

2006 ANNUAL REPORT

ALFRED P. SLOAN FOUNDATION



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SCIENCE AND TECHNOLOGY

FELLOWSHIPS

Sloan Research Fellowships

\$5,220,000

The Sloan Research Fellowship Program aims to stimulate fundamental research by young scholars with outstanding promise to contribute significantly to the advancement of knowledge. Over the past 51 years, fellowships have been awarded to more than 4,100 early-career researchers and have accounted for expenditures of more than \$114 million. Thirty-five Fellows have received Nobel prizes, fourteen have been awarded the prestigious Fields Medal in mathematics, and hundreds have received other notable prizes, awards, and honors in recognition of their major research accomplishments. The program is described in detail in the [Sloan Research Fellowships Brochure](#).

Department heads or other senior scientists familiar with their work nominate candidates for Sloan Research Fellowships. Within each discipline, a committee of three distinguished scientists reviews all nomination documents and recommends the final selections. During 2006, the Foundation awarded Research Fellowships of \$45,000 each, over a two-year term, to 116 scholars at 57 institutions in seven fields: chemistry (23), computer science (14), economics (8), mathematics (20), computational and evolutionary molecular biology (12), neuroscience (16), and physics (23). Each fellowship is administered by the Fellow's institution and is designed to allow the greatest possible freedom and flexibility in its use. The following committees reviewed nominations for the 2006 fellowships:

Chemistry: Laura L. Kiessling, University of Wisconsin; John C. Tully, Yale University; Joan Valentine, University of California, Los Angeles.

Computational and Evolutionary Molecular Biology: Barry Honig, Columbia University; Martin Kreitman, University of Chicago; Terence P. Speed, University of California, Berkeley.

Computer Science: David Dobkin, Princeton University; Hector Garcia-Molina, Stanford University; Jeannette M. Wing, Carnegie Mellon University.

Economics: Daron Acemoglu, Massachusetts Institute of Technology; David K. Levine, University of California, Los Angeles; Mark Watson, Princeton University.

Mathematics: Ingrid Daubechies, Princeton University; Benedict Gross, Harvard University; Dusa M. McDuff, State University of New York, Stony Brook.

Neuroscience: David J. Anderson, California Institute of Technology; Catherine Carr, University of Maryland; John H. R. Maunsell, Harvard Medical School.

Physics: J. Richard Bond, University of Toronto; Laura H. Greene, University of Illinois at Urbana-Champaign; Michael E. Peskin, Stanford University.

SLOAN RESEARCH FELLOWSHIP RECIPIENTS

Barnard College

Mathematics: Dylan P. Thurston

Boston University

Mathematics: Robert Pollack

Brandeis University

Chemistry: Oleg V. Ozerov

British Columbia, University of

Mathematics: Jozsef Solymosi

Physics: Mona Inesa Berciu

Brown University

Computer Science: Amy Greenwald

California Institute of Technology

Physics: Marc W. Bockrath

California, University of, Berkeley

Chemistry: Jamie H. Doudna Cate

Phillip Lewis Geissler

Haw Yang

Economics: David S. Lee

Physics: Joshua Simon Bloom

Jan T. Liphardt

California, University of, Davis

Mathematics: Benjamin J. Morris

Molecular Biology: Patrice Koehl

California, University of, Irvine

Mathematics: Vladimir Baranovsky

California, University of, Los Angeles

Chemistry: Heather D. Maynard

Mathematics: Michael V. Hitrik

Molecular Biology: Thomas G. Graeber

Neuroscience: James Warwick Bisley

Mark Arthur Frye

Physics: Jianwei Miao

California, University of, San Diego

Computer Science: Alin Deutsch

Neuroscience: Lisa M. Boulanger

California, University of, Santa Barbara

Mathematics: Frederic G. Gibou

California, University of, Santa Cruz

Molecular Biology: Joshua M. Stuart

Carnegie Mellon University

Chemistry: Catalina Achim

Computer Science: Carlos E. Guestrin

Doug James

Adrian Perrig

Neuroscience: Justin C. Crowley

Chicago, University of

Economics: Ali Hortacsu

Mathematics: Mihnea Popa

Physics: Cheng Chin

Wendy Wei Zhang

Colorado, University of

Chemistry: Andrew J. Phillips

Columbia University

Neuroscience: Ming Zhou

Cornell University

Computer Science: Stephen R.

Marschner

Duke University

Neuroscience: Ryohei Yasuda

Emory University

Neuroscience: Peng Jin

Astrid A. Prinz

Florida State University

Physics: Irinel Chiorescu

George Washington University

Molecular Biology: Liliana D. Florea

Georgia Institute of Technology

Computer Science: Subhash Khot

Harvard University

Economics: Marcelo J. Moreira

Physics: David Charbonneau

Illinois, University of, at Urbana-Champaign

Physics: Brian DeMarco

Iowa State University

Physics: Ruslan Prozorov

Johns Hopkins University

Neuroscience: Samer Hattar

Mollie Katherine Meffert

Massachusetts Institute of Technology

Computer Science: Erik D. Demaine

Fredo Durand

Dina Katabi

Economics: George Marios Angeletos

Muhamet Yildiz

Mathematics: Kiran Sridhara Kedlaya

Maryland, University of

Physics: Alessandra Buonanno

Min Ouyang

McGill University

Molecular Biology: Ehab Abouheif

Neuroscience: Christopher C. Pack

Physics: Andrew Cumming

Michigan, University of

Chemistry: Melanie S. Sanford

Mathematics: Anna C. Gilbert

Molecular Biology: Noah Rosenberg

Neuroscience: Xian-Zhong Shawn Xu

Physics: Jennifer Ogilvie

Minnesota, University of

Physics: Daniel P. Cronin-Hennessy

New York University

Mathematics: Sinan Gunturk

Anna-Karin Tornberg

North Carolina, University of

Chemistry: Jeffrey S. Johnson

Neuroscience: Mark J. Zylka

Oregon, University of

Molecular Biology: Joseph W. Thornton

Pennsylvania State University

Chemistry: Michael T. Green

Mathematics: Omri Sarig

Neuroscience: Dezhe Z. Jin

Pennsylvania, University of

Chemistry: Eric Meggers

Physics: Evelyn J. Thomson

Pittsburgh, University of

Molecular Biology: David Swigon

Polytechnic University

Computer Science: John Iacono

Princeton University

Computer Science: Li-Shiuan Peh

Economics: Marco Battaglini

Neuroscience: Coleen T. Murphy

Physics: Niklas Beisert

Alice Shapley

Purdue University

Chemistry: Kyoung-Shin Choi

Rice University

Mathematics: Shelly L. Harvey

Rochester, University of

Molecular Biology: David H. Mathews

Rutgers University – Newark

Chemistry: Frieder Jakle

Rutgers University – Piscataway

Physics: Emil Yuzbashyan

Scripps Research Institute

Chemistry: Phil S. Baran

Southern California, University of

Molecular Biology: Xianghong Jasmine
Zhou

Stanford University

Chemistry: Zhenan Bao

Computer Science: Tim Roughgarden

Economics: Muriel Niederle

Mathematics: Simon Brendle

Neuroscience: Anne Brunet

Stony Brook University

Chemistry: Stanislaus S. Wong

Mathematics: Aleksey Zinger

Texas A & M University

Physics: Saskia Mioduszewski

Texas, University of, at Austin

Chemistry: Thomas M. Truskett

Mathematics: Martin Olsson

Yen-Hsi Richard Tsai

**Texas, University of, Health Sciences
Center at Houston**

Molecular Biology: Hideki Innan*

Toronto, University of

Computer Science: Aaron Hertzmann

Physics: Arun Paramekanti

Utah, University of

Chemistry: Janis Louie

Washington, University of

Chemistry: Daniel R. Gamelin

Mathematics: Isabella Novik

Wisconsin-Madison, University of

Chemistry: Helen Blackwell

Lingjun Li

Martin T. Zanni

Economics: Ananth Seshadri

Mathematics: Serguei Denissov

Molecular Biology: Julie C. Mitchell

Physics: Frank Petriello

Yale University

Chemistry: Ainissa G. Ramirez

York University

Molecular Biology: Stephen I. Wright

* declined award

DIRECT SUPPORT OF RESEARCH

BARCODE OF LIFE, TRUSTEE GRANTS

Smithsonian Institution

\$1,554,000

Washington, DC 20013

A small 2002 Foundation grant to Cold Spring Harbor Laboratory, before publication of the first paper about DNA barcoding in the scientific literature, examined what proved to be the productive idea of using a short DNA sequence from a standardized region of the genome as a diagnostic “biomarker” for species. Since different species have different DNA barcodes, barcoding can be used to identify specimens and discover new species. A 2004 grant to the Smithsonian Institution led to the formation of the Consortium for the Barcode of Life (CBOL), an international initiative devoted to developing barcoding as a global standard in taxonomy. CBOL now includes more than 130 member organizations from some 40 countries, including museums, herbaria, zoos, research organizations, government agencies and companies. CBOL has launched global campaigns to barcode the estimated 10,000 birds and 20,000 marine fishes of the world, established a public repository for barcode data, and formed working groups to advance technology development and improve analysis. This 2006 grant supports CBOL with its plans to stimulate the development of tools for barcoding, promote global participation, and complete a demonstration project on a societally important group such as mosquitoes or fruit flies so that an interested user could quickly assign any unidentified specimen to its correct species. The goal is to increase the barcode records in public databases from 50,000 specimens in 10,000 species to 500,000 records in 50,000 species. Project Director: Scott E. Miller, Chair, Department of Systematic Biology, National Museum of Natural History.

Smithsonian Institution

\$2,500,000

Washington, DC 20560

With this grant, the Sloan Foundation is partnering with the John D. and Catherine T. MacArthur Foundation to launch the Encyclopedia of Life (EOL). As envisioned in a 2002 essay by the Harvard biologist E. O. Wilson, “Imagine an electronic page for each species of organism on Earth, available everywhere by single access on command. The page contains the scientific name of the species, a pictorial or genomic presentation of the primary type specimen on which its name is based, and a summary of its diagnostic traits. The page opens out directly or by linkage with other databases...It comprises a summary of everything known about the species’ genome, proteome, geographic distribution, phylogenetic position, habitat, ecological relationships, and, not least, its perceived practical importance for humanity. The page is indefinitely expandable. Its contents are continuously peer-reviewed and updated with new information. All the pages together form an encyclopedia, whose content is the totality of comparative biology...” The EOL will deliver online encyclopedic knowledge of biodiversity for every known species. About two million living species of animals, plants, and other forms of life are now

known. Millions more remain to be discovered and identified. Aggregation technology, which automates the ability to produce a “provisional” page for each species by filtering and integrating digitized information, is the fundamental software innovation that makes the EOL possible. Engaging experts around the world to check and improve synthesized pages in a Wikipedia-like model makes the cost of producing the EOL manageable. The aim is to have 1 million high-quality pages within 5 years and a complete encyclopedia of known species within 10 years. The project involves development and maintenance of aggregation software to synthesize provisional pages for each species; activities to stimulate improvement of the pages in a Wikipedia-like way; scanning and digitization of past literature to deepen content behind the portal page for each species; outreach to the general public as well as cultivation of use of the EOL for both formal and informal science education; promotion of advances in biodiversity science that the EOL makes possible; and overall coordination and management. A set of five “Cornerstone” institutions has been formed to carry the project forward: Harvard University, Smithsonian Institution’s National Museum of Natural History, Chicago’s Field Museum of Natural History, the Marine Biological Laboratory (MBL) in Woods Hole, and the Biodiversity Heritage Library (BHL). The BHL is a consortium of ten major natural history museum libraries, botanical libraries, and research institutions with relevant collections of books and journals about biodiversity. (For members and other information about BHL see the website www.bhl.si.edu.) The five Cornerstone institutions will jointly govern a secretariat, based at the Smithsonian, that will manage creation of the EOL. The MBL will lead for software, Field for promotion of scientific discovery based on the EOL, Harvard and the Smithsonian for education and outreach, and the BHL for scanning and digitization. The EOL has prepared a 5-year plan whose total estimated cost is \$45 million. The MacArthur Foundation will provide an initial \$10 million to launch the project. The Sloan Foundation grant will cover costs of the project secretariat for its first two years as well as some other costs of launching the project, and will allow the EOL to recruit its core staff members. Project Director: Cristián Samper, Director, National Museum of Natural History.

BARCODE OF LIFE, OFFICER GRANTS

Bigelow Laboratory for Ocean Sciences **\$45,000**
 West Boothbay Harbor, ME 04575

To explore implications of DNA barcoding for microorganisms and the collections that maintain cultures of microbes. Project Director: Robert A. Andersen, Senior Research Scientist.

New York Botanical Garden **\$45,000**
 Bronx, New York 10458

To test DNA barcodes in the 343 species of plants of the best conserved woodland within New York City and thereby lift public awareness of barcoding. Project Director: Kenneth M. Cameron, Director, Molecular Systematics Studies.

DIRECT SUPPORT OF RESEARCH

INDOOR ENVIRONMENT, TRUSTEE GRANT

J. Craig Venter Institute
Rockville, MD 20850

\$128,115

This grant supports a 2006 workshop on Genomic Aerobiology organized by the Venter Institute in collaboration with Lawrence Berkeley National Laboratory. This meeting, the first of its kind to bring together experts in the scientific community, will consider how genomic aerobiology can expand our understanding of the microbial communities that inhabit both indoor and outdoor air. The current state of knowledge concerning sampling methodology, microbial identification and characterization techniques, and the ecology of indoor and outdoor air environments are to be examined. Also to be considered are two important applied aspects of aerobiology: the biological component of indoor air quality and airborne bioterrorism. The goal of the workshop is to take advantage of the unique perspectives of the individual scientists to develop a roadmap of where genomic aerobiology should go for the next five years and beyond. A community of scientists working in this new area is expected to be created and new research projects are likely to be identified. Also, potential government funders, such as the National Institutes of Health and the U.S. Department of Energy, will be introduced to this research area. Project Director: Shannon J. Williamson, Director of Environmental Virology.

DIRECT SUPPORT OF RESEARCH

CENSUS OF MARINE LIFE, TRUSTEE GRANTS

Consortium for Oceanographic Research and Education **\$2,200,000**
Washington, DC 20005

The Census of Marine Life (CoML) project has achieved an extremely successful record over past years in meeting performance milestones. These include milestones in participation (numbers of researchers and nations); financial commitments; partnerships (e.g., with key intergovernmental organizations); observations collected; discoveries, results, and publications; and public awareness and recognition. Much of the credit for this achievement goes to the International Scientific Steering Committee (SSC) and the professional Secretariat based at the Consortium for Oceanographic Research and Education (CORE). Going forward, new goals in the above categories have been established and new milestones will be set related to desired legacies of the CoML program, especially with regard to improved ongoing observation of the oceans and access to data. The leadership team includes SSC Chair Frederick Grassle (Rutgers University), Vice Chairs Victor Gallardo (Chile) and Ian Poiner (Australia), Senior Scientist Ronald O'Dor (Canada), and Admiral West (CORE) in an Executive Committee that convenes by conference call every three weeks. The full SSC meets three times yearly and includes members from China, India, Japan, Malaysia, Netherlands, Denmark, and France, as well as other U.S. members. The chairs of the National and Regional Implementation Committees, which now cover most of the world, meet together annually with the SSC. The leaders of the 14 field projects also convene annually and form another important component of the leadership. This grant renews support for the work of this leadership team of the CoML during the next two years. Project Director: Admiral Richard D. West, President.

Louisiana State University **\$800,000**
Baton Rouge, LA 70803

A 2005 Foundation grant enabled the Continental Margin Ecosystems on a Worldwide Scale project to form a network of scientists, develop its research plans, and win key commitments. This follow-up grant supports a field project addressing the continental margins sloping from 200 meters at the edge of the continental shelf to 3500 meters deep where the abyssal plains begin. The margins encompass gradual muddy slopes, steep canyons with hard surfaces, and areas of varying temperature, pressure, currents, and oxygen. This margins project will be carried out by a global network of 40 scientists from 32 research institutes. The plan is to work in the next 1-3 years in the Gulf of Mexico, Northeast, Southeast, and Southwest Atlantic, Northeast and Southeast Pacific, and Mediterranean Sea, with gaps in the Northwest Pacific, Indian Ocean, and Australasian Margin to be filled in later. Funding from Brazilian and French oil companies reflect the interest of the offshore oil and gas industries in better characterization of margin habitat. Foundation funds will be used mainly for global coordination, project website and communication, and recovery of historic data. Project Directors: Professor Robert S.

Carney, Coastal Ecology Institute, LSU; Myriam Sibuet, French Research Institute for Exploitation of the Sea (IFREMER), Plouzané, France.

Marine Biological Laboratory
Woods Hole, MA 02543

\$1,210,000

As part of the Census of Marine Life and with a major 2004 Foundation grant, the International Census of Marine Microbes (ICOMM) discovered and identified many times more kinds of bacteria in sea water than had ever been observed before and announced “a rare microbial biosphere” with vast numbers of infrequently occurring organisms. The discovery was based on a sampling at a handful of locations and it was proposed that as many as 5-10 million kinds of marine bacteria might exist. This grant supports expansion of ICOMM’s research in order to sample at more than 1600 locations and thereby to create by 2010 the first global picture of marine microbes. ICOMM has used Sloan funds for coordination and planning, database development, partnership building, and integration with other Census of Marine Life projects. Additional major funding from other U.S. foundations and from European sources has been obtained for genetic analysis and laboratory equipment. Because ICOMM needs only liter bottles or small vials of water, it has partnered easily with other Census field projects to obtain samples from all over the oceans. Working groups with members from about 20 countries address open ocean and coastal systems, sea bottom environments, and utilize new technology in microbiology that allows the use of short 60-100 base pairs of DNA to identify many kinds of bacteria. Marine viruses will also be studied in the next phase of ICOMM research. Project Director: Mitchell L. Sogin, Director, Paul Bay Center.

Rutgers, State University of New Jersey
New Brunswick, NJ 08901

\$1,060,000

The Ocean Biogeographic Information System (OBIS) has been a key component of the Census of Marine Life. It has allowed the storage and mapping of the tens of millions of observations produced by the field projects of the Census and the integration of these observations with relevant observations made outside the Census program, such as those made as part of other research projects and routine governmental fisheries surveys. Since it was envisioned in 1998, the Foundation has provided \$3.2 million for the development of OBIS. It has the potential for becoming the ongoing global depository for all spatially referenced data about marine life, even after the Census is formally completed in 2010. OBIS now includes more than 13 million records on over 78,000 marine species. It operates a reliable user-friendly portal that served over 1 million visitors in 2006. The OBIS International Committee and the portal team at Rutgers have the responsibility of keeping the system operating smoothly while growing it and balancing services to various constituencies, as well as developing a widely accepted plan for financing and governing OBIS for the longer run. OBIS has so far attracted about \$10 million in funding from sources other than the Sloan Foundation. This grant supports the work of OBIS for the next two years. Project Director: Professor Frederick Grassle, Director, Institute of Marine and Coastal Sciences.

Scientific Committee on Antarctic Research
Cambridge CB2 1ER, England

\$900,000

This grant renews support of the work of the Antarctic program of the Census of Marine Life. The scope of this Census of Antarctic Marine Life (CAML) includes the ice-bound oceans surrounding Antarctica and adjacent to them which comprise some 10% of the world's oceans. This cold, very salty, dense water whirls around Antarctica in a circumpolar current and contains a distinct fauna isolated from invasion and also little studied because of its vastness and harsh conditions for research. The nations of the world have agreed that 2007-2009 will form an "International Polar Year" (IPY) during which the high latitude regions will undergo more thorough observation than ever before. Because of the IPY, the Antarctic field project is likely to include more dedicated voyages than other Census efforts. At least 8 cruises have been arranged and as many as a dozen more could materialize. Research in Antarctica is organized through the Scientific Committee on Antarctic Research (SCAR), which coordinates the plans of a Council of Managers of Antarctic National Programs who control vessels, research stations, and other resources. SCAR has become the agent of the Census of Marine Life. It has created an international planning group of leading scientists from seven countries. This group, with expertise from microbes to top predators, has planned the Antarctic Census working in close coordination with funders of Antarctic research. Total commitments could reach \$40 million. Foundation funds support the international secretariat for the project (based in Australia), coordination, and integrative activities with other aspects of the Census of Marine Life, including its global database. Project Director: Colin Summerhayes, Executive Director.

