MIT Washington Office

Established within the Office of the President in 1991, the MIT Washington Office reports to MIT's president. The staff includes William Bonvillian, director; Alison Fox, assistant director; Kari McCarron, senior legislative assistant; and Helen Haislmaier, administrative assistant. Alison Fox joined the office in January 2008.

The mission of the Washington Office is to support the president's advocacy activities in Washington, DC, and to support MIT's historic role in Washington as one of the nation's premier research universities and a leader on national science and technology issues. On a daily basis, the office contributes to a steady flow of information between MIT and Washington institutions, including executive branch offices, departments and agencies, Congress, and other national organizations.

Four-Front Focus

The Washington Office has spent major time this past year supporting MIT's work in four areas:

- Furthering the nation's Innovation and Competitiveness agenda by encouraging passage of and full funding for the America COMPETES Act, which authorizes major increases in federal physical science R&D spending and support for science, mathematics, and engineering education. This effort also includes support for the other key science agencies and related policy programs.
- Expanding MIT's ability to engage major federal R&D agencies by working with the vice president for research to build campus faculty groups that can connect MIT with priorities emerging at key science agencies, such as the National Institutes of Health, the Defense Department, and the Department of Energy, and with efforts to commence this year on linkages with NASA and the National Science Foundation. This effort also includes other projects aimed at connecting MIT with the policy world.
- Supporting the MIT Energy Initiative, including educating Washington policy makers on the outcomes of MIT energy research and MIT policy reports such as "The Future of Coal" and "The Future of Geothermal Energy." Over the course of the year, individual faculty and staff members from MIT participated in or managed energy policy discussions at the national academies, in the Senate and House, and at other venues. In addition, nearly 20 faculty members have testified on energy issues before Congressional committees and many held individual meetings with members and committee staff.
- Improving higher education-related policies and legislation. This effort has included fostering MIT's involvement with education associations, with the Department of Education, and with Congressional education committees. It has included advocating improvements to pending higher education legislation on increased transparency and accountability, and responding to concerns from the Senate Finance Committee about the role of endowments and their use in reducing student tuition and costs.

Developments in each of these focus areas are summarized below.

Focus One: Legislative Initiatives around Innovation and Competitiveness

The Washington Office continues to work with colleagues at MIT, higher-education national organizations, and industry to strengthen the research partnership between research universities and the federal government. Of primary concern during the past year has been the daily engagement of the Institute's leadership and its Washington Office in the issues of support for science and engineering research, the general competitiveness of the R&D infrastructure in the United States, and support for life science research. In addition, there have been a series of related initiatives in areas such as intellectual property and access to immigrant talent. This Congress has continued to be unusually active in these fields compared to previous Congresses, authorizing major new R&D funding. Subsequently, however, there have been problems in obtaining appropriations support for these new programs. This has required a significant ramp up of the level of MIT's legislative engagement on these issues.

America COMPETES Act

On August 9, 2007, after a two-year campaign to double funding for three of the six major research agencies that support basic research, the president signed the "America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science" Act. The impetus for the COMPETES Act was the National Academy of Sciences' 2006 report Rising Above the Gathering Storm and its predecessor, the 2005 National Innovation Initiative report of the Council on Competitiveness, outlining the national need for an increased investment in basic research. When these reports were written, NIH funding had recently been doubled (completed in 2004), but agencies that support physical science had experienced flat funding or decreases in real dollars dating from the end of the cold war. Therefore the COMPETES Act emphasized physical science.

The COMPETES Act doubles funding for the Department of Energy's Office of Science (OS), the National Science Foundation (NSF), and the National Institute for Standards and Technologies (NIST) over a seven to ten year period. (The funding for OS and NSF is authorized to double over seven years, while NIST's funding will double over ten years.) Increased funding was authorized beginning in FY2008, although that did not occur in the FY2008 Omnibus Appropriations bill, as described below. The passage of the COMPETES Act fulfilled President Bush's American Competitiveness Initiative (ACI) and the parallel Democratic leadership objective of House Speaker Nancy Pelosi's "Innovation Agenda". The COMPETES Act also authorizes major science education efforts and funds a new initiative at DOE called Advanced Research Projects Agency for Energy, or ARPA-E, which is modeled after the successful DARPA model for translational research in the Department of Defense.

