annual trip was offered in conjunction with a new communication-intensive course offering, 11.027 City to City. Students formulate research or policy questions related to urban studies and planning that can be explored in Boston and then take a study trip, led by lecturers Cherie Abbanat and Paula Anzer, to an international city during spring break to develop comparative knowledge. This year the class visited Copenhagen, Denmark.

In addition to departmental socials and open houses, this year UG sponsored a field trip through Chinatown led by DUSP professor Tunney Lee in late fall. Students and select faculty toured this rapidly changing section of Boston and capped the evening off with dinner at a local Chinese restaurant. Also this year, students met with Course 11 alumni, and several used these contacts for summer internship placements.

Student Awards

Our students received a large number of awards this year from the Institute, national and international organizations, and the department.

Departmental Awards

- Outstanding Contribution to the Intellectual Life of the Department: Shiben Banerji; honorable mention, Jacob Wegmann, Zhan Guo, Jinhua Zhao
- Student Departmental Service Award: Anna Brown
- Outstanding PhD Dissertation: Uri Raich; honorable mention, Ari Goelman
- Outstanding MCP Thesis: Gabrielle Kruks-Wisner; honorable mention, Lindsay Campbell, Francisco Ruiz
- Outstanding Undergraduate Thesis/Project: Solomon Hsiang; honorable mention, Shutsu Chai
- O. Robert Simha Prize: Rajesh Kottamasu
- Flora Crockett Stephenson Writing Prize: Anne Dodge
- American Institute of Certified Planners Outstanding Student Award: Caitlin Gallagher
- Emerson Travel Grant: Jigar Bhatt, Anne Dodge, Kiara Nagel, Seth Pipkin, Apiwat Ratanawaraha, Carrie Vanderford, Elizabeth Clay, David Lee, Jacob Wegmann
- Rodwin Travel Grant: Shiben Banerji, Jigar Bhatt, Alberto Fuentes, Xin Li
- Silberberg Travel Grant for Social Justice and Design: Poulomi Chakrabarti, Sharlene Leurig

MIT Awards

- 2006 Anthony Sun Fellowship Award, MISTI (India): Elizabeth Clay
- MIT–Japan International Studies Fund Award: Catherine Ashcraft, Rajendra Kumar, Xin Li, Nora Libertun, Apiwat Ratanawaraha
- MISTI China Program Dissertation Research Grant: Erik Nielsen
- Siegel Prize for Best Student Essay on Science and Technology 2005, Carroll Wilson Award: Salo Coslovsky
- Martin Family Fellows in Sustainability 2005–2006: Salo Coslovsky, Lianne Fisman, Erik Nielsen, Hongliang Zhang
- Program on Human Rights and Justice Summer Internship: Rachel Healy, Poulomi Chakrabarti, Alberto Fuentes, Roberto Pires, Salo Coslovsky, Christopher McDougal
- Career Development Summer Internships in International Development: Joel Campos Alvis, Rachel Healy, Bruno Nazim Baroni, Poulomi Chakrabarti
- Kelly-Douglas Award: Anne Dodge

National and International Awards

- Global Leadership Fellow, World Economic Forum; Japan/World Bank Fellowship: May Tsubouchi
- Olympic Research Center Fellowship: Eva Kassens
- ACSP Donald Schön Award: Claudia Canepa
- ACSP Marsha Ritzdorf Award: Elsie Achugbue
- First prize, Sloan Foundation Dissertation Competition: Ari Goelman
- American Planning Association Fellowship: Meghan Boyce, Francesca Napolitan
- American Planning Association Judith McManus Price Fellowship: Valerie Gingrich
- Harvard Rappaport Institute of Public Policy Fellows: Josh DeFlorio, Ari Goldstein
- NSF Graduate Research Fellowship: Jesse Chu-Shore
- 2006 Eisenhower Graduate Fellowship: Ryan Tam
- American Planning Association Student Paper Competition: Kirsten Kinzer
- Resources for the Future Dissertation Award; ACSP, Gill-Chin Lim Student Travel Grant: Catherine Ashcraft
- Dwight D. Eisenhower Transportation Graduate Fellowship: Justin Antos
- International Council on Monuments and Sites Internship: Megan Boyce
- Dissertation Research Grants—Hauser Center for Non-Profit Organizations, Center for International Development, and Hefner Fund, Harvard University: Erik Nielson
- King's College Interdisciplinary Workshop on Regional Innovation Travel Grant: Zhiyu Chen, Salo Coslovsky, Yu Min Joo, Myounggu Kang, Rajendra Kumar, Xin Li, Kyung-min Nam, Apiwat Ratanawaraha, Michael Sable
- Affordable Housing Development Competition: first-place team member, Luke Schray; second-place team members, Matthew Brownell, William Ho, Sagree Sharma, Thacher Tiffany, Kate Van Tassel; third-place team members, Janelle Chan, Meredith Judy, Helen Lee, Nakeischea Loi Smith, Aaron Stelson; honorable mention team member: Molly Markarian