University of Alaska
Fairbanks, AK 99775

\$980,000

Launched with a 2004 Foundation grant as one of the field projects of the Census of Marine Life, the Arctic Census of Marine Life obtained substantial funding from the U.S. National Oceanic and Atmospheric Administration and other sources for the June-July 2005 "Hidden Ocean" expedition on the icebreaker Healy to explore life beneath the ice in some of the deepest parts of the Arctic. The cruise team included Russian, Chinese, and Korean researchers, as well as North Americans and West Europeans. At least 21 new species were discovered. The project's Canadian/German/American trio of faculty from the University of Alaska, Fairbanks, has created an effective infrastructure, with a well-run headquarters in Fairbanks and a center in St. Petersburg focused on taxonomic identification. Rich Russian archival data will be available to researchers, as part of a strong Russian contribution to the Arctic field project. An Arctic node of the Ocean Biogeographic Information System, the data assimilation framework for the Census of Marine Life, has been established. The field project expects to benefit from increased worldwide interest and support for intensified sampling in the Arctic and Antarctic during the 2007-2008 International Polar Year. This grant supplies funds to coordinate organization and help with cross-cutting activities such as database management and outreach. Project Director: Professor Rolf R. Gradinger, Institute of Marine Science, School of Fisheries and Ocean Sciences.

University of Alaska
Fairbanks, AK 99775

\$800,000

The Natural Geography of In-Shore Areas (NaGISA) is the nearshore component of the Census of Marine Life. It aims to create a global inventory of marine life in the part of the ocean from the water's edge to ten meters deep. This project involves four phases: laying the technical framework, including agreement on strict sampling protocols; building the global network of research; carrying out the sampling; and synthesis of the data into a global picture. Prior Foundation grants in 2002 and 2004 launched the program and then supported its expansion and some sampling. The project divides the world's shoreline into 70 boxes and aims to have six sites in each box by the year 2010. NaGISA now has 120 active sites and 64 pending. Fifty-one countries are participating and the project is organized into eight regional centers, with headquarters at Kyoto University in Japan in partnership with the University of Alaska. Global, non-Sloan Foundation commitments now total about \$16 million, of which Japanese funds amount to \$11 million, and funds are expected to increase as more countries participate. The NaGISA network aims to win commitments from many countries to maintain sites for long-term ecological monitoring, to track climate change, and to pursue other research. This new Foundation grant supports the core costs of the project as it enters its peak phase of sampling. Project Director: Professor Katrin Iken, Institute of Marine Science, School of Fisheries and Ocean Sciences.

University of Connecticut
Groton, CT 06340

\$1,000,000

The Census of Marine Zooplankton (CMarZ) field project of the Census of Marine Life studies animals that drift with the ocean currents, ranging from small shrimp-like creatures to jellies many meters long. About 7,000 species of such animals are known and an equal number are believed yet to be discovered. The goal of the project is to produce accurate and complete information on global zooplankton species diversity, biomass, biogeographic distribution, and genetic diversity by 2010. A Foundation grant launched the project in 2004. To achieve global coverage, CMarZ continues to conduct dedicated cruises of its own and also makes use of ships of opportunity, including ferries and other commercial vessels that can carry plankton recorders. Between 2004 and 2006 CMarZ carried out sampling on more than 25 cruises. It has commitments for scores more in coming years. More than 20 scientific papers have already been published and the plankton data are flowing into the Ocean Biogeographic Information System, the data assimilation framework for the Census of Marine Life. CMarZ is well integrated with other parts of the Census, for example, its microbial team, whose even smaller forms of life the plankton eat, and the top predators team, whose turtles and baleen whales eat plankton. Together with the Future of Marine Animal Populations network, CMarZ aims to produce in 2007 the first-ever report on global trends in jellyfish. This grant supplies support for the coordination and implementation of the project for the next three years. Project Director: Professor Ann Bucklin, Head, Department of Marine Sciences.

University of Hawaii at Manoa
Honolulu, HI 96822

\$900,000

With Foundation support in 2004, an international team co-led by researchers based in Germany and the United States established the Census of Diversity of Abyssal Marine Life as one of the field projects of the Census of Marine Life. Although the abyssal sea floor covers 54% of the Earth's solid surface, only a few hectares of it have been sampled, and over 90% of all species collected at any single site are new to science. The team has conducted expeditions in the Angola Basin off eastern Africa, along a transect from the Cape of Good Hope to Antarctica, in the Southern Indian Ocean, and in the central Pacific. These expeditions have turned up significant results, for example, carnivorous sponges living 4000 meters deep near Antarctica, more than 250 species of foraminiferans at one small Pacific site, and genetic evidence suggesting multiple colonizations and radiations in the abyss. Seven cruises are planned for 2006-2008 in the South Atlantic, Southern, and Pacific Oceans and the Mediterranean Sea. Over \$8 million in commitments for the upcoming period has been obtained, primarily from German and British sources. By 2010 the team aims to learn how many species there are in the abyssal deep sea, if cosmopolitan species are the abyssal norm, whether biodiversity hotspots exist in the abyss, how species richness varies with latitude, and whether the abyss is a cradle of adaptive radiation and novel lineages or mainly a food-poor sink for biota arriving from the more productive continental margins. The abyssal project is well integrated with the other deep-sea field projects of the Census of Marine Life and with its data assimilation framework, the Ocean Biogeographic Information System. The current grant will be used to coordinate and facilitate the expeditions, for administration of joint databases, to improve the reliability of taxonomic descriptions (including by DNA barcoding), and for education and outreach. Project Director: Craig R. Smith, Professor of Oceanography.

Vancouver Aquarium Marine Science Centre
Vancouver, BC
Canada V6B 3X8

\$1,300,000

Two Census of Marine Life field projects rely on electronic tags. Relatively large tags that continuously collect and archive data are used for top predators such as tuna and sharks in the open ocean. These tags are either collected when an animal is captured or they periodically beam information to a satellite when an animal surfaces. Small tags are used for salmon and other species that travel along the shallow coastal shelves of the continents out to about 200 meters deep. These small tags report the animal's position by passing acoustic curtains of listening devices resting on the sea floor. This shelf tracking project technology has been supported since 2001. With special attention to salmon, the aims are to understand more about where mortality occurs at sea and the extent to which marine species have regular migratory patterns. The Pacific Ocean Shelf Tracking (POST) project, based at the Vancouver Aquarium, has built the world's largest single array using acoustic technology, extending from south of the Columbia River in California through British Columbia to north of the Alaska Panhandle. About 2500 salmon were tracked this past summer. Data from the project have shown that for important salmon populations, mortality at sea matters more than mortality in rivers. The data also include large numbers of rare green sturgeon. White sturgeon have been

detected, originally from a California river and found a year later more than 1000 kilometers away in a British Columbia river, thereby highlighting the unsuspected scale and importance of migrations. The POST project aims to extend from Baja California to the Bering Sea and monitor at least 15 species by the year 2010. Two prior Foundation grants totaling \$1.418 million have supported the growth of the POST array. An additional \$6 million has been raised from Canadian and other U.S. sources. This grant will continue Sloan support primarily for the core management and coordination of the effort, while also stimulating emulation of the POST array around the world. Comparable arrays are under construction in Australia, Europe, and elsewhere. The ultimate goal is a system able to monitor large-scale migrations globally along the continental shelves and also integrated with the open ocean systems. Project Director: George Jackson, Senior Scientist, Pacific Ocean Shelf Tracking project.

The following grants were funded from an appropriation approved by the Board of Trustees for small grants to implement the Census of Marine Life.

French American Cultural Foundation **\$25,000**
Washington, DC 20007

To enhance the participation and visibility of the Census of Marine Life in the Jacques Perrin film festival. Project Director: Roland Celette, Cultural Attaché.

Memorial University of Newfoundland **\$45,000**
St. John's, Newfoundland A1C 5S7

To develop the final reporting framework for the 2010 Census of Marine Life. Project Director: Professor Paul Snelgrove, Ocean Sciences Centre.

National Institute of Oceanography **\$45,000**
Dona Paula, Goa 403004

To strengthen implementation of the Census of Marine Life in the Indian Ocean region. Project Director: P. A. Loka Bharathi, Scientist F, Biological Oceanography Division.

National Marine Sanctuary Foundation **\$7,500**
Silver Spring, MD 20910

To organize a session on the Census of Marine Life as part of Capitol Hill Oceans Week. Project Director: Lori Arguelles, Executive Director.

The Partnership for Observation of the Global Oceans **\$45,000**
Dartmouth, Nova Scotia B2Y 4A2

To assure the legacy of the Census of Marine Life in ocean observing systems. Project Director: Shubha Sathyendranath, Executive Director.

Pro-Natura International
Paris 75007, France

\$45,000

To strengthen the deep reef component of the Census of Marine Life through cooperation in the Santo Island Biodiversity Survey. Project Director: Guy Reinaud, President.

Scientific Committee on Oceanic Research
Baltimore, MD 21218

\$40,000

To reconvene representatives of the major international ocean research and observation projects and programs, including the Census of Marine Life, to discuss common opportunities, issues and problems. Project Director: Edward Urban, Executive Director of SCOR: Associate Research Scholar, Department of Earth and Planetary Sciences, Johns Hopkins University.

Universidad Nacional de Mar del Plata
Mar del Plata, Argentina

\$45,000

To strengthen implementation of the Census of Marine Life in South America. Project Director: Dr. Diego Rodriguez, Departamento de Ciencias Marinas.

University of Cape Town
Rondebosch 7701, South Africa

\$45,000

To strengthen implementation of the Census of Marine Life in Sub-Sahara Africa. Project Director: Professor Charles Griffiths, Marine Biology Research Institute.

DIRECT SUPPORT OF RESEARCH

OTHER SCIENCE, OFFICER GRANT

Trustees of Columbia University
New York, NY 10027

\$21,000

To provide partial support for the 2006 summer workshop of the Sloan-Swartz Centers for Theoretical Neurobiology. Project Director: Larry Abbott, Professor of Physiology and Cellular Biophysics; Co-Director, Center for Theoretical Neuroscience.

HISTORY OF SCIENCE AND TECHNOLOGY

WEBSITES, TRUSTEE GRANT

George Mason University
Fairfax, VA 22030

\$225,958

Foundation support since 2000 has helped make the George Mason University Center for History and the New Media the foremost creator of interactive history websites. The September 11 Digital Archive, built by the Center and associates at City University of New York, is the first digital acquisition for permanent preservation by the Library of Congress. A Foundation officer grant in September 2005 supported the preliminary work to capture online the history of Hurricane Katrina. This new grant will allow the George Mason University team to bring to full scale a Hurricane Digital Memory Bank to collect and preserve digital evidence of the three devastating Gulf Coast hurricanes of 2005, Katrina, Rita, and Wilma. Up and running since late October 2006, this work seeks to ensure that memories and objects already gathered are not lost, to collect stories that otherwise might not be told, and to archive the full story of the hurricanes in an easily accessible format. The team is networking with many individuals and institutions along the Gulf Coast, including the University of New Orleans, Louisiana State Museum, and local chapters of the International Brotherhood of Electrical Workers. This project also aims to create models that would allow interested groups to establish “hurricane memory banks” for use in future storm seasons or comparable sites for floods, volcanic eruptions, and other hazards whenever such events occur. Project Director: Professor Roy Rosenzweig, Director, Center for History and New Media, Department of History.

STANDARD OF LIVING AND ECONOMIC PERFORMANCE

BUSINESS, INDUSTRY AND ECONOMICS

INDUSTRY STUDIES, TRUSTEE GRANTS

Massachusetts Institute of Technology **\$325,000**
Cambridge, MA 02139

A goal of the Foundation during the last few years has been to grow and strengthen the community of scholars interested in industry studies, reaching out beyond those who are at the various Sloan Industry Centers. At the end of 2006, there were over 800 industry studies "Affiliates," the largest number being faculty and other scholars not at Centers. Annual industry studies conferences have evolved to become more like those held by professional academic associations. Formal conference planning and program committees and local arrangements committees handle programming and logistics as conferences are rotated to various locations across the country. Each conference features a large number of concurrent sessions for presentation and discussion of scholarly industry studies papers. For the 2007 conference, two main thematic sessions will focus on globalization, emphasizing developments in China and India, and on innovation, with emphasis on the geography of innovation and industrial development. A poster session is being added. An awards ceremony includes prizes for the year's best book, best dissertation, and best papers published in the prior year. Two pre-conference professional development workshops are planned, one focused on needs of early-career faculty, the other for Industry Center directors and staff on editorial viability, i.e., turning research projects into news stories. This grant supports The Industrial Performance Center at MIT for work to organize and hold the 2007 Industry Studies Annual Conference. Project Director: Professor Richard K. Lester, Department of Nuclear Science and Engineering; Director, Industrial Performance Center.

University of Pittsburgh **\$750,000**
Pittsburgh, PA 15260

University of Pittsburgh **\$508,875**
Pittsburgh, PA 15260

With a January 2003 Foundation grant, the Industry Studies Committee was formed to provide leadership and services to the industry studies community as the effort proceeds to create and strengthen the elements of a professional association of industry studies researchers. The tangible elements of a professional association now in place include annual conferences with published proceedings, regular and frequent communications, special interest groups, publications, newsletters, a website, prizes and awards, professional development opportunities, a directory of members, and officers/leaders of the nascent organization. A small group at the University of Pittsburgh manages the Industry Studies Fellowships program, the Affiliates program, the listserv, the Working Papers series, the newsletter, and the academic workshop program. It oversees small

grants for travel, networking, seminars, and book promotion, and identifies and supports the startup and growth of special interest groups, such as a young scholars group and a group focused on Industry Center fundraising and sustainability. It supports the operations of the Industry Studies Committee and has a major organizing and planning role for the annual conferences. The first of these grants provides funds for the infrastructure and labor at the University of Pittsburgh to carry out all these activities for the next three years. The second grant provides funds that will be transferred to other universities for small grants for the following purposes: to host approximately ten seminars per year on industry studies topics; to promote approximately four new industry studies books per year; to support travel to convene face-to-face meetings of small numbers of industry studies researchers at professional society meetings; and to support travel grants to promote networking among larger groups of industry studies researchers, such as formation of special interest groups focused on a particular industry or topic. The Industry Studies Committee is responsible for receiving and evaluating proposals for these grants and for making awards. The group at the University of Pittsburgh provides all the administrative support needed to implement the Committee's decisions. Project Director: Professor Frank Giarratani, Department of Economics.

The following grants were funded from an appropriation approved by the Board of Trustees to support the Sloan Industry Studies Fellowship program, the Academic Workshop program, and other services in support of the industry studies community.

Cornell University **\$33,025**
Ithaca, NY 14853

To support the workshop: "The Global Call Center Research Project." Project Director: Rosemary Batt, Associate Professor of Human Resource Studies, School of Industrial and Labor Relations.

Massachusetts Institute of Technology **\$39,515**
Cambridge, MA 02139

To plan the 2007 Industry Studies Annual Conference. Project Director: Richard Lester, Professor of Nuclear Science and Engineering; Director, Industrial Performance Center.

INDUSTRY STUDIES, OFFICER GRANTS

American University **\$37,000**
Washington, DC 20016

Support for a study of the impact on technical skills due to offshoring in the semiconductor industry. Project Director: Professor Douglas B. Fuller, School of International Service.

Council on Competitiveness
Washington, DC 20003

\$45,000

Support to continue the Breakfast Bytes program for Congress. Project Director: Bill Bates, Vice President for Government Affairs.

Massachusetts Institute of Technology
Cambridge, MA 02139

\$45,000

Partial support of a joint project between the Sloan aluminum and automotive industry centers to evaluate the role of aluminum in the automotive industry. Project Director: Frank R. Field, III, Senior Research Associate, Center for Technology, Policy, and Industrial Development, and Senior Lecturer in Engineering Systems.

Virginia Polytechnic and State University
Blacksburg, VA 24061

\$40,000

Support for a small grants project at the Forest Industry Center to encourage industry collaboration with faculty. Project Director: David Brinberg, Professor of Marketing and Psychology.

BUSINESS, INDUSTRY AND ECONOMICS

INDUSTRY CENTERS, TRUSTEE GRANTS

Carnegie Mellon University
Pittsburgh, PA 15213

\$500,000

The Software Industry Center at Carnegie Mellon University was established with a Foundation grant in 2001. Center research has focused on software globalization, software development practices, and on competition and innovation in the industry. The 2005 book, *From Underdogs to Tigers: The Rise and Growth of the Software Industry in Brazil, China, India, Ireland, and Israel*, edited by Ashish Arora and Alfonso Gambardella, reports on some of this research. Other Center researchers have explored a number of methods to improve quality and efficiency in the software development process. Going forward, research will continue on globalization, with an emphasis on India and China, and on software development, particularly on the effectiveness of geographically dispersed development teams. Projects will be added on the potential of open source and the impacts of burgeoning open-source communities. The Center will continue its contacts with industry companies and people and plans to form an advisory group with membership from major software firms. This renewal grant supports continued research of the Center and its efforts to develop alternative (non-Sloan) sources of funding. Project Director: Associate Professor James D. Herbsleb, Institute for Software Research, School of Computer Science.

Columbia University
New York, NY 10023

\$500,000

The Columbia Institute for Tele-Information (CITI), a center for study of the telecommunications industry, was established with a Foundation grant in 2001. Since then, CITI's active research program has focused on competitiveness in the industry and on the historic telecom downturn, including the consolidation process among telecom firms. Strong connections in government and industry have been established and CITI researchers are called upon for their industry expertise to testify in Washington on policy and other matters and to advise FCC staff or serve on Commission committees. An active doctoral program is maintained. CITI has received support from telecommunications and media firms and is adding equipment suppliers to its list of supporters. This final grant supports research on the transformation of the industry into a broader information transport industry with multiple platforms (cable TV, wireless, and the internet). It will also allow for continued efforts to develop alternative (non-Sloan) sources of funding. Project Director: Eli M. Noam, Professor of Finance and Economics and Director, Columbia Institute for Tele-Information, School of Business.

Georgia Tech Research Corporation
Atlanta, GA 30332

\$600,000

The Center for Paper Business and Industry Studies (CPBIS) was established in 2000 with a Foundation grant of over \$2 million to the Institute of Paper Science and Technology. The Institute officially merged with Georgia Tech in 2003, the year of a renewal grant of over \$1 million. Matching funds from industry sources supplied about two-thirds of the total support for the Center. CPBIS has developed a strong interdisciplinary community of scholars, at Georgia Tech and elsewhere, who specialize in research of interest to paper and forest products industries. It has gained access to extensive industry databases and has assembled new ones of its own. CPBIS's close contacts with people and firms in the industry have helped shape the Center's research agenda over the years. Its research is now focused on three interconnected topics: competitive dynamics, industry structure, and strategic response; enhancing innovation; and business practices and mill management. Current research projects involve 11 faculty members and about the same number of graduate students. Periodic assessments of the state of the industry, presented to industry leaders, examine trends in capacity in relation to shifting demand and import-export data across various product sectors. This grant augments a larger sum raised from industry and government sources that will keep the CPBIS operating for another three years. The Center has good prospects for sustaining its activities in the future by means of continued funding from both these non-Foundation sources. Project Director: Patrick S. McCarthy, Chair, School of Economics, Georgia Institute of Technology.

Harvard University
Cambridge, MA 02138

\$150,000

The Center for the Legal and Professional Services Industry was established with a 2003 Foundation grant. It has developed close ties with the industry and has engaged faculty and graduate students in important research projects. Compared to other industry centers, they have chosen to pursue an unusual fundraising approach focused on raising substantial funds from affluent individuals, mainly Harvard Law School graduates contributing as part of the School's ongoing capital campaign, as well as from legal and other professional services firms. This final grant will support efforts of the Center to complete this major fundraising while maintaining its ongoing research program. The grant will provide partial support for the hiring of a research director/administrator in order to give the director of the Center additional free time to secure needed funds for the Center as the law school's capital campaign comes to an end. Project Director: David B. Wilkins, Professor of Law.

Massachusetts Institute of Technology
Cambridge, MA 02139

\$650,000

The Global Airline Industry Center was established with a substantial Foundation grant in 1999 and support was renewed for another three years in 2002. Worldwide and especially in the United States, the airline industry has been in deep financial crisis over the past six years. The industry is in the midst of significant restructuring spurred by many events, including the security measures imposed after 9/11, soaring fuel prices, and bankruptcies.

The MIT Center's research program has addressed the challenges of airline industry restructuring and the strategic and operational changes required to achieve sustained airline profitability. Center researchers have developed close contacts with people and firms in the industry. Their research agenda has been shaped around four broad areas: safety and security; industry structure and competition; labor relations and human resources; and infrastructure (airports and airspace). Well before 9/11, the Center was engaged in security research and has produced influential work on baggage screening and risk classifications for airline passengers. Researchers have studied the efficient deployment of security screeners to reduce both costs and passenger wait times. The Center has played a key role in government policy related to aviation safety and security and has contributed to decisions of the Transportation Security Administration and the Federal Aviation Authority. This final grant augments substantial industry and government funds to keep the Center in operation for another three years. The expectation is that the Center will be able to continue operating beyond this grant period and thereby to keep researchers, both faculty and graduate students, involved in studying the global airline industry. Project Director: Professor Cynthia Barnhart, Department of Civil and Environmental Engineering.