An additional benefit of the campaign for passage of the COMPETES Act came from the strong cohesive approach of universities, scientific societies, and the business

community, which share common goals with respect to the national need for improved R&D. Following the bill's passage, common efforts, including for R&D funding at authorized bill levels, continue to be mounted by these groups through a shared organization, the Task Force on American Innovation. Recently, this task force has encouraged both presidential campaigns to consider these issues.

Appropriations Battles

FY2008 Omnibus Appropriations

Despite strong indications that the Congress and the president supported full funding of the COMPETES Act, as demonstrated in both the president's budget and the initial appropriations bills, that funding did not materialize in the final FY2008 Omnibus Appropriations bill. The House and Senate appropriations bills—namely, the commerce, justice, and science bill, which funds both NSF and NIST, and the energy and water bill, which funds the DOE's Office of Science—included increased funding for these agencies/departments. However, in light of veto threats from the president over the total overall funding levels, Congress was not able to pass individual appropriations bills with strong science funding. Instead, Congress cut $22 billion from the total spending it was considering, and a single omnibus bill passed at this lower level. As a result, the final funding for the science agencies was reduced to levels far below the increases authorized in the COMPETES Act.

FY2008 Supplemental

As a result of the limited increases in funding for agencies conducting basic research in the physical sciences, the university and business communities galvanized around the effort to provide funding for these agencies in the FY2008 Supplemental. Weekly organizing meetings, with implementation task forces in which MIT was very active, were established.

The FY2008 Supplemental signed into law this summer, included an additional $337.5 million for science. Included in this funding was $150 million for NIH (to be shared equally among the centers and institutes), $62.5 million for NSF (including funding for education programs), $62.5 million for NASA, and $62.5 million for DOE's Office of Science (including $15.5 million for the ITER Fusion project). These results for the three COMPETES Act agencies (NSF, OS, and NIST) are summarized in the chart below, followed by a summary of results at the other key agencies.

Status of Funding, July 2008

Key Research Agencies	FY2007 Funding ($M)	Administration's FY2008 Budget Requests		Final FY2008 Appropriations		Shortfall from FY2008 Budget Requests		FY2009 Budget Request ($M)
		$M	% increase	$M	% increase	$M	% of budget increase secured	
NSF	5,916	6,430	7.9	6,128	3.6	302	41.2	6,854
OS	3,796	4,398	14.1	3,9571	4.2	441	26.7	4,722
NIST2	491	598	24.1	5493	11.8	49	54.2	638
Total	**10,203**	**11,426**	**12.0**	**10,6344**	**4.2**	**792**	**35.2**	**12,214**

1. Total FY2008 funding for OS is $4,081 million; the figure in the chart reflects a subtraction of $124 million in earmarks.

2. Refers to NIST core accounts, consisting of the Scientific & Technical Research and Services budget, plus the Construction of Research Facilities budget.

3. Total FY2008 funding for NIST core accounts is $601 million; the figure in the chart reflects a subtraction of $52 million in earmarks.

4. The FY2008 totals for NSF and OS include $62.5 million for each in supplemental appropriations enacted in July 2008. Data is rounded up to nearest million.

Source: Chris Mustain, Innovation Task Force

FY2007–2009 Funding (Non-COMPETES Agencies)

Agency	FY2007 Appropriations ($B)	FY2008 Appropriations ($B)	FY2009 Admin budget ($B)
NASA—total science	4.6	4.8[2]	4.4
DOD–basic research ($6.1 billion)[1]	1.3	1.4	1.7
NIH	29.2	29.6[2]	29.4

1. Does not include Congressional appropriations earmarks
2. Includes FY2008 supplemental funding

Related Legislative Issues

Department of Defense Basic Research

Defense secretary Robert Gates, before joining DOD, served, while president of Texas A&M, on the panel for the NAS's Rising Above the Gathering Storm report, which recommended a major increase in defense basic research, in addition to support to the other leading physical science agencies. However, DOD basic research was initially left out of the president's ACI initiative. When Gates came to DOD he addressed this gap. He advocated a significant increase in basic research funding at the Pentagon in the FY2009 budget, calling for a billion dollar increase over the next five years. His proposed DOD budget was consistent with this proposal and called for an increase in the overall basic research budget ("6.1") for FY2009 by some $270 million over the administration's FY2008 budget request. The addition would increase basic research, the smallest of the Defense Department's research, development, test and evaluation (RDT&E) accounts, to approximately $1.7 billion—compared to $1.4 billion sought for FY2008. The defense authorization bills marked up to date are consistent with this request. The increased request is a significant development. DOD anticipates using the additional research funding for approximately 500 new competitive university awards around the country. If Secretary Gates's proposal is adopted over time, it would mean that three of MIT's five major federal research agencies have been authorized to double over time, even if the appropriations levels continue to be an issue for annual battling.

