

# 2007 ANNUAL REPORT

---

## ALFRED P. SLOAN FOUNDATION



# CONTENTS

---

## 2007 Grants and Activities

• <b>Science and Technology</b> .....	<b>1</b>
○ Fellowships.....	1
▪ Sloan Research Fellowships.....	1
○ Direct Support of Research.....	5
▪ Sloan Digital Sky Survey.....	5
▪ Barcode of Life.....	6
▪ Indoor Environment.....	10
▪ Census of Marine Life.....	14
▪ Other Science.....	21
○ History of Science and Technology.....	22
▪ Web Sites.....	22
• <b>Standard of Living and Economic Performance</b> .....	<b>23</b>
○ Business, Industry and Economics.....	23
▪ Industry Studies.....	23
▪ Industry Centers.....	27
▪ Research on Globalization.....	29
▪ Role of the Corporation.....	31
○ Nonprofit Sectors.....	35
▪ Measuring and Reporting on Government Performance.....	35
○ Workplace, Workforce and Working Families.....	40
▪ Basic Research on Working Families and Everyday Life... ..	40
▪ Case Studies of Workplace-Specific Flexibility.....	44
▪ National Workplace Flexibility Initiative.....	45
▪ Aging and Flexible Work.....	50
• <b>Education and Careers in Science and Technology</b> .....	<b>51</b>
○ Education in Science and Technology.....	51
▪ Anytime, Anyplace Learning.....	51
▪ Professional Science Master's Degrees.....	60
▪ Education for Underrepresented Groups.....	64
▪ Student Retention.....	67
▪ Other Education.....	69
○ Scientific and Technical Careers.....	70
▪ Science and Engineering Workforce.....	70
▪ Information about Careers.....	72
○ Public Understanding of Science and Technology.....	73
▪ Books.....	73
▪ Radio.....	75
▪ Public Television.....	76
▪ Film and Television Development.....	78
▪ Theater.....	81
○ Scientists' Understanding of the Public.....	83

- **Selected National Issues and The Civic Program..... 84**
  - Selected National Issues..... 84
    - Bioterrorism..... 84
    - Universal Access to Recorded Knowledge..... 89
    - Federal Statistics..... 90
  - The Civic Program..... 91
- **Additional Grants..... 92**

**2007 Financial Report**

- Financial Review..... 94
- Auditors’ Report..... 95
- Balance Sheets..... 96
- Statements of Activities..... 97
- Statements of Cash Flows..... 98
- Notes to Financial Statements..... 99
- Schedules of Management and Investment Expenses..... 103

## SCIENCE AND TECHNOLOGY

---

### FELLOWSHIPS

---

#### **Sloan Research Fellowships**

**\$5,410,000**

The Sloan Research Fellowship Program aims to stimulate fundamental research by young scientists with outstanding promise to contribute significantly to the advancement of knowledge. Since the establishment of this program in 1955, fellowships have been awarded to more than 4,200 early-career researchers and have accounted for expenditures of about \$120 million. Thirty-six Fellows have received Nobel prizes; 14 have been awarded the prestigious Fields Medal in mathematics; 8 recent Fellows subsequently have won the John Bates Clark Medal, generally considered the top honor for young economists; 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](#).

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 2007, the Foundation awarded Research Fellowships of \$45,000 each, over a two-year term, to 118 scholars at 49 institutions in seven fields: chemistry (23), computer science (16), 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 2007 fellowships:

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

**Computational and Evolutionary Molecular Biology:** David Baker, University of Washington; 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, Stony Brook University.

**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

---

**Albert Einstein College of Medicine**

Neuroscience: Hannes Erich Buelow

**Boston College**

Mathematics: Benjamin Howard

**Boston University**

Physics: Emanuel Katz

**British Columbia, University of**

Chemistry: Laurel Schafer

Ruth Signorell

Physics: Andrea Damascelli

**Brown University**

Physics: Vesna Mitrovic

**California Institute of Technology**

Physics: Sergei Gukov

Olexie Motrunich

**California, University of, Berkeley**

Chemistry: Christopher J. Chang

Computer Science: Maneesh Agrawala

Daniel Klein

Dawn Song

Economics: Michael Jansson

Mathematics: Sourav Chatterjee

**California, University of, Irvine**

Physics: Zuzanna Siwy

**California, University of, Los Angeles**

Computer Science: Edward W. Kohler

Economics: Christian Hellwig

Molecular Biology: Matteo Pellegrini

Marc A. Suchard

Neuroscience: Alvaro Sagasti

**California, University of, San Diego**

Chemistry: Michael Burkart

Mathematics: Jacques Verstraete

Molecular Biology: Doris Bachtrog

Neuroscience: James E. Wilhelm

**California, University of, Santa Barbara**

Chemistry: Jeffrey W. Bode

Physics: Tommaso Treu

**California, University of, Santa Cruz**

Computer Science: Dimitris Achlioptas

Mathematics: Alexander Gamburd

Neuroscience: Yi Zuo

**Carnegie Mellon University**

Computer Science: Jennifer C. Mankoff

Priya Narasimhan

Physics: Mohammad F. Islam

**Chicago, University of**

Molecular Biology: Yoav Gilad

**Cincinnati, University of**

Chemistry: Theresa M. Reineke

**Colorado, University of**

Physics: Heather J. Lewandowski

**Columbia University**

Mathematics: Chiu-Chiu Melissa Liu

Ovidiu Savin

Neuroscience: Brian D. McCabe

Liam Paninski

**Cornell University**

Chemistry: Garnet Kin-Lic Chan

Molecular Biology: Carlos D.

Bustamante

Physics: Peter Wittich

**Drexel University**

Physics: Gordon T. Richards

**Georgia Institute of Technology**

Molecular Biology: Soojin Yi

**Harvard University**

Economics: Pol Antras

Roland G. Fryer, Jr.

Aleh Tsyvinski

Neuroscience: Maurice Smith

Rachel Irene Wilson

Physics: Markus Greiner

**Illinois, University of, at Urbana-Champaign**

Chemistry: Chad M. Rienstra

Maria-Christina White

Computer Science: Yuanyuan Zhou

**Indiana University**

Chemistry: Mu-Hyun Baik

Physics: Chen-Yu Liu

**Johns Hopkins University**

Chemistry: Justine P. Roth

Physics: Andrei Gritsan

N. Peter Armitage

**Kansas, University of**

Molecular Biology: Wonpil Im

**Massachusetts Institute of Technology**

Chemistry: Sarah E. O'Connor

Troy van Voorhis

Computer Science: Samuel Madden

Economics: Amy Finkelstein

Ivan Werning

Mathematics: Mark Behrens

Katrin Wehrheim

**Massachusetts, University of, Amherst**

Mathematics: Eugueni Tevelev

**McGill University**

Computer Science: Patrick Hayden

Molecular Biology: Mathieu Blanchette

Physics: Aashish Clerk

**Michigan, University of**

Mathematics: Selim Esedoglu

Juan Souto

**New York University**

Mathematics: Weiqing Ren

Scott Sheffield

Akshay Venkatesh

Neuroscience: Bijan Pesaran

**Northwestern University**

Chemistry: Bartosz A. Grzybowski

Franz M. Geiger

Lincoln J. Lauhon

Karl A. Scheidt

Mathematics: David Nadler

Neuroscience: Joshua H. Singer

**Oregon, University of**

Physics: Raghuv eer Parthasarathy

**Pennsylvania State University**

Chemistry: Raymond E. Schaak

Mathematics: Xiantao Li

Physics: Radu S. Roiban

**Princeton University**

Computer Science: Boaz Barak

Economics: Estaban Rossi-Hansberg

Mathematics: Jacob A. Rasmussen

Simone Warzel

Physics: Frans Pretorius

Anatoly Spitkovsky

**Purdue University**

Neuroscience: James C. Clemens

**Rochester, University of**

Molecular Biology: Galina V. Glazko

Neuroscience: Anna Majewska

**Sloan-Kettering Cancer Center**  
Chemistry: Derek S. Tan

**South Florida, University of**  
Molecular Biology: Mya Breitbart

**Stanford University**  
Computer Science: Vladlen Koltun  
Andrew Y. Ng  
Neuroscience: Stephen A. Baccus

**Texas, University of, at Austin**  
Mathematics: Lexing Ying  
Neuroscience: Helmut Koester

**Toronto, University of**  
Chemistry: Deborah Zamble  
Computer Science: Ravin Balakrishnan

**Utah, University of**  
Mathematics: Jared W. Tanner

**Vanderbilt University**  
Physics: Julia Velkovska

**Victoria, University of**  
Physics: Henk Hoekstra

**Washington University**  
Chemistry: Sophia E. Hayes  
Molecular Biology: Justin C. Fay

**Washington, University of**  
Chemistry: David S. Ginger, Jr.  
Molecular Biology: Joshua M. Akey

**Wellesley College**  
Neuroscience: Mark Steven Goldman

**Wisconsin-Madison, University of**  
Chemistry: David M. Lynn  
Computer Science: AnHai Doan

**Yale University**  
Computer Science: Brian Scassellati  
Neuroscience: Susumu Tomita  
Physics: Jack G. E. Harris

## DIRECT SUPPORT OF RESEARCH

---

### SLOAN DIGITAL SKY SURVEY, TRUSTEE GRANT

---

**Astrophysical Research Consortium**  
Seattle, WA 98195

**\$7,000,000**

Previous Foundation grants totaling \$25 million have been made to support the Sloan Digital Sky Survey (SDSS) since its inception in 1992. SDSS is now the astronomical observatory that has made the largest number of data contributions to the field, surpassing the Hubble space telescopes and the very large telescopes in Hawaii and South America. Its automated sky-to-computer storage archiving of astronomical data and its accuracy have become the standards of the field. During the past decade, key contributions have been made to our knowledge of the universe. We now understand how prevalent dark matter and how rare luminous matter are. However, we now also know that both of these together comprise only 30% of the mass and energy in the universe, the other 70% being the new and mysterious dark energy. This grant helps fund a new set of SDSS surveys that are directed at explaining dark energy and also making other contributions to astronomical knowledge.

SDSS has been instrumental in establishing the concept of dark energy. Its large surveys of galaxies have provided the best map of the distribution of matter in the universe. Measurements of the spatial variations in mass density in this map were calculated to show correspondence with an initial density distribution (500 million years after the Big Bang) as discovered by the Cosmic Microwave Survey. Such a correspondence can only exist if a large additional anti-gravitational energy is added. This new force is dark energy, whose understanding is now cited as the most important problem of physics, astronomy, and cosmology.

The SDSS group has now proposed a new project which will seek to provide further insights into the nature of dark energy. The SDSS telescope and the efficient capture of data that SDSS has pioneered are extremely well suited to run massive new surveys of galaxies and quasars designed to refine earlier measurements, establish the historical appearance and growth of dark energy, and probe for its explanation. The new data, combined with the results of other new surveys that will also run in the coming years, should provide new insights into the nature of the universe in general and dark energy in particular. The surveys for dark energy will require moonless viewing. To make most efficient use of the instruments and manpower, the project will conduct new large surveys of the Milky Way and of planets outside of our solar system on moon-shining nights.

The project is estimated to require six years and a total expenditure of \$47 million. The additional funding will come from NSF, DOE, and the 15 or more institutions of the SDSS partnership. Because of federal agency start-up schedules, the Sloan Foundation will make this grant over the first two years. Project Director: Daniel J. Eisenstein, Professor of Astronomy, University of Arizona.



## DIRECT SUPPORT OF RESEARCH

---

### BARCODE OF LIFE, TRUSTEE GRANTS

---

#### **American Museum of Natural History**

**\$411,000**

New York, NY 10024

A significant proportion of meat sold in butcher shops in cities of Kenya are reputed to come from species of gazelle, monkey, and other illegal forms of “bushmeat.” Massive consumption of freshwater turtles and tortoises threatens all extant species of these groups in Southeast Asia. These animal meats are hard to identify reliably, especially reliably enough for enforcement in court. DNA barcoding now permits quick and definitive identifications to be made. This grant supports a project in which the American Museum of Natural History will lead an effort to determine the barcodes of about 5,000 endangered animals and thereby win the adoption of barcoding in conservation management for endangered species. Some 16,000 species, about half plants and half animals, are identified as endangered by the International Union for the Conservation of Nature, keeper of the “Red List” of endangered species. Barcodes of 5,000 species of animals would therefore form a substantial fraction of the endangered list. The Museum has specimens of many of the species, including one of the world’s best collections of frozen tissue from which especially well-preserved DNA can be obtained. Drawing on a worldwide network of contacts trying to use conservation science in management, the Museum has created an international project advisory committee including, for example, the head of the Kenyan Wildlife Service. The majority of project effort will go to development of definitive barcodes for vouchered specimens in the Museum collection. The project will also conduct outreach to regulatory and enforcement authorities and will train enforcement officials in use of DNA barcoding. Project Director: George Amato, Director, Sackler Institute for Comparative Genomics.

#### **New York Botanical Garden**

**\$572,000**

Bronx, New York 10458

A single uniform gene segment of about 650 nucleotides has turned out to suffice for identifying almost all of the 1.3 million known animals. Settling on a DNA barcode strategy for identifying plant species with short, standard DNA segments has proved to be more difficult. Research over the past two years by a concourse of the Consortium for the Barcode of Life (CBOL) organized by the Royal Botanical Garden at Kew has led to a layered strategy as the protocol for barcoding all land plants. For example, sequential examination of three short gene segments makes it possible first to separate a grass from an orchid from a palm and then to localize to the level of a species. With this grant the New York Botanical Garden will assume global leadership in networking the entire plant barcoding community and also host and stimulate research to complete the barcoding of trees. Most of the project activity will go to developing the reference library of barcodes for tens of thousands of tree species, for many of which the Botanical Garden retains well-preserved tissue samples. Along with use of specimens in its own collections, the Botanical Garden has developed a multi-phase plan that begins with easily accessible

North American and European trees, proceeds to trees on research plots around the world maintained by the Center for Tropical Studies, and lastly reaches tropical trees not already in collections or research plots. It will continue to work with the two dozen institutions from around the world that participated in the Kew group. In coordination with CBOL, the New York Botanical Garden will expand this network into a larger community concerned with plant barcoding in general. It will maintain a website and blog and convene the First International Symposium for Plant DNA Barcoding. Project Director: Kenneth M. Cameron, Director, Cullman Program for Molecular Systematic Studies.

<b>University of Guelph</b> Guelph, Ontario N1G 2W1 Canada	<b>\$239,000</b>
<b>Muséum National d’Histoire Naturelle</b> Paris, France	<b>\$275,000</b>
<b>Florida Museum of Natural History</b> Gainesville, FL 32611	<b>\$186,000</b>
<b>Queensland Museum</b> South Brisbane, Australia	<b>\$185,000</b>
<b>University of Connecticut–Avery Point</b> Groton, CT 06340	<b>\$112,000</b>

The Barcode of Life initiative has moved forward with great success since it was first proposed in 2002 that DNA forensics might effectively identify the vast variety of species collected by expeditions and researchers participating in the Census of Marine Life (CoML). Of the 230,000 or so named species of marine life, about 8,000 now have DNA barcodes, about half of these fish. An aggressive effort should complete the barcoding of most fish in the next few years. A broader and exciting scientific possibility has surfaced. If barcodes can be obtained not only from fish and other chordates but also from almost all phyla of marine life, including mollusks (such as conchs), arthropods (crabs and shrimp), echinoderms (starfish), etc., then it should be possible, together with other information, to produce an updated evolutionary tree of marine life much more accurate and complete than ever before. These five grants support projects to achieve this goal by the above five institutions and the field projects of the CoML, coordinated by the University of Guelph. The aim is to add barcodes for at least 50,000 marine species to the Barcode of Life database by mid-2010. Advances in the state of the art of barcoding, for example, to develop the chemicals that will extract the right DNA segments from some of the marine species with no prior history of barcoding, will need to be made. Arrangements will also be necessary for the efficient management of data about hundreds of thousands of specimens. Cooperation of the field projects of the CoML will yield barcodes from the many newly collected specimens offering the best preserved DNA. “Collecting in collections,” i.e., extracting DNA from well-preserved specimens already

in natural history museums, is also a strategy to be used. The grant to Muséum National d'Histoire Naturelle is being shared with Centre National de la Recherche Scientifique. The Foundation grants cover about 60% of the cost of the first two years of the project, with most of the actual DNA sequencing costs covered by other sources. Project Directors: Dirk Steinke, Lead Scientist, Marine Barcode of Life, Biodiversity Institute of Ontario; Philippe Bouchet, Département Systématique et Evolution, Muséum National d'Histoire Naturelle; Gustav Paulay, Curator of Marine Malacology and Professor of Zoology, University of Florida; John N. A. Hooper, Head of Biodiversity & Geosciences Programs and Director, Queensland Centre for Biodiversity, Queensland Museum; Professor Ann Bucklin, Department of Marine Sciences and Director, Marine Sciences and Technology Center, University of Connecticut–Avery Point.

---

The following grants were funded from an appropriation approved by the Board of Trustees for small grants to foster the use of DNA barcoding for species identification.

**Cold Spring Harbor Laboratory** **\$45,000**  
Cold Spring Harbor, NY 11724

To support a workshop on using DNA barcode data in studies of molecular and evolutionary dynamics. Project Director: Jan A. Witkowski, Executive Director, Banbury Center; Professor, Watson School of Biological Sciences.

**Duke University** **\$43,000**  
Durham, NC 27708

To support a workshop of the Barcode of Life and Tree of Life programs to integrate studies of the roots, branches, and leaves of the evolutionary tree. Project Director: Professor Clifford W. Cunningham, Department of Biology.

**Rutgers, The State University of New Jersey** **\$44,375**  
New Brunswick, NJ 08901

For a workshop to reach agreement on a standard DNA barcode region for fungi and to initiate fungal barcoding projects. Project Director: Professor James White, Chair, Department of Plant Biology and Pathology.

**York University** **\$45,000**  
Toronto, ON M3J 1P3, Canada

For a workshop to prepare proposals for securing large commitments to DNA barcoding. Project Director: Professor Laurence Packer, Department of Biology.

**Electronic Frontier Foundation**  
San Francisco, CA 94110

**\$45,000**

To help inform the Encyclopedia of Life community about intellectual property and related issues that will affect its design and implementation. Project Director: Frederick von Lohmann, Senior Staff Attorney.

## DIRECT SUPPORT OF RESEARCH

---

### INDOOR ENVIRONMENT, TRUSTEE GRANTS

---

**J. Craig Venter Institute, Inc.**  
Rockville, MD 20850

**\$2,525,828**

With this grant, the Venter Institute will study the microbial genomics of the indoor environment using a combination of emerging technologies to separate and analyze bacterial cells, one cell at a time. The goal is to establish the first robotic pipeline dedicated to high throughput DNA amplification from single cells for the following ends: (1) survey of microbial populations in office and hospital environments; (2) analysis of pathogens and their associated communities with a focus on health-related issues; (3) evaluation of genomic diversity with emphasis on virulence factors; (4) genomic sequencing of selected microbes; and (5) development of informatics methods for integrating single cell and metagenomic DNA sequences, making use of existing marine databases. About 80% of the samples will be collected from air and surfaces in two indoor environments: an office and a hospital. Twenty percent of the samples will be collected from the marine environment. The work is expected to create individual DNA libraries from 120,000 cells of the indoor environment and 30,000 of the marine environment. The project should generate an in-depth understanding of the taxonomic composition of microbial communities found in four important indoor environments: office air; office surfaces; hospital air; and hospital surfaces. The similarities and differences among the four indoor environments will be exposed. The project will also provide a first detailed understanding of the individual microbes that have previously been identified only by their taxonomy from ribosomal RNA analysis. Single cell analysis will reveal population members and the distribution of virulence factors, antibiotic resistance, and other functional genes within each of the key environments. Such questions as whether antibiotic resistant strains or more virulent strains of select pathogens are more common on hospital surfaces or in the air and whether virulence genes are more likely to be found in office air or on surfaces will be explored. The technology will be broadly applicable to microbial studies of natural environments (e.g., water, air, soil), man-made environments (e.g., indoor air and surfaces), and clinical samples (e.g., human GI and respiratory tracts). Project Director: Roger S. Lasken, Microbial and Environmental Genomics Group.