INDUSTRY CENTERS, OFFICER GRANTS

Cornell University
Ithaca, NY 14853

\$45,000

Support to develop a funding base for an arts and entertainment industry center. Project Director: Harry C. Katz, Dean, School of Industrial and Labor Relations.

University of South Florida
Tampa, FL 33620

\$45,000

Support to develop a funding base for an industry center on the medical devices industry. Project Director: Professor Kingsley A. Reeves, Jr., Department of Industrial and Management Systems Engineering, College of Engineering.

BUSINESS, INDUSTRY AND ECONOMICS

GLOBALIZATION, TRUSTEE GRANTS

Regents of the University of California, Berkeley **\$220,000**
Berkeley, CA 94720

An earlier Foundation-supported project studying globalization of the semiconductor industry focused on new strategies and approaches of companies in the industry to organize their R&D efforts across the globe. Emphasis was placed on what was happening in China, where there has been a recent surge in the number of semiconductor companies starting up operations. This large number, estimated at more than 600, of new semiconductor enterprises is a new and different pattern from earlier international competition in the industry. These new startup companies are likely to lead the way forward for the Chinese industry. The current grant will focus on the emergence of this large number of semiconductor design firms in China. The project will use results of the prior research on Chinese design firms and data from the National Bureau of Statistics in China. It will benefit from contacts established during the first grant period. The aim is to determine the size, growth rate, and profitability of this part of the industry, and to understand better the business models and strategies being adopted by these firms. Relationships of these newer firms with the large State-owned semiconductor enterprises and with multinational corporations will also be explored. Project Director: Henry Chesbrough, Adjunct Professor and Executive Director, Center for Open Innovation, Institute of Management, Innovation & Organization, Haas School of Business.

University of California, Irvine **\$125,000**
Irvine, CA 92697

This grant supports a one-year project aimed at understanding where value is captured in the manufacture and use of Apple Computer's innovative and immensely successful iPod product family, with its closely integrated iTunes software and iTunes music store. The manufacture and even some of the development of the i-Pod are done in China; 50% of the device's value is in the Japanese-supplied hard disk, and some value resides in the Korean-supplied memory chips and audio decoder. Yet the intellectual property and many high salary jobs in software, R&D, and supply chain management are in the U.S. The project will develop metrics to measure where value is captured by country and firm and will analyze recent trends in where this value is added. Project Director: Kenneth L. Kraemer, Professor, Information Systems, School of Business.

University of Chicago **\$150,000**
Chicago, IL 60637

Old-line manufacturing industries have been undergoing dramatic restructuring. Supply chains, once located primarily in high-wage and developed countries, are now dispersed across the globe, with significant roles being played by increasingly skilled suppliers in low-wage countries. This grant supports a project to examine the consequences of this

transformation for the competitiveness and survival of U.S. and European component manufacturers, i.e., the mostly small to midsize companies that produce metal and plastic parts for durable manufacturing industries, such as motor vehicle, construction machine, agricultural and electrical equipment, home appliance, and industrial machinery producers. U.S. component manufacturers face competition not only from new producers in low-wage countries like the Czech Republic, Mexico, and China, but also from sophisticated European producers. The project team, made up of political scientists and researchers in public policy, sociology, and economics, will build on past work by industry studies researchers. Geographic patterns of supply chains in component industry markets and the performance, strategies, and organization of component manufacturers in the U.S. and key European countries will be explored. Among the questions to be studied is whether there are systematic and characteristic differences in how American and European producers develop policies for and engage in outsourcing and offshoring. In-depth interviews with managers in component suppliers, large customer firms, as well as with officials in relevant trade associations and regional and local governments will be featured, along with quantitative statistical analysis of trade and commodity flows. Project Director: Professor Gary Herrigel, Department of Political Science.

GLOBALIZATION, OFFICER GRANTS

Duke University **\$44,025**
 Durham, NC 27708

To produce a more accurate comparison of the production of engineers and corporate hiring practices in China, India, and the United States. Project Director: Professor Gary Gereffi, Department of Sociology.

Institute for Technological Advancement, Inc. **\$28,000**
 Arlington, VA 22209

To write a book analyzing and comparing how advanced technology production is developing within India and China. Project Director: Ernest H. Preeg, Senior Fellow in Trade and Productivity.

Loughborough University **\$45,000**
 Loughborough, LE11 3TU, UK

To study the movement of creative and managerial jobs in the global advertising industry. Project Director: Professor Peter J. Taylor, Department of Geography.

National Bureau of Economic Research, Inc. **\$35,000**
 Cambridge, MA 02138

To partially support a conference on the globalization of the biopharmaceutical industry, mostly funded by industry, and involving Industry Center faculty, industry studies affiliates, and other economists. Project Director: Iain M. Cockburn, Research Associate.

Research Foundation of State University of New York **\$20,000**
Albany, NY 12201

To partially support a conference on industrial innovation in China. Project Director: Garrick Utley, President, Neil D. Levin Graduate Institute of International Relations and Commerce.

Resources for the Future, Inc. **\$45,000**
Washington, DC 20036

To study globalization in the forest industry. Project Director: Roger A. Sedjo, Senior Fellow, Energy and Natural Resources Division.

Stanford University **\$45,000**
Stanford, CA 94305

Support for an introductory assessment of higher education institutions in India as compared to the United States. Project Director: Rafiq K. Dossani, Senior Research Fellow, Institute for International Studies.

University of Wisconsin, Parkside **\$14,500**
Kenosha, WI 53141

Support to study software offshoring models. Project Director: Professor Stephen Hawk, School of Business & Technology.

Woodrow Wilson International Center for Scholars **\$35,000**
Washington, DC 20004

To conduct two conferences in Washington, D.C. to explore new ideas about global trade. Project Director: Kent H. Hughes, Director, Program on Science, Technology, America and the Global Economy.

BUSINESS, INDUSTRY AND ECONOMICS

ROLE OF THE CORPORATION, TRUSTEE GRANTS

Economic Policy Institute
Washington, DC 20005

\$333,000

This grant supports work at the Economic Policy Institute (EPI) on important gaps in the policy discussions about the effects of globalization on the U.S. economy. In the first of two projects, EPI will pull together what is known about the nature and extent of U.S. corporations' R&D efforts at home and abroad, and will assess the links between the location of R&D and the national benefits obtained from these investments. The research will review policies adopted by states, regions, and other countries that are specifically intended to capture the downstream benefits from R&D, and identify policies that could help the U.S. improve both the public and private benefits from R&D performed here. In the second project, EPI will analyze the "costs" of globalization and its distributional effects. Starting with a comprehensive review of the literature addressing the impact of trade flows on income distribution, EPI researchers will identify the various methodological approaches authors have taken and will translate, wherever possible, each study's findings into comparable metrics. Since much of this literature is a decade or more old, the analysis will attempt to extend the various authors' estimates to the present. Several alternative scenarios of future trade flows will be outlined and an attempt made to translate results into metrics that non-economists can easily understand. Project Director: Robert E. Scott, Director of International Programs.

George Washington University
Washington, DC 20052

\$190,000

Relatively little is known about what happens in currently or formerly manufacturing-dependent locations in the U.S. that have lost manufacturing jobs. Have other jobs filled the vacuum and if so, what industries have they been in and how do wages in industries where jobs have been gained compare to wages in lost manufacturing jobs? What steps have government, business, and others taken to change the industry, product, technological, and skill mix of the affected region's economy, and how effective have such steps been? This grant will combine case studies with comparative and longitudinal quantitative analysis by industry studies researchers to address such questions. They will first examine the kinds of non-manufacturing industries that replaced lost manufacturing jobs in manufacturing-dependent regions of the U.S. between 1990 and 2005. Two metropolitan areas heavily impacted by loss of manufacturing jobs will be selected for pilot case studies. One will have seen robust overall job growth despite the loss of manufacturing jobs; the other will not have fared well. Researchers will conduct interviews with public officials, business leaders, and others in both areas. Also, they will study the policies and strategies used in the two areas and their results, all to explore why the regions performed as well or poorly as they did. Based on these pilot studies, six additional metropolitan areas will be selected for in-depth case studies. The aim is to identify some practical policy and strategy recommendations for state and local business and government leaders that could promote growth of high-wage jobs in high-

productivity, geographically rooted service industries. Project Director: Harold L. Wolman, Professor of Political Science, Public Policy and Public Administration, and International Affairs; Director, Institute of Public Policy.

Vanderbilt University
Nashville, TN 37240

\$609,500

This grant establishes an interdisciplinary program across the law and business schools at Vanderbilt to study global corporations and to provide a clear, well-developed framework for understanding corporate and international law that can illuminate the special problems that arise when corporations operate transnationally, i.e., in settings where there is no clearly applicable international law or where it is uncertain which, if any, national law applies. Researchers will pursue a series of projects over the next few years that analyze transnational corporations as providers and improvisers of governance arrangements. One set of projects will explore how the boundaries of corporations are determined (i.e., what functions are kept in-house and what are outsourced) and the implications of these decisions for determining which relations are to be governed by the internal hierarchy of the firm rather than by external law. Another group of projects will explore how relations within firms are governed in a global environment. One project will begin the work of identifying and assessing factors that may serve to constrain the behavior of corporations that operate in a global environment. Project Director: Professor Margaret Blair, Law School.

ROLE OF THE CORPORATION, OFFICER GRANTS

Kent State University Foundation, Inc.
Kent, OH 44242

\$45,000

To develop further the concept of fair exchange through research and analysis of state and local government investments in for-profit business organizations. Project Director: John Logue, Professor of Political Science; Director, Ohio Employee Ownership Center.

Massachusetts Institute of Technology
Cambridge, MA 02139

\$41,024

To hold a series of workshops that will explore new models of corporate governance in finance and economics. Project Director: Stewart C. Myers, Professor of Finance, Sloan School of Management.

Net Impact
San Francisco, CA 94104

\$10,000

To support the efforts of business school students working to get team production and alternative theories of corporate governance included in their curricula. Project Director: Elizabeth Maw, Executive Director.

BUSINESS, INDUSTRY AND ECONOMICS

ECONOMICS RESEARCH, TRUSTEE GRANT

Levy Economic Institute of Bard College **\$293,030**
Annandale-on-Hudson, NY 12504

There is broad concern that the most commonly used measures of economic well-being here and abroad do not provide adequate indicators of how households, families, and individuals are actually faring in economic terms. Over the past several years, Levy Economic Institute researchers have been working to develop a credible framework for measuring a broader-than-normal conceptualization of “economic well-being.” They have designed and tested a composite measure they call the Levy Institute Measure of Economic Well-Being (LIMEW) and have developed quantitative measures of LIMEW for the U.S. for recent benchmark years, the earliest being 1989. This grant supports the expansion and improvement of data based on this measure for U.S. households going back in time to the early 1960s, thereby allowing better assessments of real trends over past decades. The research team also will explore the feasibility of producing comparable measures for six other developed market-economy countries (Australia, Canada, France, Germany, Sweden, and the United Kingdom) with the goal of enabling cross-national comparisons of economic well-being that so far have been limited mainly to reported money income. Project Director: Edward Nathan Wolff, Senior Scholar; Professor of Economics, New York University.

ECONOMICS RESEARCH, OFFICER GRANT

Economic Policy Institute **\$36,983**
Washington, DC 20036

For a workshop on improving our understanding of economic well-being. Project Directors: Jared Bernstein, Director of the Living Standards Program (EPI), and Kevin A. Hassett, Resident Scholar and Director of Economic Policy Studies, American Enterprise Institute.

NONPROFIT SECTORS

MEASURING AND REPORTING ON GOVERNMENT PERFORMANCE, TRUSTEE GRANTS

Advocates for Children of New York, Inc. **\$330,000**
New York, NY 10001

In June 2003, the Foundation approved a four-year grant of over \$1.5 million to Advocates for Children of New York (AFC) to continue support and aid in the institutionalization of InsideSchools.org, an internet-based forum for citizen-based performance assessment of and information about New York City's public schools. It was anticipated to be the final grant and that AFC would develop other funding to keep the project going. Usage of the InsideSchools.org website has far exceeded expectations and continues to grow. Due to the unexpected death of the person primarily responsible for fundraising for AFC and InsideSchools, some fundraising projects were delayed and the financial viability of InsideSchools has not yet been assured. With help from a team assembled by the Harvard Business School Club, AFC has developed an extensive plan for marketing, fundraising from individuals and foundations, generating revenue from its website, and possibly from the sale of some of its data. This grant will supply additional time and funding to allow this project to continue after Sloan support ends. Project Director: Elisa Hyman, Executive Director.

Congressional Quarterly, Inc. **\$258,600**
Washington, DC 20036

Governing is a monthly magazine with about 85,000 subscribers who work for governments at the state, county, city and district levels. Several thousands in corporations, nonprofit organizations, and the media are also subscribers. The magazine's website, www.governing.com, has about 63,000 different users monthly. A number of meetings and two large conferences attended mostly by government professional are convened by the magazine. A 2005 Foundation grant to Congressional Quarterly, Inc. enabled *Governing* to launch a multimedia publishing program focused on government performance measurement and reporting. During the past year, *Governing* produced and published four articles and organized a special panel discussion at its fall 2006 conference. This grant renews support for another 18 months. Project Director: Elder Witt, Deputy Publisher and General Manager, *Governing* Magazine.

Government Finance Officers Association **\$133,000**
Chicago, IL 60601

The Government Finance Officers Association (GFOA) is one of the largest professional organizations in the country serving local and state employees. It promotes and provides technical assistance to governments who do or want to begin doing performance measurement. In recent years, it has included public involvement concepts and tools into its best practice information on performance measurement. This grant to GFOA will fund the preparation of a *State and Local Performance Measurement Sourcebook* and

associated materials. The *Sourcebook* will include a complete database of the performance measurement efforts of state and local governments in the United States and Canada and of such efforts being carried out by non-government organizations, including Foundation grantees. It will also include a glossary of terms and an annotated bibliography of publications in this field. GFOA will prepare and publish at least three related research reports, including one devoted to practices of citizen involvement in performance measurement and reporting. In addition to being printed in hard copy, materials will be made available on GFOA's website. Their dissemination by GFOA will contribute to making citizen-oriented performance measurement better understood and more widely used. Project Director: Anne Kinney, Director, Research and Consulting Center.

Institute of Internal Auditors
Altamonte Springs, FL 32701

\$330,360

A 2002 officer grant to the Institute of Internal Auditors (IIA) supported a study of the various roles that government auditors play in performance measurement and reporting in selected jurisdictions around the country. *Auditor Roles in Government Performance Measurement: A Guide to Exemplary Practices at the Local, State and Provincial Levels*, a book published by IIA in 2004, is based on this work. The current grant supports two activities by IIA. One is the design and offering over the next two years of five new courses, in partnership with the Association of Local Government Auditors and the National Association of State Auditors, Comptrollers, and Treasurers, covering the many roles that government auditors can and do play in performance measurement and reporting. By the third year, IIA expects about 250 enrollments and will make the courses available online. As the second activity under this grant, IIA will create and maintain a website focused on performance measurement and reporting from the perspective of auditors and will make presentations on the subject at its own and its partners' annual conferences and at other large gatherings of government auditors. A series of dialogues will be organized by IIA between government auditors and other government officials to promote understanding of how auditors can contribute to government performance measurement and reporting. Project Director: Albert G. Holzinger, Chief Operating Officer.

International City/County Management Association
Washington, DC 20002

\$209,260

The International City/County Management Association (ICMA) is interested in helping its members and its members' jurisdictions adopt 311 and other customer service technology, including online systems, that allow local governments to receive and respond to citizens' requests for information and services and provide feedback to citizens on the status of their service requests. A 2006 Foundation officer grant to ICMA supported a case study of the 311 and related systems in San Antonio, TX. This grant enables ICMA to extend the project by surveying via mail all cities, towns, townships, villages, and boroughs in the United States with population of at least 25,000 and counties with appointed administrators or elected executives. (A response rate of at least 30% is anticipated.) Survey data will be made available free to all on the ICMA website. Case studies of at least four communities with an operating 311 system, in addition to

San Antonio, will be conducted. A short profile of each will be prepared and made available on the website and as handouts at conference workshops where the results will be presented. A final report, including recommendations on how jurisdictions can move forward with 311 and related systems, will also be widely disseminated on the website, through the ICMA newsletter, by presentations at conferences, with a feature article in *Public Management*, and will serve as the basis for a course at ICMA University to be offered first at the 2007 ICMA Annual Conference. Project Director: Cory Fleming, Senior Project Manager.

National Center for Civic Innovation
New York, NY 10013

\$869,070

The Government Performance Reporting Demonstration Grant Project was launched by the National Center for Civic Innovation (NCCI) with a Foundation grant in 2003. This project encouraged governments around the country to follow the suggested criteria for performance reporting published by the Governmental Accounting Standards Board (GASB). This new grant will support a small grants project by NCCI that will encourage governments to obtain citizen input to their performance measurement and reporting. Thirty jurisdictions from around the country, ten of which were part of the earlier Demonstration Grant Project, will be recruited as participants. They will receive small grants, averaging about \$10,000, and agree to consult with representative members of their public about their current performance measurement and reporting practices. The aim is to seek the public's reactions, input, and recommendations concerning the performance measures that are and should be used and reported, the format and style of the government's performance reports, and ways reports are disseminated to the public. Each grantee will produce at least one revised annual performance report that takes into account the public's point of view and applies the latest version of GASB's suggested criteria. Project Director: Barbara Cohn, Vice President.

NCLM Local Leadership Foundation
Raleigh, NC 27602

\$100,000

Although many cities in North Carolina have been engaged in performance measurement for years, most have not obtained input from their citizens and results have not been reported publicly. With this grant, the North Carolina League of Municipalities (NCLM) will introduce the perspectives of citizens to cities' performance measurement and encourage cities to report publicly on their performance. The project will involve six demonstration cities, all having experience with performance measurement. An outside consultant will convene a team of city government staff and a group of interested citizens to create useful performance measures that reflect citizens' perspectives. Each demonstration city is committed to collect data for each new performance measure and report it publicly. Each demonstration city will be paired with and serve as mentor to one of six other cities selected for the project. Representatives of each of these cities would attend its mentor's meetings with citizens to learn how citizen inputs can be solicited for the purpose of designing new measures. They will participate in lessons-learned workshops. Their city staff will be provided guidance and support to help implement citizen-informed performance measurement and reporting in their cities. NCLM staff will assist the staff of all twelve cities to institutionalize citizen-informed performance

measurement and reporting. Presentations about citizen-informed performance measurement and reporting are planned for state and national meetings of relevant professional organizations and articles will be produced for their publications. Personnel from the University of North Carolina's School of Government will participate in the project and include its results in their instructional programs for government officials, graduate students, and others. Project Director: Owen Franklin, Research Analyst.

Rutgers University
Newark, NJ 07102

\$399,817

With this grant, Rutgers University-Newark will launch a network of practitioners of performance measurement and reporting and serve as its secretariat. Guided by a steering committee of national and local leaders in the performance measurement movement, the network will offer an online newsletter, an annual conference, regional conferences, workshops, special interest listservs, a roster of consultants, a speakers bureau, and an online depository of best practices, reports, and other publications. Excellence Awards for Citizen-Based Performance Measurement will be made. During the first year, the steering committee will develop a consensus statement on the value and utility of citizen-based performance measurement, the advantages of measurement efforts conducted by external groups, and the value of cooperation between governments and non-government organizations in conducting and reporting performance measurement. Project Director: Marc Holzer, Professor of Public Administration and Executive Director, National Center for Public Productivity.

The following grants were made from an appropriation approved by the Board of Trustees to fund start-up grants, small projects, and community building activities in the Foundation's program for citizen-based performance assessment of municipal governments.

Community Research Council
Chattanooga, TN 37405

\$25,000

To determine ways to increase use of citizen-driven performance measurement in local governments in the Southeast United States. Project Director: David R. Eichenthal, President and Chief Executive Officer.

Government Finance Officers Association
Chicago, IL 60601

\$20,000

To fund a professional exchange focused on performance measurement and management between GFOA and its United Kingdom counterpart, the Chartered Institute of Public Finance and Accountability. Project Director: Anne Kinney, Director, Research and Consulting Center.

International City/County Management Association **\$42,262**
Washington, DC 20002

To initiate a project focused on 311 and customer service systems with a case study of San Antonio, TX. Project Director: Cory Fleming, Senior Project Manager.

National Civic League **\$45,000**
Denver, CO 80202

To produce a special issue of *National Civic Review* addressing citizen-informed and citizen-based performance measurement and reporting. Project Director: Derek Okubo, Vice President.