University Recovery of Defense Research Indirect Costs

While defense budget research increases were welcome this year, the House of Representatives included a provision in the 2008 Defense Appropriations bill to cut university recovery of their indirect costs by two-thirds. Since indirect costs are real costs, universities would be required, in effect, to provide major cross-subsidies to the federal government if they wanted to continue to conduct defense research. Eventually a compromise was reached in the final conference report where the Congress accepted the provision as a principle, but the percentage was set so high the universities were not affected by it. The provision as passed by Congress, although it has had no direct effect, creates a problematic precedent for university research.

Intellectual Property

This Congress has attempted, via multiple legislative vehicles, to modify intellectual property laws. Major patent reform legislation, which has been pending for over two years in Congress, continues to pit large IT firms (software and hard technology engineering) against life science/pharma/biotechs and smaller, entrepreneurial firms. The two sides have very different perspectives on this legislation, and universities, because there are involved in numerous startups coming out of their campus research efforts, share many of the concerns of the latter group. Patent legislation that passed the House last year resolved many of the issues that universities had with the original House legislation, but problems remain, particularly regarding damages provisions. Many major research universities, including MIT, still have concerns with several provisions in the Senate bill, including on damages.

The MIT Washington Office continues to monitor additional intellectual property legislation, including legislation to address the patent and regulatory issues relating to generic biologic materials and orphan works legislation that would allow use of copyrighted material where the copyright owner cannot be identified.

National Institutes of Health

NIH's budget continued its fourth year of very limited increases in the FY2008 budget, as the final appropriation of $29.5 billion, after adjusting for across-the-board reductions and rescissions in the FY2008 Omnibus bill, would be just 0.9 percent or $275 million more than the 2007 appropriation, with $200 million being shifted out of NIH to the Global Fund for HIV/AIDS. Other than the Office of the Director and the Common Fund, nearly all of NIH's institutes and centers saw a flat budget in 2008. Adjusting for inflation, the 2008 NIH budget would be 5.8 percent below the 2004 level. NIH was fortunate to receive an extra $150 million in the FY2008 Emergency War Appropriations Supplemental bill that passed in July 2008 to help address this stagnation.

There was increasing concern this spring in Congress over conflict-of-interest policies that cover externally funded researchers and their relations with drug companies. Language was included in the NIH appropriations bill for FY2009 marked up in June calling for an examination of those policies. As Congress directed in last year's appropriations bill, in April, NIH has fully implemented mandatory submission of NIH funded research articles to NIH's PubMedCentral database within 12 months of publication .

Immigration

Overall, an impasse continued in Congress on broad issues of immigration reform legislation, including H1-b and related legislation supported by universities to allow higher numbers of foreign-born science talent to remain and work in the United States.

Meanwhile, there was a battle with the Department of Homeland Security over foreign students working in US ports. As reported in the *New York Times*, and on the front page of the *Washington Times*, this spring the Transportation Security Administration (TSA) sent four foreign MIT graduate students studying at Woods Hole on F-1 or J-1 student visas, letters declaring them "security threats." The TSA letters were sent in response to the students' applications for Transportation Worker Identity Clearance (TWIC) cards, which are necessary to have unescorted access to ships and other facilities in secured ports. TSA based its denial for a TWIC card on the fact that F-1 and J-1 visa holders are not eligible to apply for TWIC. The MIT Washington Office worked with MIT faculty and administrators, as well as with members of Congress and the House Science and the Senate Homeland Security and Governmental Affairs committees to secure new letters for these students. These July 2008 replacement letters simply deny the TWIC status but do not declare the students security risks.

Focus Two: Initiatives to Engage Major Federal R&D Agencies

Engaging MIT in Washington

The Engagement Effort

Despite the legislative efforts cited above, federal R&D funding for the physical sciences has been stagnant for many years, and now federal life science funding, after a decade of major increases, has likewise leveled off. With annual federal deficits running in the hundreds of billions and a major demographic shift looming at the end of the decade that will sharply increase entitlement spending, research universities, including MIT, face increasing competition for federal research funding.