**Marine Biological Laboratory**  
Woods Hole, MA 02543

**\$1,202,460**

In sampling the microbial content of indoor environments, it would be a very significant advance to actually see the intact microbes and be able to differentiate them using specific genetic probes. This grant supports a two-year project to develop tools to image communities of microbes. The work is based on a well-known technique, fluorescent *in situ* hybridization, which involves fixing cells to microscope slides and then analyzing them with fluorescently labeled probes. This technique will be expanded to allow for the

visualization or imaging of diverse samples by simultaneously using many probes, many fluorescent tags, and special imaging equipment. Each unique probe is labeled with one of about 15 different fluorescent reporter groups (or fluorophores). The samples are visualized based on the fluorescent signals. Using combinatorial imaging, the resulting “spectral signature” will allow simultaneous encoding and imaging of large numbers of different types of microbes. To be able to “see” the microbial world, both indoor and outdoor, with these new technologies will provide the capability to assess relative abundance, organization, and function of particular microbes. It is expected to open new avenues for studying microbial communities. Project Director: Gary B. Borisy, Director and Chief Executive Officer.

**Marine Biological Laboratory**  
Woods Hole, MA 02543

**\$300,000**

Analysis of the highly conserved ribosomal RNA genes has proven particularly informative for defining microbial diversity and generating taxonomic inventories of microbial populations. The collective sequence of genomes in a mixed microbial community is known as the “metagenome.” To describe and visualize the metagenome of a sample and be able to compare the metagenomes of different samples is an important research goal. Scientists at the Marine Biological Laboratory (MBL) have done preliminary work to establish publicly accessible open source tools necessary to measure and visualize similarities and differences between molecular profiles of complex microbial communities, a system they call the Visualization and Analysis of Microbial Population Structures (VAMPS). To develop the prototype into a useful tool is the goal of the project supported by this grant. Starting with massively large datasets of short sequences of ribosomal RNA genes from naturally occurring microbial populations, the tools will be extended to metagenomic data. The objective is to improve the statistical metrics and to visualize computed similarities and differences between multiple, molecular-based microbial community profiles. The improved VAMPS software tools will be made freely available on the web in open source code and with analytic capabilities so that users can import their own data. The MBL team plans to organize a VAMPS user workshop, to be sponsored by the Census of Marine Microbes in December 2008. Although it is too early for the field to adopt standard software, VAMPS is expected to be a useful tool for researchers exploring the microbial world and may provide new ways to understand and synthesize metagenomic information. Project Director: Mitchell L. Sogin, Director, Josephine Bay Paul Center for Comparative Molecular Biology and Evolution.

**University of Illinois at Chicago**  
Chicago, IL 60607

**\$248,000**

A research team at the University of Illinois at Chicago (UIC), headed by David Eddington, is developing microfluidic tools to trap, identify, and analyze individual cells. Based on successful experience with mammalian cells, the project supported by this grant will develop a microfluidic trapping network to process aqueous samples and isolate and extract individual bacterial cells based on size. The trapped cells can be visualized by

light or fluorescence microscopy and analyzed within the network or else be removed for further analysis. The Foundation-supported teams at the Venter Institute, University of Colorado, and the Marine Biological Laboratory will collaborate on this project. UIC will test its prototype on environmental samples, publish its results, and organize a workshop at a national professional meeting. Project Director: Professor David T. Eddington, Department of Bioengineering.

**University of South Carolina Research Foundation**  
Columbia, SC 29208

**\$300,000**

Beyond obtaining genetic information about microbes, it is also necessary to examine the proteome, the set of proteins produced by an organism during its life. To study proteins using proteomics, a sample is treated to break the proteins into peptides which are then separated based on physical parameters, such as charge and molecular weight. The individual peptides are then analyzed using mass spectrometry to produce a unique spectrum. The spectrum, when compared to known samples, allows the peptide to be identified. Depending upon the peptide sequence information obtained, a bacterial sample can be classified to a particular taxonomic position, and may ultimately be identified at the species level. This grant supports a project to explore occupied and unoccupied school rooms using proteomics. Airborne dust from rooms at three different schools will be collected and analyzed. Also planned is the development of improvements to the proteomics methodology in order to yield additional sensitivity. The research will produce a catalog of microbes based on protein sequence data from occupied and unoccupied school rooms and will thereby help to gain a better understanding of bacterial populations in school buildings. Project Director: Professor Alvin Fox, Department of Pathology, Microbiology and Immunology, School of Medicine.

**Yale University**  
New Haven, CT 06520

**\$595,000**

This grant supports a project with three main aims. The first is to catalog the particle size distribution for a variety of biological aerosol types in buildings under occupied and unoccupied conditions. Particle size is important because it not only determines some physical properties but also influences the impact on humans. (Large particles are filtered out by the nose, but particles smaller than 10 microns are inhaled into the lungs, more deeply as size diminishes.) This study of particle size is expected to enable the broad extension of aerosol dynamics modeling to biological aerosols. The second objective is to apply these models to describe quantitatively the significance of outdoor and indoor sources on the microbial content of indoor biological aerosols. The final goal is to generate DNA libraries to identify the microbes and apply aerosol receptor modeling, thereby determining the origin or original source (e.g., crustal material, fecal matter, etc.) of microbes in the indoor environment. The project will yield information about the particle size distribution of indoor bioaerosol materials, improve understanding of how surface-associated microbial materials contribute to indoor bioaerosols, and develop a quantitative framework to assess the dominant sources of biological material in indoor air. It is expected to produce insights into the origin of biological materials and to yield

improved understanding of the nature and significance of bioaerosols in the indoor environment. A number of research commentaries will be prepared for publication in appropriate journals in order to outline the opportunities and needs for linking the two disciplines of aerosol science and molecular biology as a way to improve basic understanding of the microbial nature of the built environment. Project Director: Professor Jordan Peccia, Department of Chemical Engineering.

INDOOR ENVIRONMENT, OFFICER GRANTS

---

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

To support a workshop: "Single Cell Alternatives to Metagenomics in Environmental Microbiology." Project Director: Michael E. Sieracki, Director, J. J. MacIsaac Facility for Aquatic Cytometry.

**Rockefeller University** **\$45,000**  
New York, NY 10021

To support the early stages of development of molecular detection methods for microbes. Project Director: Professor David S. Thaler, Laboratory of Molecular Genetics and Informatics.

**University of Wisconsin-Madison** **\$45,000**  
Madison, WI 53706

To support a pilot study to design and test methods for displacing screening. Project Director: Professor Jo Handelsman, Department of Plant Pathology.



## DIRECT SUPPORT OF RESEARCH

---

### CENSUS OF MARINE LIFE, TRUSTEE GRANTS

---

**Consortium for Ocean Leadership, Inc.**  
Washington, DC 20008

**\$400,000**

The U.S. National Committee for the Census of Marine Life (CoML) is based at the Consortium for Ocean Leadership, which embraces more than 70 leading public and private ocean research institutions, aquaria, and industry. It has played a major role in obtaining financial commitments from U.S. sources for the CoML. Since its formation in late 2001, U.S. contributions, including ship time, have totaled about \$210 million, of which some \$50 million have come from the Sloan Foundation. In 2007 alone U.S. commitments amounted to about \$40 million. (Commitments from outside the U.S. now exceed \$250 million.) The U.S. National Committee has maintained a strong profile for the CoML with Federal agencies, Congress, and NGOs, as well as with State governments and maritime industries. Since 2003, the National Oceanic and Atmospheric Administration has co-funded the National Committee with the Sloan Foundation on a roughly equal basis. This grant will support the Committee's work for another 18 months. Priorities for the coming period include assuring the high level of financial commitments needed to complete the CoML in 2010, deepening the long-term commitment of the U.S. government to continue the data assimilation framework of the CoML (the Ocean Biogeographical Information System), and preparing culminating, synthetic products from the CoML tailored for U.S. stakeholders. Project Director: Jerry L. Miller, Technical Director and Director of Research.

**Duke University**  
Durham, NC 27708

**\$984,000**

Every year, large numbers of people, scientists and others, access information about the Census of Marine Life (CoML) via the Internet in new and often interactive formats involving maps and visualizations. Although the Census has developed a common database, the Ocean Biogeographical Information System, it has taken only partial steps to develop a shared visual vocabulary for displaying all its results, including those from 14 field projects and diverse research fields where each expert community has developed its own visual vocabulary for conveying findings. With this grant, a team based at Duke University and with long involvement in CoML will take responsibility for implementing consistent and effective mapping and visualization throughout the Census in time for massive releases of results expected in 2009 and especially in 2010. The work involves: developing a strong network of experts in all the CoML projects; learning in detail the visualization needs of the projects; familiarizing people with a range of present capabilities; reaching agreement on styles and approaches; and helping each project to acquire requisite capacities, including geographical information system tools (dynamic maps), scientific visualization (high quality graphs and charts with common fonts and color schemes), and multimedia products involving sound and video. All will be

developed and tested to work across a wide range of devices to access CoML information, from large projection screens to small personal digital assistants. The project will involve cooperation with Google and ESRI, the private sector market leader in producing mapping software, with the aim of stimulating open access tools (like Google Oceans) that vast numbers of people around the world might use to access Census findings. Project Director: Professor Patrick N. Halpin, Director, Marine Geospatial Ecology Laboratory, Division of Marine Science and Conservation, Nicholas School of the Environment and Earth Sciences.

**Stanford University**  
Stanford, CA 94305

**\$1,315,000**

The top predators project of the Census of Marine Life (CoML), initiated in 2002, has deployed nearly 2,700 electronic tags on 23 species of marine apex predators in the Pacific. The Tagging of Pacific Pelagics (TOPP) program has provided information about seasonal distribution and movements and has identified biological hotspots, i.e., regions of high predator occupancy. The research has also provided behavioral insights into how widely traveled animals (e.g., tuna and turtles) use the environment and how currents and other oceanographic conditions influence their distribution. TOPP's researchers record information about temperature, salinity, and other environmental features where they travel and are proving to be a highly economical complement to ships and undersea robots as a way to obtain a picture of the climate of the ocean. With this grant, the TOPP team will continue its observations while beginning to synthesize the picture of the Pacific and indeed the global oceans. A key feature of the next phase of its work is enhancement of the ability to visualize life in the oceans with three-dimensional computation and animation techniques. The TOPP program aims to create an "animal's eye" view of the pelagic environment, including hot spots. To accomplish such imaginative visualizations, it has begun to cooperate with the Jet Propulsion Laboratory and Google as well as some small companies involved in computer graphics. The project aims by 2010 to enable visitors to CoML websites to "swim with white sharks" or to see what a blue whale sees when it dives 1000 meters. The construction of a visualization system that shows the ocean between the surface skin and the basin floor will be a great asset for the entire CoML project and could help people experience what has been learned by the Census by 2010. The TOPP's project is actively spreading its approaches and software in the Indian Ocean, Antarctic region and elsewhere. Data of predator locations and movement are entered into the CoML Ocean Biogeographical Information System, which is also becoming the repository for similar data produced by researchers not formally part of the project. This assimilation of data from diverse researchers around the world should allow a global picture in 2010, whether of albatross circling Antarctica or sea lions foraging along the Aleutians. Grant funds will be used for core expenses of the project, which has raised more than \$20 million in non-Sloan funds and seeks about another \$8 million for its activities through 2010. Project Director: Professor Barbara A. Block, Department of Biological Sciences, Hopkins Marine Station.

**University of California, San Diego**  
La Jolla, CA 92093

**\$900,000**

A 2005 Foundation grant supported an international network of reef researchers to plan and conduct the first taxonomically diversified global census of coral reef ecosystems. This Census of Reefs (CReefs) effort has developed detailed plans and protocols, organized its database, won financial commitments, and also carried out major expeditions. An expedition around the South Pacific island of Moorea collected more than 10,000 invertebrates, now being identified with DNA barcodes. A 20-day exploration of the French Frigate Shoals of the Northwest Hawaiian Islands used 14 sampling methods on 12 reef habitat types and documented about 2,000 species, including more than 100 that were new or never before seen in the region. With this grant, the CReefs team will expand its efforts and use innovative sampling and analytic methods to create the first global picture of reef life. During the next three years, CReefs will start new activities in the Indian Ocean, Caribbean, and Australia and expand in the vast Pacific. One of its innovative technologies is an Artificial Reef Matrix Structure which mimics the complexity of a reef and can be left in place for a year or two and then collected, allowing quantitative comparison of different sites. The CReefs team has received the largest private sector commitment to the Census of Marine Life so far, a \$3 million contribution by the company BHP-Billiton. Project Director: Professor Nancy Knowlton, Marine Biology Research Division; Director, Center for Marine Biodiversity and Conservation, Scripps Institution of Oceanography.

**University of California, San Diego**  
La Jolla, CA 92093

**\$900,000**

The underwater mountains known as seamounts host highly productive ecosystems that form feeding grounds for fish, marine mammals, and seabirds. They number in the tens of thousands, but only fewer than 300 have been scientifically studied. A 2005 Foundation grant established a “CenSeam” team of researchers to begin the first-ever global census of marine life in seamounts. The team has built a strong database, Seamounts Online, that now has data on 3400 taxa from 231 seamounts already visited, and has published a handsome book that summarizes “the known.” They have established an effective secretariat in New Zealand and have more than 30 proposals out for review to funders around the world. Meanwhile, they have participated in more than 20 cruises to 14 target regions and have made scientifically significant finds. In the Coral Sea, for example, they found a shrimp believed extinct 50 million years ago and previously known only through fossils. The current grant will supply core support for CenSeam work for the next three years. During this time, CenSeam sampling and analysis protocols will be widely disseminated, seamounts in 23 more target regions will be visited, the Seamounts Online database will be enlarged, and preparations will be made for global syntheses. Twelve countries are represented on the project steering committee, including Portugal, Russia, and importantly France, whose Pacific waters encompass many thousands of seamounts. Because of concerns about overfishing of seamounts, United Nations entities as well as nongovernmental environmental organizations concerned with establishing marine protected areas in the high seas have expressed strong interest in this

CenSeam research. Grant funds will be used for essential functions to operate the project. Project Director: Karen Stocks, Research Scientist, San Diego Supercomputer Center.

**University of New Hampshire**  
Durham, NH 03824

**\$1,050,000**

The History of Marine Animal Populations (HMAP) program was established at the outset of the Census of Marine Life in 2000. The program aimed to establish historical marine ecology as a field of study and also to provide the historical backdrop for the Census. In the early years, the HMAP program carried out research, but also put much effort into community building and education and training, especially of graduate students and postdocs. It has been successful and historical marine ecology has become a thriving discipline. This grant will support the HMAP program as it shifts its emphasis over the next two years from enlarging the expert pool and generating new case studies to creating a global perspective on how the diversity, distribution, and abundance of marine animal populations have altered over the past 2,000 years. The program will draw on eight already-completed case studies in diverse regions (e.g., Mediterranean, North Sea, and Gulf of Maine), five case studies still in progress, and other materials to draw historical baselines in many ecosystems. To the extent possible, HMAP will work with common timepoints, for example, the years 1500 and 1800. It will attempt to develop the first global database on fishing methods through historical time. Grant funds will go, as usual, to operate the core functions of the HMAP program as well as for the time of individuals involved in the synthesis. Project Director: Andrew A. Rosenberg, Professor of Natural Resources and Oceans Policy.

**University of Rhode Island**  
Narragansett, RI 02882

**\$1,321,000**

A 2002 Foundation grant supported a network based at the University of Rhode Island (URI) to encourage and carry out education and outreach activities for the entire Census of Marine Life (CoML). The Census has since become one of the world's best known cooperative international scientific programs, appearing regularly in all forms of media throughout the world, and earning cover stories in popular weekly and monthly news magazines as well as major prizes for science communication. This grant renews support for the URI team to continue its work until the beginning of the final Census year of 2010. During this period, the expenditures per month will increase to reflect the larger network of contacts within CoML as the program has grown, the increase in the volume of results expected during 2008-2009, growth of the CoML web portal, new kinds of activities (such as building a gallery of CoML videos on YouTube and integrating CoML into other forms of social networking), and preparing for the grand finale during 2010. The URI team is also working to encourage a 2010 issue of *National Geographic* magazine dedicated to the Census and for CoML features on various TV and Cable channels here and abroad. Coordination with the Duke University group developing mapping and visualization for the Census (see the Duke grant description above) will be an important aspect of the URI effort. Project Director: Sara C. Hickox, Director, Office of Marine Programs, Graduate School of Oceanography.

**University of Southampton**  
Southampton SO14 3ZH, England

**\$650,000**

In 2002, Census of Marine Life scientists formed the Chemosynthetic Ecosystems (ChEss) project to accelerate exploration of hot hydrothermal vents and other sea-floor ecosystems that do not rely on photosynthesis and to assemble by 2010 a global picture of their distribution and the diversity of life they support. The findings have been dramatic. Nearly boiled shrimp and other forms of life were found near a thermal vent three kilometers below the surface in the equatorial Atlantic, where fluids billowing from Earth's core were recorded at the unprecedented marine temperature of 407°C. In the Pacific near Easter Island, ChEss researchers discovered a furry crab so unusual it warranted a new family designation, Kiwaidae. ChEss will release a new map showing the global distribution of vents and the more than 700 vent species found to date. The current grant renews support for the ChEss project to continue its explorations and to begin to synthesize its findings. The project will explore vents in the Arctic, Eastern Pacific, Atlantic Equatorial belt, and the Caribbean. It will intensify the search for life along the "cold seeps" of methane that run in ribbons along the continental margins (and are attracting intense interest in the oil and gas industry). ChEss project leaders will continue their imaginative and successful education and outreach efforts to reach a wide and interested public. The project's leadership group includes experts from many countries, including the United Kingdom, United States, Spain, Brazil, India, and Japan. The ChEss project has raised more than \$20 million in addition to Sloan Foundation funds and is expected to be able to raise at least this much more. As is usual, Sloan funds will continue to be used to support the organizational backbone of the project. Project Director: Paul Alan Tyler, Professor of Deep Sea Biology, School of Ocean and Earth Science.

**Virginia Institute of Marine Science  
at the College of William and Mary**  
Gloucester Point, VA 23062

**\$800,000**

Study of life on and above the mid-Atlantic Ridge, Earth's longest mountain range, was initiated in 2001 as one of the field programs of the Census of Marine Life. The Mid-Atlantic Ridge Ecosystem (MARECO) research team, jointly led by the Virginia Institute of Marine Sciences and the Institute of Marine Research in Bergen, Norway, has produced important technical and scientific results. The team has accomplished the deepest ever use of acoustic instruments of multiple frequencies and configurations, together with optical instruments, to characterize deep-sea communities simultaneously with several approaches, thus vastly reducing the likelihood that animals evade detection. MARECO researchers also pioneered efficient depth-stratified sampling with both large and small nets. Numerous new species have been discovered and described, resulting in much more complete inventories of life in the midwaters, deep waters, and sediments of the ridge in the northern hemisphere. Many publications have appeared, including 25 in a special 2007 issue of the journal *Deep Sea Research* and 10 in *Marine Biology Research*. MARECO's data are entered into OBIS, CoML's Ocean Biogeographical Information

System. The current grant renews core support to bring the research program up to its final phase. The MARECO project will complete its fieldwork in the North Atlantic during the next two years. It will also complete the cruise planning and fund-raising for an unprecedented exploration of the South Atlantic portion of the ridge, thereby engaging Brazil, Argentina, South Africa, Namibia, and Angola in the project. Project Director: Michael Vecchione, Adjunct Professor, Department of Fisheries, VIMS; Adjunct Scientist and Director, NOAA/NMFS National Systematics Laboratory, National Museum of Natural History, Smithsonian Institution.

---

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

**Australian Institute of Marine Science** **\$45,000**  
Cape Ferguson, Queensland, Australia

To bring a global centre of marine biodiversity – Indonesia – more fully into the Census of Marine Life. Project Director: Ian Poiner, Chief Executive Officer.

**Consortium for Ocean Leadership, Inc.** **\$45,000**  
Washington, DC 20005

For a short video on how the observing technologies of the Census of Marine Life may contribute to the global ocean observing system. Project Director: Jerry L. Miller, Technical Director and Director of Research.

**Intergovernmental Oceanographic Commission (UNESCO)** **\$45,000**  
75732 Paris, Cedex 15, France

To enhance the Census of Marine Life in the Arabian Sea. Project Director: William Erb, IOC Perth Regional Programme Office, West Perth, Australia.

**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, President and CEO.

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

To create and maintain a global database of past and planned oceanographic expeditions to benefit Census of Marine Life researchers. Project Director: Shubha Sathyendranath, Executive Director.

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

For a short video to help assure ocean-observing technologies are considered in a 2007 meeting of government ministers on earth observing systems. Project Director: Shubha Sathyendranath, Executive Director.

**University of Cape Town** **\$45,000**  
Rondebosch 7701, South Africa

To integrate a major biodiversity survey of the Western Indian Ocean into the Census of Marine Life. Project Director: Professor Charles Griffiths, Department of Zoology and Director, Marine Biology Research Centre.