Outreach to Alumni

Local alumni continued 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 participated in a key discussion panel on orientation for incoming students in August 2005. They continue to play a role in the implementation of the practicum requirement, a significant element in the revised MCP core curriculum.

DUSP continues to maintain connections with alumni across the country. The Alumni/ae Connection, a monthly electronic newsletter reaching more than 80 percent of our alumni, is well received and has prompted numerous updates from alumni on their personal and professional lives.

In fall 2005, alumni again assisted DUSP student recruitment efforts by joining faculty and current students in open houses in Los Angeles and New York City. Both events were well attended and successful. Alumni also participated in a number of DUSP information sessions and recruiting events in San Diego and the San Francisco Bay area.

The DUSP Career Resources website continues to serve alumni as well as current students in terms of continued professional development, as well as meeting their needs as potential employers of DUSP students and graduates.

Departmental receptions held at the annual conferences of the American Planning Association and the Association of Collegiate Schools of Planning provided venues to catch up with alumni from across the country.

The Alumni/ae of Color Dinner Series was launched in spring 2006. This dinner series was an effort aimed at strengthening connections between DUSP alumni of color and the Institute while at the same time providing current students with ideas on how to effectively serve communities of color. The series consisted of four well-attended dinners, each with an invited alumni speaker.

The department proudly presented the fifth annual Excellence in Public Service Awards to Jean Walsh for her work with TransFair USA to increase fair trade and Jennifer Czysz for her work as a planner with the Southern New Hampshire Planning Commission.

International Connections

SPURS hosted 16 fellows this year. Nine of the fellows participated in SPURS as part of the Hubert H. Humphrey Program sponsored by the US Department of State. This year's SPURS/Humphrey Fellows represented 13 countries: China, India, Finland, Ghana, Jamaica, Korea, Mexico, Morocco, the Philippines, Poland, Turkey, Uruguay, and Venezuela. Their research interests covered a variety of areas, including transportation planning and policy, technological development and policy, urban development, public-private partnerships, GIS, and environmental policy.

Last August, the SPURS Administrative Office moved to a new location on the fourth floor of Building 9, placing it in closer proximity to DUSP headquarters. The fellows' offices also moved to the same area as the SPURS/Humphrey Administrative Office. This is a significant improvement over the previous office in the MIT Museum building, which was a 10-minute walk from the main MIT building.

The Myths About America lecture series, which was launched in spring 2005, continued in fall 2005 and spring 2006. The lecture series generated much interest among fellows, students, and faculty in DUSP and beyond. The speakers included prominent public intellectuals, mostly from academic institutions, including Peter Berger of Boston

University, Russell Jacoby of the University of California at Los Angeles, Saskia Sassen of the University of Chicago, Margaret Crawford of Harvard, and Dolores Hayden of Yale.

The fellows' collaboration with the Loeb Fellows of Harvard at the Graduate School of Design led to intellectual exchanges and interactions. Loeb sponsored a site visit to the Big Dig project, followed by a talk on mega projects by Dean Alan Altshuler of the Harvard Graduate School of Design in November. In February, SPURS sponsored a daylong seminar on cultural encounters between US and international fellows. Richard Schweder, professor of human development at the University of Chicago, led the discussion.

In February, SPURS/Humphrey program director Bish Sanyal was invited by the Institute of International Education to give a talk on SPURS innovations at the 2006 meeting of the Association of International Education Administrators in San Diego.