New England States Government Finance Officers Association **\$35,000**
East Providence, RI 02914

To study how best to implement a citizen-based performance measurement and reporting project in New England. Project Director: Lisa R. Parker, Finance Director, City of Saco, Maine.

Rutgers University – Newark **\$45,000**
Newark, NJ 07102

To enable the Abbott Leadership Institute to launch Inside Schools Newark. Project Director: Junius Williams, Director, Abbott Leadership Institute, Department of Urban Education.

State of Iowa, Department of Management **\$18,000**
Des Moines, IA 50319

To help launch a network of performance measurement and reporting practitioners in the states of Iowa and Minnesota. Project Director: Jim Chrisinger, Team Leader, Accountability and Results, Iowa Department of Management.

The Urban Institute **\$40,000**
Washington, DC 20036

To develop a plan to launch a project for public reporting of comparative performance information of state agencies. Project Director: Harry Hatry, Director, Public Management Program.

The following grants were funded from an appropriation to support the initial stages of website improvement by grantees in the Foundation’s program to make municipal governments more responsive to their citizens.

CCAF-FCVI Inc. **\$4,000**
Ottawa, Ontario K1L 7J9

Project Director: Michael Eastman, Executive Director.

Community Research Council **\$4,000**
Chattanooga, TN 37405

Project Director: David R. Eichenenthal, President and Chief Executive Officer.

New England States Government Finance Officers Association **\$3,150**
Westford, MA 01886

Project Director: Lisa R. Parker, Finance Director, City of Saco, Maine.

MEASURING AND REPORTING ON GOVERNMENT PERFORMANCE, OFFICER GRANTS

Government Finance Officers Association **\$45,000**
Chicago, IL 60601

To create training materials and initiate training on 311 – Citizen Relationship Management Systems. Project Director: Anne Kinney, Director, Research and Consulting Center.

Rutgers University – Newark **\$40,000**
Newark, NJ 07102

To enable the National Center for Public Productivity to investigate options for a state-wide 311 system in New Jersey. Project Director: Marc Holzer, Executive Director, National Center for Public Productivity.

WORKPLACE, WORKFORCE AND WORKING FAMILIES

WORKING FAMILIES AND EVERYDAY LIFE, TRUSTEE GRANTS

Brandeis University
Waltham, MA 02451

\$388,758

Recent research has made substantial progress documenting the benefits to employers of workplace flexibility policies in terms of improved employee satisfaction, increased retention, and reduced turnover. Much less attention has been paid to the impacts of workplace flexibility on the health and wellbeing of employees. Preliminary research indicates that flexibility may have multiple effects on health and could also play a role in lowering stress and decreasing the risk of on-the-job accidents. This grant supports a project to examine, using existing large-scale longitudinal datasets, whether workplace policies and practices related to flexibility, and the actual use of such policies, can affect the health of employees and their dependents. It is recognized that the very complex relationships between workplace flexibility and health outcomes, together with limitations of available data, make it difficult to draw firm causal connections between flexibility and health. Researchers will determine not just what can be known about workplace flexibility and health outcomes, but also what cannot be known. If possible linkages between health and flexibility appear to exist, they will assess what types of data would be needed to explore causal relationships more fully. Project Directors: Rosalind Chait Barnett, Senior Scientist, Director of Community, Families and Work Program, Brandeis University; Lisa Berkman, Professor of Public Policy, Departments of Society, Human Development, and Health and Epidemiology and Social Behavior, and Chair, Department of Society, Human Development and Health, Harvard School of Public Health.

University of California, Berkeley
Berkeley, CA 94720

\$375,510

Federal funding often is a critical factor in shaping academic careers and family lives. The rules and regulations associated with such grants are often used to formulate standards for institutional policies, such as time off or reduced duties, for faculty, postdoctoral fellows, and academic researchers. Past research at UC, Berkeley has found that, far from playing a progressive role in encouraging women with small children to secure funding and continue on to the upper ranks of academia, federal funding may actually discourage such women from seeking out these grants and the career boost they entail. The current grant supports a detailed examination of the effects of grant making and the structure of the federal grant process on academic culture, university policies, and the lives of academics. Preliminary research indicates an absence of rules and regulations related to family accommodations at all levels of federal funding, and data suggest a lower rate of federal support for women with young children as compared to other tenure-track faculty. This project may provide findings suggesting possible reforms and help plug leaks in the pipeline to tenure and beyond that have resulted in the loss from the professoriate of talented academics with caregiving responsibilities. Project Directors:

Mary Ann Mason, Dean, Graduate Division; Marc Goulden, Director of Data Initiatives, Academic Affairs.

WORKING FAMILIES AND EVERYDAY LIFE, OFFICER GRANTS

Institute for Intercultural Studies **\$45,000**
New York, NY 10021

Support for research on a book about how men and women define work as they age. Project Director: Mary Catherine Bateson, President.

Ithaca College **\$10,000**
Ithaca, NY 14850

For the development of a teaching resource manual on work-family research for the American Sociological Association. Project Director: Professor Stephen Sweet, Department of Sociology.

Regents of the University of California, Berkeley **\$44,215**
Berkeley, CA 94720

For research on federal grants and the academic pipeline. Project Directors: Mary Ann Mason, Dean of the Graduate Division and Professor, Graduate School of Social Welfare; and Marc Goulden, Director of Data Initiatives, Academic Affairs.

University of Georgia **\$38,623**
Athens, GA 30602

For a longitudinal analysis of the mismatch between preferred and actual work hours in the United States. Project Director: Professor Jeremy Reynolds, Department of Sociology.

Work Family Directions, Inc. **\$45,000**
Newton, MA 02458

To design a survey and process for assessing the salience of workplace flexibility in the U.S. workforce. Project Director: Jan T. Civian, Senior Consultant.

American Council on Education

\$315,926

Washington, DC 20036

In 2005, a new awards program was established on a pilot basis to recognize five research universities for their leadership in implementing faculty career flexibility efforts. As part of this program, each of the winning universities received an accelerator grant of \$250,000 to enable them to make further substantial progress in creating flexible career paths so as to advance their institutional goals, including enhancing faculty recruitment and retention, strengthening faculty commitment and engagement, and maintaining competitiveness in the global academic market. Based on the success of the pilot year, the American Council on Education (ACE) will administer the Alfred P. Sloan Awards for Faculty Career Flexibility for a second year, but direct them this time to the 349 large master's degree universities. This grant covers the costs necessary for ACE to administer the awards. As it did last year for the research universities, ACE, working with the Families and Work Institute, will create and administer the award application process, select a panel of judges, and oversee the selection of award winners. Project Director: Claire Van Ummersen, Vice President, Center for Effective Leadership.

Corporate Voices for Working Families

\$387,063

Washington, DC 20037

Lower-wage workers perform a broad range of valued functions on which employers rely and on which productivity and profit margins often depend. As retail workers, call center operators, and hospitality workers, they are often the “face to the customer.” Although lower-wage workers are critical to the U.S. economy, this segment of the workforce remains underserved in both policy and research discussions. Greater attention to this category of worker, especially to the factors that enable their stability, contribution, and productivity, is vital both to the health of businesses and to the well being of the millions of individuals in the lower-wage workforce. This grant supports research by Corporate Voices for Working Families on flexibility practices of employers for different types of lower-wage workers in a variety of industries. The potential impacts of such flexibility practices on both businesses and workers will be investigated for a wide spectrum of lower-wage jobs and work environments. The challenges and barriers to flexibility as related to the nature of the jobs will be examined. Six companies, drawn from manufacturing, hospitality, financial services, and retail, industries with large numbers of lower-wage workers, will be recruited to participate in the study. Participating organizations will be chosen to represent a variety of industries and to include shift workers as well as 9 to 5 workers, and production, service, and office workers, both unionized and non-unionized. The focus of recent academic research and business reports has been primarily on workplace flexibility for management and professional workers, for whom strong positive outcomes of flexibility have been demonstrated. There is a common assumption among employers that flexibility is less feasible, effective, or

necessary for lower-wage jobs. The research supported by this grant is expected to throw light on the validity, or lack of validity, of this assumption. Project Director: Donna Klein, President and Chief Executive Officer.

Families and Work Institute
New York, NY 10016

\$1,083,000

The *National Study of the Changing Workforce* (NSCW) is the most comprehensive survey of the work and personal/family lives of U.S. workers. Based on a nationally representative sample of the U.S. workforce, this study has been conducted every five years since 1992 by the Families and Work Institute (FWI). The NSCW serves as a critical source of data for academic research on issues facing U.S. workers and their families. The Foundation has made grants supporting the past two iterations of the study, in 1997 and 2002. The last grant went to FWI to support basic data collection, including telephone interviews, for the 2002 National Study of the Changing Workforce. The current grant will be used by FWI to cover the data-related costs for fielding the 2007 National Study. These costs have increased over the years since the costs of incentive payments to respondents and the cost per interview have grown due to the rapidly increasing difficulty of completing random digit dialed (RDD) telephone interviews and achieving a minimum 50 percent response rate. (Increased costs due to difficulties of securing people's agreement to do telephone surveys create a problem faced by all current studies relying on RDD.) This study will continue to provide significant long-term data for basic research regarding quality of life on and off the job for the U.S. workforce. FWI will arrange for two independent scholars to write a benchmarking report on changes over time in access to flexibility for workers, as well as the degree to which flexibility, or the lack thereof, plays a role in people's decision to withdraw from the workforce. Project Director: Ellen Galinsky, President.

Urban Institute
Washington, DC 20037

\$191,062

With this grant the Urban Institute will convene an expert panel to develop a research and policy agenda to provide a policy blueprint for capitalizing on the potential economic value of work by older workers. Representing wide-ranging interests, panel experts will come from federal and state governments, the U.S. Congress, employer organizations, unions, workers' advocacy organizations, AARP, Foundation grantees working on this issue, and academia. The Urban Institute will produce critical background information synthesizing what is currently known and will structure the conversation around four key questions: 1) How might longer careers benefit older adults? 2) Given the size of the baby boomer generation and the potential loss to the workforce if they retire at age 65, to what extent are employers concerned about keeping significant numbers of them employed into their 60s and 70s? 3) What are the barriers to working longer? 4) How do workplace flexibility and other employer practices encourage work among older workers? The background materials will be available to panel members and the public and will be posted on the Institute's Retirement Project website. They will include key facts about population aging and its impacts on Social Security, the federal budget, and the economy; trends in labor force participation of older adults; ways to improve economic security of workers and financial sustainability of federal programs by

extending work lives; analysis of how enhanced workplace flexibility might increase the employment of older Americans; and a close reading of recent data on trends in labor force participation at older ages. The Urban Institute will issue a final report that describes the issues concerning older workers, presents key research findings, and recommends policy solutions. A media campaign to educate the public about the importance of work at older ages will be developed. The Institute will also seek opportunities to brief Congressional committees, make presentations at professional society meetings, and prepare papers for publication in academic journals. Project Director: Eric Toder, Senior Fellow.

CASE STUDIES OF WORKPLACE-SPECIFIC FLEXIBILITY, OFFICER GRANTS

Center for Work-Life Policy
New York, NY 10023

\$45,000

For development of case studies on extreme jobs and emerging models of best practice. Project Director: Sylvia Hewlett, President.

Pennsylvania State University Abington College
Abington, PA 19001

\$38,933

For the development of survey questions to be used in assessing progress on workplace flexibility. Project Director: Lonnie Golden, Associate Professor of Economics.

WORKPLACE, WORKFORCE AND WORKING FAMILIES

NATIONAL WORKPLACE FLEXIBILITY INITIATIVE, TRUSTEE GRANTS

AARP Foundation

\$425,040

Washington, DC 20049

Employers in the United States have begun to take a hard look at aging issues in today's workplace. For many companies, the aging of the labor force and impending exodus of retirement-eligible employees pose both significant challenges and opportunities for retention, acquisition, and management of talent. Recent studies have shown that four out of five baby boomers intend to remain in the workforce beyond conventional retirement age, but do not want to work full time or full year. Their changing preferences for work schedules present a challenge for companies to institute the kinds of flexible work arrangements that will prove attractive to aging workers. This AARP project aims to help employers understand this challenge and to provide the technical assistance necessary for putting into place the workplace flexibility policies and practices that will help them recruit and retain the older workforce. Working with corporate partners as well as with the National Retail Federation (NRF), AARP will develop retail sector-specific information and curriculum on workplace flexibility. Using these materials and in cooperation with NRF, AARP will conduct six regional, one-day workshops for employers that will include segments on employment trends, the required labor force to meet expected demand, and case studies and other materials on the business case for workplace flexibility. These materials will be disseminated widely throughout the retail trade industry by the AARP. Each company participating in the workshops will develop a 12-month action plan for implementing workplace flexibility and will file monthly progress reports with AARP, which will provide technical assistance. Project Director: Emily Allen, Director, Workforce Initiatives.

American Council on Education

\$627,931

Washington, DC 20036

With support from a 2005 officer grant, the American Council on Education (ACE) hosted an invitational conference about the need for more flexibility in academic careers. Also in 2005, a trustee grant provided support to ACE to do the marketing for the new *Alfred P. Sloan Awards for Faculty Career Flexibility*. This 2006 grant will enable ACE to continue to promote career flexibility in a wide range of institutions in three ways. First, ACE will study data collected from the five winners of the Sloan flexibility awards, including information about the current status of each institution's flexible career policies and practices as well as short- and long-term institutional plans for change. ACE will host a meeting of the five award winners one year after receipt of the awards to monitor the extent to which each university is on target for meeting its goals. A second meeting will be held after another year to determine if institutional plans have been implemented and goals achieved. In 2008, ACE will publish and disseminate a report examining lessons learned from the five Sloan flexibility award winners. Second, ACE will help a selected group of 6-8 master's degree universities and liberal arts colleges to adapt and modify the collected best policies emerging from the five award winning universities to fit their own

institutional needs and cultures. Each of these 6-8 institutions will share their experiences and successes in advancing career flexibility for faculty by organizing and hosting a one-day conference for invited institutional leaders from colleges and universities in their own local areas. Third, ACE will compile a collection of best policies, practices, strategies, and support materials tried and tested with the research universities and adapted at the master's universities and liberal arts colleges. These will be packaged in a resource kit along with other tools and information required for implementing, communicating, and evaluating the use of institutional policies and practices for flexible career paths. This information will be made available to college and university leaders for their use as they work to develop flexible faculty career policies and practices on their own campuses. Project Director: Claire Van Ummersen, Vice President, Center for Effective Leadership.

New America Foundation
Washington, DC 20009

\$152,250

In January 2006, an officer grant to New America Foundation supported its work with the Foundation-supported Georgetown University's Workplace Flexibility 2010 (WF2010) initiative. With this new grant, a working group from leading think tanks across the political spectrum will be convened to produce a joint policy paper on flexibility and to prepare to play a constructive role in building bipartisan support for workplace flexibility in Washington, D.C. Also, New America will work with the Georgetown WF2010 initiative to convene bipartisan briefings on workplace flexibility to support study by Congress of work and family issues. The third purpose of the grant is to expand the overall capacity of WF2010 by helping it refine and promote its flexibility principles. Project Director: David Gray, Director, Workplace and Family Program.

Persephone Productions, Inc.
Falls Church, VA 22041

\$379,600

To the Contrary is a news analysis program that airs weekly on more than 250 PBS stations nationwide and internationally in 75 countries, reaching an audience of nearly a million viewers. Particularly targeting women viewers, each show consists of two taped segments on critical issues of the day, followed by in-studio panel discussion by Washington, D.C.-based women who represent different points of view about the issues. A 2005 Foundation grant supported the production and airing of three segments on workplace flexibility, including phased retirement, men and flexible work arrangements, and allowing working mothers to return to the workforce after time away. The current grant supports the production and airing of four additional segments on workplace flexibility, including pieces on flexibility and low-wage workers, flexibility over the career (not just over the week), and redesigning work processes to achieve flexibility. All seven of the segments produced will serve as the basis for producing a documentary on workplace flexibility entitled "Nine to Five No Longer." Project Director: Bonnie Erbe, CEO.

University of California, Hastings College of the Law
San Francisco, CA 94102

\$690,000

Caregiver bias is the term used to refer to employment discrimination against caregivers such as parents and adult children of aging parents. Both social psychological research and over 800 lawsuits have made caregiver bias an issue that employers need to understand. With support from the Foundation, the Center on WorkLife Law (CWLL) at Hastings formed the Caregiver Bias Working Group, comprised of social psychologists and lawyers. The group has produced studies documenting workplace bias against adults with family responsibilities and has been instrumental in founding a new field in social psychology focused on bias experienced by mothers as opposed to women in general. Employers, for example, have promoted less qualified fathers or women without children rather than highly qualified mothers and have developed hiring profiles that expressly exclude women with young children. With this grant, the CWLL will work with both management-side and plaintiff-side employment lawyers to help them understand the sharp increase in potential liability due to caregiver bias. It will also continue to work directly with legal employers to implement non-stigmatized part-time careers by promoting the implementation within partnership firms of a “balanced hours” model that differs from part-time in that it consciously aims to combat the stigma associated with traditional part-time. This model eliminates “schedule creep,” a common occurrence whereby part-time attorneys’ schedules creep back up towards full-time. It provides many tools for effective implementation of the part-time program, recognizing that implementing workplace flexibility is a complex process requiring sustained effort over a long period of time. Project Director: Joan C. Williams, Professor of Law.

The following grants were made from an appropriation approved by the Board of Trustees for small grants to raise the visibility of workplace flexibility as a strategic tool to achieve business goals.

American Sociological Association
Washington, DC 20005

\$25,000

For study of career and family transitions in and out of the academic sector. Project Director: Roberta Spalter Roth, Director, Research and Development Department.

Corporate Voices for Working Families
Washington, DC 20036

\$45,000

For exploratory research on workplace flexibility for low wage employees. Project Director: Donna Klein, President & CEO.

New America Foundation
Washington, DC 20009

\$41,000

Support of activities that will build bipartisan support and consensus for workplace flexibility in Washington, D.C. Project Director: David Gray, Director, Workplace and Family Program.

Portland State University
Portland, OR 97207

\$44,080

To develop survey instrumentation and data collection protocols for research on aging and workplace flexibility among unionized construction workers. Project Director: Professor Leslie B. Hammer, Department of Psychology.

Regents of the University of Michigan
Ann Arbor, MI 48109

\$44,964

For an assessment of progress in faculty work-family policies and career flexibility in higher education. Project Director: Carol Hollenshead, Director, Center for the Education of Women.

Wake Forest University Health Sciences
Winston-Salem, NC 27157

\$44,830

For an exploratory study on workplace flexibility and employee health. Project Director: Professor Joseph G. Grzywacz, Department of Family and Community Medicine.

Work Family Directions, Inc.
Newton, MA 02458

\$45,000

Support for research on understanding 21st century careers in order to shape career path alternatives. Project Director: Jan T. Civian, Senior Consultant.

The following grants were made from an appropriation approved by the Board of Trustees for support of the Alfred P. Sloan Awards for Career Flexibility in the Academy. Phase I awards are designed to work out the details of the application process and to implement outreach efforts to make the awards program known to potential applicants. Phase II awards will fully implement the program. Awards, with accompanying accelerator grants, will be made using protocols developed in Phase I. Accelerator grants are intended to enable institutions receiving the awards to make further substantial progress in creating flexible career paths so as to advance their institutional goals, including enhancing faculty recruitment and retention, strengthening faculty commitment, engagement, and morale, achieving institutional excellence, and maintaining competitiveness in a global academic market.

American Council on Education
Washington, DC 20036

\$42,843

Planning grant for the application process and marketing of the Alfred P. Sloan Awards in Career Flexibility. Project Director: Claire Van Ummersen, Vice President, Center for Effective Leadership.

Duke University **\$250,000**
Durham, NC 27708

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Nancy B. Allen, Vice Provost for Faculty Diversity and Faculty Development.

Families and Work Institute **\$112,000**
New York, NY 10016

To develop survey instruments and administer the application process for the Alfred P. Sloan Awards for Faculty Career Flexibility. Project Director: Ellen Galinsky, President.

Families and Work Institute **\$41,342**
New York, NY 10016

Planning grant for the application process and marketing of the Alfred P. Sloan Awards in Career Flexibility. Project Director: Ellen Galinsky, President.

Lehigh University **\$250,000**
Bethlehem, PA 18015

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Jean R. Soderland, Deputy Provost for Faculty Affairs.

Regents of the University of California **\$125,000**
Berkeley, CA 94720

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Barbara A. Horwitz, Vice Provost of Academic Personnel, UC Davis.

Regents of the University of California **\$125,000**
Berkeley, CA 94720

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Carol Hoffman, Manager, Work/Life Program, University Health Services, UC Berkeley.

University of Florida **\$250,000**
Gainesville, FL 32611

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Debra Walker King, Associate Provost, Faculty Development.