---

The following grant was funded from an appropriation approved by the Board of Trustees to support continued participation in the National Ocean Partnership Program for the Census of Marine Life.

**Rutgers, The State University of New Jersey** **\$44,735**  
New Brunswick, NJ 08901

To support efforts to deepen the integration of the Ocean Biogeographical Information System into the plans and operations of U.S. government agencies. Project Director: James W. Ammerman, Associate Research Professor, Institute of Marine and Coastal Sciences.

## DIRECT SUPPORT OF RESEARCH

---

### OTHER SCIENCE, TRUSTEE GRANT

---

**Carnegie Institution of Washington**  
Washington, DC 20005

**\$398,000**

Consideration of the carbon cycle has almost exclusively focused on the near surface. We think of a carbon cycle in which rotting swamps emit carbon and leaves of trees absorb it back from the atmosphere. The tacit assumption is that shallow surface environments of soils and plants, the oceans, and atmosphere form an essentially closed system with respect to biologically available carbon. However, new discoveries imply an additional “deep carbon cycle” with synthesis of the “organic” molecules and compounds associated with life, complex interactions between organic molecules and minerals, widespread existence of deep microbial ecosystems, and greater interaction between the lower crust and upper mantle. These discoveries suggest that it is an appropriate time for a new appraisal of the deep carbon cycle. The societal and scientific implications are significant because the prevalence of a deep hot biosphere could account for traces of life in petroleum and other so-called fossil fuels and imply a quite different distribution of these resources than is currently accepted. Such an appraisal would require a truly multidisciplinary approach involving mineral physics, geochemistry, petroleum geology, microbial ecology, and molecular evolution, as well as a world perspective. Expertise about deep carbon exists in Russia, France, and in private industry and U.S. universities. This grant supports the work of a team based at the Carnegie Institution of Washington to understand the carbon essential for life deep in Earth and to explore the implications that a deep origin of life might have for our understanding of geological processes and resources. The project will be launched at the 2008 Gordon conference on the origins of life and followed up with a pair of workshops. A report will be prepared on directions for research, especially those that might provide strong evidence about the possibility of deep origins of life. Project Director: Robert M. Hazen, Staff Scientist, Geophysical Laboratory.

### OTHER SCIENCE, OFFICER GRANT

---

**Regents of the University of California**  
La Jolla, CA 92093

**\$22,590**

To provide partial support for the 2007 Sloan-Swartz Centers for Theoretical Neurobiology Summer Workshop. Project Director: Scott Makeig, Research Scientist and Director, Swartz Center for Computational Neuroscience, Institute for Neural Computation, University of California, San Diego.



## HISTORY OF SCIENCE AND TECHNOLOGY

---

### WEB SITES, TRUSTEE GRANT

---

**Children First Fund**  
Chicago, IL 60603

**\$250,000**

The Foundation's program to develop interactive history websites initially focused on enabling people "who were there" to create sites around events in the history of science and technology. The approach and software developed have proved useful for many domains of history, but especially for websites devoted to such catastrophic events as 9/11, the Gulf Coast hurricanes of 2005, and most recently the Virginia Tech tragedy. These sites had many thousands of contributors to the historical record. A small 2005 Foundation grant to the Chicago Historical Society provided funds to explore the development of "Memory Banks" for Chicago public schools and to implement them in two schools. The current grant to the Children First Fund, a group associated with the Chicago public schools, will spread Memory Banks to all 623 current Chicago public schools, 400 former schools, and the 3 million people currently alive who attended them. The Chicago sites would emphasize recollections and history. They would be open access and archived for historical study and draw on the software developed by the Sloan-supported Center for History and the New Media at George Mason University. The upcoming 150<sup>th</sup> anniversary of the Chicago public schools provides an ideal time for launching the sites, which have strong support from the school system. Grant funds will be used mainly to set up a portal and to spread sites to the many schools. The grant will support an advisory board of historians to help assure the historical value of the sites. Additional funds will be sought by the Chicago team to deepen the involvement of historians from the universities in the Chicago area and the Chicago Historical Museum and to carry out historical studies. There is a good deal of interest in the potential of searchable, well-populated sites about the schools as valuable sources of information concerning such topics as social mobility, adoption of technologies, race relations, and history of education. Project Director: Lisa Wiersma, Partnership Coordinator, Chicago Public Schools.

## **STANDARD OF LIVING AND ECONOMIC PERFORMANCE**

---

### **BUSINESS, INDUSTRY AND ECONOMICS**

---

#### **INDUSTRY STUDIES, TRUSTEE GRANTS**

---

<b>Massachusetts Institute of Technology</b> Cambridge, MA 02139	<b>\$324,720</b>
<b>Cornell University</b> Ithaca, NY 14853	<b>\$30,559</b>
<b>Rutgers, The State University of New Jersey</b> New Brunswick, NJ 08901	<b>\$28,721</b>

These grants supply funds to organize and hold the 2008 Industry Studies Annual Conference, scheduled to be held May 1-2, 2008 in Boston. At least 300 researchers from various fields with interests in industry studies are expected to attend. The Industrial Performance Center at MIT, overseen by Richard Lester, will provide logistics support for the conference. Rosemary Batt at Cornell and Eileen Appelbaum at Rutgers, co-chairs of the Program Committee, selected “Building Capacity for High Wage Employment: Innovation, Public Policy and Sustainability” as the theme for the conference plenary session. This topic builds significantly on past industry studies conferences and the substantial body of industry studies research on globalization, outsourcing and offshoring, global value chains, and employment and human resource management issues. As in 2007, there will be an awards ceremony featuring prizes for the best book, best dissertation, and best papers published in the prior year, and recognition for the Sloan Industry Studies Fellows. Two pre-conference professional development workshops will be arranged, one focused on the needs of early-career faculty, helping to support them in their path toward tenure, and the other on the development needs of senior scholars including directors of Industry Centers. Project Directors: Richard K. Lester, Professor of Nuclear Science and Engineering and Director, Industrial Performance Center, MIT; Rosemary Batt, Professor of Women and Work, School of Industrial and Labor Relations, Cornell; Professor Eileen Appelbaum, Director of the Center for Women and Work, Rutgers.

---

Each of the following grants was funded from an appropriation approved by the Board of Trustees to support the Sloan Industry Studies Fellowship Program, academic workshops, and other services in support of the industry studies community. (Each Sloan industry studies fellow receives a grant of \$45,000 for a two-year period, administered by his or her institution.)

**Columbia University** **\$45,000**  
New York, NY 10027

Sloan Industry Studies Fellowship for Assistant Professor Josh Whitford, Department of Sociology.

**Cornell University** **\$24,953**  
Ithaca, NY 14853

To plan the 2008 Industry Studies Annual Conference. Project Director: Professor Rosemary Batt, Human Resource Studies Department, School of Industrial and Labor Relations.

**Georgia Institute of Technology** **\$45,000**  
Atlanta, GA 30332

Sloan Industry Studies Fellowship for Assistant Professor Christopher Forman, Information Technology Management, College of Management.

**Labor and Employment Relations Association** **\$35,000**  
Champaign, IL 61820

To feature industry studies research at the 2007 LERA National Policy Forum in Washington, DC. Project Director: Paula Wells, Executive Director.

**Massachusetts Institute of Technology** **\$34,950**  
Cambridge, MA 02139

To support the Professional Development Workshop for Industry Studies Early-Career Scholars organized by Professor Lawrence Hunter, School of Business, University of Wisconsin-Madison. Project Director: Richard K. Lester, Professor of Nuclear Science and Engineering; Director, Industrial Performance Center.

**Rutgers, The State University of New Jersey** **\$16,000**  
New Brunswick, NJ 08901

To plan the 2008 Industry Studies Annual Conference. Project Director: Professor Eileen Appelbaum, Director, Center for Women and Work, Labor Studies and Employment Relations Department, School of Management and Labor Relations.

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

Sloan Industry Studies Fellowship for Assistant Professor Riitta Katila, Department of Management Science and Engineering, School of Engineering.

**University of Minnesota Foundation** **\$34,430**  
Minneapolis, MN 55455

To support the workshop, “U.S. Industry and Climate Change: Impacts, Policies, and Responses.” Project Director: Professor Benjamin H. Senauer, Department of Applied Economics.

**University of Pennsylvania** **\$45,000**  
Philadelphia, PA 19104

Sloan Industry Studies Fellowship for Assistant Professor Heiner Schulz, Department of Political Science.

**University of Texas at Austin** **\$45,000**  
Austin, TX 78712

Sloan Industry Studies Fellowship for Assistant Professor Dovev Lavie, Department of Management, McCombs School of Business.

**University of Toronto** **\$25,125**  
Toronto, ON M5S 1A1, Canada

To support the workshop, “New Industrial Capabilities in China and India.” Project Director: Professor Loren Brandt, Department of Economics.

**University of Wisconsin** **\$35,000**  
Madison, WI 53715

To support the workshop, “Health Care High-Road Charrette.” Project Director: Joel E. Rogers, Professor of Law, Political Science, and Sociology; Director, Center on Wisconsin Strategy.

INDUSTRY STUDIES, OFFICER GRANTS

---

**Regents of the University of Minnesota** **\$30,000**  
Morris, MN 56267

To complete a study of truckers and turnover, mostly funded by industry and other sources. Project Director: Professor Stephen V. Burks, Department of Economics, University of Minnesota, Morris.

**Rutgers, The State University of New Jersey** **\$45,000**  
New Brunswick, NJ 08901

To exploit the availability of a unique dataset to connect human resources practices to company outcomes. Project Director: Professor Joseph R. Blasi, School of Management and Labor Relations.

**University of Pittsburgh**  
Pittsburgh, PA 15260

**\$45,000**

To establish an interdisciplinary network of industry studies researchers focused on direct care service industries. Project Director: Carrie R. Leana, Professor of Organizations and Management, Katz Graduate School of Business.

**Villanova University**  
Villanova, PA 19085

**\$45,000**

To support a study to assess usage of new web technologies for user-group productivity in companies. Project Director: Stephen J. Andriole, Professor of Business Technology, School of Business.

## BUSINESS, INDUSTRY AND ECONOMICS

---

### INDUSTRY CENTERS, TRUSTEE GRANTS

---

**Carnegie Mellon University**  
Pittsburgh, PA 15213

**\$375,000**

The Carnegie Mellon Electricity Industry Center (CEIC) was established in 2001 with a \$1 million Foundation grant matched by major funding from the Electric Power Research Institute and industry companies. The Center has developed a strong interdisciplinary community of researchers with deep understanding of the industry. It has become an important center studying the industry and a resource for government decision makers, as well as for the industry itself. Based on rigorous study of industry policies and practices, CEIC has challenged conventional thinking, particularly on deregulation and its impacts. For example, its research demonstrated that deregulation did not lower prices as promised. The Center's research on carbon dioxide control technologies has had an impact on discussions and actions within the industry. CEIC has become prominent in analysis and policy discussions concerning the issues of climate, affordability, and reliability. Many research projects are underway, involving both faculty members and graduate students. Ongoing projects include study of opportunities for increased profits in low-carbon electricity generation, regulatory options and public perceptions of deep geologic sequestration of carbon dioxide, quantifying costs and energy penalties of various carbon dioxide control strategies, and implications of plug-in hybrid vehicles on the electric power system. This current final Foundation grant augments larger sums raised from industry and government sources. Such support is expected to continue and raising endowment funds is also planned. There is every expectation that the CEIC will be self-sustaining and be able to continue its important research into the future. Project Director: Lester B. Lave, University Professor, Professor of Economics and Finance, of Public Policy and Management, and of Engineering and Public Policy.

### INDUSTRY CENTERS, OFFICER GRANTS

---

**Iowa State University Foundation**  
Ames, IA 50010

**\$45,000**

Support to develop a funding base for a center on the bio-based products industry. Project Director: Professor John A. Miranowski, Department of Economics.

**University of Illinois at Chicago**  
Chicago, IL 60612

**\$45,000**

Planning support for an air-filtration industry center. Project Director: Professor William Worek, Department of Mechanical and Industrial Engineering.

**University of Texas**  
Austin, TX 78712

**\$45,000**

Support to plan for an oil and gas industry center. Project Director: Professor Charles G. Groat, Department of Geological Sciences and Director, Center for International Energy and Environmental Policy.

## BUSINESS, INDUSTRY AND ECONOMICS

---

### RESEARCH ON GLOBALIZATION, TRUSTEE GRANTS

---

**National Opinion Research Center**  
Chicago, IL 60603

**\$365,000**

This grant supports a research project to study workers' views on the impact of globalization and technological change on their lives. For the worker survey, a new set of questions about globalization, technological change, economic security, and job quality will be added to the nationally representative dataset on individuals collected in the 2008 General Social Survey (GSS). This public use dataset would tie individuals' perceptions of how globalization and technological change are affecting their jobs and feelings of security to data on job stability and pay. Such survey data will allow researchers to link representative national data on workers to case studies of companies and in-depth knowledge of industries. The planned project includes a second part in which another set of data on the employers of the workers surveyed in the GSS will be collected via the National Organization Survey III. It will be supplemented by a subsample of qualitative interviews at corporate headquarters. This part will explore which business functions are performed in house and which are purchased from outside vendors, the quality of jobs, and the business strategies that underlie company decisions about the location of work. The current Foundation grant supports only the first of this two-part project. It is expected that funds required for the second part will be raised from other sources. Project Director: Julia I. Lane, Senior Vice President and Director, Economics, Labor and Population.

**Regents of the University of California**  
Irvine, CA 92697

**\$150,000**

An earlier Foundation grant allowed Professor Kraemer and colleagues at the University of California, Irvine, to determine where value is captured in the innovative iPod device. There is considerable interest and debate at the national level about American competitiveness in a rapidly globalizing economy. Widespread support exists for the idea that "innovation" is the path of success for America. The project developed a practical approach to the innovation issue, addressing the question of who captures value in the complex global network for production and distribution of the iPod. It also developed an analytical framework and methodology for determining how much of the value of electronics products such as the iPod, globally sourced from many suppliers in a number of countries, is captured by various participants in a global supply chain. This new grant will allow this research to go on to identify iPod-related jobs, estimate where wages are paid in the manufacture of this globally sourced product, and determine the distribution of those wages within the countries involved. Project Director: Kenneth L. Kraemer, Professor of Information Technology for Management, Business School, and Director, Center for Research on Information Technology and Organizations.



The following grants were funded from an appropriation approved by the Board of Trustees to support small grants to study global outsourcing and offshoring in various industries.

**Georgia Tech Research Corporation** **\$45,000**  
Atlanta, GA 30332

To study the influence of government policies on R&D investments in the Chinese information technology industry. Project Director: Dan Breznitz, Professor of Science, Technology and International Affairs, Sam Nunn School of International Affairs, Georgia Institute of Technology.

**Massachusetts Institute of Technology** **\$45,000**  
Cambridge, MA 02139

To hold a workshop on new institutions for a global economy. Project Director: Richard M. Locke, Professor of Management and Political Science, Sloan School of Management.

**National Opinion Research Center** **\$42,362**  
Chicago, IL 60603

To formulate and pretest the questions that will be used to create a unique dataset on Americans' views of the impacts of globalization and technological change on their economic security. Project Director: Julia I. Lane, Senior Vice President and Director, Economics, Labor and Population Studies.

**Regents of the University of California, Berkeley** **\$45,000**  
Berkeley, CA 94720

To lay the foundation for a study of the policies adopted by various countries to influence corporate location decisions. Project Director: Professor John Zysman, Department of Political Science; Co-Director, Berkeley Roundtable on the International Economy.

**Rush University Medical Center** **\$44,000**  
Chicago, IL 60612

Support for an exploratory study of medical tourism. Project Director: Associate Professor Andrew N. Garman, Department of Health Systems Management.

**Stanford University** **\$41,090**  
Stanford, CA 94305

Support for a conference on the offshoring of services. Project Director: Rafiq Dossani, Senior Research Scholar, Shorenstein Asia-Pacific Research Center.

## BUSINESS, INDUSTRY AND ECONOMICS

---

### ROLE OF THE CORPORATION, TRUSTEE GRANTS

---

#### **Aspen Institute**

**\$150,000**

New York, NY 10016

The team production model of the corporation was developed by Margaret Blair and Lynn Stout as an alternative to the “principal-agent” and shareholder primacy models that dominate corporate law scholarship and much of the business school curriculum. The Aspen Institute’s Business and Society Program (BSP) has received a number of Foundation grants to support work with business school faculty on ways to incorporate team production and other theories of corporate governance into mainstream business school courses. Also supported was the development of part of the Aspen BSP’s website, CasePlace.org, as a vehicle to disseminate cases, readings, and other materials about these topics specifically tailored to a business school audience. The current final grant will wrap up this work. Project Director: Judith F. Samuelson, Executive Director, Business and Society Program.

#### **Economic Strategy Institute**

**\$300,000**

Washington, DC 20007

At present there is a widely shared view that although a trading partner’s economic development, such as that taking place in Asia, may produce “winners” and “losers” among particular industries, companies, and workers, it is always “win-win” for the trading countries. Recent work by Ralph Gomory and William Baumol demonstrates that this is not necessarily so, i.e., one country’s development can help it but simultaneously harm its trading partner. Although other leading economists have expressed similar views, these voices are few compared to the many who espouse the conventional thinking. The first of the Economic Strategy Institute’s (ESI) projects supported by this grant will develop and write a monograph to integrate the newer trade theories with available data, including information from industry and country case studies. The performance of U.S. industries, such as consumer electronics, machine tools, semiconductors, and others, and the strategies employed by developing countries to break into some of these industries and markets will be studied. In a second project, ESI will attempt to determine the feasibility of using empirical data to test the new ideas. Finally, they will establish a website and blog to assemble resources useful in analyzing and interpreting the impacts of globalization. The website will include an online annotated bibliography of the many sources of information on this subject. The blog, with ESI’s commentary and reactions to the work of others, is intended to spark discussion of non-conventional as well as conventional views of trade. Project Director: Clyde V. Prestowitz, Jr., President.

**Greater Washington Educational Telecommunications Association      \$118,093**  
Arlington, VA 22206

With this grant, WETA Television and MacNeil/Lehrer Productions, on behalf of ‘The NewsHour with Jim Lehrer,’ will produce and broadcast eight segments on “Globalization: America’s Response.” The series will be reported by Paul Solman and will examine what companies are doing to be competitive in the global economy and what effects their actions are having on the U.S. In his 10-12 minute segments, Solman plans to explore to what extent there is (or is not) alignment between the interests of global corporations and the interests of countries, particularly the U.S. In addition to the TV broadcasts, the series will also be featured on the PBS NewsHour website. This grant funds only the direct, out-of-pocket costs of the series, with all other costs, such as staff salaries covered by the NewsHour. Project Director: Paul Solman, Business and Economics Correspondent.

**Information Technology and Innovation Foundation      \$138,000**  
Washington, DC 20005

America’s participation in high value-added industries and employment is critical to ensuring a growing standard of living for Americans. While the U.S. has been losing its position in many traditional sectors (e.g., machine tools, steel, autos), many believe that America’s competitive edge is technology and particularly information technology (IT). There is some concern, however, about signs that America’s leadership in both the IT industry and IT applications may be declining. With this grant, the Information Technology and Innovation Foundation (ITIF) will conduct a study to examine the competitive position of the U.S. in a variety of IT application areas, assess the reasons for our or other nations’ leadership positions, and develop policy recommendations for enhancing the U.S. competitive position. The project will first assess where the U.S. stands relative to other nations in such IT application areas as e-commerce, e-banking, asynchronous learning, geographic information systems, health care utilization, identity management, mobile commerce, digital media distribution, telematics, broadband wireless communication, smart cards, etc. The technology trade press, other related literature, and country-based websites will be reviewed. Input from IT industry experts and consultants will be obtained. Talks will be held with public officials and science and technology attachés from embassies in other nations. The effect of various nations’ national and other public policies on IT and IT application positions will be examined. Finally, ITIF will prepare a report of its study, to be widely distributed, with proposed policy alternatives that could be considered domestically to strengthen the IT area. Project Director: Robert D. Atkinson, President.