Finally, Humphrey fellow Ilac Diaz from the Philippines was a member of award-winning teams in three MIT competitions, including the MIT \$100K competition (Grand Prize for Development) and the IDEAS Competition (grand prize for First Step Coral and second prize for Peanut Revolution).

Community Partnerships

The Center for Reflective Community Practice (CRCP) continued its strong partnership with community-based organizations. Entering its sixth year, the collaboration with the North End neighborhood of Springfield, MA, continued to thrive. The DUSP–Springfield practica continued the relationship with the Springfield community and provided a forum for students and community workers to exchange knowledge.

The center is in the final phases of the Boston Community Learning Project, an initiative geared toward illuminating the critical role of community organizing in community development. The project involves three Boston neighborhoods and eight community fellows who are active in local community building. The final report for this phase of the project will be completed in July 2006.

Working with CARE International's Latin American and Caribbean office, CRCP continues to help the nongovernmental organization develop and implement a system for using local knowledge in rural and urban communities to alleviate poverty. The project included communities in Honduras, El Salvador, Peru, and Nicaragua. CRCP is currently preparing to assist CARE with a knowledge fair in El Salvador in fall 2006.

CRCP has undertaken to document its reflection work and share it with others. The center organized and led a reflection session with the National Rural Funder's Collaborative in Northern California. This project helped the collaborative organize and improve its relationships with its community representatives around the country.

In addition to these activities, CRCP supported 12 individual community fellows whose work aligns with its mission and principles and provided research experience and work/study opportunities for one PhD candidate, two MCP candidates, and three undergraduates.

Research Funding

Faculty and staff raised \$1,658,100 in new funds for research and other projects in fiscal year 2006.

Professor Hoyt was awarded a US Department of Housing and Urban Development grant in the amount of \$399,999 to fund a community outreach partnership center in Lawrence, MA.

Professor Susskind, in collaboration with Herman Karl, visiting lecturer from the US Geological Survey (USGS), raised \$212,940 from the USGS for continued support of the MIT-USGS Science Impact Collaborative.

Professor Klopfer was awarded three grants in FY2006. The US Department of Education (via a subcontract through the University of Wisconsin) awarded him \$200,010 for the first year of what is expected to be a three-year project, Augmented Reality Simulation Games for Mathematics and Literacy Learning with Emerging Mobile Technologies. He was also awarded an iCampus grant from Microsoft Corporation in the amount of \$199,341 for a project titled POSIT: Developing Public Opinions on Science Using Information Technologies. Finally, he received an award of \$89,990 from the Foundation for Blood Research in support of the project EcoScience Works: Exploring and Modeling Ecosystems Using Information Technology.

Professor Carmin received an NSF grant for \$194,677 for her research titled Navigating Transnational Forces: Consistency and Change in Environmental Movement Organizations in Central and Eastern Europe.

Professor Frenchman and senior lecturer Michael Joroff were awarded \$150,000 by the city of Zaragoza, Spain, for the Digital Mile project. In addition, Joroff was awarded \$52,896 from CMI for New Century Cities KIC.

Professor Briggs was awarded two grants: \$94,000 from the MacArthur Foundation for a study titled Measuring the Impact of Community Interventions and \$43,090 from the Urban Institute for Three-City Study of Moving to Opportunity: Management of the Ethnographic Component and Neighborhood Scans.

Principal research scientist Christie Baxter, working through CMI, was awarded \$21,159 in additional funding for her ongoing research project Regional Partnerships and Intermediaries.

Other Funding

Principal research scientist Thomas Piper raised \$100,000 from the State Street Global Philanthropy Program of the State Street Bank in support of the project FutureBoston: What Next for Boston in the First Decades of the 21st Century.

Professor de Monchaux raised \$59,000 in unrestricted funds to support the Kiev Urban Design Studio course in the fall term of 2005.

Professor Lee was granted \$59,400 in unrestricted funds by the Shanghai Vanke Real Estate Group to support a graduate studio course examining sustainable development in Shanghai and surrounding areas.

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More information about the Department of Urban Studies and Planning can be found at <http://dusp.mit.edu/>.