Historically, MIT has worked off a model of solo faculty entrepreneurs forging their own links to federal research programs, supplemented in some fields by MIT research centers and lab contacts. In 2007, MIT's president and vice president for research concurred that this foundation could be buttressed through a more systematic engagement with senior levels of science agency leadership. This idea contemplated creating more of a two-way dialog with key agency leaders, both to better understand new directions and opportunities in federal research and to assist agencies by identifying and providing leadership for promising new science breakthrough directions. Last year, the Washington Office, working for the vice president for research, began work on a new MIT strategy of engagement, looking first at three of the five mission agencies that dominate MIT R&D spending: NIH, DOD, and DOE. Efforts on NASA and NSF are expected to evolve this coming year.

As a result of these efforts, the following agency leaders visited MIT for meetings with researchers and administrators, in visits supported by the MIT Washington Office:

> Defense: Will Rees, principal deputy undersecretary for basic research (in DDR&E), and John Paramentola, head of Army Research
>
> NIH: John Niederhuber, director of the National Cancer Institute, and Alan Krensky, deputy director of NIH and administrator of the Common Fund/ Roadmap
>
> Energy: Sam Bodman, energy secretary, and Steve Isakowitz, chief financial officer

The Washington Office staff continued to accompany MIT's president, vice president for research, deans, lab directors, and senior faculty on regular visits to senior officials of executive branch agencies, members of Congress, and their staffs as part of this ongoing engagement effort. Throughout the year, MIT faculty and staff also spoke at a variety of events held throughout Washington, DC, including events held by the Department of Energy and the national academies.

Testimony before Congress

Over the course of the year, more than 20 MIT faculty and staff members testified before Congress, often with support and assistance from the Washington Office. These appearances included testimony before the Senate commerce and science, House

science, House energy, Senate energy, House natural resources, and Senate environment committees. Due to the surge in interest in energy issues, energy was the major focus of faculty testimony, with most of the witnesses appearing on these issues, as noted in the energy discussion below. Further, many MIT faculty and staff members participated in meetings and policy discussions with individual members of Congress and their staff.

Reverse Engagement: Engaging Washington with MIT

Despite society's ever-increasing dependence on science and technology, science representatives are often not at the decision table when major policies with implications for science are under consideration in Congress or the executive branch. In the past, MIT has periodically proved an exception to that rule, contributing leaders fluent in science and engineering issues and with experience in policy making. However, while MIT has a cadre of senior faculty who have played significant roles in national science and technology policy making, it would be constructive to significantly broaden the MIT base of students and faculty attuned to the policy process and how to work within it. The MIT Washington Office has begun a modest effort to offer opportunities to faculty and graduate and undergraduate students in this territory. Eight program elements, some new, some expanded, and some ongoing, are summarized below.

MIT's annual Congressional/Executive Branch Science and Technology Policy Seminar: for 14 years, MIT has annually organized science seminars for senior Congressional staff, and more recently some executive branch staff, working in areas related to science and technology. This year, the topic was Regional Innovation. A total of 27 Congressional and executive branch staff participated in the program, which was managed by Professors Charles Stewart and Gene Skolnikoff, together with vice president for research Claude Canizares, from the campus.

In a new feature this year, some 35 MIT students, both graduate and undergraduate, participated in an evening session with the government staffers, talking to them over dinner and listening to a panel discussion about their careers in government working in science and technology.

A growing program for MIT summer interns: to add a policy education component to the curriculum, MIT sponsors summer internships for undergraduates and Technology Policy and Planning graduate students at government agencies, Congress, and other Washington offices. This year, in significant part due to the efforts of the MIT Washington office, MIT's summer intern program doubled in size, adding 13 summer interns at DOE to the existing program. Coordinated through the generous efforts of Jim Turner of the House Science Committee, the program increased the exposure of MIT summer interns to senior science policymakers in Washington. Events this summer included meetings with US Senator John Kerry and with MIT's president, and briefings at the Supreme Court and by the assistant director of OSTP, the director and deputy director at NSF, the president of the National Academy of Engineering, and leaders at the IMF, NIH, DOE, DOD's DDR&E, the State Dept. and other organizations. The expanded outreach program was well received by the MIT interns.