**Institute for International Economics**  
Washington, DC 20036

**\$400,000**

This grant supports three interrelated projects to be carried out at the Institute for International Economics. The first will characterize U.S. competitiveness, focusing on the challenges and opportunities firms face. It will analyze the extent to which U.S. trade performance has declined in the recent past and which industries and markets have experienced the biggest competitiveness issues. A working group of senior executives will be assembled to discuss factors that affect the competitiveness of their operations here in the U.S. and around the world. A separate analysis will feature cross-country comparisons of firms operating in the U.S. and Germany, a country that pays high wages yet consistently runs an overall trade surplus in manufactured goods with the U.S. The second project will examine the role of multinational corporations in the U.S., studying their exports, investment, and employment in the U.S. and making comparisons with the activities of these companies' foreign affiliates. It will also investigate the changes in foreign multinational employment and investment in the U.S. The objective of the third study is to determine how changes in tax policy might better align corporations' incentives with the national interest. Analysis and results of the project will be communicated to key members of the Washington policy community. Project Director: C. Fred Bergsten, Director.

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

**\$500,000**

This grant supports a project whose main purpose is to study, and draw lessons from, what governments are doing to sustain employment and productivity within their borders and how they are adapting to the global economy. Sustaining the growth of employment and productivity to assure expanding real incomes of citizens is not the same as assuring the competitiveness of corporations. Project researchers will study the actions governments of advanced and emerging countries are taking to achieve positive outcomes for their citizens. The research will focus on countries, industries, and firms. At the country level, the policies of three specific groups of countries will be studied, with special attention to how these policies affect the United States: (1) wealthy countries, such as France, Germany, Japan, Britain, Finland, and Denmark; (2) emerging countries, such as Ireland, Israel, Spain, South Korea, Poland, and Hungary; and (3) the new giants, China and India. With the industry focus, researchers will examine the consequences of various policy strategies across five specific industries, in terms not only of industrial competitiveness and the growth of technological capabilities, but also the capacity to sustain high-productivity employment and the effects on wages and income. Turning to comparisons among firms in a particular industry, they will determine whether and how government policies have influenced decisions by individual companies in the industry about location, employment, and technological development. The researchers will review the literature, involve doctoral students, engage with companies and government representatives, organize meetings and conferences, and present results in journal articles and books. The Foundation grant supplies only partial funding of the project; additional funds are expected from companies and other sources. Project Director: John Zysman,

Professor of Political Science and Co-Director, Berkeley Roundtable on the International Economy.

ROLE OF THE CORPORATION, OFFICER GRANTS

---

**AFL-CIO Working for America Institute, Inc.** **\$29,000**  
Washington, DC 20006

To popularize the concept of high value-added per FTE among union leaders and their employers. Project Director: Nancy Mills, Executive Director.

**American Prospect, Inc.** **\$42,000**  
Washington, DC 20036

To hold a conference on trade, manufacturing and corporate and national interests. Project Director: Robert Kuttner, Co-Editor.

**Center for Economic and Policy Research** **\$26,900**  
Washington, DC 20009

To disseminate the results of research providing an alternative view of globalization and its effects on U.S. manufacturing and productivity. Project Director: Dean Baker, Co-Director.

**Demos: A Network for Ideas & Action** **\$43,000**  
New York, NY 10001

To establish and regularly convene a working group to further develop and refine some of the policy alternatives discussed at *The American Prospect* conference on trade and the national interest. Project Director: Miles S. Rapoport, President.

**Economic Policy Institute** **\$45,000**  
Washington, DC 20005

To support an economic and legal analysis of Warren Buffett's "Import Certificate" auction proposal to balance the U.S. trade deficit. Project Director: Robert E. Scott, Director of International Programs.

**Public Citizen Foundation, Inc.** **\$40,000**  
Washington, DC 20009

To prepare accessible and easy-to-read papers on the history of U.S. trade laws and negotiating processes, and on comparisons of those processes in other countries. Project Director: Lori M. Wallach, Director, Global Trade Watch.

## NONPROFIT SECTORS

---

### MEASURING AND REPORTING ON GOVERNMENT PERFORMANCE, TRUSTEE GRANTS

---

#### **Association of Government Accountants**

**\$260,000**

Alexandria, VA 22301

Prior Foundation grants to the Association of Government Accountants (AGA) have supported its Certificate of Excellence in Service Efforts and Accomplishments (SEA) Reporting Program. This program provides constructive feedback to government preparers of SEA reports, as well as recognition to those who have produced excellent reports. It has played an important role in efforts to make citizen-informed performance measurement and reporting the norm for U.S. cities and to encourage the Governmental Accounting Standard Board to produce voluntary guidelines for SEA reporting. Citizen-informed performance measurement and reporting is still far from the norm in the United States, but it is becoming more common. Even among cities that do not issue performance reports, there is a growing sense that this is the way of the future. As a result, there is much interest in learning more about such reports and how they should be done. The current renewal grant will support the continuation and growing of the SEA Certificate Reporting Program and also involve the AGA in other activities to promote citizen-informed performance measurement and reporting. These activities will include more extensive speaking at relevant meetings of government professionals to encourage governments to produce performance reports. Also, a tool kit and training programs will be offered to help officials begin producing or improve performance reports. Potentially interested governments will also be contacted to encourage them to submit their performance reports to AGA's Certificate Program. Project Director: Eveanna Barry, Director, Performance Reporting Program.

#### **Citizens Union Foundation**

**\$160,000**

New York, NY 10007

An earlier Foundation grant funded activities of *The Gotham Gazette* to promote to its readers knowledge of and support for making municipal governments more responsive to their citizens. The daily on-line magazine features news, commentary, and in-depth analysis focused on New York City. It is published by the Citizen Union Foundation, a New York City good-government group founded in 1948. Visitors to the magazine site are mainly New Yorkers interested or engaged in public and civic affairs in the City. The number of articles and commentaries targeted for the *Gazette* during the grant period has been exceeded. They have created the e-newsletter *Measuring Up*, now with more than 500 subscribers. A public forum on performance measurement has been held. The current renewal grant will continue efforts to promote measurement and reporting in New York City. During the next two years, *The Gotham Gazette* will continue to publish at least eight articles and four commentaries annually and make these and other information about government performance available in *Measuring Up*. The number of unique users will be increased to at least 16,500 per month and e-newsletter subscribers will grow in number to at least 1,150. Two online chats or interviews and one public forum on

performance measurement and reporting will be offered annually. Project Director: Richard Dadey, Executive Director.

**Community Research Council**  
Chattanooga, TN 37405

**\$100,000**

With this grant, the Community Research Council will create in the southeastern portion of the United States a network of practitioners of performance measurement and reporting, citizen-informed (when done by government) or citizen-based (when done by a nongovernmental organization). This Southeastern Network will be one of several such regional networks supported by the Foundation. All connect with the new national Public Performance Measurement and Reporting Network, managed by the National Center for Public Performance at Rutgers University-Newark. The networks aid in the dissemination of information about performance measurement and reporting with citizen input. They also encourage the Governmental Accounting Standards Board to include citizen input within its recommended guideline for performance reporting. It is expected that the new Southeastern Network will have at least 33 organization and government members by the end of its first year of operations and will be self-sustaining by its third year. The Community Research Council will serve as the Network's secretariat. The Council will create a Network website and listserv, organize an annual conference, and mobilize experienced individuals to provide technical assistance to governments and nongovernmental organizations to help them initiate or improve citizen-informed and citizen-based performance measurement and reporting. Project Director: David R. Eichenthal, President and Chief Executive Officer.

**New England States Government Finance Officers Association**  
Saco, ME 04072

**\$150,000**

With this grant, the New England States Government Finance Officers Association (NESGFOA) will bring together eighteen willing jurisdictions, three in each of the six New England states, to choose service areas to be studied, develop common performance measures for each chosen service, and publish the results annually. Two service areas will be chosen the first year and three service areas in the second year. Assuming a planned third year evaluation indicates that the project is going well, service areas will be added and other New England cities will be invited to join the project. In each participating municipality, the Worcester Regional Research Bureau, another Foundation grantee, will facilitate local citizen-input meetings to recommend to government officials the services areas to select, measures to use for each, and performance targets to set for each measure. Results for each municipality will be disseminated in ways that citizens will help determine and the NESGFOA will make all results available on its website. All participating jurisdictions will be urged in their own performance reports to follow the suggested criteria and guidelines of the Governmental Accounting Standards Board, thereby serving to support the Board's efforts to create voluntary guidelines for performance reporting and to emphasize to the Board the value of encouraging governments to obtain citizen input. The NESGFOA will invest its funds in the project and cities will pay a participation fee. The Foundation grant will cover the shortfall in the

early pilot years. It is expected that once the project has proven its value and other cities join, a modest increase in the participation fee and other sources of funding will enable the project to continue. Project Director: Lisa R. Parker, Finance Director, City of Saco.

**Pioneer Institute**  
Boston, MA 02109

**\$100,000**

The Pioneer Institute, based in Boston, is a public policy research and program implementation organization that works state-wide in Massachusetts. Its Middle Cities Initiative works with cities across the state with a population above 40,000 and per capita income and property values well below the state average. The current grant partially supports Pioneer and its partner cities to launch a Benchmarking Initiative that is a collaborative, citizen-informed performance measurement and reporting project. The project will initially focus on four service areas: public safety, public education, fiscal management, and economic development, each selected by Pioneer on the basis of feedback received from city officials, business leaders, and neighborhood groups. Of the 14 Middle Cities in Massachusetts, at least eight will participate in this project. In each city, local partners will help Pioneer and the mayor establish a Citizen Advisory Committee to provide input on what measures to employ for each service area. The Committees will also provide input on how published reports will be structured and disseminated and will help the mayors receive feedback on the reports from their citizens. The Worcester Regional Research Bureau, another Foundation grantee, will facilitate the Citizen Advisory Committee's meetings and convey the Committee's recommendations to the mayors. Data will be published on Pioneer's website and the websites of each participating city by the end of 2009 and will be updated annually thereafter. In their own performance reports, participating jurisdictions will be urged to follow the suggested criteria and guidelines of the Governmental Accounting Standards Board, thereby supporting the Board's efforts to create voluntary guidelines for performance reporting and emphasizing the value of its encouraging governments to obtain citizen input. Project Director: Amy Dain, Project Manager of the Housing and Middle Cities Initiatives.

**Urban Institute**  
Washington, DC 20037

**\$510,000**

With this grant, the Urban Institute, partnering with the Council of State Governments (CSG), will launch a project for public reporting of comparative state agency performance information with citizen input. Initially, the Urban Institute and CSG will convene a Steering Committee for the project that includes at least 12 representatives of state governments and at least three representatives of the public. The Steering Committee will determine two or more service areas on which the project will focus. For each service area, a working group of area experts, both representatives of state governments and of the public, will decide on the specific programs and performance measures that will be reported. CSG will collect the agreed-upon data and incorporate it in a public, comparative performance report to be issued by the end of the grant period. The General Accounting Standards Board pays a great deal of attention to what states do with respect to performance measurement and reporting. The success of this project to



engage states in public reporting on the performance of their agencies and to have the public participate in selecting the measures and structuring the reports may lead the Standards Board to include encouragement of citizen input in the guidelines it is preparing for voluntary reporting of performance information by state and local governments. Project Director: Harry Hatry, Director, Public Management Program.

**Urban Resource Systems, Inc.** **\$60,000**  
San Francisco, CA 94102

ParkScan is a website of the Neighborhood Parks Council (NPC), a non-government park advocacy organization in San Francisco, through which the public can report problems in any of the 209 neighborhood parks of that city. The City's Department of Recreation and Parks uses ParkScan input to generate maintenance and work orders, develop maintenance standards for its personnel, train staff and volunteers, and help plan capital improvement budgets. Discussions have been ongoing about implementing ParkScan in other cities. Officer grants have recently been awarded to Portland, OR and Oakland, CA to enable city agencies, parks groups, and NPC to determine the feasibility of introducing ParkScan. This grant supports a project to upgrade the NPC website, preparing the way for moving forward with the export of ParkScan to additional cities. Project Director: Isabel Wade, Executive Director.

---

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

**Association of Government Accountants** **\$45,000**  
Alexandria, VA 22301

To continue and institutionalize the Certificate of Excellence in Service Efforts and Accomplishments Reporting Program. Project Director: Susan Fritzlen, Deputy Executive Director of Programs.

**City of Portland** **\$18,200**  
Portland, OR 97204

To prepare the way for the introduction of ParkScan into the City of Portland. Project Director: Eileen Argentina, Manager, Park Services, Portland Parks & Recreation.

**Des Moines Neighbors** **\$31,000**  
Des Moines, IA 50314

To launch the use of ComNET in Des Moines. Project Director: Amy Rodman, Office Manager.

**Friends of Oakland Parks and Recreation** **\$18,200**  
Oakland, CA 94661

To prepare the way for the introduction of ParkScan into the City of Oakland. Project Director: Kathryn Raymond, Executive Director.

**University of Central Florida** **\$45,000**  
Orlando, FL 32801

To add citizen-informed performance measurement to the Florida Benchmarking Consortium. Project Director: Marilyn Crotty, Director, Florida Institute of Government.

---

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.

**Radford University** **\$4,000**  
Radford, VA 24142

To fund the initial stages of website improvement for Radford University. Project Director: Professor Bruce W. Chase, Department of Accounting, Finance and Business Law; Director, Governmental and Nonprofit Assistance Center.

**Urban Resource Systems** **\$2,400**  
San Francisco, CA 94102

To improve the website for Neighborhood Parks Council. Project Director: Isabel Wade, Executive Director.

## WORKPLACE, WORKFORCE AND WORKING FAMILIES

---

### BASIC RESEARCH ON WORKING FAMILIES AND EVERYDAY LIFE, TRUSTEE GRANTS

---

**Emory University**  
Atlanta, GA 30322

**\$1,787,353**

The Center on Myth and Ritual in American Life (MARIAL) at Emory University was established with a Foundation grant in 2000. Until that time, American anthropology had largely neglected the study of how modern mainstream middle-class American families use myth and ritual to add collective meaning to their lives. Since then, MARIAL researchers have produced a new understanding of these families. For example, they have shown that in spite of our cultural emphasis on strong and secure families, middle-class American nuclear families are relatively isolated fragile units. They tend to self-destruct by sending adult children out from the family to make their own family units, rather than continuing their families of origin. As the children get older, the family becomes increasingly dependent on rituals to maintain the continuity of the old family in the face of its progressive dissolution. Trying to adhere to rituals, especially homecoming rituals during holidays, can lead to many of the tensions that family members experience at such times. MARIAL researchers have also studied how families develop story-telling skills and practices and the effect of family story telling on children's development and well-being. They have found that the more a child knows about his or her family and is encouraged to listen to and tell stories about the family, the higher is the child's self-esteem, the more resiliently the child can bounce back from emotional trauma, and the more secure is identity for adolescents. In addition to its research, the MARIAL Center hosted two interdisciplinary conferences as part of its activities under the first renewal grant: "Myths of the Family" and "Food and the Modern American Family," both of which were covered extensively by major media. Communicating the nature of middle-class American families and the issues faced by such families to a broader public has been one of the goals of the Center over the years. The current grant is the second and final renewal grant in support of the work of this Center. During this three year grant period, MARIAL scholars will move forward with their research programs and will continue to communicate their findings to the general public. The Center will also establish an online journal that will focus on myth and ritual. Project Director: Professor Bradd Shore, Department of Anthropology.

**Regents of the University of California, Los Angeles**  
Los Angeles, CA 90024

**\$3,929,167**

UCLA's Center on the Everyday Lives of Families (CELf) is an interdisciplinary group of researchers from such diverse fields as anthropology, archaeology, education, linguistics, and psychology. Drawing on methods unique to their fields, they have aimed to describe and analyze what life is like on a daily basis for parents and children in today's working families. At the heart of CELf's efforts is an intense study of 32 middle-class dual-worker families with school-aged children. Over the course of seven days, each of the 32 families was videotaped from the moment they got up in the morning to

the time they went to bed. Cameras followed them in their homes, cars, and workplaces as they went about their daily lives. Family members were also interviewed in depth off camera and their behaviors in the home were observed and mapped onto a floor plan of their home. Parents had saliva tests taken on a regular basis to determine how physiological measures of stress varied with the demands of the day at work and at home, as well as to understand how the quality of their marriages mediated stress. Every second of the videotape was digitally coded and analyzed in terms of behaviors, emotions, and topics of conversations. Drawing on these data, CELF researchers have begun to document the difficulties working families face. Time together is very rare, as evidenced by the facts that family members hardly ever are in the same room at the same time and that they take few meals together. Long workdays take their toll on emotions so that when parents, particularly fathers, come home from work they are rarely greeted by spouse or children. The current and final grant renews support for CELF to continue its research over the next three years. In addition to further mining and analyzing their data, they intend to publish a college-level textbook, *Raising a Family in the 21<sup>st</sup> Century*, as well as a photo essay, *Life at Home in the 21<sup>st</sup> Century*. CELF researchers will continue collaborations they forged with Italian and Swedish research teams conducting studies, modeled on CELF's, of working families in their respective countries. Also, the clinical psychologists on the CELF team plan to produce a video training module to be used in a certification program for marriage therapists who treat dual-career partners. Project Director: Professor Elinor Ochs, Department of Anthropology.

**Trustees of Boston College**  
Chestnut Hill, MA 02467

**\$1,487,664**

The Sloan Work and Family Research Network has become the website of choice for high quality, current, and credible information on work-family issues for three stakeholder groups: academics; workplace practitioners, including human resource managers; and state policy makers. The website receives over 4,500 new visits per month, with 80 percent from the U.S. and 20 percent from countries on five other continents. The number of affiliates (members) of the Network has nearly doubled since 2004. All three user groups have access to multiple resources: a literature database of over 8,000 annotated citations in books or reports; a statistics database of over 1,200 quality statistics related to work-family issues; fact sheets providing answers to work-family questions; a quarterly newsletter featuring reviews of recent research findings and interviews with work-family leaders; and the Work-Family Encyclopedia, a peer-reviewed encyclopedia with entries about research on work-family issues and research. Each of the three user groups also has access to resources specific to its own needs. For example, the research/teaching portal supplies resources for faculty members teaching in the work/family area, including suggestions for teaching, lists of recommended readings, examples of work-family course syllabi, and a work-family glossary that clarifies and defines hundreds of terms relevant to work-family. The state policy portal provides access to a policy leadership series, a publication covering innovative policies and bills that can improve the lives of working families, and a database on bills and statutes, a map of state policy trends, and links to important work-family policy briefs. The workplace practice portal offers customized consultations to respond to specific inquiries or requests

for information, as well as workplace flexibility case studies providing examples of best practices from 16 companies. The Network has become a place to become engaged in collaborative efforts to advance understanding of work-family issues, including workplace flexibility, aging and work, elder care, and child care. The Network strives to move the field forward by offering easy access to resources that inform and expand the discussion, implementation, and assessment of work-family practices and policies. This three-year renewal grant will allow the Sloan Work and Family Research Network to expand its outreach to work-family scholars, human resources practitioners, and state legislators concerned with work-family policies. Project Director: Judith Casey, Director, Sloan Work and Family Research Network, Boston College Graduate School of Social Work.

**University of Pennsylvania**  
Philadelphia, PA 19104

**\$189,102**

This grant covers the costs of administering a new Alfred P. Sloan Foundation Early Career Development Grant Program for Work-Family Research. The Program Administrator (Professor Jacobs at the University of Pennsylvania) will be responsible for hiring clerical staff, disseminating notices and publicizing the grant competition, fielding inquiries about the program, choosing the selection committee, participating in the selection process, notifying grantees, and coordinating an annual meeting at which award winners will present their research. The plan for the two-year grant period is to make a total of ten grants, each of \$45,000. It is expected that there will be 35-50 applications in the first year, growing to perhaps 50-75 applications in the second year of the grants program. Applicants are likely to come from the 60 or so graduate students who have received support from Sloan work-family centers, the additional 60 currently in the Ph.D. pipeline, and also from the many assistant professors who have not received funding from the Foundation but whose research falls within the work-family area. Project Director: Professor Jerry A. Jacobs, Department of Sociology.

---

BASIC RESEARCH ON WORKING FAMILIES AND EVERYDAY LIFE, OFFICER GRANTS

**Baruch College, City University of New York**  
New York, NY 10010

**\$38,188**

For support of research on men who become full-time caregivers and are in role-reversing marriages. Project Director: Professor Caryn E. Medved, Department of Communication Studies.

**Pennsylvania State University**  
University Park, PA 16802

**\$42,839**

For a study of the time working mothers and fathers spend parenting infants as compared to older children. Project Director: Robert Drago, Professor of Labor Studies and Women's Studies.

**Rector and Visitors of the University of Virginia** **\$26,169**  
Charlottesville, VA 22904

To support completion of a book on working families and their consumer spending on children. Project Director: Professor Allison Pugh, Department of Sociology.