University of Washington
Seattle, WA 98195

\$250,000

To implement the accelerator plan in accordance with Alfred P. Sloan Awards for Career Flexibility in the Academy. Project Director: Ana Mari Cauce, Executive Vice Provost.

NATIONAL WORKPLACE FLEXIBILITY INITIATIVE, OFFICER GRANTS

Boston College
Chestnut Hill, MA 02467

\$42,000

For the creation of Flexnet for use by grantees in the Foundation's workplace flexibility program. Project Director: Judith Casey, Director, Sloan Work and Family Research Network, Graduate College of Social Work.

Labor Project for Working Families
Berkeley, CA 94720

\$45,000

To disseminate throughout organized labor relevant contract language and union practices regarding workplace flexibility. Project Director: Netsy Firestein, Executive Director.

EDUCATION AND CAREERS IN SCIENCE AND TECHNOLOGY

SCIENTIFIC AND TECHNICAL CAREERS

ANYTIME, ANYPLACE LEARNING, TRUSTEE GRANTS

Franklin W. Olin College of Engineering
Needham, MA 02492

\$1,060,000

In addition to grants to institutions to support the initiation or expansion of course and full degree programs that extend education via Asynchronous Learning Networks (ALNs) to new populations of learners or that generate additional enrollments in existing ALN programs, the Foundation's ALN program also makes grants to disseminate knowledge to faculty about how best to begin using ALNs in courses, advance faculty development in state-of-the-art ALN teaching methodology, and enlist the interest of college and university administrators in ALN course and program development. This grant supports activities to promote quality in online education with breadth and scale of the Sloan Center for Asynchronous Learning Environments at Olin and Babson Colleges, many focused on the Sloan Consortium (Sloan-C) and its member institutions. The Consortium has well over 1000 institutional members and continues to grow. Examples of ongoing activities that will be continued under this grant include: publication of the prestigious refereed scholarly journal *JALN* and the newsletters *Sloan-C Views* and *Sloan-C Today*; operation of the Sloan-C website (www.sloan-c.org); oversight of an active set of listservs featuring animated, interesting daily discussions; and organizing and conducting well-attended workshops for faculty and administrators who wish to acquire or improve their knowledge and skills for ALN teaching. Last year, the Olin group led by Professor Bourne assumed responsibility for the SloanSemester website that included registration information and a catalog of courses open to students in the tuition-free semester quickly made available to undergraduates impacted by hurricanes Katrina and Rita. They also handled the complex matter of accounting and payments to the 160 or so academic institutions participating in this special project. It is expected that the group would play a key role in any other special opportunities to advance the ALN program that may arise during the period of this new grant. Project Director: John Bourne, Professor of Electrical and Computer Engineering.

New Mexico State University Foundation
Las Cruces, NM 88003

\$500,000

This grant supports a project to make ALN education a reality for American Indian learners at pueblos in New Mexico, by means of course offerings at New Mexico State University (NMSU) together with a partnership with a tribal college, the Southwestern Indian Polytechnic Institute (SIPI). In addition to a continued need for traditional skills in law enforcement and land and tribal management, increased tourism and hotel and gaming activities have created new jobs for American Indians to be filled in management, sales, finance, and floor-level activities like cashiering and security. Some new ALN courses will be developed and a number of existing NMSU courses and degree programs,

at the bachelor and master level, will be converted into ALN format for the American Indian population in the state. Certificate programs, such as Tribal Management, Criminal Justice, Public Health, and Hotel Management, will also be offered. SIPI, a tribal college in Albuquerque funded through the federal Bureau of Indian Affairs, will also develop ALN courses and two-year programs that will enable graduates to transfer to NMSU for completion of upper division courses and bachelor and higher degrees. NMSU will assist SIPI in establishing ALN expertise. A council of tribal leaders has been organized to advise on needs and to publicize the program in their communities. The grant also supports the employment of a network of mentors who can assist learners with course and program selection, career information, and issues relating to online education. Success with this project, by encouraging replication in a number of Western states with large American Indian populations and one or more tribal colleges, and where ALN expertise and experience reside at larger state universities, has the potential for making a real difference in improving educational opportunities for American Indians. Project Director: Carmen L. Gonzales, Dean, Distance Education and External Learning.

Pace University

\$250,000

New York, NY 10038

Pace University, with locations in New York City and Westchester County, will greatly increase its focus on education for learners in the Greater New York area by means of enhanced online content in its information sciences courses (which Pace will fund) and through a set of approaches (to be funded with this grant) for providing new services to the local population and making more potential learners aware of these new opportunities. Pace's program in Computer Science and Information Systems (CSIS) has a well-developed set of ALN and blended (mixed ALN and traditional) courses that will be the basis for its local offerings: a DPS or doctorate in Professional Studies and 3 master's and 2 bachelor degrees. Reducing the number of trips to campus for local learners will be one benefit of increasing online content and courses. To increase local awareness of these degree programs, Pace will conduct seminars, workshops, and special events at local high schools; upgrade its website; and improve articulation agreements with most of the community colleges in the NYC metropolitan area. Enhanced services and best practices (in advising learners, communicating about registration, billing, bookstore access, graduation information, etc.) will be implemented for all CSIS students in online and blended courses. Pace regards this development as an important step towards a broad-based approach to substantially improving its service for the local learner community. The goal is to add many new online and blended courses and modify content of existing online CSIS courses so at least 50% of the curriculum is available online within three years, thereby significantly increasing access for many more in the NYC area to acquire and upgrade their education in computer and information sciences. Project Director: David Sachs, Associate Dean.

Rutgers University

\$150,000

New Brunswick, NJ 08901

Past grants and support of the U.S. Department of Labor have enabled Rutgers to lead the way in making online education an important option for low-wage workers who are eligible for government training vouchers. The initial pilot project was carried out at

labor department offices in five New Jersey counties with a group of low-wage, single working mothers, some recent immigrants. The women accessed office software training materials online and a computer professional at each office provided telephone support for computer set-up, internet connectivity, and trouble shooting. Nearly all successfully completed the online courses they started, some earned Microsoft certifications, and the cohort received a 14% average wage increase. There was general agreement that absent the online option and given the participants' personal and family circumstances, taking traditional classroom courses would have been impossible. The project has been expanded with a trustee grant to the Center for Women and Work to build on the New Jersey success by consulting with Labor Department and other officials in various states. The online option has already been institutionalized statewide in both New Jersey and Texas. Start-up or pilot efforts now exist in at least 14 states. Where results have become available for those enrolled in the program, they have generally demonstrated both career and salary improvements. This grant will enable the Center to continue this work by supporting state efforts to establish online training as a "business as usual" practice, starting a community of practitioners across the states in order to share effective practices, and by publishing a handbook on navigating Federal laws that govern aid to workers. Project Director: Mary L. Gatta, Director of Workforce Development and Research, Center for Women and Work.

State University of New York
Albany, NY 12222

\$260,000

A series of Foundation grants in the 1990s enabled State University of New York (SUNY) to achieve its current dominant position in online learning, including nearly 60 degree offerings from about as many different campuses. Operating through its SUNY Learning Network, it is one of the largest providers of online education in the country with about 120,000 current enrollments. The School of Education at the Albany campus of SUNY contributes three online master's degree and one graduate certificate program. This grant supports a special effort by SUNY at Albany to reach out to teachers from New York's Capital District, which includes the cities of Albany, Schenectady, Utica, Troy, and Saratoga Springs. Three new programs, two graduate certificates and a master's degree, involving 30 blended courses, will be created by Albany for teachers wishing to learn and gain expertise in teaching with new technologies. Such courses will significantly reduce the need for campus visits. This fact and the high demand for these credentials lead to the expectation that students will be willing to commute considerable distances for the on-campus part of the program. Albany will work directly with teacher associations, school districts, community colleges, and individual schools to stimulate awareness of the new programs. SUNY Albany's School of Education will then use other non-Sloan funds to trigger a larger effort for the faculty to convert additional courses into ALN or blended format. The aim is to have online availability for 50% of all content directed toward local learners from the School, thus reducing by about 50% the number of campus visits for the average student. Project Director: Assistant Professor Peter Shea, Department of Educational Theory and Practice, School of Education.

Stevens Institute of Technology
Hoboken, NJ 07030

\$300,000

Stevens has had extraordinary success with ALN graduate programs, offering 279 fully online courses supporting 12 master's degree and 33 certificate programs via its WebCampus. This grant will enable Stevens to combine ALN synchronous and traditional classroom education (plus improved services) to produce a high-quality "blended" learning environment and then take steps to make this known in the NYC metropolitan area. The new emphasis to create an initiative within WebCampus for local learners will involve offering some 40 new courses and 6 degrees, incorporating elements of traditional classroom and other synchronous education (such as webcasting) together with ALN features. The new elements serve local learners and are not feasible for learners separated by large distances and time-zone differences. Services for local learners will also be upgraded by incorporating some face-to-face features within predominant electronic service delivery. With the high tuition costs characteristic of private institutions, Stevens' WebCampus programs and this new local initiative are primarily directed at employees at such local companies as Consolidated Edison, Johnson and Johnson, Verizon, and IBM. A special effort will be made to make the program more widely known in the NYC metropolitan areas, to both large and smaller companies, by means of personal visits and use of local media. Under this grant, Stevens will also work directly with one Midwestern engineering school and one Southern school to assist in establishing more regions where academic institutions offer rich arrays of both ALN and "blended" education. Project Director: Robert N. Ubell, Dean, Online Learning.

University of Massachusetts Foundation, Inc.
Boston, MA 02110

\$650,000

University of Massachusetts is a multi-campus system with sites in Amherst, Boston, Dartmouth, Lowell, and Worcester. The UMass Online unit is the means by which online courses and degree and certificate programs originating at the individual campuses are marketed and distributed to learners nationally. In 2006-07, about 300 courses and 20 degree and certificate programs are available through UMass Online, with enrollment at about 25,000. With this grant (and matching funds), the University will develop and offer 10 new programs that combine existing ALN courses with some 80 new blended courses in which learning content is about half online and half in traditional classroom style. Each campus will be responsible for courses and programs identified as "high need" for its local area. For example, Amherst will develop a BS with Health and Human Services emphasis, Boston a BS for Registered Nurses already holding an AS degree, and Dartmouth a BS degree in Humanities and Social Sciences. UMass Online and the individual campuses will upgrade many services for local populations, such as orientation, advising, and ESL tutoring, and will mount a marketing campaign to make area residents more familiar with the new blended programs. They should be attractive to learners who find the new courses and degree programs identified as "high need" for their local communities of special practical value and also find it advantageous to be able to reduce the need for on-campus visits to participate. Project Director: Jacquie Moloney, Dean of Continuing Studies and Corporate Education, University of Massachusetts Lowell.

University of Wisconsin - Milwaukee
Milwaukee, WI 53201

\$500,000

UW-Milwaukee is a doctoral institution primarily serving the population of over two million in the seven-county Milwaukee metropolitan area. Current enrollment is about 28,000 and the 93-acre campus is at capacity with no options for physical expansion. The possibility of adding new enrollments for its local population by offering classes through ALN and blended courses (ALN mixed with traditional classroom meetings) is therefore especially attractive. The opportunity to take such courses will also be a plus for many learners, especially the 10,000 or so who are older adult commuter students with job and family responsibilities. These students should welcome classes via ALN or blended courses, where attendance on campus may only be required for at most once or twice a week, as opposed to three or four times in a traditional class. They are likely to regard this as a significant advantage given the difficulties of traffic, limited campus parking, and high gasoline prices. With this grant, UW-Milwaukee will provide support for 45 new courses. Added to the blended ALN courses already developed, nine complete degree programs will be offered in this new *Learning with Life* initiative. Examples are an MS in Higher Education Administration, MS in Computer Science, and a BS in Criminal Justice. Within three years, the university expects the new initiative to have over 150 blended courses as well as a number of new degree programs, and to attract at least some “local” learners from as far away as 90 miles. Project Director: Robert Kaleta, Director, Learning Technology Center.

The following grants were funded from appropriations approved by the Board of Trustees for support of small high-leverage grants in the Foundation’s ALN program and for meetings, conferences, and workshops to extend and strengthen the ALN program.

Alabama A&M University
Normal, AL 35762

\$45,000

Support for an ALN workshop for regional historically Black colleges and universities. Project Director: Taylor Byrd, Director, Instructional Technology, Department of Agribusiness, School of Agricultural and Environmental Sciences.

Hampton University
Hampton, VA 23668

\$45,000

Support to organize and host a regional workshop of historically Black colleges and universities. Project Director: William Booth, Director of Religious Studies.

Hunter College of the City University of New York
New York, NY 10021

\$30,000

Support for special sessions and other Sloan-C presence at conferences. Project Director: Professor Anthony Picciano, School of Education.

National Association of State Universities and Land-Grant Colleges **\$44,000**
Washington, DC 20005

Support for the initial stage of a project to increase membership awareness of ALN as a possible strategic asset. Project Director: Howard Gobstein, Vice President of Science and Research.

North Carolina A&T University **\$45,000**
Greensboro, NC 27411

Support for an ALN workshop for regional historically Black community colleges. Project Director: Gwendolyn A. Godard, Associate Director, Center for Distance Learning.

University of Illinois at Chicago **\$36,000**
Chicago, IL 60612

Support for a conference on blended education. Project Director: Mary P. Niemiec, Executive Director, External Education.

University of Tennessee **\$15,000**
Nashville, TN 37217

Support to develop and deliver self-paced, self-learning educational modules for nurses. Project Director: Robbie K. Melton, Associate Vice-Chancellor for Academic Affairs and Educational Technology, Tennessee Board of Regents.

ANYTIME, ANYPLACE LEARNING, OFFICER GRANTS

Council for Adult and Experiential Learning **\$45,000**
Chicago, IL 60603

Support for a study of persistence to degree in industry ALN programs. Project Director: Karen Steinberg, Executive Vice President.

Louisiana State University **\$10,000**
Baton Rouge, LA 70803

Support for the LSU annual education conference at which the Sloan/Katrina ALN project will be a highlight. Project Director: Barbara Danos, Conference Coordinator, Centers for Excellence in Learning and Teaching.

Pennsylvania State University **\$40,000**
University Park, PA 06802

Support for small ALN projects with the U.S. Department of Labor. Project Director: Gary Miller, Associate Vice President for Outreach.

Stevens Institute of Technology **\$42,000**
Hoboken, NJ 07030

To organize three sessions at *Chief Learning Officer* magazine's executive conferences. Project Director: Robert N. Ubell, Dean, Online Learning.

University of Central Florida Research Foundation **\$45,000**
Orlando, FL 32816

A first-pass assessment of student satisfaction in ALN programs. Project Director: Charles D. Dziuban, Director, Research Initiative for Teaching Effectiveness.

University of Illinois at Springfield **\$45,000**
Springfield, IL 62794

Support for a workshop on academic institutional disaster preparedness and recovery. Project Director: Ray Schroeder, Director, Office of Technology-Enhanced Learning.

University of Massachusetts, Lowell **\$45,000**
Lowell, MA 01854

Support for planning for an ALN "localness" project. Project Director: Jacqueline Moloney, Dean, Continuing Studies, Corporate and Distance Education.

Washington State Community College **\$45,000**
Marietta, OH 45750

Support to complete a chemical operator ALN certificate program. Project Director: John J. Walsh, Executive Director of Workforce Development.

SCIENTIFIC AND TECHNICAL CAREERS

PROFESSIONAL SCIENCE MASTER'S DEGREES, TRUSTEE GRANTS

California State University Foundation **\$891,000**
Long Beach, CA 90802

Officer grants made in 2001 enabled both San Jose State University and San Diego State University, two of the 23 campuses of the California State University (CSU) system, to expand their master's programs by developing two-year professional science master's (PSM) degrees in selected fields. A subsequent grant to CSU supported an exploration of the potential for PSM degrees throughout the state university system. The current grant supports a large expansion of PSM degree programs in the system. CSU will launch at least a dozen new professional master's degree tracks on eight campuses and will graduate about 150 students per year. The system is making plans to double this number in the long run. Nine of the twelve new programs will be in biomedical sciences. Each program will have an industry advisory board and involve internships and courses outside the sciences designed to improve managerial and professional skills in fields such as business and law. Grant funds will be used to help cover start-up costs of programs and part of the salaries of three coordinators who will help those CSU campuses with PSM degree programs to address common challenges, such as recruiting students, branding and publicizing programs, and arranging internships with employers. Since the system does not offer doctorates in the sciences, CSU's faculty members welcome the opportunities offered by the new programs to teach more advanced students and also for opening contacts with industries. In fact, this project has support throughout the system, including not only faculty but also administrators at the various campuses and in the chancellor's office. Project Directors: Keith O. Boyum, Associate Vice Chancellor, Academic Affairs; Thomas R. Scott, Vice President for Research, San Diego State University; Faramarz Valafar, Associate Professor of Computer Science, San Diego State University.

National Governors Association Center for Best Practices **\$340,194**
Washington, DC 20001

The National Governors Association (NGA) is made up of the 55 Governors of the 50 States and the Territories of American Samoa, Guam, and the Virgin Islands and the Commonwealths of the Northern Mariana Islands and Puerto Rico. The elected NGA chair this year, Governor Janet Napolitano (D-AZ), has chosen as her "Chair's Initiative" the theme, "Innovation America," a topic that suggests a possible role for discussion of professional science master's (PSM) degrees. The NGA staff is familiar with the PSM degree initiative as a result of support from a Foundation officer grant that led to a 2005 workshop and an Issue Brief on the PSM degree program. The current grant supports a two-year effort to focus substantial attention on the role of PSM degree programs as a tool of developing a competitive workforce closely linked to the key science and engineering industries of each state. The NGA will devote part of its planned 2007 *National Forum on the Role of Postsecondary Education in an Innovative Economy* to the professional science master's degree. These degree programs will also be a part of the

planned NGA publication, *Governor's Guide to Creating 21st Century Postsecondary Systems*. The NGA will organize and host a separate Policy Academy for a selected group of state policy directors, designed to inform them of the details and potential benefits of the PSM degree program and to identify concrete approaches to help launch or expand such master's degree programs within their states. Project Director: Stephen Crawford, Director, Economic and Workforce Programs.

PROFESSIONAL SCIENCE MASTER'S DEGREES, OFFICER GRANTS

Georgia Tech Research Foundation

\$39,200

Atlanta, GA 30332

To establish a national association of individuals involved in advancing professional science master's degrees. Project Director: Professor Jung Choi, Department of Biology.

Michigan State University

\$45,000

East Lansing, MI 48824

To strengthen the educational program of the Michigan Center for Industrial and Applied Mathematics, including its professional science master's degree. Project Director: Professor Gang Bao, Department of Mathematics.

SCIENTIFIC AND TECHNICAL CAREERS

COMMUNITY COLLEGES, TRUSTEE GRANT

Teachers College, Columbia University
New York, NY 10027

\$312,203

About 12 million students in the United States are enrolled in “for credit” higher education programs leading to a bachelor, associate, or other degree. Six million more are enrolled in college programs, mostly in community colleges, that are “non-credit,” with course completion not contributing toward a degree. Tens of millions of other adult learners are engaged in some type of measurable educational experience that is not part of the for-credit system. This emergence of non-traditional educational experiences, closely connected to the growth of lifelong learning and distance education, presents new challenges for record keeping in education. This grant supports a project at the Community College Research Center of Teachers College that will coordinate an examination of issues associated with non-credit offerings as they impact students, employers, and education providers. The project was initiated by two consortia concerned with workforce preparation in community colleges, the National Council for Workforce Education and the National Council on Continuing Education and Training. Consider, for example, the standard college transcript with its emphasis on the accumulation of course credits and grades. The learning experiences of a large number of today’s students, especially at community colleges, who do not attend full-time, frequently attend more than one institution, and often are enrolled in “non-credit” programs, are less suited for recording on such a traditional transcript. The project will conduct a survey of how 20 community colleges are handling non-credit education. Questions to be studied include How is non-credit workforce development organized and delivered? and How is it regulated and accredited? The project will culminate in a report and national conference. Project Director: Professor Thomas Bailey, Institute for Education and the Economy.

COMMUNITY COLLEGES, OFFICER GRANT

Research Foundation of State University of New York
Albany, NY 12201

\$45,000

To identify and organize data on higher education outside the credit-based system, including programs by providers other than colleges and universities. Project Director: Professor Kevin Kinser, Department of Educational Administration and Policy Studies.