In addition, the MIT Washington Office continued for the second year a five-session science public policy seminar for participants in the program.

Science and technology public policy "bootcamp" course for IAP students: the director of the Washington Office continued to work with a committee of graduate students, who have now formed the Science Policy Initiative (SPI), to hold an intensive bootcamp course, involving 18 class hours over five days, during IAP. Because of strong interest from science and engineering graduate students, demand far exceeded the available 25 positions for the seminar, so the class size was increased to 35. This S&T Policy Bootcamp program included a session with a panel of MIT faculty members experienced with Washington speaking about their public policy experiences.

During the year, the SPI group also held a series of lunch briefing sessions with MIT faculty members who teach in the area of science policy and innovation. The MIT Washington Office is the official "faculty" sponsor of the SPI program.

Congressional Visits Day: approximately 17 of the students participating in the IAP bootcamp course came to Washington in the spring for the Congressional Visits Day organized by leading national science and engineering organizations. The MIT students attended AAAS briefings on agency R&D funding and pending Congressional issues, and the Washington office gave an introductory session on these issues. The office also organized meetings with many members of the Massachusetts delegation, and the students themselves organized some 20 other meetings with other Congressional offices.

Innovation Group: this group, formed collaboratively by the MIT Washington Office and the Woodrow Wilson Center, has been holding a series of innovation policy presentations since 2006. The aim is to build a substantive policy foundation under the idea that there is a connection between research/talent capability, technological innovation, and economic growth. The Innovation Group has become a serious and ongoing discussion forum drawn from government, industry, and academic innovation policy thinkers in Washington. The monthly sessions regularly include around 20 to 25 group members who are building a common innovation policy outlook. Leading policy theorists spoke to the group this year.

Summer science fellows in the DC Office: the MIT Washington office again sponsored two student interns from MIT who worked on science and technology policy issues. Last summer, the two students assisted in preparing background papers on the defense and NIH engagement efforts, as well helping the office follow Congressional hearings and markups and executive branch developments. This summer the two interns worked on projects related to energy R&D funding levels and the economics of the biotech sector, as well as carrying a full load of work covering hearings and markups. They also participated in the MIT summer intern program activities described above. These students were able to acquire a strong working knowledge of the public policy atmosphere in Washington.

MIT Compton Lecture and talks by other government leaders: Senator Ted Kennedy delivered last year's Compton Lecture, and this year's lecture was delivered by Senator Jeff Bingaman, chair of the Senate Energy and Natural Resources Committee, in April. The senator spent a day at MIT, meeting with President Hockfield and the leaders of the MIT Energy Initiative, talking to students and faculty in the energy research field, visiting with leading MIT energy researchers in their labs, and speaking with a group of area-energy technology companies.

In addition, as noted above, John Niederhuber, director of the National Cancer Institute, spent a day on campus last fall and spoke to a large student and faculty group on life science research issues. In the spring, Alan Krensky, deputy director of NIH and head of NIH's roadmap and Common Fund cross-cutting research efforts, met with researchers and spoke to MIT students. Also in the spring, energy secretary Sam Bodman and DOE's chief financial officer, Steve Isakowitz, spoke to MIT Energy Club members and other students about new career and internship opportunities working on energy technology and policy at DOE. The MIT WashingtonOffice worked with Paul Parravano in the Government and Communications Relations Office, who took the lead in setting up all these meetings.

MIT students in government service and recruitment efforts by federal agencies: in response to outreach efforts led by energy secretary Sam Bodman and chief financial officer Steve Isakowitz, a special demonstration program to employ MIT students as interns and permanent employees began at DOE this year. The MIT Washington Office worked to coordinate with DOE on setting these programs up and connecting with the MIT Careers Office. Through these efforts, the MIT Career Office leadership, with the assistance of the MIT Washington Office, spent a day in Washington reaching out to multiple federal agencies about recruiting on the MIT campus. As a direct result of these meetings, the Office of Personnel Management is holding one of five national recruiting events at MIT in October. These efforts further MIT's objective of encouraging interested MIT students to enter public service upon graduation.

Weekly legislative report: to keep MIT's senior leadership informed about ongoing legislative and policy developments in Washington in areas important to MIT's future, the MIT Washington Office continued for a second year to prepare a weekly legislative status report. These reports summarize developments each week Congress is in session.