**University of Cincinnati** **\$24,048**  
Cincinnati, OH 45221

For study of negotiating sleep in dual-earner couples. Project Director: David J. Maume, Professor of Sociology and Director of Kunz Center for the Study of Work and Family.

**University of Maryland, College Park** **\$30,000**  
College Park, MD 20742

To support research on the work-family issues experienced by middle-class African-American families and the strategies used to manage them. Project Director: Professor Bart Landry, Department of Sociology.

**University of Maryland College Park Foundation** **\$12,400**  
College Park, MD 20742

To support a plenary panel and reception on the ethnography of daily life at the International Association of Time Use Researchers Conference. Project Director: Professor Annette Lareau, Department of Sociology.

**University of Pennsylvania** **\$44,821**  
Philadelphia, PA 19104

To support a study of citation patterns of interdisciplinary work-family research. Project Director: Professor Jerry Jacobs, Department of Sociology.

**University of Richmond** **\$38,287**  
Richmond, VA 23173

To support an empirical analysis of who is opting out of the workforce for family reasons. Project Director: Professor James Monks, Department of Economics.

## WORKPLACE, WORKFORCE AND WORKING FAMILIES

---

### CASE STUDIES OF WORKPLACE-SPECIFIC FLEXIBILITY, TRUSTEE GRANT

---

**Regents of the University of Michigan**  
Ann Arbor, MI 48109

**\$304,182**

During the last ten or so years, the number of full-time non-tenure track positions in higher education has grown rapidly. Nearly half of the faculty members at public and private four-year colleges and universities now have appointments as “non-tenure-track faculty,” “lecturers,” “adjuncts,” part-timers,” instructors,” or “contingent faculty.” This large group includes both full- and part-time instructional and research faculty who rarely are eligible for tenure. They assume their positions for a variety of professional and personal reasons. Some prefer to teach or do research, but not both, as demanded of their tenure-track colleagues; others may be limited by family commitments to a particular geographic location; still others combine part-time work with care-giving responsibilities or with other professional work. Many would prefer and are awaiting an opportunity to move to a tenure-track appointment. Some contingent faculty see their positions as positive options, while others view them as undesirable last resorts, cobbled together careers made up of two or more part-time appointments at area institutions. In summary, the career paths of contingent faculty are highly varied. But it is clear that in most institutions of higher education contingent staffing is administratively attractive because it can reduce costs and provide staffing flexibility. It is also true that contingent faculty are typically viewed as second class citizens compared to tenured faculty and that little is known about the personal and professional lives of this growing segment of college and university faculty. With the current grant, the University of Michigan will conduct an exploratory study to learn from instructional and research contingent faculty themselves what it is like to work contingently and to discuss with administrators their policies and practices regarding contingent faculty. The University will identify up to 15 universities for site visits and will meet with both contingent faculty and administrators. Five of these universities will be identified for further in-depth case studies of their policies and the effects of these policies. Results will be widely disseminated throughout the higher education community. Project Director: Carol S. Hollenshead, Director, Center for the Education of Women.

### CASE STUDIES OF WORKPLACE-SPECIFIC FLEXIBILITY, OFFICER GRANT

---

**University of Maryland, College Park**  
College Park, MD 20742

**\$45,000**

To support a longitudinal analysis of shift work over the life course of workers. Project Director: Professor Harriet B. Presser, Department of Sociology.

## WORKPLACE, WORKFORCE AND WORKING FAMILIES

---

### NATIONAL WORKPLACE FLEXIBILITY INITIATIVE, TRUSTEE GRANTS

---

#### **Families and Work Institute**

**\$3,116,952**

New York, NY 10016

A 2003 grant to the Families and Work Institute (FWI) initiated a number of projects designed to make workplace flexibility a compelling national issue, an important step toward achieving the goal of making flexible workplaces normal and accepted as the standard for the U.S. FWI has played a major role in increasing public understanding of workplace flexibility by increasing its media coverage and at the same time emphasizing flexibility less as an employee accommodation and more as a strategic business tool. It has supporting demonstration projects and research on the business case for flexibility. It has organized and administered local awards programs in partnership with chambers of commerce in a number of cities. Media coverage has increased steadily over the period of the FWI grant. Four of the nation's major newspapers (*New York Times*, *Wall Street Journal*, *Chicago Tribune*, and *Los Angeles Times*) have each used data from FWI's research eight or more times this past year. FWI's work with the media has been instrumental in enhancing national public understanding of the business case for workplace flexibility. The Alfred P. Sloan Awards for Business Excellence in Workplace Flexibility program has grown from eight communities in 2005 and is now operating in 24 cities, including major metropolitan areas, such as Chicago, Dallas-Fort Worth and Seattle, as well as smaller suburban business hubs. The award-winning organizations receive local and national recognition, including an award presentation at a well-publicized local ceremony hosted by the regional chamber of commerce; a citation in the *U.S Congressional Record*; and congratulations in a full-page ad in *USA Today* that last year included a downloadable report on the accomplishments of the winners. All award applicants receive a customized benchmarking report comparing their responses on application questionnaires to those of all other applicants, both within their communities and nationwide. Customized reports on business flexibility practices by industry are also available. An increasing percentage of employers nationally are now providing some kind of flexibility in their workplaces, whether giving employees more control over the shifts they work, allowing compressed workweeks and phased retirement plans, or permitting part-year work arrangements. This two-year renewal grant to FWI will see an expansion of the Sloan Awards into 12 additional cities, making a total of 36 cities in which FWI will be working and developing new ways of engaging local groups to take responsibility for the awards program and for making workplace flexibility an issue worth attention by business leaders and others. FWI will continue to work with the media as an effective way to involve the public on issues related to workplace flexibility. Project Director: Ellen Galinsky, President.



**Georgetown University**  
Washington, DC 20001

**\$3,056,112**

Georgetown University's Workplace Flexibility 2010 (WF2010) project, initiated with a prior Foundation grant, has aimed to make workplace flexibility a compelling issue in Washington, D.C. WF2010 has become *the* D.C. source for accurate and objective information on workplace flexibility and has worked to develop consensus among stakeholders, including employers, workers, women's groups, social conservatives, and disability advocates, among others. Advocacy groups, Congressional staff, and administration officials view WF2010 as a project with deep resources concerning workplace flexibility and with an interest in policies that meet the needs of both American workers and business. The project has held bipartisan briefings on Capitol Hill during the past two years and has helped create the first stage of real bipartisanship on this issue. Its meetings, briefings, and the development of its Ten Principles on Workplace Flexibility have changed the perception of workplace flexibility among a range of Washington-based constituencies, who now see flexibility in the workplace as having significant relevance to their particular constituencies. The project has deepened the understanding of the laws that support or hinder workplace flexibility and has fostered new and productive conversations between lawyers representing employers and employees. By convening a forum of seven high-level employee litigators and an equal number of distinguished management litigators over a period of 14 months, WF2010 has developed ideas and insights on a range of policy options that have the potential for advancing specific components of workplace flexibility. The current two-year renewal grant will allow the WF2010 project to move to the next stage of its program: to shape specific policy ideas that will advance workplace flexibility; to engage existing and new advocacy groups in these policy ideas; to deepen the bipartisan commitment to workplace flexibility policy; and to promote conversations among national, state, and local advocates on the need for workplace flexibility policy. The WF2010 project plan includes four components. First, a series of "reaction groups," made up of employer, employee, and union representatives, members of selected businesses, think tanks, the academic community, and litigators, will be convened to react to specific policy ideas on workplace flexibility. Second, the work with the newly launched Senate Caucus on Children, Work and Family, and other Congressional groups will be continued in order to enhance bipartisan understanding of and commitment to workplace policies that meet the needs of both employees and employers. Third, the project will engage in workplace flexibility issues a diverse group of constituencies from, for example, the faith-based community, social conservatives, women's groups, and the disability community, to have them see that workplace flexibility is important for their own interests. Conversations among national, state, and local groups interested in viable solutions for both employees and employers will be encouraged. Finally, WF2010 will continue to work with others, including the New America Foundation and other Sloan grantees, to illuminate the economic and social implications of workplace flexibility policy. This program is expected to ready members of Congress, federal agencies, the administration, and a number of key constituency groups to move forward with consensus-based, bipartisan, and viable policy ideas. Project Director: Chai Feldblum, Professor of Law.

**Labor Project for Working Families**  
Berkeley, CA 94720

**\$230,178**

The Labor Project for Working Families (LPWF) is a national, nonprofit advocacy and policy organization, supported by union contributions and foundations, that provides technical assistance, resources, and education to unions regarding issues facing working families. With a Sloan officer grant, LPWF successfully developed Flex Pack, a downloadable toolkit on organizing, bargaining, and legislating for flexibility that involves the input of workers. As a result of interest shown by union members, a second officer grant supported work by LPWF to determine the feasibility of an online searchable database of contract language dealing with workplace flexibility. The current grant covers the initial costs and first year of operation of such a database. Subsequent ongoing costs of the database will be borne by the unions themselves. The basis for the database will be contracts from sixteen unions, including the American Federation of Teachers, National Education Association, American Federation of State, County and Municipal Employees, American Federation of Government Employees, Communication Workers of America, United Food and Commercial Workers, as well as others. The database will be available to union negotiators and leaders as they consider workplace flexibility issues and policies for their union members. Project Director: Netsy Firestein, Executive Director.

**New America Foundation**  
Washington, DC 20009

**\$362,500**

New America Foundation received a 2006 grant to work with the Sloan-supported Georgetown University Workplace Flexibility 2010 (WF2010) project in its efforts to build bipartisan support for workplace flexibility in Washington, D.C. New America's task was to organize bipartisan Congressional briefings on workplace flexibility, develop relationships with D.C.-based think tanks and faith-based community groups, and assist in efforts to develop a Congressional caucus to address workplace flexibility. In December 2006, Senators Dodd, Democrat from Connecticut and Specter, Republican from Pennsylvania announced the launch of the Caucus on Children, Work and Family, which has, as a major thrust, the development of policy ideas concerning workplace flexibility. With the current grant, New America Foundation will continue to advance bipartisan policy ideas for workplace flexibility in Washington, D.C. It will work to have this subject take a place in the platforms of both parties for the 2008 presidential election and brief all presidential candidates on specific workplace flexibility issues. It will also continue to work with Georgetown's Workplace Flexibility 2010 project and with faith-based groups. Project Director: David Gray, Director, Workforce and Family Program.

**Twiga Foundation**  
Boise, ID 83702

**\$400,076**

Patricia Kempthorne, founder and director of the Twiga Foundation, has played an instrumental role in advancing the efforts of two major Sloan-supported workplace flexibility projects: Georgetown University's *Workplace Flexibility 2010* and the

Families and Work Institute's *When Work Works*. She is well-known and respected within state and local governments, as well as in Washington, D.C. and has been effective in developing community and state-based support for flexibility and also in educating Congressional staff regarding the need for a bipartisan policy approach to workplace flexibility. This grant aims to make workplace flexibility a compelling issue among state employers. The project will first survey human resource administrators in key state agencies in all 50 states in order to document the flexibility policies currently available to state employees and create a national dataset identifying the trends in flexibility policies and practices in all state workforces. It will establish Learning Circles made up of human resource administrators from the states and provide them with information to promote peer-to-peer learning opportunities about the adoption and implementation of workplace flexibility for the public sector workforce. Finally, it will select ten states as demonstration sites in which the project team will work closely with key leaders to identify and promote best flexibility practices for the various states. Twiga will then produce and widely disseminate toolkits to all 50 states that will identify how state employers can effectively adopt and implement flexibility as a way to recruit, retain, and engage their older workforce, thereby addressing the concern of many governors and state officials about the aging of their state workforces. Project Director: Patricia Kempthorne, Founder and Executive Director.

---

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.

**Center for Work-Life Policy** **\$45,000**  
New York, NY 10023

For development of case studies on the need for flexibility across the life course. Project Director: Sylvia Hewitt, President.

**Corporate Voices for Working Families** **\$45,000**  
Washington, DC 20036

For message development on workplace flexibility. Project Director: Donna Klein, President and CEO.

**Hunter College of the City University of New York** **\$12,500**  
New York, NY 10021

To support dissemination of Pamela Stone's forthcoming book, "Opting Out? Why Women Really Quit Careers and Head Home." Project Director: Professor Pamela Stone, Department of Sociology.

**Labor Project for Working Families**  
Berkeley, CA 94720

**\$40,000**

To support planning for a searchable online database on union contract language regarding work and family issues, including workplace flexibility. Project Director: Netsy Firestein, Executive Director.

NATIONAL WORKPLACE FLEXIBILITY INITIATIVE, OFFICER GRANTS

---

**Persephone Productions, Inc.**  
Falls Church, VA 22041

**\$44,000**

To support outreach for the documentary “9 to 5 No Longer” to increase airings on local PBS stations. Project Director: Bonnie Erbe, Chief Executive Officer.

**University of Southern Maine**  
Portland, ME 04104

**\$44,062**

To produce a DVD directed to employers on the need for workplace flexibility by low-income workers with special-needs children. Project Director: Helen Ward, Research Associate, Cutler Institute for Child and Family Policy.

**WorldatWork**  
Scottsdale, AZ 85260

**\$45,000**

To support a cross-sector summit on workplace flexibility. Project Director: Kathleen M. Lingle, Director, Alliance for Work-Life Progress.

**WORKPLACE, WORKFORCE AND WORKING FAMILIES**

---

**AGING AND FLEXIBLE WORK, OFFICER GRANTS**

---

**Center for Productive Longevity**  
Boulder, CO 80303

**\$10,000**

Support to provide sponsorship for the New Human Resources Frontier: Utilizing Older Workers for Competitive Advantage Conference. Project Director: William K. Zinke, President.

**Choose 2 Lead Women's Foundation**  
Oakton, VA 22124

**\$45,000**

To support a study on the availability and adequacy of workplace flexibility information for aging workers. Project Director: Patricia S. Reed, Founding Partner.

## **EDUCATION AND CAREERS IN SCIENCE AND TECHNOLOGY**

---

### **EDUCATION IN SCIENCE AND TECHNOLOGY**

---

ANYTIME, ANYPLACE LEARNING, TRUSTEE GRANTS

---

#### **Babson College**

**\$312,000**

Babson Park, MA 02457

Babson College's national survey of ALN online enrollments was initiated with a Foundation grant four years ago and has since become a standard reference. A large number of media outlets, including newspapers, journals, and radio refer to and quote results of the Annual Sloan-C Survey. Survey reports are available for free download at the Sloan-C website. The surveys have shown that the growth in online course enrollments has been 20 percent per year. The 2007 survey, based on 2006 fall term enrollments, reported that over 3.5 million students (or over 20 percent of all students at degree-granting institutions) enrolled in at least one entirely online course and that over two-thirds of all chief academic officers agree that online is at least as good as traditional classroom education. During this three-year renewal grant, Babson, in partnership with the College Board, will continue the annual national survey. It will also deliver several specialized surveys of online education at southern, Midwest, and land-grant institutions, as well as surveys of K-12 public and private high schools. Project Director: I. Elaine Allen, Professor of Statistics and Entrepreneurship.

#### **Estrella Mountain Community College**

**\$250,000**

Avondale, AZ 85323

Estrella Mountain Community College (EMCC) is a rapidly growing member of the Maricopa County Community Colleges in the Phoenix area, one of the largest community college districts in the country. Growth of its physical plant, buildings and classrooms, cannot keep pace with the demand for education in its area. This grant will enable the College to provide online over 50 percent of the credits taken by local part-time learners. EMCC has already developed some 50 courses entirely online and also offers a number of "blended" courses that combine online work with traditional classroom meetings. Under the current grant, an additional 51 courses in ALN or blended mode will be added. For the year immediately following completion of this grant, the College will add 17 more blended courses using its own funds. As a consequence, in three years local part-time learners, making up 75 percent of the student population, will be able to receive well over half their education over the internet. The online and blended courses will be from a number of disciplines, including nursing, elementary education, speech pathology, finance, and economics. The ALN courses will be offered entirely online. For the blended courses, the online content will vary from 30 to 80 percent. Such courses will be labeled in the college catalog as flex courses and the schedule of actual classroom meetings will be indicated. The grant will mainly cover personnel costs to support online course development and some related new student services. A small portion will be applied to

marketing expenses, such as website development, preparation of brochures, and direct mail costs. Over the next three years, EMCC will match each grant dollar with at least a dollar of its own funds. Project Director: Polly Miller, E-Learning Program Coordinator.

**Franklin W. Olin College of Engineering** **\$1,800,000**  
Needham, MA 02492

Past Foundation grants have supported a large number of projects and services to assist ALN course providers to more efficiently and effectively develop and deliver online education. These projects have been led by Professor John Bourne, now at Franklin W. Olin College of Engineering, and are identified with the Sloan Center for Online Learning Environments, commonly referred to as Sloan-C Operations. The services provided by Sloan-C Operations include: maintenance and upgrading of the Sloan-C website ([www.sloan-c.org](http://www.sloan-c.org)); publishing the refereed online *Journal of Asynchronous Learning Networks*; organizing and conducting Sloan-C workshops for training practitioners; maintaining the web-based Sloan-C degree catalog; overseeing the Effective Practices wiki that quickly updates and provides new, often unpublished, online education practices; and managing the Sloan-C rapid response office which reacts to opportunities to supply conference speakers or to help with other projects that may feature ALN education. It also assists with programs at Sloan-C conferences, special workshops (as held for HBCU institutions), and a number of other meetings, such as those held with university presidents and chancellors on ALN as a strategic asset. It is generally agreed that the contributions of Sloan-C Operations have made a very significant contribution to the growth of ALN enrollments. The current renewal grant supports the continuation and expansion of services supplied by Sloan-C Operations. Some additional services will be taken up, including responsibility for the Sloan-C Conference Interpenetration Project, which promotes and arranges for Sloan-C presentations at other conferences, and continued interaction with and support for HBCUs and the Chicago Blended Learning Workshop. Project Director: John Bourne, Professor of Electrical and Computer Engineering.

**Franklin W. Olin College of Engineering** **\$120,000**  
Needham, MA 02492

Sloan-C has one large annual conference, the International Conference for Online Learning, held in Orlando, Florida. The 2007 conference was the 13<sup>th</sup> of these events. About 1,000 attendees participated in a comprehensive program covering all aspects of ALN practice, such as learning effectiveness issues, training methodologies and their outcomes, assessment, student services and support, professional development, etc. Some specialized “theme” conferences, held under Sloan-C auspices, have also been held, for example, the conference/workshop in Chicago with the theme of “Blended Learning,” which attracted some 100 attendees in its third year. The current grant will initiate a new annual conference organized as a Sloan-C event to be held on or near the west coast and devoted to the theme of “Technology Developments for Online Education.” The underlying technology for online education is constantly evolving and changing to allow increased capability, function, and efficiency. Modern software course management

systems are now much easier to use and offer far more capability than the versions available when the ALN program began in 1992. Although they involve higher license fees, on balance the improvements simplify implementation and often lead to greater adoption of ALN courses and programs. Open source management systems also have become available, but although initial costs may be zero, they require specialized systems staffs for operation and upkeep. A conference featuring the experiences of practitioners can be expected to be of considerable value to those planning changes and upgrades to their online systems. Project Director: John Bourne, Professor of Electrical and Computer Engineering.

**Golden Gate University**  
San Francisco, CA 94105

**\$200,000**

Golden Gate University is a nonprofit, private institution based in San Francisco that began in 1901. Its initial goal, to serve working adults, remains its main emphasis. The University operates Schools of Business and Management, Information and Technology, and Tax and Law. Enrollments number about 6,000. The University also operates six branch sites, each with its own classrooms attracting students from its local area. Over 1,000 students are currently taking courses online. With this two-year grant, the University will create 96 blended courses that combine online work with traditional classroom meetings. The University is also planning to restructure its courses to fit within an eight-week term in the belief that making many more courses available in blended form, together with the shortened term, will well serve its student population. The new blended courses will be part of the core curricula so that students studying business and management, tax and law, and technology will all have the option of using the computer to acquire online up to 60 percent of their education toward undergraduate or graduate degrees. Project Director: Barbara Karlin, Vice President, Academic Affairs.