SCIENTIFIC AND TECHNICAL CAREERS

SCIENCE AND ENGINEERING WORKFORCE, TRUSTEE GRANTS

Commission on Professionals in Science and Technology **\$249,942**
Washington, DC 20005

In 2002, a grant to the Urban Institute initiated the STEM Workforce Project, Part I. (STEM is an acronym for Science, Technology, Engineering, and Mathematics.) The goal was to use existing data in a creative way to develop and disseminate new and reliable statistical information on the STEM workforce in the United States. Due to delays caused by staff changes and in the interest of expediting the work, the project was moved to the Commission on Professionals in Science and Technology. The project has now created a novel set of detailed databases on the STEM workforce stretching back over twenty years. Based on this dataset, the project has produced a number of reports and “white papers” that can be accessed on the website, <http://www.cpst.org>. This grant supports a final Phase II of the project over an 18-month period. Additional reports, data archives, and white papers will be produced, cumulating to 10 reports and 4 white papers in all. The project will then publish a final and comprehensive document that summarizes all prior reports and white papers and includes recommendations emerging from this STEM Workforce Data Project. The grantees will also organize and host a national conference on the present and future status of the STEM workforce. Project Director: Lisa Frehill, Executive Director.

Johns Hopkins University **\$290,437**
Baltimore, MD 21218

Reports of occupational labor shortages have been regular features of the popular press. Most such reports have failed to be clear about what is meant by “labor shortage” and have provided only weak and anecdotal evidence of the phenomenon. In spite of the lack of scientific analysis, concerns about such shortages underlie many proposed policy actions relating to higher education, government-sponsored training programs, immigration, and federal data collection. This grant supports a focused and expert set of analyses of such occupational labor shortages, with special attention to the U.S. science and engineering workforce. The project will first clarify and compare the variety of meanings that underlie past and current “shortage” claims. Based on this analysis, the project will then develop a set of quantitative indicators that can be used to identify “labor shortages” using credible empirical data. To gain more detailed understanding of important occupations than is possible from large-scale statistical data alone, qualitative research will also be carried out based on a series of case studies of specific occupations, mostly in science and engineering, and specifically including information technology workers, secondary school science and mathematics teachers, and biologists. The final stage of the project will explore the implications of whatever findings emerge for proposed policies in domains such as increased government expenditures on training and education, immigration, temporary labor programs, and improved data sources. Project Director: Burt S. Barnow, Principal Research Scientist, Institute for Policy Studies.

National Postdoctoral Association
Washington, DC 20005

\$190,325

Prior Foundation grants aimed at improving the postdoctoral experience at U.S. universities led in 2003 to the creation of the National Postdoctoral Association (NPA). Since then, many universities have created campus-based postdoctoral offices (PDOs) to provide centralized institutional support to postdoctoral researchers. Many major research universities also now have postdoctoral associations (PDAs); these are campus-based membership organizations of postdocs, usually affiliated with the NPA, that work with their campus administrations to support improvements in the quality of the postdoctoral experience. The NPA has worked to promote and facilitate the formation and maintenance of these campus-based groups. However, of 135 institutions in a database maintained by the NPA, some 34 still do not have a PDO, 61 do not have a PDA, and 14 have neither. The current grant supports the Postdoc Leadership Mentoring Project of the National Postdoctoral Association. The mentoring program will bring together emerging and prospective postdoc leaders with more experienced leaders from established PDOs and PDAs. The NPA will invite applications for up to 55 small travel awards to support attendance by emerging postdoc leaders at the NPA 2007 Annual Meeting, where they can meet many leaders of PDOs and PDAs. Technical assistance to recipients who seek to establish campus postdoctoral organizations will be made available, monthly teleconferences held, and site visits to prospective new campuses by small volunteer teams of experts will be supported. New campus postdoctoral offices and associations will receive substantial continuing assistance from NPA staff and volunteers. Project Director: Alyson Reed, Executive Director.

Urban Institute
Washington, DC 20037

\$368,172

This grant supports quantitative sociological research on careers and workforce issues related to science and engineering in the U.S. The primary aim is to gain better understanding of the educational and career pathways and transitions being followed by U.S. students from high school to college and graduate school, into career paths within or outside science and engineering, and possible later shifts out of science and engineering occupations. The plan is to utilize large datasets created by longitudinal studies of national samples of high school students, samples that were then tracked and re-interviewed in later years, in order to follow their subsequent education and career experiences. The earliest such sample began with high school students in 1972 and its subjects were followed into their mid-30s. In addition to intensive analysis of the data to be developed from these longitudinal survey studies, project researchers will interview samples of students at several undergraduate colleges, as well as 80-100 science and engineering workers now in mid-career who graduated from these same colleges. Among the many important questions to be given serious attention by this study are the following: (1) What categories of U.S. high school students are going into college majors and careers in science and engineering, and how have their characteristics changed over the past 30 years? (2) What career choices are being made by the most highly qualified students, and how have these changed over time? (3) How do students with strong potential for science and engineering careers perceive career prospects, and what are the important factors in their decision to choose or not choose careers in these fields and later

to continue or depart these career paths? Project Director: Harold Salzman, Center on Labor, Human Services and Population.

SCIENCE AND ENGINEERING WORKFORCE, OFFICER GRANTS

Center for Science and the Media
New York, NY 10001

\$44,470

To provide an integrated source of objective data and user-friendly tools to assist prospective graduate students to better identify and evaluate graduate programs in their fields of choice. Project Director: Geoff Davis, Founder, Collected Insight, Inc., Raleigh, NC.

Center for Science and the Media
New York, NY 10001

\$39,495

To create a new Internet-based blog (web-log) designed to cultivate easily accessible and informed discussion on careers in science and engineering among the large numbers of scientists and engineers in early stages of their professional careers. Project Directors: Geoff Davis, Founder, Collected Insight, Inc., Raleigh, NC and Peter Fiske, Vice President, RAPT Industries, Inc., Livermore, CA.

Georgetown University
Washington, DC 20057

\$44,979

To support an expert workshop and two reports to improve quantitative projections of effects of proposed immigration reforms. Project Director: B. Lindsay Lowell, Director of Policy Studies, Institute for the Study of International Migration.

SCIENTIFIC AND TECHNICAL CAREERS

RETENTION, TRUSTEE GRANT

University of Washington

\$354,390

Seattle, WA 98195

This grant supports a research-based intervention involving 25-30 schools of engineering intended to improve retention and graduation rates. Eligible for inclusion in the project will be engineering schools that are seriously interested in improving their retention and completion rates and whose deans attest to this goal and agree to provide the researchers with access to their students and needed data. At each participating school, a sample of students covering all years of the undergraduate experience will be chosen, with oversampling of women and underrepresented minority students. Student focus groups will be conducted at about half of the participating schools, with students separated by gender and race/ethnicity. Students leaving their engineering major in their first or second year at all schools will be surveyed and focus groups with some of these exiting students will be held. The surveys and focus groups will be designed to identify aspects of the campus climate that are known or expected to affect student retention and attrition, students' perceptions of the engineering career that awaits them upon graduation, and changes in their perception of this career. Schools will be provided with research results in a form that allows them to understand what is actually going on within their student bodies and to compare themselves with similar schools in the project. Each will also receive recommendations for how it could improve its campus climate as a basis for institutional change intended to improve retention and completion rates. The researchers will follow up with each participating school after six, twelve, and 24 months to see what institutional changes have actually been put in place and what effect these have had on the retention and completion rates at each school. Project Director: Suzanne G. Brainard, Executive Director, Center for Workforce Development.

RETENTION, OFFICER GRANT

Louisiana State University

\$33,269

Baton Rouge, LA 70803

To study doctoral student retention and attrition in departments at Louisiana State University. Project Director: Professor Susan K. Gardner, Department of Educational Leadership, Research, and Counseling, College of Education.

SCIENTIFIC AND TECHNICAL CAREERS

INFORMATION ABOUT CAREERS, TRUSTEE GRANT

South Shore Educational Collaborative
Hingham, MA 02043

\$400,000

For the past several years, the Foundation has supported an effort, the Sloan Career Cornerstone project, aimed at providing realistic information about the nature of work and other relevant aspects of careers in science, technology, engineering, and mathematics (STEM) fields. Originally made up of CD-ROMs and VHS tapes developed by disciplinary societies (e.g., American Chemical Society, American Society of Civil Engineers, etc.) emphasizing the professional lives of graduates who earned degrees in these fields, it has evolved to a website and now features a total of over 50 career fields, including some in the life sciences and medicine. With this grant, the website will be greatly expanded to encompass over a hundred career fields, essentially all fields in which undergraduate degrees are offered in all the sciences, mathematics, computing, and engineering. The growth will be mainly in careers in the life sciences and medicine. Much of the current heavy usage of the website is by career counselors who find the materials informative and useful for their work and in their discussions with students. Under this grant, the Career Cornerstone website will be focused on providing career information for counselors, department chairs, and deans, those who communicate with students, and will not be tuned or designed for student use. An effort will be made as part of this grant to make nearly all of the 150,000 or so in the gatekeeper population aware of the Cornerstone site as a most complete and reliable career information resource. Project Director: Chor Tan, Consultant, Managing Director of Education, American Society of Mechanical Engineers.

EDUCATION FOR UNDERREPRESENTED GROUPS

EDUCATION FOR UNDERREPRESENTED GROUPS, TRUSTEE GRANTS

Purdue University
West Lafayette, IN 47907

\$245,203

This grant extends the Foundation's American Indian Graduate Program beyond the University of Arizona and the University of Montana to include an institution more likely to prove attractive to the large Indian population in the eastern half of the country. Purdue University's Tecumseh Project is a campus-wide project directed at increasing the number of undergraduate and graduate Indian students in all disciplines. This grant will support aspects of the project limited to M.S. and Ph.D. students in mathematics, science, engineering and technology and will be focused on Indian students from tribes east of the Mississippi. Purdue has employed a full-time American Indian Director of the program and has guaranteed that all students accepted into the Sloan graduate program will be provided with a half-time assistantship, including health insurance. The university has developed strong relationships to feeder institutions and tribes. Several tribes have agreed to allow access to tribal lands for Indian students who wish to conduct thesis research there, an attractive option for tribal members who plan to return home to community jobs after earning applicable graduate degrees. Grant funds will mainly be used for recruitment and retention efforts. Eligible students would be funded (currently at \$32,100 for M.S. and \$38,500 for Ph.D. students) as they enter their graduate programs. As with the Foundation's minority Ph.D. and American Indian Graduate Programs, these scholarships will be paid and managed by the National Action Council for Minorities in Engineering. Project Director: Professor George Parker, Department of Forestry and Natural Resources.

Southern Regional Education Board
Atlanta, GA 30318

\$455,147

Since 1998, the Foundation has provided funding to the Southern Regional Education Board (SREB) to enable students in the Minority Ph.D. Program who aspire to academic careers and a smaller number of associated faculty members to attend SREB's annual Institute on Teaching and Mentoring. Starting in 2005, SREB also invited students in the Foundation's American Indian Graduate Program to attend the Institute. Past experience suggests that student attendees are indeed those who have decided or are seriously considering academic careers and that attendance at the Institute both reinforces this aspiration and also increases the prospect of success. It also appears that in the absence of funding, most eligible students and faculty in the Foundation's programs would not be able to attend the Institute. This grant renews support for this project for another three years. Project Director: Ansley Abraham, Director, Doctoral Scholars Program.

University of Arizona
Tucson, AZ 85721

\$231,557

A 2003 grant supported the launching of a special program for American Indian graduate students at the University of Arizona and funded the recruitment and retention components of the program. The goal of this program was to increase the number of American Indian students earning M.S. and Ph.D. degrees in mathematics, science, and engineering disciplines. (Since then, the program has been extended to the University of Montana and most recently to Purdue University.) The Foundation's contribution to these programs is mainly limited to support for the universities' special efforts first to recruit American Indian graduate students and then to create a campus environment that will increase the likelihood that they will complete the graduate programs in which they are enrolled. This grant renews this program for another three years. The grant will support a full-time person to run the recruitment and retention program and also a specially designed tutoring program for the students that has proved very valuable during past years. Going forward, the University expects to attract five new Ph.D. and six new M.S. American Indian students each year. Graduate students accepted into the program receive scholarships that are paid and managed by the National Action Council for Minorities in Engineering under separate funding. Project Director: Maria Teresa Velez, Associate Dean, Graduate College.

The following grant was made from an appropriation approved by the Board of Trustees to fund the Foundation's minority Ph.D. program and the American Indian program.

Purdue University
West Lafayette, IN 47907

\$147,434

To fund a conference of participants in the Sloan Foundation's minority Ph.D. program. Project Director: Dwight E. Lewis, Director of Minority Programs, The Graduate School.

EDUCATION FOR UNDERREPRESENTED GROUPS, OFFICER GRANTS

Cornell University
Ithaca, NY 14853

\$33,000

To help launch a pilot summer research program intended to encourage and prepare minority and women students to enter Ph.D. programs in applied mathematics. Project Director: Professor Steven H. Strogatz, Department of Theoretical and Applied Mechanics.

University of Oklahoma
Norman, OK 73019

\$45,000

To disseminate the results of a survey of the demographics of faculty in university science and engineering departments, with special emphasis on dissemination to minority

organizations and faculty. Project Director: Professor Donna Nelson, Department of Chemistry.

University of Washington
Seattle, WA 98195

\$23,592

To launch an effort to develop the next generation of social science researchers who work on issues of minority representation in mathematics, science and engineering. Project Director: Angela Ginorio, Associate Professor of Women Studies.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

BOOKS, TRUSTEE GRANTS

The following grants were made from an appropriation approved by the Board of Trustees to provide small grants for promising new books on science and technology.

Ed Regis **\$27,600**
Sabillasville, MD 21780

For research and writing of a book on how biological life is defined in the 21st century.
Project Director: Ed Regis, science author.

Carl Zimmer **\$41,000**
Guilford, CT 06437

For research and writing of a popular book on E. Coli. Project Director: Carl Zimmer, science writer, *New York Times*.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

RADIO, TRUSTEE GRANTS

National Public Radio, Inc.
Washington, DC 20001

\$345,000

A 2001 Foundation grant supported National Public Radio's *Science Friday*, the popular radio talk show on science, hosted by Emmy Award-winning Ira Flatow, to create a regular monthly strand focusing on science and the arts. The segments have since become an integral part of the show. Leading scientists and engineers regularly interact with painters, playwrights, screenwriters, musicians, and poets on this very popular show. Since the initial grant, the number of unique visitors to the show's website has increased more than ten-fold, to just under one million. *Science Friday* has been a pioneer in podcasting – making short, self-contained segments available for download on the web – and has logged 4 million downloads in the last year. This grant renews support for two more years of science and art segments on *Science Friday*. It includes funds for four remote broadcasts or “road trips” each year during which Ira Flatow visits local institutions and engages with the public before hosting the show live from the site. The possibility of selecting sites where science plays or other artistic activities emphasizing science and technology themes, perhaps supported by other aspects of the Foundation's program in public understanding of science and technology, is being explored. Project Director: Ira Flatow, Host and Executive Producer.

WNYC Radio
New York, NY 10007

\$500,000

Radio Labs is an innovative science show on public radio. Each hour-long program centers on a core scientific theme (time, stress) and uses rich audio production techniques (musical, documentary) and a range of forms (conversation, theater, story). It is hosted by Robert Krulwich, a very successful science broadcast journalist, formerly of ABC News, and his young co-host Jad Abumamad. In its pilot phase, the show attracted over 400,000 listeners, and praise from science advisors as well as listeners. NPR is allowing reporters from its Science Desk to file stories for the show as well as attend workshops with Krulwich. This grant supports the formal national launch of *Radio Labs*. It will enable the show to increase national carriage from 50 to 100 stations, and to create branded science features for NPR's magazine shows, *All Things Considered* and *Morning Edition*, significantly increasing the audience. Krulwich and Abumamad will also hold select, live community science events. Project Director: Ellen Horne, Senior Producer.

WNYC Radio
New York, NY 10007

\$438,000

A prior grant to *Studio 360*, public radio's leading show on the arts, supported the integration of more science and technology coverage into the show's weekly national magazine format. A new half-time producer dedicated to this effort was hired and an advisory group of ten scientists, from an array of disciplines, was assembled and helped

Studio 360 choose good subjects and attract well-informed guests. The show's new segments on "Science and Creativity" were strong and well received by audiences. The current grant funds the show for two-years during which period four hour-long shows and 24 feature 6-12 minute segments, all with themes drawn from science and technology, will be produced. Interviews with working scientists and engineers will be included as part of some shows. Project Director: Julie Burstein, Executive Producer, Studio 360.

RADIO, OFFICER GRANTS

Daniel Charles

\$20,000

Washington, DC 20016

To research and broadcast half a dozen segments on the technology of mapmaking for National Public Radio. Project Director: Daniel Charles, Author/Correspondent.

Public Radio International

\$45,000

Minneapolis, MN 55403

A planning grant for a science and technology component of a satirical news program on public radio. Project Director: Alisa Miller, President & CEO.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

PUBLIC TELEVISION, TRUSTEE GRANTS

Living Archives, Inc.
New York, NY 10024

\$975,000

This grant partially funds the development, production, and broadcasting of three one-hour PBS documentaries about three women scientists (Ada Byron Lovelace, Irene Joliot-Curie, and Frances Kelsey) by a documentary filmmaker who made a prior successful film, with Foundation support, about Lisa Meitner, Otto Hahn, and the discovery of nuclear fission. The new films will highlight the role of women in science whose stories are not world-famous, but who have made vital scientific contributions and whose lives and times are rich with drama and storytelling interest. Ada Byron Lovelace, a mathematician and the only daughter of Lord Byron, created what is considered the first computer program. Her first name, ADA, was chosen for the computer language used by the U.S. Department of Defense for its complex systems. The French physicist and radiochemist Irene Joliet-Curie, the eldest daughter of Pierre and Marie Curie, discovered artificial radioactivity, which opened up an entire new field with applications in chemistry, biology, and medicine and for which she won the Nobel Prize. Frances Kelsey, a pharmacologist and physician whose denial of FDA approval for an insufficiently tested drug, thalidomide, prevented thousands of deformities in newborns and led to stricter drug testing standards and regulations for the licensing of drugs. The project is supported by KQED, the presenting PBS station in San Francisco, and by PBS Central. Supplementary funds will be generated to make up the total budget of \$1.75 million for the three shows. Project Director: Rosemarie Reed, Documentary Filmmaker, Rosemarie Reed Productions, Ltd.

WGBH Educational Foundation
Boston, MA 02134

\$1,200,000

This grant supplies funding for a four-part PBS NOVA series on space and time, *The Fabric of the Universe*, based on Brian Greene's bestselling book of the same title. The very successful 2003 NOVA series *The Elegant Universe*, supported by a Foundation grant, was also based on a Brian Greene bestseller and narrated by him. For this new series, Greene will explore the most fundamental questions in science, drawing on the work of Newton, Einstein, Feynman, Wheeler, Scully, and Guth, and ranging from classical physics to quantum mechanics and contemporary physics, including such current mysteries as dark energy and dark matter, gravity waves, and the horizon problem of cosmology. Greene, a professor of physics and mathematics at Columbia University, has proved to be a master at explaining complex scientific ideas in everyday language and at generating both huge audiences as well as media interest. His *The Elegant Universe* series was seen by over 9 million broadcast viewers and viewed online by an additional 1.4 million. It sold about 150,000 copies in DVD/VHS format. It won both the Emmy Award and a Peabody. Similar results are anticipated for the new series. Project Director: Paula Apsell, Senior Executive Producer, NOVA.

PUBLIC TELEVISION, OFFICER GRANT

Teachers College, Columbia University
New York, NY 10027

\$45,000

Partial support for the Open Mind Online Digital Archive. Project Director: Richard D. Heffner, Host, The Open Mind; University Professor of Communication and Public Policy, Rutgers, The State University of New Jersey.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

COMMERCIAL TELEVISION AND FILMS, TRUSTEE GRANTS

American Film Institute Los Angeles, CA 90027	\$420,000
New York University New York, NY 10003	\$399,450
University of California, Los Angeles Los Angeles, CA 90095	\$304,000
University of Southern California Los Angeles, CA 90089	\$330,000

These four film schools have been supported with previous Foundation grants as part of a program to influence the next generation of film makers to create more realistic and dramatic stories about science and technology and to challenge existing stereotypes about scientists and engineers through the visual media. The program funds prizes for screen writing and production of new films dramatizing science and technology. The number of film students who elect to take a Sloan seminar and submit a screenplay or production treatment has steadily increased, as has the quality of the submitted work, both in its artistic values and its treatment of science and technology. A body of work has been created and an emerging cadre of talented filmmakers has emerged, all focused on science and technology films. Many producers are combing through the work of Sloan student film award winners to find new scripts. The Sloan summit, which showcases the work of student winners, attracts executives from the leading film companies. The program has seen student films turned into multi-million dollar commercial features. Many student short films have attracted beginning financing and attached actors. Several screenplays are being developed by producers. Film students in the Sloan program have landed jobs with hit science television shows like *CSI*. The four current grants renew support for three additional years to each of these leading film schools for continued awards for screenwriting and production of science and technology films and for holding annual science and technology seminars.