Campaign 2008

New presidential leadership in support for science and technology will, of course, have a critical effect on the strength of the American R&D and higher education systems over the next five to ten years. The direction and leadership of the leading federal R&D agencies, research funding, and policies on student aid and costs, endowments, and indirect costs will all be decided by a new administration. With this in mind, the MIT Washington Office, working with President Hockfield, focused attention this spring and summer on the presidential campaigns:

Invitations to campus: in an effort to reach out to the presidential campaigns, President Hockfield in June invited both candidates to visit the MIT campus to meet students, faculty, and local businesses and to learn about research in energy and other innovation fields at MIT. While MIT and President Hockfield, in particular, endorsed neither candidate, the invitation was an expression of their responsibility to share the higher education experience and the need for successful, innovative science and technology policies.

Senator Obama's innovation and competitiveness event on June 26: President Hockfield participated as the representative of higher education in a two-hour

panel discussion on the issues of competitiveness and innovation convened by Senator Obama at Carnegie Mellon University. She was joined by a bipartisan mix of business leaders (from General Motors, US Steel, AOL, and the Chamber of Commerce), philanthropists, pre-K through 12 educators, and so on. The event provided President Hockfield the opportunity to discuss the importance of funding basic research, energy technology, and improving math, science, and engineering education in the United States, themes echoed by others on the panel. The MIT Washington office has been seeking a similar event with the McCain campaign.

AAU task force: to help discuss issues of critical importance to top research institutions with the campaigns, as well as with the upcoming transition teams and new appointees, President Hockfield agreed in June to co-chair a new AAU task force on these issues.

Advice on science and technology issues: the director of the MIT Washington Office has sought to provide advice and materials to both campaigns on S&T and R&D policy issues. In addition, the office moderated a panel discussion on S&T and education issues between McCain and Obama representatives at NASULGC in June, and organized a presentation to the business university Task Force on American Innovation by senior Obama staff and is seeking a similar event with McCain senior staff.

Focus Three: Support for the MIT Energy Initiative

As noted above, the MIT Washington Office, working with MIT faculty and administrators, has launched an engagement effort with the Department of Energy. Part of that effort came to fruition this year through new DOE science and policy internship and employment programs, in which MIT students have participated. There have been three other efforts that the Washington Office has been involved in that are more directly related to the MIT Energy Initiative (MITEI): support for MIT's energy policy studies, work on energy R&D legislation, and, recently, work on R&D provisions in climate legislation.

Support for Energy Policy Studies

The Washington Office continued to work this year to build an outreach program to Congress for MITEI's policy reports, including its coal and geothermal reports. These reports have enabled MIT to play a major role in the national energy policy field this year. Congressional energy hearings have called on MIT faculty experts to testify on energy topics on some 20 occasions in the past 18 months, an impressive record for a research university

Over the next two years, MITEI will release additional reports on solar energy, natural gas, and nuclear energy. More immediately, the MIT Washington Office worked to facilitate funding this past year for two other energy-related studies, on the economic design of climate change cap-and-trade programs (led by Denny Ellerman) and on common policy elements to support new energy technology pathways (led by Richard Lester). We will work to facilitate the Washington release, briefings, and presentations for these reports.

In that connection, MIT's Denny Ellerman held a two-day conference in Washington for policy experts, government officials, and Congressional staff in December on his pending report on cap-and-trade design, focusing on lessons to be learned from the EU emission trading system. For that conference he brought over some 20 EU experts, who also participated in panels on Capitol Hill to discuss the EU cap-and-trade system. The Senate Energy Committee hosted a packed session, which Chairman Bingaman participated in, and a second session was held on the House side. In addition, MIT's Center for Energy and Environmental Policy Research, led by Jake Jacoby and Ron Prinn, held a two-day conference on their latest climate findings for Washington policy makers from industry, government, and Congress. The MIT Washington office assisted these efforts.

The next MIT report due out will be presented at a major conference event in late November when Denny Ellerman, assisted by the Washington Office, will set out his team's final report on cap-and-trade system design, including the EU lessons. MIT's Richard Lester will also present preliminary findings for his team's study on innovation pathways next spring.

Energy Act of 2007

The 2007 Energy Act, passed by Congress and signed into law by the president in December, incorporated many important provisions based on reports done at MIT. Specifically, the Energy Act contains two major subtitles on coal and geothermal R&D and technology based largely on two 2007 MIT reports, The Future of Coal and The Future of Geothermal Energy. These developments came about after extensive briefings by MIT experts to Congressional staff, as well as by MIT experts testifying in ongoing energy hearings.