**League for Innovation in the Community Colleges**  
Phoenix, AZ 85048

**\$194,000**

With prior Foundation grants, the League for Innovation, a consortium with 900 member community colleges, has established project SAIL, an online marketplace that allows community colleges to buy, sell, and exchange specialty online courses. The original idea behind the project was to enable any community college to quickly develop a capability in some specialty discipline in which it had no program but for which a local need existed. In such cases, another community college, a so-called “provider” institution having the required specialty curriculum (e.g., hazardous waste management, nursing, forest products, heating and ventilation, programming and other specialties for manufacturing) and already in possession of a collection of online courses supporting the specialty, could provide to the inquiring community college, under appropriate terms, the desired specialty curriculum entirely online. Since the inception of project SAIL, its catalog has been built up to 400 specialty courses listed by 28 provider community colleges. (Courses and provider institutions are approved by a SAIL quality review process.) Hundreds of transactions have taken place among community colleges for transfer and delivery of SAIL courses, which now enroll several thousand students. These



transfers have made specialty education and training available to localities that would otherwise be unable to afford to start up and maintain such programs. The current grant will allow the League to increase the number of provider institutions to 50 and the number of listed courses to over 500, producing an expected significant increase in the number of college-to-college transactions. By the end of the 18-month grant period, SAIL will be folded into the League's ongoing operations, allowing it to continue operating and growing. Project Director: Stella Perez, Director, League Online.

**National Association of State Universities and Land-Grant Colleges    \$372,000**  
Washington, DC 20005

Online education is fairly well-understood by increasing numbers of faculty. Administrators dealing with distance education understand its costs and business aspects. However, it is not well understood by university presidents and chancellors. Online learning and its possible use as a strategic tool for their planning and decision-making remain under-recognized by this group. Given the advances now being seen in online education among academic institutions, it is generally believed that these university leaders, some facing declining enrollments, others whose campuses are space- and building-constrained or whose students have problems scheduling required courses or who are confronted by other strategic challenges, need to develop enough knowledge about distance learning to allow them to take this approach into account in their strategic planning. The National Association of State Universities and Land-Grant Colleges (NASULGC), a voluntary association of public universities, land-grant institutions, and many of the nation's state university systems, will use this grant to develop and put in place meetings and materials to increase awareness of the potential of ALN as a strategic asset for university presidents and chancellors. A small task-force formed by NASULGC has defined a series of regional "dialogs," mainly attached to meetings which attract presidents and chancellors, at which key elements of ALN as a strategic consideration would be presented and discussed. Over the 18-month term of the grant, some 15 such meetings will be held. The dialogs, engaging perhaps a few hundred presidents and chancellors, are expected to lead these participants to a better understanding of the possibilities that online learning has for their institutions. Project Director: Robert Samors, Associate Vice President, Research and Science Policy, and Director, Information Technology Policy.

**New School University    \$275,000**  
New York, NY 10011

New School University, with a 1992 Foundation planning grant and a subsequent U.S. Department of Education grant, launched an online education program in the mid-1990s. The current grant will enable New School University's College of General Studies to make a B.A. degree in Liberal Arts available that would be especially attractive for local commuter part-time students, who will be able to earn the full degree with less than half-time attendance at campus classes, the remaining time being devoted to online course work. New School University will put their online course development experience to work to create a series of high quality courses, mainly blended (combining online work

with classroom meetings). Thirty such courses will be developed in three years and 50 are planned over five years. A number of options for this liberal arts degree program will be available to learners, involving blended courses in humanities, media studies, social science, biological and natural science, and mathematics. By the end of this grant, the University expects to enroll some 1,500 students in this blended online degree program, a sizable addition to the 2,000 current online course enrollments. Project Director: Linda Dunne, Dean.

**Pennsylvania State University**  
University Park, PA 19802

**\$278,300**

Foundation grants have demonstrated that at least for some elements of the workforce, making education and training available online can be a powerful method to reach workers busy with both work and family obligations. For example, past grants have supported important initiatives for two-year degrees (and related certificates) important to the telecommunications and electric power industries. Pace University, with the cooperation of union and industry boards, provides online education for almost the entire telecommunications industry across the country. Bismarck State College provides AAS degrees (in generation, distribution, and nuclear) for about half of the electric power industry. Over the past two years, Foundation representatives and others have been in touch with the Education and Training Administration (ETA) of the U.S. Department of Labor to urge that they take the lead to utilize online education and training on a national scale as a primary tool for U.S. workforce development. Pennsylvania State University and ETA have now developed plans for a four-state pilot project that will allow workers in these states to take courses or full academic programs, entirely online, offered through a web-based catalog of approved providers (mostly supplied by Sloan-C, the Sloan Consortium of ALN institutions). ETA will provide several million dollars in financial assistance for workers who elect to take these courses. The catalog will focus on significant work areas such as manufacturing, electric power, telecommunications, healthcare, financial services, etc. State Commissioners in California, Pennsylvania, Mississippi, and West Virginia have agreed to ensure participation in their states. This being a pilot project, it will aim to identify issues that are likely to emerge if a project of this sort is scaled up to a full national effort. Funds from this grant will mainly support development of the catalog and the attendant website. Project Director: Craig Weidemann, Vice President for Outreach.

**Purdue University**  
West Lafayette, IN 47907

**\$375,000**

Purdue University's engineering school offers graduate engineering courses and degrees using the ALN approach via computer and attracts enrollments from across the country. With this grant, Purdue will specifically focus on engineers and senior professionals working in Indiana's substantial manufacturing industry. It will deliver for this population a manufacturing-intensive education in a way that permits 80 percent to

be earned online with about 20 percent requiring the learner to travel to a Purdue site. Many parts of manufacturing need a highly skilled and educated workforce. For example, Indiana has a Rolls Royce jet engine plant and a number of automotive and auto-related plants (General Motors, Subaru, Toyota, Cummins Engine, and others). This grant (and funds from other sources) will allow Purdue's engineering school to customize a number of courses in manufacturing (e.g., Precision Manufacturing, Introduction to Aviation Technology, Introduction to Composites Technology, etc.) to make them particularly relevant to manufacturing activities based in Indiana. These customized courses and others will then be converted to blended format (combining online work with classroom meetings) and made available to working professionals and engineers located within a distance that permits an occasional commute to one of the Purdue sites. A total of 53 courses are planned for conversion to fully ALN or blended formats. Customary services such as advising and tutoring will be offered at one of the 13 Purdue satellite locations across the state or at major workplaces, such as the Rolls Royce engine plant. This new approach will develop easy-to-access education that is customized for a major segment of the state's industry and is expected greatly to increase the University's in-state online enrollments. Project Director: Dale A. Harris, Professor of Engineering Education and Executive Director of Engineering Professional Education.

**Simmons College**  
Boston, MA 02115

**\$225,000**

Simmons College is a small private college with some limited experience with blended education that combines online work with classroom meetings. Its surroundings in Boston preclude adding new buildings or even expanding their existing buildings. Yet there is an increasing demand for some of the programs that the College offers. This grant will supply funding for the College to convert two of its graduate degree programs into blended formats, thereby allowing new students to be added without having to add to the College's physical plant. A set of blended ALN courses will be created that will become core components of concentrations for two doctoral programs, in Managerial Leadership for the Information Professions and in Nursing, both of which hold a high level of interest within the local (Boston area) population. Blended rather than full ALN courses are required since each program also requires some degree of campus presence by students. Success of this limited project is expected to provide evidence that additional programs in the College's schools of management, social work, and arts and sciences would also benefit more local area students who, for various reasons, would be attracted to similar blended ALN courses and degree programs in these other parts of the College. Simmons' President has agreed to be a spokesperson at conferences and in education associations for the value that blended education can bring to smaller private institutions by offering relief from space constraints and allowing for expansion of signature programs, without sacrificing "campus presence." Project Director: Susan Scrimshaw, President.

**University of Central Florida**  
Orlando, FL 32816

**\$650,000**

The University of South Florida (USF) already has a strong and successful ALN program. The state grows by 1,000 new residents each day. Since the growing population tends towards the state's major metropolitan areas, the Orlando region is one of the fastest growing. Not so long ago, UCF was a small regional institution. Now it is a university with 47,000 students. University leadership, recognizing that it cannot expand the physical plant fast enough to meet the growing needs of its 11-county Central Florida region, has embraced online ALN learning as an important part of the solution. Seventeen undergraduate and graduate degree programs, along with 12 graduate certificate programs, are now offered entirely online. For the full academic year 2005-06, these online programs accounted for over 38,000 course registrations. With this grant, UCF will create over 50 new ALN courses so that local students, i.e., anyone within commuting distance of one of the 11 UCF campuses, can more easily earn any one of about 35 degrees, graduate and undergraduate, by combining full ALN and traditional classroom courses. At the end of the three-year term of this grant, about 35-40 percent of all credits earned by local part-time students will be earned online. The fact that remote campuses of UCF are located at community college sites, will make this kind of arrangement especially attractive for community college students who want to advance to a bachelor's and then to a master's degree. Project Director: Joel Hartman, Vice Provost for Information Technologies and Resources.

**University of Illinois, Springfield**  
Springfield, IL 62794

**\$200,000**

Prior grants to the University of Illinois, Springfield (UIS) for online education have supported the University as it transformed itself from a campus-based institution to one where nearly half its students enroll in at least one course entirely online, 22 percent are enrolled in online degree programs, and where approximately 35 percent of total credit hours are generated from online courses. The online program is a full departmental responsibility across the entire curriculum and is not located within a special college of "adult education" or regarded as an "extension" program. This grant enables UIS to add blended education (courses that combine online work with classroom meetings) to its offerings, specifically directed to serve the University's "local" learners, i.e., those residing within commuting distance of the campus. UIS will convert 40 courses into this hybrid format. This will mean that, on average, about half of these educational offerings are online and half are in a traditional classroom. The courses will be within two master's degree programs (Human Services and Information Systems), one bachelor's degree program (B.A. with a Legal Studies concentration), and a Certificate program (Education Leadership) for those seeking certification as school principals. UIS believes that these new courses will be attractive to the approximately 600,000 people constituting its "local" population (those living within 100 miles of the campus, which includes neighboring cities such as Peoria). Project Director: Harry J. Berman, Provost and Vice Chancellor for Academic Affairs.

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

**Massachusetts Institute of Technology** **\$15,000**  
Cambridge, MA 02139

Support for a LINC online learning conference in Amman, Jordan. Project Director: Professor Richard C. Larson, Department of Civil and Environmental Engineering and in the Engineering Systems Division; Director, Learning International Networks Consortium (LINC).

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

Support to plan a national initiative to accelerate large-scale adoption of on-line training for low-wage workers. Project Director: Mary Gatta, Senior Research Project Manager, Center for Women and Work.

**University of Illinois at Chicago** **\$45,000**  
Chicago, IL 60612

Support for workshops on blended learning. Project Director: Mary P. Niemiec, Executive Director, External Education.

**University of Illinois at Springfield** **\$44,000**  
Springfield, IL 62794

Support for establishing a consortium of comprehensive (four-year) universities experiencing enrollment declines. Project Director: Raymond E. Schroeder, Director, Office of Technology-Enhanced Learning.

**University of Maryland University College** **\$45,000**  
Adelphi, MD 20783

For a workshop on academic continuity with academic and government organizations. Project Director: Professor Claudine SchWeber, Chair of the Doctor of Management Program.

---

The following grant was funded from an appropriation approved by the Board of Trustees to support exploratory efforts to make New York City a leader in the use of asynchronous learning networks (ALNs) for anytime, anyplace learning.

**CUNY Graduate Center**  
New York, NY 10021

**\$4,500**

Support for a survey of the status of ALN usage in the New York City metropolitan area. Project Director: Professor Anthony G. Picciano, School of Education, Hunter College.

ANYTIME, ANYPLACE LEARNING, OFFICER GRANTS

---

**League for Innovation in the Community College**  
Phoenix, AZ 85048

**\$45,000**

Support to add online education as a strategic asset for leadership training of future community college presidents. Project Director: Stella Perez, Vice President, Operations and Technology Programs.

**Ohio State University**  
Columbus, OH 43201

**\$45,000**

For a planning project for a national center on preparedness and resiliency at colleges and universities. Project Director: Todd I. Stewart, Director, Program for International and Homeland Security.

**University of Michigan**  
Ann Arbor, MI 48109

**\$45,000**

Support to develop and deliver ALN modules for the auto industry. Project Director: Edward G. Borbely, Director, Center for Professional Development, College of Engineering.

**University of Southern California**  
Los Angeles, CA 90089

**\$45,000**

Support to study the home computing environment. Project Director: Omar A. El Sawy, Professor of Information Systems, Department of Operations and Management, Marshall School of Business.

## EDUCATION IN SCIENCE AND TECHNOLOGY

---

### PROFESSIONAL SCIENCE MASTER'S DEGREES, TRUSTEE GRANTS

---

**Rutgers University**  
Piscataway, NJ 08854

**\$300,000**

With this grant, Rutgers University will create ten new Professional Science Master's (PSM) degree programs over a three-year period. The PSM degrees will be core components of the University's new "WIRED" (Workforce Innovation and Regional Economic Development) initiative, an effort supported by a \$5.1 million grant from the U.S. Department of Labor. New Jersey is home to a large number of science-intensive employers, including a substantial fraction of the country's pharmaceutical companies. Rutgers expects that students enrolling in this program will be mainly employees of these tech-based firms and that their employers will be an important source of tuition for such students. Since most of these students will be fully employed, PSM courses will be configured to be available in evenings or on weekends. Once they are developed and proven, many of the courses will be converted to distance delivery formats. Rutgers expects to have five new PSM degree programs in place by 2009, and at least another five by 2010. It anticipates at least 700 PSM degree students enrolled by the academic year 2010-11. Project Director: David Finegold, Dean, School of Management and Labor Relations.

**State University of New York, Albany**  
Albany, NY 12246

**\$455,000**

This grant supports a project to make the Professional Science Master's (PSM) degree a major initiative of the State University of New York (SUNY) system. SUNY leadership sees this project as a way to address regional economic and workforce development, a goal shared by the state government and the SUNY system. Surveys of employers near the campuses also found high interest in the potential graduates and these employers are expected to become suppliers of student internships, an important part of the PSM experience. SUNY aims to modify 8-10 existing master's degree science programs and to create about 15 completely new programs. Enrollments are expected to number as many as 300 new students per year. Although about half the programs will likely be in the life sciences, others will be in chemistry, forensics, and environmental sciences. SUNY will focus its efforts on the so-called "plus courses," forming the one third or so of the PSM curriculum outside relatively traditional science department offerings. Some of the courses will be available through the SUNY Learning Network, the online learning program that the Foundation helped establish. Grant funds will support some key faculty and a new project director to launch the overall effort. SUNY expects to contribute substantially to the initial funding and will assume program costs fully in the third year. Project Director: Kavita Pandit, Senior Vice Provost.

**University of Illinois at Urbana-Champaign**  
Champaign, IL 61820

**\$330,336**

With a planning grant, the University of Illinois at Urbana-Champaign (UIUC) conducted surveys of corporate employers in the Midwest and also of students drawn from recent science and engineering undergraduates. The results indicated strong interest in a professional science master's (PSM) degree program among both employers and potential students. The current grant supports implementation by UIUC of a campus-wide PSM degree program initiative. At least ten new PSM degree programs will be developed, phased in over the three-year grant period. These new degrees will be offered by a range of University departments, in fields as diverse as molecular and cellular biology, bioenergy, veterinary biosciences, actuarial science and industrial mathematics. The "professional" PSM degree courses in nonscientific subjects, such as management, communication, entrepreneurship, and intellectual property, will be developed and provided by UIUC's Institute on Labor and Industrial Relations, with assistance from the business school. An external advisory board has been organized, made up of corporate employers expressing support for the initiative. An Office of Professional Science Masters will be established within the Graduate College. A strong marketing effort for the new PSM degree programs will be carried out by the University's Office of Public Affairs. The UIUC administration projects student enrollments in PSM degree programs beginning at 15 in the academic year 2008-09, increasing to 200 within five years. An approved financial model for the new PSM degree program shows that if student targets are met, then the entire PSM degree program initiative will become self-sustaining after the three-year start-up period in 2010-11. Grant funds will support the costs of the start-up period during which tuition and other revenues would be limited, and additional supplementary funding will be provided by the Graduate College. Project Director: Richard Wheeler, Vice Provost and Dean of the Graduate College.

**Worcester Polytechnic Institute**  
Worcester, MA 01609

**\$500,000**

Since 1997, faculty members teaching in programs granting the professional science master's (PSM) degree have met biennially in a national meeting. In 2005, a number of directors of PSM degree programs decided to explore forming their own national organization. A 2006 Sloan officer grant helped the group consider the demand for services such an organization might offer and how it might be organized. The current grant will enable a group of faculty associated with PSM degree programs to launch and build the National Professional Science Masters Association. All faculty and program managers associated with or interested in PSM programs will be welcome to join. An important function of the organization will be the sharing of experiences at an annual national meeting and also in working groups to be formed within disciplinary areas, such as industrial microbiology or financial mathematics. The association will be in a position to organize representatives to visit companies, inform them about PSM degree programs, and encourage them to offer internships for students. The association will have a website and host blogs and wikis. It hopes to attract members from almost all of the 120 present PSM degree programs and the 50 or more in formation. It foresees a later possibility of



networking students and alumni of PSM programs. With Foundation support, the Washington, D.C.-based Council of Graduate Schools brings together senior university officials in activities regarding PSM degree programs, particularly involving Congress and Federal agencies. The new association, by bringing together the diverse collection of people who actually teach in and operate the programs, will encourage coordination and links between the two groups. Two of the founders of the association already serve on the Council's advisory board for PSM degree programs. Project Director: Professor Bogdan Vernescu, Head, Department of Mathematical Sciences.

PROFESSIONAL SCIENCE MASTER'S DEGREES, OFFICER GRANTS

---

**University of Arizona** **\$43,000**  
Tucson, AZ 85721

To assist and network faculty involved in programs for professional science master's programs. Project Director: Joaquin Ruiz, Dean, College of Science.

**University of Arizona** **\$45,000**  
Tucson, AZ 85721

To continue support for work on the professional science master's degree initiative for an additional ten months. Project Director: Joaquin Ruiz, Dean, College of Science.

**University of Arizona** **\$44,750**  
Tucson, AZ 85721

To plan and initiate a professional science master's alumni network. Project Director: Alaina Levine, Director of Special Projects, College of Science Administration.

**University of Illinois at Urbana-Champaign** **\$43,575**  
Champaign, IL 61820

A planning grant for a campus-wide professional science master's degree program initiative. Project Director: Richard Wheeler, Vice Provost and Dean of the Graduate College.

**University of Illinois at Urbana-Champaign** **\$43,575**  
Champaign, IL 61820

A second planning grant for a campus-wide program of professional science master's degrees. Project Director: Richard Wheeler, Vice Provost and Dean of the Graduate College.

**University of North Texas**  
Denton, TX 76203

**\$45,000**

To develop professional science master's degree programs in the University of North Texas System. Project Directors: Professor Arthur James Goven, Department of Biological Sciences, and Jean Bergerud Schaake, Associate Dean for Academic Affairs.

## EDUCATION IN SCIENCE AND TECHNOLOGY

---

### EDUCATION FOR UNDERREPRESENTED GROUPS, TRUSTEE GRANTS

---

**Keystone Symposia** **\$200,207**  
Silverthorne, CO 80498

Keystone Symposia is an organization that organizes and conducts prestigious, high quality meetings in the life sciences. This grant supports Keystone's efforts to increase the participation of underrepresented minority scientists among symposia attendees and leaders. For 2008, Keystone data show that less than two percent of meeting organizers and of speakers and a little more than six percent of expected attendees are underrepresented minorities. Keystone's goal is to raise these participation rates significantly by increasing underrepresented minority meeting organizers from two to five, speakers from 13 to 25, and attendees from 341 to 501. Its plan is to add minorities as members of its Scientific Advisory Board, create a new Diversity Advisory Committee, more than triple minority membership of Study Groups that generate ideas for meeting topics and organizers, develop and maintain networks of minority scientists, consult minority affairs committees of life science societies, recruit at meetings where large numbers of minority scientists, graduate students, and postdocs gather, and provide financial assistance to facilitate attendance of minority students and postdocs. These are labor intensive activities that Keystone believes will best be carried out by an individual with an advanced degree who can communicate with working scientists. The current grant will support 70% of the cost of such a person in the first year and half that in the second year, plus a small travel allowance. By 2010, Keystone Symposia expects to cover the full cost of this employee dedicated to increasing diversity of symposia organizers, attendees, and speakers. Project Director: Andrew Robertson, Chief Scientific Officer.