American Film Institute (AFI) has a unique status as the national film conservatory. AFI Sloan films, such as *Skylab* and *The Monster and the Peanut*, traditionally have very strong production values. Because AFI does not have a science faculty, a science advisor is required for each film submitted in its Sloan program. The AFI grant includes significantly increased funding for this budget item, especially in light of the fact that since the previous grant, the number of Sloan applicants has grown from 25 to 50 students. The renewal grants of AFI and of the other film schools also include an increase in production funds due to the rising costs of making films. Project Director: Joe Petricca, Executive Vice Dean, AFI.

The NYU Tisch School of the Arts has devoted more faculty, administration and resources and has given more student film awards than any of the film schools. Stipends for each science advisor who reads and critiques a student film script are included in the grant budget, as are increases in production costs. Although only six awards are made each year at NYU, the program has an impact on all 35-40 NYU film students who submit a science/technology script as part of the award program. Project Director: Mary Schmidt Campbell, Dean, Tisch School of the Arts, NYU.

The UCLA School of Theater, Film and Television has a distinguished screenwriting program and produces first-rate film graduates. New production controls and systems are introduced in the renewal grant to avoid film productions falling behind schedule. Funds are included for a faculty advisor to oversee student projects to a timely completion. Also included in the grant is funding for three years of full-page ads in *Variety* and the *Hollywood Reporter* that will announce the annual winners from all film schools in the Sloan program. These ads give all student participants in the film program important visibility within the film industry. Project Director: Robert Rosen, Dean, School of Theater, Film and Television, UCLA.

The USC School of Cinematic Arts is the oldest film school and is regularly ranked at or near the top among film schools in the country. *The First Vampire* is a notable USC student award film that has attracted major funding and is being turned into a Hollywood feature film. The USC renewal grant includes support for a faculty member to oversee student film projects and, as other renewals, involves increases in production costs. It also includes a production grant for an animated film, the only one of its kind in the Sloan film school program. Project Director: Elizabeth M. Daley, Dean, School of Cinematic Arts, USC.

New York University
New York, NY 10003

\$382,000

This grant funds a three-year annual production grant of \$100,000 to help a graduate of the NYU film school make his or her first feature film. As part of the Sloan program, the film would deal with science and technology themes and/or characters. This new grant builds on an earlier two-year pilot production grant to NYU that has worked well, with *Signs of Life* attracting two independent producers and a first-rate cast and *Rosalind's Helix* in pre-production with principal photography just underway. There is now a backlog of outstanding scripts for strong science and technology films that would compete for the new award. Recipients of the Sloan Feature Film Production Award will have 24 months from the time of the award to begin production. This arrangement aims to focus filmmakers on submitting scripts that can be shot without undue delay and that involve realistic budgets. Raising money for a first-time filmmaker is extremely difficult. This production award program, which includes a science or technology advisor for each script, should help launch the careers of young filmmakers while simultaneously showcasing the rich potential of science and technology films. Project Director: Mary Schmidt Campbell, Dean, Tisch School of the Arts.

Malibu Celebration of Film Festival

\$45,000

Malibu, CA 90265

To spotlight Sloan-winning features and shorts and hold science panels for an exclusive Hollywood audience. Project Director: Robert Klein, Founder/CEO.

Sundance Institute

\$45,000

Beverly Hills, CA 90211

To develop a multimedia project about dreams and neuroscience by performance artist Laurie Anderson. Project Director: Michelle Satter, Founding Director, Feature Film Program.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

THEATER, TRUSTEE GRANTS

L.A. Theatre Works

\$253,000

Venice, CA 90291

This grant will enable L.A. Theatre Works (LATW), a distinguished 30-year company that specializes in radio plays, to record for broadcast on public radio four Sloan-commissioned plays, including the Ensemble Studio Theater mainstage plays *The Secret Order* and *Moving Bodies*. Two of the broadcasts will be recorded at either Lincoln Center in New York or the Skirball Center in Los Angeles, before live audiences. The broadcasts will be part of a special monthly series of science-themed plays and include not only interviews with subject experts, actors, and directors, but also short features on the scientific subjects in the plays. This long-running weekly program, called *The Play's the Thing*, is promoted by a combination of on-air, web, and marketing outreach efforts. Both the series and the show are featured on websites of LATW and partner stations with links that enable people to purchase plays from LATW's audio collection in hard copy or digital form. The monthly audience for these works is 600,000. In addition, LATW will distribute one of the four Sloan-commissioned plays worldwide to its partners in WorldPlay, an association of the leading English language radio broadcasters, including BBC World Service, CBC (Canada), ABC (Australia), Radio New Zealand, Radio Hong Kong, and Radio Telefis Eireann (Ireland). Each year, an annual festival of seven plays, one from each broadcaster, airs in each country and generates large audiences. Project Director: Susan Albert Loewenberg, Producing Director.

Manhattan Theatre Club

\$465,000

New York, NY 10036

The Manhattan Theatre Club (MTC) is well-known for producing new plays, with 24 world and 12 American premieres in the past decade. The Foundation's collaboration with MTC continues to generate new plays about science and technology and helps spread the message that science and technology offer playwrights interesting characters and wonderful themes and stories that have gone largely untold. With this grant, MTC will expand its Sloan program by commissioning four playwrights a year to write plays that deal with science and technology themes and/or characters. MTC will also increase the number of developmental readings and workshops conducted for new Sloan commissions while continuing to assist playwrights commissioned in previous rounds. The grant budget includes a small travel stipend for the Sloan project manager at MTC to visit other regional theaters across the country to evaluate relevant plays for potential production. Also included are honoraria for the scientific advisory board that plays a key role in improving the science content of commissioned works and acting as a resource for playwrights. With this grant, two dozen produced playwrights will have written science and technology plays under the Sloan/MTC program, ensuring a steady supply of new work that will receive readings, workshops, productions, and publication across the country. Project Director: Barry Grove, Executive Producer.

THEATER, OFFICER GRANT

Brooklyn Academy of Music, Inc.
Brooklyn, NY 11217

\$45,000

For production of an opera about Nicola Tesla, along with scientific discussion and ancillary activities. Project Director: Karen Hopkins, President.

PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

OTHER OFFICER GRANTS

Cleveland Museum of Natural History
Cleveland, OH 44106

\$45,000

For a joint international study by Middle Eastern researchers on the impact of the Agricultural Revolution (12,000 – 5000 BC) on human behavior. Project Directors: Israel Herskovitz, Department of Anatomy and Anthropology, Faculty of Medicine, Tel Aviv University, Israel; and Issa Al-Srai', Institute of Archaeology, Al Quds University, Jerusalem.

New York Academy of Sciences
New York, NY 10021

\$44,100

For a two-day conference on teaching evolution. Project Director: Stacie Bloom, Manager, External Relations.

The Science Festival Foundation
New York, NY 10025

\$45,000

A planning grant for the first New York International Science Festival. Project Director: Tracy Day, Producer/Broadcast Journalist.

SELECTED NATIONAL ISSUES AND THE CIVIC PROGRAM

SELECTED NATIONAL ISSUES

BIOTERRORISM, TRUSTEE GRANTS

American Friends of the Royal Society Inc. **\$80,000**
London SW1Y 5AG, UK

This grant supported a project concerned with the monitoring of dangerous research, part of the Foundation's bioterrorism program. It supplied partial funding for a workshop and related activities to raise awareness in the international bioscience community about issues of dual-use research in the life sciences. The 3-day workshop organized by the Royal Society was held in early September 2006 with approximately 75 participants from around the globe. The workshop was co-hosted with the International Council for Science and the InterAcademy Panel on International Issues. It supplied an opportunity for participants to share knowledge and experience with national and international initiatives, encourage new collaborations, and increase commitments for training and education on dual-use issues. The final report of the international workshop, transcripts of workshop presentations, and a key points statement on the scientific and technological developments relevant to the Biological and Toxin Weapons Convention can all be found online at the Royal Society website, www.royalsoc.ac.uk. Project Director: Nick Green, Science Policy Manager (International Security).

Columbia University **\$121,730**
New York, NY 10027

This grant supports a workshop and follow-up activities to develop assistance for citizens on personal preparedness measures for pandemic influenza as well as other biological threats. Workshop participants examined and evaluated various personal preparedness measures (masks, air filtering, etc.), with the aim of formulating guidance to citizens and employers as to what can be done to empower individuals to avoid infecting themselves or others. In addition to the workshop, the plan included publications, information posted on websites, additional dissemination through partner organizations, and briefings with government officials. (For additional information, see the policy paper brief published following the workshop in the November 10, 2006 issue of *Science*: "Next Flu Pandemic: What to Do Until the Vaccine Arrives.") Project Director: Stephen S. Morse, Director, Center for Public Health Preparedness, Mailman School of Public Health.

National Academy of Sciences **\$200,000**
Washington, DC 20001

A prior grant to the National Academy concerning issues of dangerous research resulted in the 2003 National Research Council Report: "Biotechnology Research in an Age of Terrorism: Confronting the Dual-Use Dilemma." This report called for building upon

existing regulations and creating a voluntary system of self-policing. Its seven specific recommendations led to the establishment in 2004 by the U.S. Department of Health and Human Services of the National Science Advisory Board on Biosecurity. A 2004 Foundation grant enabled the National Academy, in collaboration with three international scientific partners, to organize and host the International Forum on Biosecurity held in Italy in March 2005, aimed at engaging and educating the international scientific community on the dual-use risks of biotechnology research. At the Forum, the InterAcademy Panel on International Issues (IAP) presented its statement on biosecurity, subsequently endorsed by more than two thirds of the national academies who are members of the IAP and released as an official IAP document in late 2006. The current grant supports the International Biosecurity Project (IBP), whose goal is to work with international partners, other academies and international organizations, as well as a wide range of inter-governmental and non-governmental organizations, in order to develop and promote more effective international strategies to reduce the risk that advances in research in the life sciences could be misused. A second International Forum on Biosecurity will be held in the fall of 2007 to bring together scientists and policy makers to discuss how best to achieve the project's goals. Project Director: Jo L. Husbands, Senior Project Director, Office of International Affairs.

University of Exeter
Exeter EX4 4QJ, UK

\$277,210

A 2005 grant to the University of Exeter supported a project to raise awareness in the worldwide life sciences community of possible destructive applications of new knowledge in the life sciences. A series of seminars were held in the US, South Africa, the Netherlands, and Finland that explored opinions of over 800 life scientists about such questions as whether there are any lines of research that should not be followed and any research better left unpublished or restricted in dissemination. Consistent with outcomes of earlier similar inquiries, results reinforced the view that there is a great need for education and outreach to raise awareness of the possible destructive applications of the life sciences. Moreover, it became clear that there are ways to engage practicing scientists with well-designed educational modules and training materials, written and online, directed at such awareness-raising. The current grant enables an expansion of this work to seven countries with established or emerging biotechnology research, most likely China, Egypt, India, Israel, Japan, Kenya, and the Ukraine. With local collaborators, researchers will conduct seminars, brief policy makers, adapt and institutionalize the training materials, and train local trainers. Papers will be published, a workshop will be held in D.C., and input provided to various organizations such as the National Science Advisory Board on Biosecurity. Project Director: Professor Brian Rappert, Department of Sociology, School of Historical, Political and Sociological Studies.

University of Minnesota
Minneapolis, MN 55455

\$571,191

An earlier Foundation grant to the University of Minnesota's Center for Infectious Disease Research and Policy (CIDRAP) partially funded a meeting, attended by over 300 business leaders from 200 companies, on "Business Planning for Pandemic Influenza." Participants indicated that they would welcome additional resources to help them and

their companies plan and better prepare for pandemic influenza. They had in mind more meetings/networking opportunities, online forums/webinars, an electronic newsletter with current news and information, and Internet-based information. The current grant supplies partial start-up funds to establish a comprehensive and authoritative business preparedness information service consisting of a weekly e-mail newsletter (*CIDRAP Business Briefing*) and a continuously updated website library to help businesses prepare for pandemic influenza and other disease outbreaks, whether naturally occurring or man-made. CIDRAP will also establish a forum of leading businesses from 12 different business sectors to convene meetings, arrange conference calls, and develop action-oriented white papers. The weekly e-mail newsletter will contain planning articles, case studies, networking information on upcoming events, summaries of recent key meetings and policy announcements, and analysis of scientific, economic and business planning information. The website will provide access to an up-to-date web-based document repository stocked with comprehensive lists of state plans, company plans, government guidance, and other credible and useful resources. The program will be supported by company subscriptions and CIDRAP expects it to be self-sustaining within a year. Project Director: Professor Michael T. Osterholm, School of Public Health; Director, Center for Infectious Disease Research and Policy.

University of North Carolina
Chapel Hill, NC 27599

\$799,236

During the 2005 SARS outbreak in Toronto, fear of lost wages turned out to be the leading inhibitor to rigorous compliance with voluntary quarantine orders. A common sick leave policies template needs to be developed that would identify, for various levels of quarantine and isolation, sick leave policy options, cost considerations for each option, legal and human resource policy barriers, and communication strategies. On another matter, it would be very useful to have a template that outlines the policy and cost options of extending “Good Samaritan” liability coverage to business and non-profit entities. Most states provide a level of liability protection to individuals who voluntarily assist injured persons in an emergency situation, but these state laws do not extend to businesses and non-profit entities. Such a template would ease liability concerns and help remove an obstacle for these entities to enter into agreements with public health agencies as part of preparedness activities. This grant supports work to develop policy and legislative templates in the above two areas: common sick leave policies and “Good Samaritan” liability protections for business and non-profit entities. The UNC team also plans to create new networks and alliances among business and public health leaders to assist in the development and implementation of these templates. Pilot implementation projects are planned for North Carolina and Georgia. Identifying key legal issues and policy alternatives and supplying concise roadmaps of the issues, options, and policy choices will help companies revise their sick leave policies and state legislatures enact “Good Samaritan” liability protections for business and non-profits and thereby help improve business and public health preparedness. Project Director: Edward L. Baker, Director, North Carolina Institute for Public Health.

University of Pittsburgh Medical Center
Pittsburgh, PA 15213

\$3,000,000

Foundation grants, first made before 9/11, and subsequently renewed in 2004 have helped the University of Pittsburgh Medical Center's Center for Biosecurity become an international leader in biodefense. The Center wrote the definitive papers on the medical and public health management of six principal threat agents: anthrax, smallpox, plague, tularemia, botulinum toxin, and hemorrhagic fever viruses. Using smallpox as an example, it demonstrated that an attack on the U.S. with biological weapons would cause mass casualties in light of the country's lack of preparation. This paved the way for many changes, including the procurement of 300 million doses of smallpox vaccine. During the past two years, the Center undertook a wide range of analytic efforts to evaluate the biodefense strategy and major biodefense initiatives of the federal government, focusing on strategies for containment of contagious disease epidemics, healthcare system preparedness, and pandemic flu preparedness. It published analyses of the budgets and allocations for biodefense at the Department of Health and Human Services, the Department of Homeland Security, the National Science Foundation, the Environmental Protection Agency, the Department of State, and the Department of Agriculture. On the international front, in 2005 the Center designed and developed "Atlantic Storm," a bioterrorism tabletop exercise that highlighted urgent issues and strategic political problems that would demand the attention of world leaders in the event of a bioterrorism crisis and focused national and international attention on problems of preparing for bioattacks. The Center convened a group of leading experts in air filtration, building ventilation, public health, building design and operation, biosecurity, economics, and medicine, resulting in the 2006 publication, *Improving Performance of HVAC Systems to Reduce Exposure to Aerosolized Infectious Agents in Buildings: Recommendations to Reduce Risks Posed by Biological Attacks*. Center personnel continue to conduct numerous educational and outreach programs, give expert testimony to Congress, brief many senior government officials, and edit *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, the only peer-reviewed journal devoted to biodefense.

The current grant represents renewal support for the next two years for Center activities to address three strategic objectives: (1) Persuade key U.S. and international leaders and the American public that the bioterrorism threat is one of the most serious threats to national security and convey the major actions necessary to counter it; (2) Increase national resilience to bioterrorist attacks by assessing top biothreats and vulnerabilities, analyzing programs intended to address them, and identifying best practices and needed new initiatives; and (3) Increase civilian resiliency to bioterrorist attacks by analyzing public views, improving communication flows to the public, and providing guidance on what civilians can do to take care of themselves at home. Project Director: Tara O'Toole, MD, CEO and Director, Center for Biosecurity.

The following grants were made from appropriations approved by the Board of Trustees in 2004 and 2006 for support of short-term projects and the planning stages of promising larger projects to reduce the threat of bioterrorism.

The Bellwether Group, Inc. **\$45,000**
Boston, MA 02116

To conduct a roundtable on corporate preparedness for pandemic flu. Project Director: David A. Wilkinson, Principal.

The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. **\$20,000**
Rockville, MD 20852

To provide partial support for a workshop, "Workplace preparedness and response to disaster and terrorism." Project Director: Robert J. Ursano, Chairman, Department of Psychiatry, Uniformed Services University of the Health Sciences.

Regents of the University of Minnesota **\$45,000**
Minneapolis, MN 55455

For partial support of "Business Planning for Pandemic Influenza: A National Summit." Project Director: Professor Michael T. Osterholm, School of Public Health, and Director, Center for Infectious Disease Research and Policy.

Tulane University **\$17,250**
New Orleans, LA 70118

To improve pandemic preparedness by supporting preparation and dissemination of a paper that presents historical data about the 1918 influenza pandemic. Project Director: Professor Douglas J. Meffert, Tulane/Xavier Center for Bioenvironmental Research.

BIOTERRORISM, OFFICER GRANTS

American Friends of the Royal Society, Inc. **\$45,000**
London SW1Y 5AG, UK

To support planning activities for the "International Workshop on Science and Technology Developments Relevant to the Biological and Toxin Weapons Convention." Project Director: Nick Green, Science Policy Manager (International Security).

Building Wellness Consultancy, Inc. **\$45,000**
Alpharetta, GA 30022

To provide partial support for a study of enhanced air filtration in buildings. Project Director: H. E. Barney Burroughs, President and CEO.

Center for Arms Control and Non-Proliferation
Washington, DC 20002

\$44,500

To support a feasibility study to develop a network of globalized bioscientists. Project Director: Alan Pearson, Director of the Biological and Chemical Weapons Control Program.

Emory University
Atlanta, GA 30322

\$44,076

To develop recommendations that encourage and facilitate business and government partnerships for improving preparedness for public health emergencies related to infectious diseases. Project Director: James W. Buehler, Research Professor, Department of Epidemiology, School of Public Health.

Regents of the University of California, Berkeley
Berkeley, CA 94720

\$39,937

To raise awareness of issues of potentially dangerous research in the synthetic biology community. Project Director: Jay D. Keasling, Professor of Chemical Engineering and Bioengineering, and Director of the Berkeley Center for Synthetic Biology.

SELECTED NATIONAL ISSUES

UNIVERSAL ACCESS TO RECORDED KNOWLEDGE, TRUSTEE GRANTS

Internet Archive **\$500,000**
San Francisco, CA 94129

Internet Archive **\$1,000,000**
San Francisco, CA 94129

The Internet Archive, supported by previous Foundation grants, has become a leader in storing and preserving a historical record of the entire Internet and World Wide Web. It was a 2005 grant that supported the Archive to begin scanning books toward an open-access digital library. Later that year, it created the Open Content Alliance (OCA), a coordinating group for the creation of such a library. OCA now includes over 30 major libraries holding some 160 million volumes, as well as major search engines (by Yahoo and Microsoft Network), technology companies (Adobe and Xerox), a commercial publisher (O'Reilly Media, Inc.), and a major not-for-profit membership organization of over 150 institutions, including universities, research libraries, archives, museums, and historical societies, devoted to improving access to information that supports research and learning (RLG, the Research Libraries Group, Inc., newly combined in 2006 with OCLC, the Online Computer Library Center). Unlike Google, OCA supports an open-access, non-proprietary online library in which no single entity can exercise exclusive control. The general goal is to make knowledge, to the extent allowed by law, available and accessible to all, with accessible meaning freely viewable, downloadable, shareable, printable, indexable, and navigable. The first of the above grants (made in May 2006) enables the Archive to capitalize on fast-moving developments by adding a hands-on, day-to-day executive director for public advocacy, fundraising, and development of new partnerships, and by engaging an OCA curator of books to function as an internal administrator, coordinating the activities of OCA's six working groups. These staff additions and additional program refinements will allow OCA more effectively to carry forward and accelerate the pace of its work to create and grow an open, online digital library.