Authorization for funding programs in the Energy Act begins in FY2009 since the bill did not become law until too late in the process for funding to be incorporated into FY2008 funding bills. However, the president's FY2009 budget relies on both reports in outlining policy and budget requests, including restoration of geothermal from a proposed OMB elimination to a budget for geothermal research of $30 million for FY2009.

Climate Change Legislation

A major policy initiative in Washington, DC, over the next couple of years will be climate change legislation. The revenues raised in the bills through auctions and permits are likely to be the only major new source of funding for research to develop the technologies needed to address climate change and the energy security challenges of the future. The Washington Office began to evaluate those needs this year and will work this coming year to encourage legislators to consider sufficient funding for needed energy R&D.

Focus Four: Higher Education and Endowment Legislation

Higher Education Legislation

It has been nearly a decade since Congress reauthorized the Higher Education Act (HEA), but it finally did so this year. In July 2007, the Senate was able to pass an HEA bill by overwhelming margins. The House passed their HEA bill earlier this year, but the many differences between the two bills precluded an easy conference. Both bills, to the concern of higher education institutions, increased regulations and reporting, particularly related to the cost and price of undergraduate education, reflecting growing Congressional concerns during a middle-class financial squeeze. The higher education community spent much of the year negotiating out some of the most problematic provisions in the bill's sections on college cost watch lists, mandated alternatives to peer-to-peer file sharing, and reporting requirements. The bill does include some important new positive features, particularly for student aid, including year-round Pell grant eligibility, and a simplified version of the Free Application for Federal Student Aid form, as well as directing the National Research Council to conduct a study of all federal regulations affecting universities, and limits on the authority of the Department of Education to regulate standards in the accreditation process.

Senate Finance Committee Inquiry into University Endowments

In January, the Senate Finance Committee, concerned about college affordability, the growing size of university endowments, and the uses to which they are placed, asked the 136 colleges with endowments of half a billion or more to respond to a highly detailed questionnaire about costs, tuition and fees, and endowments. In response, MIT, like other universities, filed in February a lengthy and highly detailed set of answers, which can be found at: http://web.mit.edu/newsoffice/2008/mit-senate-response-0303.html.

The letter from MIT explains, in detail, the extensive work MIT has done to assure that students of all economic backgrounds can attend MIT through its long-standing "need blind" aid policy. For example, some 60 percent of MIT students receive scholarship aid from MIT, the average MIT student on financial aid pays tuition similar to or below the level at leading state universities, and as of the 2008–2009 academic year MIT students from families with an income below $75,000 will pay no tuition. Since tuition at MIT covers far less than what it actually costs to educate its students, MIT's endowment plays a significant role in enabling these student aid policies.

Additional Activities: Representing MIT in Advocacy Coalitions and Working Groups

The director, assistant director, and senior legislative assistant of the Washington Office are engaged on a constant and ongoing basis in the activities of major Washington-based organizations and coalitions, particularly the higher education organizations, that work in support of federal investment in university research and education. These groups provide support for a common R&D, education, and science agenda supported by MIT, and require ongoing participation in frequent meetings and working sessions.

The MIT Washington Office has provided leadership this year on key committees in the AAU, NASULGC, and The Science Coalition on innovation-authorizing legislation, science policy, higher education, and medical research, as well as the business university Task Force on the Future of American Innovation. The groups include the following:

Ad Hoc Group for Medical Research
Association of American Universities and its Council on Federal Relations
American Council on Education
Council on Competitiveness
Council on Government Relations
Council of Graduate Schools
Coalition for National Science Funding
Coalition for National Security Research
Coalition for Plasma Science
Energy Sciences Coalition
Fusion Energy Sciences Day
National Association of Independent Colleges and Universities
National Association of State Universities and Land-Grant Colleges and its Council on Governmental Affairs
New England Council
Science Coalition
Science, Engineering and Technology Working Group
Space Grant Day
STEM Education Coalition
Task Force on the Future of American Innovation

William B. Bonvillian, Director
Alison Fox, Assistant Director
Kari McCarron, Senior Legislative Assistant
Helen Haislmaier, Administrative Assistant

More information about the MIT Washington Office can be found at http://web.mit.edu/dc/.