**Montana Tech of the University of Montana** **\$64,650**  
Butte, MT 59701

**University of Montana Foundation** **\$145,550**  
Missoula, MT 59812

A 2004 Foundation grant established University of Montana, Missoula and Montana Tech, two campuses of the University of Montana, as participants in the Foundation's American Indian Graduate Program. (The University of Arizona and Purdue University also are grantees in this program.) The aim of the program is to create regional centers with a critical mass of American Indian science and engineering graduate students. Montana Tech, the smaller of the institutions, enrolled two new American Indian master's degree students this past year and expects soon to have a critical mass of such engineering graduate students. Recruitment will be assisted by the receipt of two recent National Science Foundation grants to increase the number of minority and low income students. During the first three years of the program at Missoula, nine American Indian M.S. degree and seven Ph.D. degree students were enrolled. Annual numbers of admitted

graduate students have been rising. A critical mass of American Indian mathematics and science students has been reached on campus. The University has created a Native American Research Lab to serve as a gateway into serious scientific research for American Indian graduate and undergraduate students. Both campuses have faculty and graduate school administrators deeply committed to the success of their programs. The current grants renew support for the recruitment and retention efforts at both campuses for three additional years. During this period, Montana Tech expects to recruit four new American Indian M.S. degree engineering students annually and University of Montana at Missoula expects to recruit six new American Indian M.S. degree and Ph.D. mathematics and science students the first year, seven the second year, and eight the third year. Grant funds help cover costs of recruitment and retention programs. In addition, each enrolled student receives a scholarship, currently \$32,100 for M.S. and \$38,500 for Ph.D. students. These scholarships are funded from a separate grant to the National Action Council for Minorities in Engineering, the organization that serves as the Foundation's agent in administering its minority programs. Project Directors: Joseph F. Figueira, Associate Vice Chancellor for Academic Affairs and Research, Montana Tech; David A. Strobel, Professor of Psychology and Dean of the Graduate School, University of Montana, Missoula.

---

The following grants were made from an appropriation approved by the Board of Trustees to fund small projects within the Foundation's program to improve educational opportunities and outcomes for underrepresented groups in science and technology.

**American Association for the Advancement of Science** **\$30,000**  
Washington, DC 20005

To provide partial support for a Roundtable on how university-based programs to increase the representation of groups underrepresented in science and engineering can continue to be effective within the restrictions imposed by the legal doctrine of "strict scrutiny." Project Director: Daryl E. Chubin, Director, AAAS Center for Advancing Science and Engineering Capacity.

**American Association of Hispanics in Higher Education** **\$41,000**  
Tempe, AZ 85287

To enable the American Association of Hispanics in Higher Education to develop a strategy for increasing the number of Hispanic professors in science, engineering, and mathematics at top American universities. Project Director: Louis Olivas, President, AAHHE; Assistant Vice President for Academic Affairs and Associate Professor, Management Department, Arizona State University.

**University of Alaska**  
Anchorage, AK 99508

**\$40,000**

Partial support for a conference on increasing recruitment and retention of Native Americans in STEM fields. Project Director: Herb Schroeder, Professor of Civil Engineering and Associate Dean, School of Engineering.

**University of California at Los Angeles**  
Los Angeles, CA 90095

**\$45,000**

To enable Dr. Jane Margolis and colleagues to complete a book about how the interaction in high school settings of race/ethnicity, socioeconomic status and gender leads to the underrepresentation of minorities and women in computer science. Project Director: Jane Margolis, Research Associate, Graduate School of Education and Information Studies.

## EDUCATION IN SCIENCE AND TECHNOLOGY

---

### STUDENT RETENTION, TRUSTEE GRANT

---

**Cornell University**  
Ithaca, NY 14853

**\$331,000**

The National Science Board reports that of entering students who express the intention of majoring in a science, technology, engineering, or mathematical (STEM) field, less than half actually complete majors in any of these fields. About one-third shift out to major in other fields and about one-fifth do not complete an undergraduate degree in any fields. Switching “in” to STEM majors is rare. This grant supports econometric research aimed at understanding the low retention and completion rates nationally among entering college students who intend to major in STEM fields. The research team, with members located at Cornell, Colgate, and Binghamton University, will have access to detailed administrative databases on their campuses. Some ethnographic research has suggested that “switchers” and “non-switchers” have the same abilities and motivations, but differ in their learning styles and in the way they cope with competitive settings and with unwitting discouragement from STEM faculty and teaching assistants. The research project will involve an intensive quantitative assessment of this and other competing hypotheses about low retention rates of intended STEM majors. A series of focus groups will be held with Cornell undergraduates who expressed initial interest in STEM majors in order to explore their views of why they chose to persist in or change their intended majors. This initial step will inform and perhaps suggest modifications of the collection of working hypotheses to be quantitatively analyzed using the databases available at the three campuses. The project will also make use of the data in the *National Education Longitudinal Survey of the Class of 1988*, which contains extensive data on the educational and early work careers of a nationally-representative sample of some 25,000 eighth grade students in 1988 and who have been followed as they progressed through high school, college, and into the workforce. Finally, structured interviews will be held with large numbers of Cornell undergraduates to compare their perceptions with the results of the research team’s analyses. Project Director: Ronald G. Ehrenberg, Director, Cornell Higher Education Research Institute.

### STUDENT RETENTION, OFFICER GRANTS

---

**American Chemical Society**  
Washington, DC 20036

**\$43,800**

To enable the American Chemical Society to pilot a workshop for chemistry faculty.  
Project Director: Mary Kirchhoff, Director, Education Division.

**Louisiana State University**  
Baton Rouge, LA 70803

**\$11,731**

To explore the reasons for graduate students' retention and success in six departments at Louisiana State University. Project Director: Professor Susan K. Gardner, Department of Educational Leadership, Research, and Counseling, College of Education.

**Michigan State University**  
East Lansing, MI 48824

**\$44,786**

To disseminate Barbara Lovitts' *Making the Implicit Explicit: Creating Performance Expectations and Assessing the Outcomes of Graduate Education* and booklets based on this book. Project Director: Karen L. Klomparens, Dean, The Graduate School.

**Swarthmore College**  
Swarthmore, PA 19081

**\$45,000**

For research to enable Swarthmore College to understand the reasons for low retention of certain groups of students in science and engineering. Project Director: Lynne Molter, Professor of Engineering.

**University of Colorado**  
Boulder, CO 80309

**\$45,000**

To enable Dr. Elaine Seymour and colleagues to complete a book about undergraduate research. Project Director: Elaine Seymour, Director of Ethnography and Assessment Research.

**Washington University in Saint Louis**  
St. Louis, MI 63130

**\$44,775**

To develop a survey tool to explore why undergraduate students leave science and engineering fields. Project Director: Robert H. Koff, Director, Center for Advanced Learning.

## EDUCATION IN SCIENCE AND TECHNOLOGY

---

### OTHER EDUCATION, OFFICER GRANT

---

**Massachusetts Institute of Technology**  
Cambridge, MA 02139

**\$10,000**

Support for travel to the International Conference on Philosophy of Engineering in Delft, Netherlands. Project Director: Joel Moses, Institute Professor, Acting Director, Center for Technology, Policy and Industrial Development, and Professor of Computer Science and Engineering and Engineering Systems.



## SCIENTIFIC AND TECHNICAL CAREERS

---

### SCIENCE AND ENGINEERING WORKFORCE, TRUSTEE GRANTS

---

**Georgetown University**  
Washington, DC 20007

**\$600,000**

With this grant, Georgetown University's Institute for the Study of International Migration (ISIM) will undertake a three-year project designed to improve knowledge about trends in temporary worker admissions to the U.S. The ISIM team will assess the impacts of various temporary worker programs and describe the implications for current and prospective debates about such programs. The disciplines represented by the research team include anthropology, demography, economics, history, immigration law, and sociology. ISIM will develop new statistical information on historical growth of temporary worker programs. The project will increase dialogue with relevant Washington, D.C. policy makers by convening bimonthly briefings in order to communicate emerging understandings of temporary worker issues to executive and legislative staff members and to worker and employer organizations. ISIM plans to publish at least three peer-reviewed journal articles based on the research project and will produce at least four working papers. Reports to be produced will provide concise summaries of research findings, clear statements of conclusions, and balanced descriptions of relevant policy issues. In the third year, an edited book focused on temporary worker programs in the U.S. will be published. In addition, a second book, or perhaps a shorter report, will be produced that concentrates on recommendations for future temporary worker programs. Project Director: Susan F. Martin, Professor of International Migration, Institute for the Study of International Migration.

**University of California, Davis**  
Davis, CA 95618

**\$439,210**

This grant supports the creation of a substantial California-based network designed to encourage research and analysis focused on the science and engineering workforce. Research conducted by the Sloan-supported Science and Engineering Workforce Program of the National Bureau of Economic Research and Harvard University has had real impact in informing public discussions of science and engineering workforce issues, but their conferences, workshops, and presentations have been concentrated in the East. Researchers from campuses of the University of California (Berkeley, Davis, Irvine, Los Angeles, Santa Barbara, Santa Cruz) and Stanford University will participate in the new West Coast network. The group includes a broad range of disciplines, including economics, anthropology, information technology, computer science, and sociology. The project will make a series of in-depth visits to area high-tech workplaces and create opportunities for direct personal contact with employers and employees. Four seminars on key topics will be organized each year on a rotating basis among the participating campuses. It is expected that most papers prepared for these seminars will be submitted to relevant peer-reviewed journals. The project will produce a quarterly newsletter to be distributed without charge via email. This outreach effort will include articles written by

network researchers on the field visits and campus seminars. It will also feature summaries of research and contributions on recent policy developments. A new website will be created and closely linked to the newsletter as a way to make readily available all of the papers and other materials produced by the project. The West Coast network plans to coordinate its activities with the NBER/Harvard program to encourage research exchanges between the two groups. Project Director: Professor Philip Martin, Department of Agricultural and Resource Economics.

SCIENCE AND ENGINEERING WORKFORCE, OFFICER GRANTS

---

**Cornell University**  
Ithaca, NY 14853

**\$43,000**

A planning grant for improved data and analyses of foreign student flows to the U.S. Project Directors: Douglas T. Gurak, Professor, and Mary M. Kirtz, Senior Research Associate, Department of Development Sociology.

**Georgia State University Research Foundation, Inc.**  
Atlanta, GA 30303

**\$38,000**

To hold a one-day workshop to improve analysis of long-term career patterns of foreign-born scientists and engineers who are either trained or work for some time in the United States. Project Director: Paula E. Stephan, Professor of Economics, Andrew Young School of Policy Studies.

**Louisiana State University**  
Baton Rouge, LA 70803

**\$9,796**

For a study of the increase in the ratio of foreign born to native scientists and engineers in the U.S. Project Director: Professor Mariano Sana, Department of Sociology.

## SCIENTIFIC AND TECHNICAL CAREERS

---

### INFORMATION ABOUT CAREERS, TRUSTEE GRANT

---

**South Shore Educational Cooperative**  
Hingham, MA 02043

**\$400,000**

In the mid-1990's, with the goal of making available reliable information for initial career decisions, the Foundation supported the preparation of videotapes and CD-ROMs on careers in science and engineering disciplines. These materials, significantly expanded over the years and known as the Sloan Cornerstone Career Series, now feature career information for some 130 disciplines, covering all the physical science-based degree disciplines and also the life sciences, including medicine and nursing. This information, freely available at the website [www.careercornerstone.org](http://www.careercornerstone.org), is now linked to 5,000 other sites and is experiencing some 90,000 document downloads per month. South Shore Educational Cooperative, made up of nine academic and industry professionals and with the assistance of an advisory board, reviews the materials for quality and makes recommendations concerning potential new disciplines to be included or any that are out-of-date and should be removed or significantly changed. The current two-year grant will augment the website by 20-30 degree-areas, covering virtually all science-based disciplines for which two- and four-year college programs exist. The expectation is that the Cornerstone resource will be recognized by career counselors as their premier information resource for science-based careers. Project Director: Michael J. Savage, Executive Director.

## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

---

### BOOKS, TRUSTEE GRANTS

---

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

**W. Brian Arthur** **\$45,000**  
Palo Alto, CA 94306

For research and writing of a book on the nature of technology. Project Director: W. Brian Arthur, Professor of Economics, Santa Fe Institute.

**Deborah Blum** **\$25,000**  
Madison, WI 53706

For research and writing of a book on forensic toxicology. Project Director: Deborah Blum, Professor of Journalism and Mass Communication, University of Wisconsin.

**Center for Biosecurity of UPMC** **\$45,000**  
Baltimore, MD 21202

For research and writing of a book on smallpox eradication and its aftermath. Project Director: D. A. Henderson, Distinguished Scholar, Center for Biosecurity of University of Pittsburgh Medical Center, and Professor of Public Health and Medicine, University of Pittsburgh.

**Stanley Greenberg** **\$45,000**  
Brooklyn, NY 11201

For research and writing of a book on photographs with text on particle detectors. Project Director: Stanley Greenberg, photographer and author.

**Mark A. Griep** **\$45,000**  
Lincoln, NE 68588

For writing of a book on chemistry in the movies and the creation of an accompanying web site. Project Director: Mark Griep, Associate Professor of Chemistry, University of Nebraska.

**Olivia Judson** **\$43,000**  
London SW5 0NU  
England

For research and writing of a book on evolution. Project Director: Olivia Judson, Writer.

**Donald Kennedy**  
Stanford, CA 94305

**\$25,000**

Support for a book on birds and the science of artistic representation. Project Director: Donald Kennedy, President Emeritus; Professor of Environmental Science and Policy, Emeritus, Stanford University.

**Bettyann Holtzmann Kevles**  
New Haven, CT 06511

**\$13,250**

For research and travel for a book on the idea of “Tomorrow” in American culture. Project Director: Bettyann Holtzmann Kevles, Senior Lecturer, Department of History, Yale University.

## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

---

### RADIO, TRUSTEE GRANT

---

**Public Radio International**  
Minneapolis, MN 55403

**\$300,000**

With this one-year grant, Public Radio International (PRI) and New York's public radio station WNYC, with the BBC, *The New York Times*, and WGBH/Boston serving as major editorial partners, will provide regular science and technology coverage on a new morning news program to be launched in March 2008. The new show will bring science and technology into discussion of breaking news and other stories whenever appropriate, broadcast two specific 5-10 minute science/technology segments and one longer 20-30 minute in-depth science/technology story each week, provide online opportunities for discussion of science/technology stories and issues, and create four special on-location broadcast events with strong science/technology components. A science and technology editor will attend all programming meetings and coordinate the science/technology aspect of the show. Science and technology experts will be available and staff from WNYC's *Radio Lab*, *The New York Times*, and *NOVA* will offer their assistance. The program will be hosted by two prize-winning journalists, John Hockenberry of National Public Radio and ABC, and Adaora Udoji of ABC and CNN. Project Director: Graham Griffith, Executive Producer, *The Morning Show*.

### RADIO, OFFICER GRANT

---

**FILMFORM KOLN GmbH**  
Cologne D-50968  
Germany

**\$45,000**

For co-funding of an American version of a documentary about the life and work of Nobelist Eric Kandel. Project Director: Petra Seeger, Documentarian.

## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

---

### PUBLIC TELEVISION, TRUSTEE GRANTS

---

#### **Educational Broadcasting Corporation**

**\$1,500,000**

New York, NY 10001

With past Foundation grants, Thirteen/WNET New York has produced *War Ship* and *War Plane*. With this grant, they will produce *Ground War*, the third program of the trilogy. *Ground War* will feature four one-hour programs that tell the stories behind the key technological advances and strategic breakthroughs that have accompanied thousands of years of ground warfare. Episode One, *Personal Weapons*, concerns the evolution of the soldier's personal weapons and gear, from sword and spear to musket and assault rifle; from leather and chain mail to advanced composite exoskeletons and robots; from warfare in Mesopotamia and Ancient Greece to today's conflict in Iraq and Afghanistan. Episode Two, *Mobile Platforms*, will explain the developments leading from the horse and chariot to today's tanks and armored vehicles. Episode Three, *Big Guns*, will track the evolution of artillery from the time of ancient Greeks, through China's invention of gunpowder to the latest generation of guns and directed-energy weapons. Episode Four, *Engineering the Battlefield*, will examine ways (Great Walls, mountain defenses, star fortifications, trenches, etc.) used by soldiers and armies to modify the battlefield for both defense and attack. Completion of the set of three programs enables the general public to receive an in-depth understanding of the close relationship between technology and war. Project Director: Jared Lipworth, Director, Science Programs, Thirteen/WNET.

#### **TPT/Twin Cities Public Television**

**\$1,000,000**

St. Paul, MN 55101

With this grant, Twin Cities Public Television, in conjunction with Green Umbrella, one of the foremost producers of historical scientific documentaries, will produce and broadcast a two-hour prime time public television show about the 400-year development of the telescope. *The Quest to See Infinity: How the Telescope Opened Our Eyes to the Universe* plans to broadcast in 2009, the official International Year of Astronomy and the 400<sup>th</sup> anniversary of the invention of the telescope. The audience will meet and see the scientific work of such great figures as Galileo Galilei, Johannes Kepler, Isaac Newton, William and Caroline Herschel, George Hale, and Edwin Hubble. The story will proceed to the present time, including the VLT, the "Very Large Telescope," the world's largest optical telescope array now being built by ESO, the intergovernmental European Organisation for Astronomical Research in the Southern Hemisphere, and the "Overwhelmingly Large Telescope," or OWL, whose design is still being conceptualized by ESO. The story also covers the Sloan Digital Sky Survey and its revolution in capturing and storing electronic images that have become a primary tool in the search for an explanation of the important phenomenon of dark energy. Project Director: Richard Hudson, Director of Science Production.

**WGBH Educational Foundation**  
Boston, MA 02134

**\$2,750,000**

With this grant, *The American Experience*, television's acclaimed history series, will research and produce four documentaries featuring the role of science and technology in history. A two-hour feature on J. Robert Oppenheimer will draw heavily on *American Prometheus*, the Pulitzer-Prize winning biography of Oppenheimer. A one-hour show portrays Grand Central Station as a major engineering feat. Another, *The Polio Crusade*, is the story of the largest public health campaign in American history, based on the Pulitzer Prize-winning book by David M. Oshinsky. The final program is a portrait of Walter Freeman, the pioneering neurologist whose efforts to find the neurological basis of mental illness led him to perform many lobotomies before the controversial procedure was discredited. These are four stories in which science and technology — and scientists and engineers — play a central role. They also show how mistakes are made and later corrected, a key feature of science that should be better appreciated. The shows are expected to reach millions of viewers and several more millions in rebroadcasts, DVD sales, visits to and downloads from the website for each show, and by nationwide distribution of thousands of teacher's guides for the shows. Project Director: Mark Samuels, Executive Producer.

**WGBH Educational Foundation**  
Boston, MA 02134

**\$500,000**

A past Foundation grant supported the introduction of extended profiles of scientists broadcast as part of the popular magazine format show, *NOVA ScienceNOW*. The profiles run 10-12 minutes and depict the lives and work of individual scientists, engineers, and mathematicians. The show's host, Neil deGrasse Tyson, astrophysicist and Director of the Hayden Planetarium at the American Museum of Natural History, has succeeded in engaging younger audiences. The show has become very popular and has many more young viewers and web visitors than the average public television fare. Exploring science by portraying the lives of a diverse group of young scientists, the profiles do more than introduce viewers to the excitement of science itself. They also show how and why some very cool people have chosen science as a career, and thereby dispel many stereotypes. This grant supports the creation and broadcast of a series of six new profiles. Project Director: Paula Apsell, Senior Executive Producer.



## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

---

### FILM AND TELEVISION DEVELOPMENT, TRUSTEE GRANTS

---

**Carnegie Mellon University**  
Pittsburgh, PA 15313

**\$271,296**

The Dramatic Writing Program at Carnegie Mellon University has received past grants as one of six original film schools participating in the Foundation's film and television development program. Among the outstanding scripts written by Carnegie Mellon film students are *Riding Fire* by Denise Pullen and *Sounds of Silence* by Craig Wiener. The former is about Dr. Judith Resnick, the American female astronaut who was a victim of the 1986 Challenger disaster. The second concerns the stigma of "betrayal" that attaches to someone in the deaf community who seeks a cochlear implant. The current grant will continue the practice of making two major screenwriting awards for scripts featuring science and technology themes. It will also support an annual science and technology symposium and the holding of master classes and workshops with top Hollywood screenwriters and directors. Travel scholarships, started with a prior grant, have proven popular and successful as a way to help promising students launch their careers. Students who have submitted Sloan screenplays and won a screenwriting award are flown to Los Angeles to meet with agents, development directors, and television executives. Several have already found first jobs at major studios. Project Director: Milan Stitt, Raymond W. Smith Professor of Dramatic Writing, School of Drama.