To date, OCA has established scanning centers in four cities and expects to add five more centers in 2007. It is now scanning at the rate of roughly 10,000 books per month. The second of the above grants (made in December 2006) supports the strengthening of the open access approach to recorded knowledge by funding OCA to digitize select high-profile collections of books and other special research materials from five world-class institutions. These include: the John Adams Collection at the Boston Public Library; the History of Art and Architecture Collection at the Getty Research Institute; both new and previously digitized publications from the Metropolitan Museum of Art, along with several thousand key images of works from the collection; the James Birney Anti-Slavery Collection from The Johns Hopkins University; and the Westward Migration and Gold Rush Collections from the Bancroft Library at the University of California, Berkeley. Bringing such superb materials online will not only increase the total number of digital

books and related images available to scholars and the general public, but will also advance the cause of free universal access by showing that five leading institutions have opted for OCA's open-access, non-proprietary online library over more restrictive proprietary alternatives. Director of Projects: Brewster Kahle, Digital Librarian.

Library of Congress
Washington, DC 20540

\$2,000,000

The Library of Congress (LoC), with over 30 million books and 38 million manuscripts, is the largest library in the world. To date, the LoC's major scanning efforts have been directed toward unique items in its collections, like maps, photos, and manuscript pages. From its vast holdings, LoC has digitized fewer than 2,000 books, many for special web presentations. It has not yet undertaken a systematic, large-scale book digitization effort. With this grant, the LoC will digitize some 136,000 high-value public domain books, 100,000 of which will be from its prestigious American Imprint collection, all in the public domain and most pre-1923. The digitization will be carried out along principles of the Open Content Alliance, i.e., the digital book files will be available for free and unrestricted access by scholars, academics, journalists, and members of the public anywhere in the world. The project also involves application development efforts to improve digitization capabilities, including capture of high-level structural metadata, page turner applications, and scanning and presenting foldouts. Many libraries look to the LoC and tend to follow its lead. This project not only will create significant additional digital content, but it will also increase capabilities for mass digitization that other libraries everywhere can emulate. It will also serve as a pilot demonstration of the feasibility and utility of an approach to mass digitization that may allow the LoC to go to Congress with strong evidence that this is an investment that should be taken on by the federal government. Project Director: Deanna Marcum, Associate Librarian for Library Services.

New Orleans Public Library Foundation
New Orleans, LA 70112

\$353,000

The New Orleans Public Library (NOPL) lost two-thirds of its book collection and saw 8 of 13 branches severely impacted by Hurricane Katrina. This Foundation grant supports a project to install an Espresso Book Machine in the library. The newly designed machine, using innovative technology that enables efficient and inexpensive downloading, printing, and binding of public domain books, will help rebuild the library's book collection and supply teachers and students with needed books for their reading lists. Digital files from the Open Content Alliance (see preceding grants to the Internet Archive) will be available for the books to be reproduced for the library. Engaging three software developers to produce new software to convert digital texts from "screen viewable" to "print ready" will be funded with this grant. Two of the developers will focus on making the Open Content Alliance book collection print-ready and fully searchable. The third will ensure that Alliance texts can be transferred, manipulated, and produced in physical book form by the Espresso Book Machine. The New Orleans Public Library will dedicate one librarian to the book machine and a technician from On Demand Books, Inc. will take care of technical problems. Project Director: Elizabeth A. Konrad, Head, Technical Services.

SELECTED NATIONAL ISSUES

FEDERAL STATISTICS, TRUSTEE GRANT

Harvard University
Cambridge, MA 02138

\$500,000

The U.S. national accounting system lies at the core of the economic statistics and accounting measures that are so central to understanding of the economy. It also provides the origins of fundamental measures of economic performance such as the GDP (gross domestic product), GNI (gross national income), GNP (gross national product), savings rates, current account, etc. Current national accounts date back to the 1930s and their limitations have become increasingly evident as the U.S. and world economies have changed dramatically since then. Key components of the U.S. accounts were developed independently to meet needs of several different statistical agencies and need to be fully integrated. The overall accounts suffer from a number of important gaps. The national accounts were not designed to address policy issues concerning long-term growth, nor do they include adequate measures of wealth (especially that held in private and public pensions), the value of land, and savings. This grant supports a project to develop a new architecture for the U.S. National Accounts. Papers presented at a 2004 conference supply a background for this work and have been collected in the volume, *A New Architecture for the U.S. National Accounts* by Dale W. Jorgenson, J. Steven Landefeld, and William D. Nordhaus, University of Chicago Press, 2006. Some examples of major contributions anticipated from this project include: making possible the creation of a national balance sheet, currently absent from the national system of accounts; filling the gap in current accounts of adequate measures for the value of wealth in the form of real estate; reconciling the large disparities in current estimates of national savings and wealth, thereby making it possible to analyze more effectively the impacts of alternative tax policies; creating improved estimates of economic output by industry and resolving current inconsistencies in such estimates now produced by different federal statistical agencies; and facilitating much more rigorous international comparisons of U.S. economic performance than are now possible. Project Director: Dale Jorgenson, Samuel W. Morris University Professor, Department of Economics.

SELECTED NATIONAL ISSUES

OTHER, TRUSTEE GRANT

National Academy of Sciences **\$100,000**
Washington, DC 20001

A 2003 grant to the National Academy of Sciences supported the Roundtable on Scientific Communication and National Security. The Roundtable fostered dialogue among the science, national security, and business communities. It provided a venue for frank off-the-record discussions on important topics such as biological research in relation to national security, the application of “deemed export controls” to research institutions, and the meaning and appropriate protection of a rather new category of research information known as “sensitive but unclassified.” The Roundtable also provided many briefings to senior government officials. Based on the success of the Roundtable project, the Academies in 2005 created a new standing committee, the Committee on Scientific Communication and National Security (CSCANS), to “bring together members of the national security community, scientists, and university and corporate leaders to address the oversight and conduct of science at a time of perceptions of increased national security threats.” As a standing committee, CSCANS will be able to maintain regular and ongoing communication among these groups and relevant government agencies, help the Academies respond in an informed manner to issues related to science and security, and initiate appropriate activities such as consensus studies, workshops, and open meetings. The Committee held its first organizational meeting in October 2005. The current grant provides partial support to underwrite the initial work of CSCANS over its first two years. Project Director: Patricia Wrightson, Program Officer, Policy and Global Affairs Division.

OTHER, OFFICER GRANT

International AIDS Vaccine Initiative **\$45,000**
New York, NY 10038

To support the history project associated with IAVI’s tenth anniversary. Project Director: Seth Berkley, President.

THE CIVIC PROGRAM

TRUSTEE GRANT

Pratt Institute

Brooklyn, NY 11205

\$90,000

Dr. Eleonora Del Frederico has pioneered the use of nuclear magnetic resonance (NMR) in art conservation to understand pigments, degradation products, and pigment-binder interactions. She has worked with colleagues at the Metropolitan Museum of Art, New York University, and the Brooklyn Museum of Art who are eager to have her extend her evaluation techniques and use them to evaluate and help them conserve art works in New York-based collections. She has built connections with conservation scientists in the United States and Europe. Using an array of practical art conservation problems and techniques, Dr. Del Frederico has engaged Pratt Institute undergraduates in the study of science and as assistants in her research. Several of her students have gone on to pursue graduate work and careers in conservation science. This grant supports the purchase of a newly available piece of equipment, a hand-held NMR-MOUSE (Mobile Universal Surface Explorer) that will allow Dr. Del Frederico to extend the scope of her research and to build an engaging undergraduate science program around her research program. The equipment will reside part-time at the Metropolitan Museum of Art, which has agreed to cover maintenance costs. Pratt will provide funding for a computer and needed software, for student assistant stipends, guest lectures and conference travel, and will also provide some additional time for course revision and preparation of appropriate laboratory experiments. Project Director: Eleonora Del Federico, Associate Professor - Physics, Department of Mathematics and Science; Research Affiliate, Chemistry Department, New York University.

ADDITIONAL GRANTS

TRUSTEE GRANTS

Council on Foundations **\$45,000**
Washington, DC 20036

General support (dues). Project Director: Steve Gunderson, President and CEO.

Independent Sector **\$12,500**
Washington, DC 20077

General support (dues). Project Director: Diana Aviv, President and CEO.

New York Regional Association of Grantmakers **\$16,000**
New York, NY 10018

General support (dues). Project Director: Michael Seltzer, President.

OFFICER GRANT

Saint Vincent De Paul Regional Seminary **\$10,000**
Boynton Beach, FL 33436

A memorial gift for Thomas A. Murphy, former Trustee. Project Director: William Conroy, Director of Development.

2006 FINANCIAL REPORT



2006 FINANCIAL REVIEW

The financial statements and schedules of the Foundation for 2006 and 2005 have been audited by KPMG LLP. They include the balance sheets, statements of activities and cash flows, and schedules of management and investment expenses.

Investment income for 2006 was \$24,163,628, an increase of \$4,721,661 from \$19,441,967 in 2005. After the deduction of investment expenses and provision for taxes, net investment income was \$10,045,383 in 2006 as compared to \$9,310,904 for the prior year. Investment expenses during 2006 totaled \$9,693,245 of which \$6,609,901 represented investment management fees. The provision for taxes amounted to \$4,425,000. The total of these deductions from investment income in 2006 was \$14,118,245 versus \$10,131,063 in 2005. Total investment gains for 2006 were \$285,488,801 as compared with \$132,776,637 in 2005.

Grants authorized (net of grant refunds) and management expenses during 2006 totaled \$76,002,520, which was \$65,957,137 greater than 2006 net investment income. Of this total, grants authorized (net of refunds) amounted to \$69,408,995 while management expenses were \$6,593,525. Since the Foundation's inception in 1934, the cumulative excess of grants and expenses over the Foundation's net investment income has amounted to \$506.9 million.

Grant payments in 2006 were \$66,465,559 compared to \$61,165,933 for the prior year. Together with management expenses, investment expenses, taxes paid and other charges, the total of cash expenditures net of grant refunds in 2006 was \$87,388,430 while in 2005 the amount was \$76,817,922.

Grants authorized and payments made during the year ended December 31, 2006 are summarized in the following table:

Grants unpaid at December 31, 2005	\$ 68,951,758
Authorized during 2006	69,920,894
Payments during 2006	<u>(66,465,559)</u>
Grants unpaid at December 31, 2006	<u>\$ 72,407,093</u>

The fair value of the Foundation's total assets was \$1,807,499,949 at December 31, 2006 including investments valued at \$1,805,501,204 as compared with total assets of \$1,581,350,875 at December 31, 2005.

AUDITORS' REPORT

Report of KPMG LLP
Independent Auditors

The Board of Trustees
Alfred P. Sloan Foundation:

We have audited the accompanying balance sheets of the Alfred P. Sloan Foundation (the Foundation) as of December 31, 2006 and 2005, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Foundation's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Alfred P. Sloan Foundation as of December 31, 2006 and 2005, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in the schedules of management and investment expenses for the years ended December 31, 2006 and 2005 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG LLP

May 31, 2007
New York, New York

BALANCE SHEETS
DECEMBER 31, 2006 AND 2005

	<u>2006</u>	<u>2005</u>
Assets		
Cash	\$ 1,045,211	\$ 713,638
Investments:		
Equities	1,200,358,701	1,120,857,809
Fixed income	330,003,766	251,059,091
Limited marketability	275,138,737	208,522,753
Total investments	<u>1,805,501,204</u>	<u>1,580,439,653</u>
Other	953,534	197,584
Total	<u>\$1,807,499,949</u>	<u>\$1,581,350,875</u>
Liabilities and Net Assets		
Grants payable	\$ 72,407,093	\$ 68,951,758
Deferred federal excise tax	9,016,469	5,898,896
Other	86,059	41,557
	<u>81,509,621</u>	<u>74,892,211</u>
Net assets - unrestricted	1,725,990,328	1,506,458,664
Total	<u>\$1,807,499,949</u>	<u>\$1,581,350,875</u>

See accompanying notes to financial statements.

STATEMENTS OF ACTIVITIES
YEARS ENDED DECEMBER 31, 2006 AND 2005

	<u>2006</u>	<u>2005</u>
Investment income:		
Interest and dividends	\$ 24,163,628	\$ 19,441,967
Less:		
Investment expenses	9,693,245	6,178,063
Provision for taxes	4,425,000	3,953,000
	<u>14,118,245</u>	<u>10,131,063</u>
Net investment income	<u>10,045,383</u>	<u>9,310,904</u>
Expenses:		
Grants authorized (net of refunds of \$511,899 in 2006 and \$1,004,338 in 2005)	69,408,995	68,528,984
Management expenses	6,593,525	6,071,861
	<u>76,002,520</u>	<u>74,600,845</u>
Excess of expenses over net investment income	<u>(65,957,137)</u>	<u>(65,289,941)</u>
Investment gains:		
Net gain on disposal of investments	132,727,786	125,445,454
Unrealized gain in investments, net of deferred federal excise tax of \$3,117,573 and \$149,615 in 2006 and 2005, respectively	152,761,015	7,331,183
	<u>285,488,801</u>	<u>132,776,637</u>
Increase in net assets	219,531,664	67,486,696
Net assets at beginning of year	1,506,458,664	1,438,971,968
Net assets at end of year	<u>\$1,725,990,328</u>	<u>\$1,506,458,664</u>

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2006 AND 2005

	<u>2006</u>	<u>2005</u>
Cash flows from operating activities:		
Increase in net assets	\$ 219,531,664	\$ 67,486,696
Adjustments to reconcile increase in net assets to net cash used in operating activities:		
Net gain on disposal of investments	(132,727,786)	(125,445,454)
Unrealized gain in investments	(155,878,588)	(7,480,798)
Increase in deferred federal excise tax	3,117,573	149,615
Increase in other assets	(755,950)	(127,719)
Increase in grants payable	3,455,335	8,367,389
Increase (decrease) in other liabilities	44,502	(255,819)
Net cash used in operating activities	<u>(63,213,250)</u>	<u>(57,306,090)</u>
Cash flows from investing activities:		
Proceeds from sales of investments	917,839,951	914,200,958
Purchases of investments	<u>(854,295,128)</u>	<u>(856,905,272)</u>
Net cash provided by investing activities	<u>63,544,823</u>	<u>57,295,686</u>
Net increase (decrease) in cash	331,573	(10,404)
Cash at beginning of year	<u>713,638</u>	<u>724,042</u>
Cash at end of year	<u>\$ 1,045,211</u>	<u>\$ 713,638</u>

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2006 AND 2005

(1) Summary of Significant Accounting Policies

The accompanying financial statements have been prepared substantially on the accrual basis of accounting. Investment income and investment and management expenses, including post-retirement benefit expense, are recorded on the cash basis, the effect of which on the accompanying financial statements is not materially different from the accrual basis. Grants are accrued when authorized by the Trustees. Certain accounting estimates are a routine part of financial statements prepared by management and are based upon management's current judgments. Actual results could differ from these estimates.

Gains or losses on disposal of investments are determined on the first-in, first-out basis. Investments are stated at fair value. The fair values of all debt and equity securities with a readily determinable fair value are based on quotations obtained from national securities exchanges. The alternative investments, which are not readily marketable, are carried at estimated fair values as provided by the investment managers. The Foundation reviews and evaluates the values provided by the investment managers and agrees with the valuation methods and assumptions used in determining the fair value of the alternative investments. Those estimated fair values may differ significantly from the values that would have been used had a ready market for these securities existed.

(2) Investments

Investments at December 31, 2006 and 2005 are summarized as follows:

	2006		2005	
	Cost	Fair value	Cost	Fair value
Equities:				
Large capitalization	\$ 227,016,783	267,858,415	261,477,002	314,424,368
Small capitalization	47,000,000	73,055,990	47,000,000	67,761,605
Equity hedge funds	96,283,000	176,348,725	92,000,000	143,945,566
Absolute return strategies	235,424,780	364,085,640	236,970,589	322,012,337
Non-US	181,401,905	318,984,806	154,289,717	272,785,171
Pending equity transactions, net	25,125	25,125	(71,238)	(71,238)
Fixed income:				
Bonds and notes	359,734,145	377,658,756	299,031,212	298,369,678
Obligations to return collateral held under securities lending agreement	(50,587,626)	(50,587,626)	(43,836,604)	(43,836,604)
Pending fixed income transactions, net	2,932,637	2,932,636	(3,473,983)	(3,473,983)
Limited marketability:				
Real estate	33,986,748	39,662,672	26,832,958	25,667,460
Private equity	221,460,262	235,476,065	215,275,143	182,855,293
Total	<u>\$ 1,354,677,759</u>	<u>1,805,501,204</u>	<u>1,285,494,796</u>	<u>1,580,439,653</u>

At December 31, 2006, the Foundation had unfunded commitments to limited partnerships of approximately \$260 million.

(3) Financial Instruments with Off-Balance-Sheet Credit or Market Risk

The Foundation's investment strategy incorporates certain financial instruments which involve, to varying degrees, elements of market risk and credit risk in excess of the amounts recorded in the financial statements. These instruments include forward foreign currency contracts and loaned securities.

The Foundation purchases forward foreign currency contracts as a hedge against fluctuations in currency prices. There were no forward foreign currency buy and sell contracts held as of December 31, 2006. As of December 31, 2005, forward foreign currency buy and sell contracts were valued at approximately \$1,100 and \$1,100, respectively. Such contracts involve, to varying degrees, risk of loss arising from the possible inability of counterparties to meet the terms of the contract.

Through a securities lending program managed by a custodian firm, the Foundation loans certain stocks and bonds included in its investment portfolio. The custodian firm has indemnified the program. The Foundation's gross securities loaned to certain borrowers at December 31, 2006 and 2005 amounted to \$51 million and \$43 million, respectively. The Foundation holds collateral of 102 percent of the market value of the loaned securities.

Management does not anticipate that losses, if any, resulting from its market or credit risks would materially affect the financial position of the Foundation.

(4) Taxes

The Foundation is liable for a federal excise tax of 2 percent of its net investment income, which includes realized capital gains. However, this tax is reduced to 1 percent if certain conditions are met. The Foundation did not meet the requirements for the 1 percent tax for the years ended December 31, 2006 and December 31, 2005. Therefore, current taxes are estimated at 2 percent of net investment income for 2006 and for 2005. Additionally, certain of the Foundation's investments give rise to unrelated business income tax liabilities. Such tax liabilities for 2006 and 2005 are not significant to the accompanying financial statements; however, the provision for taxes, as of December 31, 2006 and 2005, includes an estimate of tax liabilities for unrelated business income.

Deferred taxes principally arise from differences between the cost value and fair value of investments. Since the qualification for the 1 percent tax is not determinable until the fiscal year in which net gains are realized, deferred taxes represent 2 percent of unrealized gains at December 31, 2006 and 2005.

(5) Retirement Plan

The Foundation has a defined contribution retirement plan covering substantially all employees under arrangements with Teachers Insurance and Annuity Association of America and College Retirement Equities Fund which provides for the purchase of annuities for employees. Retirement plan expense was \$537,884 and \$524,840 in 2006 and 2005, respectively.

In addition, the Foundation provides certain health care and life insurance benefits to its retirees. The cost of providing these benefits to retirees was \$204,364 and \$188,140 in 2006 and 2005, respectively, on a pay-as-you-go basis.

(6) Lease

The Foundation entered into a ten-year lease effective January 1, 1999. The lease contains an escalation clause which provides for rental increases resulting from increases in real estate taxes and certain operating expenses. Rent expense for 2006 and 2005, including escalations, was \$953,863 and \$859,757, respectively. On January 11, 2007, the Foundation renegotiated its lease for the period commencing on January 1, 2009 and expiring on December 31, 2016. As a result of the renegotiation, the fixed rent payable under the lease shall be an amount equal to (a) \$1,270,335 per annum for the period commencing on January 1, 2007 and ending on December 31, 2011, and (b) \$1,379,926 per annum for the period commencing on January 1, 2012 and ending on December 31, 2016.

**SCHEDULES OF MANAGEMENT AND INVESTMENT EXPENSES
YEARS ENDED DECEMBER 31, 2006 AND 2005**

	<u>2006</u>	<u>2005</u>
Management expenses:		
Salaries and employees' benefits:		
Salaries	\$4,499,620	\$4,304,283
Employees' retirement plan and other benefits	<u>1,745,562</u>	<u>1,648,296</u>
Total	6,245,182	5,952,579
Rent	953,863	859,757
Program expenses	1,198,288	968,401
Office expenses	918,932	528,651
Website and publications	32,709	68,265
Professional fees	<u>327,895</u>	<u>281,309</u>
Total management expenses	9,676,869	8,658,962
Less direct investment and other management expenses allocated to investments	<u>3,083,344</u>	<u>2,587,101</u>
Management expenses	<u>\$6,593,525</u>	<u>\$6,071,861</u>
Investment expenses:		
Investment management fees and expenses	\$6,609,901	\$3,590,962
Direct investment and other management expenses allocated to investments	<u>3,083,344</u>	<u>2,587,101</u>
Investment expenses	<u>\$9,693,245</u>	<u>\$6,178,063</u>