**Film Independent**  
Los Angeles, CA 90035

**\$124,000**

As a result of the Foundation's film program, there is now a substantial pipeline of new screenplays involving science and technology. This grant to Film Independent, one of the largest and most prominent film organizations for independent films in the country, will take two promising screenplays, one each year, into Film Independent's competitive Producer's Lab. This intense 7-week program selects 10 scripts per year and works to get them into production. Participants prepare a film budget, production schedule, and business plan, all to develop the most realistic strategy for getting their films made. The program includes one-on-one meetings with lab advisors, established producers, and industry professionals, who offer advice and enable producers to make important contacts with financiers, studios, and independent film companies and distributors. The grant covers the full cost of one fellow in the Producer's Lab, a stipend for science advisors, and a production grant to help the selected annual screenplay project continue toward production after the lab is over. It will also cover production expenses, such as hiring a casting director, as well as the costs of a line producer and travel to film markets or for location scouting or equipment rental. The aim is to support the winning screenplay in special ways that will enable it to advance into production. A film industry reception announcing the annual Sloan winner will be held to attract agents, managers, film industry professionals, and media representatives and thereby help publicize and fast-

track the winning screenplay toward production. Project Director: Josh Welsh, manager of Filmmaker Labs.

**Museum of the Moving Image**

**\$212,000**

Astoria, NY 11106

With a past Foundation grant, the Museum of the Moving Image, a center dedicated to the art of film, television, and digital images, created the Sloan Science and Film website. The site includes streaming video of all award-winning films from the six film schools participating in the Foundation's film program. It also contains an interactive directory of all Sloan screenplays and production grants ever awarded, numbering over 200 entries, with biographical material on the filmmakers. Film projects that received Sloan awards or recognition at film festivals (Sundance, Tribeca, Hamptons, Malibu) are listed with film excerpts, trailers, profiles, and interviews. The Museum also holds an annual Sloan public event which includes a screening and discussion with filmmakers and scientists about films involving science and technology. The current grant supports various changes to improve the website and attract more visitors. A site editor will be added to update the home page on a regular basis with news from all Sloan projects and science-related films. Previews and excerpts of films, science topics, and biographical material on filmmakers will be included. The articles section of the site will function as a blog or weblog with community features such as a message board for discussions and postings, and guest contributors. The Museum will also rework the website design for quicker loading and easy indexing, and to facilitate searching and linking from other websites, including video aggregation sites like YouTube, AOL Video, and Yahoo! Video. It will create an enhanced online marketing campaign including promotions to video-sharing sites and affiliate relationships with IndieWIRE, RES, and other online publications with content devoted to independent films. Project Director: Carl Goodman, Deputy Director and Director of Digital Media.

**Science Festival Foundation**

**\$650,000**

New York, NY 10025

This grant will help launch the first World Science Festival (WSF). This multidisciplinary major festival devoted to science and technology will be held in New York City and will include many features: communication to the public of ground-breaking research in science and technology; presentations by the world's most effective science popularizers; entertaining and interactive youth and family programs; and works in the performing and visual arts inspired by science. For a week each year, the city will host the world's leading scientists and technologists, dedicated science educators, top science policy makers, renowned science writers and lecturers, and celebrated members of the arts. Over a million dollars have already been raised and fund-raising efforts are ongoing with potential major corporate donors. ABC News has agreed to develop science programming from the Festival and promote it on many of its popular television and radio outlets as well as on its website. Google will list the WSF website on its main web page. Celebrities like Alan Alda have joined the WSF Board and are taking an active role in promoting the festival. The Festival is spearheaded by physicist and bestselling author

Brian Greene. WSF has attracted the involvement of every major university in New York; a scientific advisory board with over a dozen Nobel laureates; major scientific organizations, including science museums and centers, the planetarium, science academies and associations; and major cultural institutions including Lincoln Center, art museums, and the New York Public Library. The first festival is expected to attract hundreds of thousands of visitors and to serve as a major contributor to public understanding of science and technology. Project Director: Judith Cox, President.

FILM AND TELEVISION DEVELOPMENT, OFFICER GRANT

---

**Catticus Corporation**  
Berkeley, CA 94710

**\$45,000**

To develop a full-length television treatment and other possible media about the consequences of de-institutionalization and its relation to advances in neurobiology. Project Director: Arthur L. Singer, Foundation Consultant.

## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

---

### THEATER, TRUSTEE GRANTS

---

#### **Ensemble Studio Theatre**

**\$1,640,000**

New York, NY 10019

With past grants, Ensemble Studio Theatre (EST) has been an active and productive participant in the Foundation's program in theater as a means of increasing public understanding of science and technology. It has commissioned and produced dozens of new works each year, all featuring science and technology. EST helped launch the American debut of *Copenhagen*, which had a long run on Broadway. Each year it holds a weeklong *First Light Festival* showcasing new science plays. Mainstage EST/Sloan plays are now regularly reviewed by *The New York Times*. A recent play, *Relativity*, won the Audelco-August Wilson Playwriting Award in 2006. EST has established a successful outreach program with regional theaters across the country. Three EST/Sloan mainstage plays, *Relativity*, *Luminescence Dating*, and *Louis Slotin Sonata*, received major productions at regional theaters in Seattle, San Francisco, St. Louis, and Pittsburgh. Nine other EST/Sloan plays also received regional productions. EST has established close relations with the scientific community, inviting many scientists and engineers to join its play reading and advisory committees, and holding events at Rockefeller University, the Institute for Advanced Study, Massachusetts Institute of Technology, Carnegie Mellon University, City University of New York, the New York Academy of Sciences, and at Los Alamos in New Mexico. With this new grant, EST will continue commissioning over a dozen new plays each year for three years, with an additional 15 commissions from regional theater partners. It will hold 60 developmental readings of new plays in progress and 12 more advanced workshops before public audiences. Three mainstage productions of major science plays will take place at EST, with the same plays then traveling to other cities. There will also be an additional nine regional productions of science plays across the country. EST will continue to play a major role in serving as a laboratory for new productions of science and technology plays and as the one of nation's most successful developmental theater companies. Project Directors: Carlos Armesto and Graeme Gillis, Associate Artistic Directors.

#### **The Magic Theatre**

**\$396,000**

San Francisco, CA 94123

With a prior Foundation grant, The Magic Theatre produced two world premieres of science plays, one of which, *The Ice Breaker*, has since traveled to Los Angeles and Boston. As part of the Continued Life Project of the National New Play Network, a coalition of theatres across the U.S. committed to developing new work, the play will also be performed as a "rolling world premiere" at New Repertory Theatre in Watertown, MA and at Phoenix Theatre in Indianapolis, IN. The Magic Theatre also staged a successful production of *Luminescence Dating*, which originated at the Ensemble Studio Theatre. To strengthen its work with science plays, The Magic Theatre has forged

partnerships with scientific organizations. It has held annual *Science on Stage* events (staged readings of science plays followed by discussions) at the Exploratorium. It also attends one major national conference each year where it performs staged readings and conducts workshops on science plays. With this three-year renewal grant, The Magic Theatre will commission two new science plays each year and arrange two rewrite commissions for science and technology plays further along toward production. There will also be one collaborative commission with multiple authors and one mainstage play produced each year at the Theatre. Each year, six plays in first- or second-draft form will be given a rehearsal and public reading, followed by a talk-back session. One additional play each year will receive an intensive two-week workshop followed by a public presentation. The popular series of readings and discussions of science plays at the Exploratorium will continue. There will be several colloquia each year involving discussions with scientists and artists, and at least two major conference presentations involving staged readings of science and technology plays will be scheduled. Project Director: Chris Smith, Artistic Director.

## SCIENTISTS' UNDERSTANDING OF THE PUBLIC

---

### TRUSTEE GRANT

---

**American Academy of Arts and Sciences**  
Cambridge, MA 02138

**\$206,000**

The Foundation's program on Public Understanding of Science and Technology has been focused on informing the lay public about scientists and engineers and their work. This grant explores ways of reaching scientists and engineers so that they can learn to understand better how they and their work are perceived by the broader culture. Issues such as cloning, synthetic biology, nuclear power, fetal tissue research, and genetically modified food might offer useful lessons to scientists and engineers on why the public does not always see eye to eye with them. The American Academy of Arts and Sciences, whose members include the nation's leading scientists, will organize and conduct four regional meetings. Each will include about 15 participants, including scientific leaders from academic institutions and from industry, together with public policy experts, respected former public officials, ethicists, and lay leaders. The meetings will be recorded and transcribed and a science journalist commissioned to prepare a report, without attribution. The reports would furnish the background for a white paper on the subject of scientists' understanding of the public, to be disseminated by the Academy to its Fellows. The Academy will also propose a series of follow-up activities to broaden discussion of the subject for the science and engineering communities. Project Director: Leslie C. Berlowitz, Chief Executive Officer.

## **SELECTED NATIONAL ISSUES AND THE CIVIC PROGRAM**

---

### **SELECTED NATIONAL ISSUES**

---

#### **BIOTERRORISM, TRUSTEE GRANTS**

---

##### **Council for Excellence in Government**

**\$574,779**

Washington, DC 20005

Since one focus of the Foundation's bioterrorism program is citizen preparedness, the need to have an effective way to measure citizen preparedness is apparent. With a 2005 grant, the Council for Excellence in Government developed and validated a Public Readiness Index (PRI) based on responses to ten questions predictive of the key dimensions of knowledge and behavior that comprise preparedness. Responses of a random sample of residents of a geographical area to these questions determine, on a scale from 0 to 10, the region's PRI. The report, "Are We Ready? Introducing the Public Readiness Index: A Survey-Based Tool to Measure the Preparedness of Individuals, Families and Communities," was released by the Council in December 2006. It also introduced the term RQ or "Readiness Quotient" to refer to an individual's score. (See the website, [www.WhatsYourRQ.org](http://www.WhatsYourRQ.org).) The PRI and RQ have been well received by emergency managers and other groups. The American Red Cross will conduct a national PRI survey annually and Big City Emergency Managers will use the PRI to evaluate preparedness in their jurisdictions. The current renewal grant aims to increase the visibility, acceptance, and strategic use of the PRI by a wide variety of stakeholders, including government, business, and nonprofits, and especially for use at the local level by metropolitan areas, states or regions to track preparedness in their particular constituencies on an annual basis. It can be well used to measure the effectiveness of a local preparedness campaign by comparing pre- and post-campaign PRI values. The Council will strengthen its relationships with print and electronic media, businesses and business organizations, government and civic organizations, nonprofit service organizations, and community groups at both national and regional/local levels. It will upgrade the [WhatsYourRQ.org](http://WhatsYourRQ.org) website to enable organizations to offer the PRI survey to their constituents (employees, customers, students, faculty, members, etc.) and to receive composite organizational scores along with a demographic profile of respondents. Project Director: Patricia McGinnis, President and CEO.

##### **Massachusetts Institute of Technology**

**\$295,000**

Cambridge, MA 02139

Concern about preparedness for possible naturally occurring biological attacks, such as pandemic influenza, has led the U.S. government to support mathematical modeling work through the Models of Infectious Disease Agent Study (MIDAS) program. Results of the MIDAS work on pandemic flu have influenced policy discussions and formed the basis for some of the recommendations in the February 2007 interim planning guidance issued

by the U.S. Centers for Disease Control and Prevention. Extreme recommendations, such as closing schools and all childcare programs for up to three months, have caused some concern and led to questions about both the MIDAS assumptions and models. This grant supports an 18-month project to take a fresh look at the problem. The MIT research team will review the assumptions and develop models based on their expertise in operations research. They will examine existing state and university pandemic flu plans and determine priority decisions for such organizations, such as when to take hygienic steps (i.e., wear gas masks) or social distancing steps (i.e., work from home). Results from the team's modeling work, together with an examination of historical records and application of cost-benefit analyses, will lead to formulating pandemic flu preparedness and response plans not only for individuals, but also for families, employers, and local, state, and federal governments. Technical papers will be submitted for publication to professional journals, but the final report and plan will be written for an educated but non-specialist reader. Project Director: Professor Richard Larson, Department of Civil and Environmental Engineering and in the Engineering Systems Division.

**National Academy of Sciences**  
Washington, DC 20001

**\$75,000**

With a prior planning grant, the National Academy of Sciences, in collaboration with the Center for Science, Technology, and Security Policy of the American Association for the Advancement of Science (AAAS), developed a survey instrument to learn about the knowledge of the scientific community concerning biosecurity issues arising in dangerous research. With the current grant, the Academy will refine the survey instrument with an expert panel and then conduct a web-based survey of 5,000-6,000 AAAS members about their knowledge of dual-use issues and attitudes about their own responsibilities to help mitigate the risks of misuse. Survey data will be made public on the websites of both the Academy and the AAAS, and survey findings will be released through their information offices. The findings will also be presented at the annual AAAS meeting and at other professional society and scientific meetings, and will be reported to the National Science Advisory Board on Biosecurity. Project Director: Jo L. Husbands, Senior Project Director, Office of International Affairs.

**University of Maryland Foundation**  
Adelphi, MD 20783

**\$572,815**

Past Foundation grants have supported researchers at the Center for International and Security Studies at Maryland (CISSM) to craft and refine a comprehensive oversight system for dual-use research. Their Biological Research Security System is a data reporting system for collection and analysis of information about research activities covered by oversight requirements. CISSM conducted research workshops in Eastern Europe and South America to further develop the system and to stimulate national and international discussion about the need for new oversight arrangements. They also worked closely with the World Health Organization (WHO) project on life sciences research and global health security. WHO has prepared a draft report identifying guidelines for oversight of dual-use research as a priority area for its future work. A draft



plan similar to that developed by CISSM has been released by the National Science Advisory Board on Biosecurity working group on research oversight. With this renewal grant, CISSM will carry out the following activities: expand its international outreach effort to Africa and the Middle East; continue work with WHO on development of international guidelines for oversight of dual-use research; continue activities in the U.S. examining research oversight mechanisms at the National Biodefense Analysis and Countermeasures Center, the new U.S. biological weapons threat assessment facility, to stimulate discussion and help ensure that such research is undertaken safely; and work to persuade the University of Maryland and other research institutions to test and use its data management system. By working directly with the research institutions and their biosafety officers, CISSM expects to improve local research oversight and exchange ideas about managing dual-use research dilemmas. Project Director: Professor John D. Steinbruner, School of Public Policy; Director, Center for International and Security Studies at Maryland.

**World Health Organization**  
Geneva 27, Switzerland

**\$453,413**

A 2005 Foundation grant enabled the World Health Organization (WHO), the United Nations agency for health, to conduct a global two-year program to raise awareness of the potential for misuse of biotechnology research. WHO provided guidance and technical support to its member states and established five regional offices. A workshop was held in Tehran, Iran and convened a meeting of its scientific working group. WHO's report, "Scientific working group on life science research and global health security: Report of the First Meeting," outlined five priority areas for WHO guidance: awareness raising; preparedness; risk assessment methodologies; capacity building; and research oversight. WHO cosponsored the International Roundtable on Dual Use Life Sciences Research with the National Science Advisory Board for Biosecurity. The roundtable initiated dialogue with scientists from different countries, international organizations, researchers, and key scientific societies on concerns about and efforts to address issues arising from dual-use life sciences research. With this renewal grant, WHO will continue its global program to raise awareness of the potential for misuse of biotechnology research. It will strengthen its in-house capacity to provide guidance and technical support to member states, hold at least one regional workshop to provide training, and make plans to convene a meeting of its scientific working group. It will also publish a technical guidance/evaluative report and make it available to all members to help them formulate their own workable and effective guidelines and safeguards for possible implementation of national measures related to the five priority areas identified for WHO guidance. Project Director: Ottorino Cosivi, Department of Communicable Diseases.

---

The following grants were funded from an appropriation approved by the Board of Trustees for support of short-term projects and the planning stages of promising larger projects to reduce the threat of bioterrorism.

**Crisis Management International, Inc.** **\$45,000**  
Atlanta, GA 30305

To support the early stages of the development of a voluntary private sector preparedness accreditation and certification program. Project Director: Bruce T. Blythe, CEO.

**J. Craig Venter Institute** **\$45,000**  
Rockville, MD 20850

To support a workshop to inform U.S. government policy makers about policy options for screening hazardous DNA sequences. Project Director: Michele Garfinkel, Policy Analyst.

**National Academy of Sciences** **\$15,000**  
Washington, DC 20001

A planning grant to engage and survey the scientific community on biosecurity issues. Project Director: Jo L. Husbands, Senior Project Director.

**New York Police Department** **\$44,408**  
New York, NY 10038

To support a study of environmental monitoring for biological terrorism. Project Director: Richard A. Falkenrath, Deputy Commissioner for Counterterrorism.

**New York University** **\$45,000**  
New York, NY 10012

To conduct a stakeholders forum in December 2007 in support of the development and acceptance of a voluntary certification program. Project Director: William G. Raisch, Director, International Center for Enterprise Preparedness.

**Swiss Federal Institute of Technology Zurich** **\$33,400**  
Zurich, Switzerland

To provide partial support for the third international conference of Synthetic Biology to be held in Zurich in June 2007. Project Director: Professor Sven Panke, Institute for Process Engineering.

**Uganda National Academy of Sciences** **\$45,000**  
Kampala, Uganda

To provide partial support for an international workshop promoting biosafety and biosecurity within the life sciences. Project Director: Paul Nampala, Executive Secretary.

BIOTERRORISM, OFFICER GRANTS

---

**Center for a New American Security, Inc.** **\$44,000**  
Washington, DC 20004

To examine Aum Shinrikyo's attempts to use anthrax to attack Tokyo. Project Director: Richard J. Danzig, Former Secretary of the Navy.

**George Washington University** **\$45,000**  
Washington, DC 20052

To update the Medical and Health Incident Management system. Project Director: Joseph A. Barbera, M.D., Co-Director, Institute for Crisis, Disaster, and Risk Management, Associate Professor of Engineering Management, and Clinical Associate Professor of Emergency Medicine.

**J. Craig Venter Institute, Inc.** **\$29,350**  
Rockville, MD 20850

To support a workshop on technical challenges to identifying potentially dangerous hazardous DNA synthesis orders. Project Director: Eric Eisenstadt, Vice President for Research.

**Tel Aviv University** **\$44,805**  
Tel Aviv 69978, Israel

To support a pilot study of the acceptability and efficacy of surgical masks in preventing the spread of influenza from children to parents. Project Director: Manfred S. Green, M.D., Director, Israel Center for Disease Control and Professor of Epidemiology and Preventive Medicine, Sackler Faculty of Medicine.

## SELECTED NATIONAL ISSUES

---

### UNIVERSAL ACCESS TO RECORDED KNOWLEDGE, TRUSTEE GRANT

---

**Boston Library Consortium**  
Boston, MA 02117

**\$85,195**

The Boston Library Consortium (BLC) is a group of 19 universities in four states whose holdings include some 34 million volumes. This grant supports the convening by BLC of a major “call to action summit” on mass book digitization. Representatives of the university libraries and of interested parties like Google and Microsoft, along with state and federal officials, will convene for a daylong meeting, “The Universal Access Digital Library Summit: National Interests, Common Goals.” This gathering will discuss possible agreements on a consensus strategy for going digital in an open access, non-proprietary manner. The Foundation has supported the fundamental idea of universal access to recorded knowledge in an open, non-exclusive, and nonprofit environment. This contrasts with major commercial for-profit digitization projects, notably that underway by Google, which involve proprietary restrictions on access to digitized materials. Many universities and libraries have yet to adopt a consistent and unified policy. A white paper outlining the critical issues at stake in mass digitization will be commissioned, disseminated, and discussed at the meeting. Also, a long-term strategy will be developed for funding, including an analysis of real costs and technology needs, in-kind contributions and budgetary allocations by institutions, and external support from foundations and government agencies. The meeting will include an address by at least one major university president from the BLC membership endorsing the idea of open digital access. Following the meeting, an open letter on global digitization and the open access issues it raises will be prepared and circulated widely, including publication in *The Chronicle of Higher Education*. Project Director: Barbara Preece, Executive Director.

## SELECTED NATIONAL ISSUES

---

### FEDERAL STATISTICS, TRUSTEE GRANT

---

#### **W.E. Upjohn Institute for Employment Research**

**\$208,865**

Piscataway, NJ 08854

Much recent discussion has focused on whether the recent dramatic surge of imports from low-wage countries such as China may be significantly distorting economic statistics for key sectors of the U.S. economy. There is concern that if a lower-cost import displaces a domestically-produced product, the resulting price reduction is not properly attributed to the import but instead may result in overstatement of domestic output and productivity. There are a number of other concerns, for example, that the growth of offshore operations by multinational corporations may be leading to distorted values for trade flows, and that increasing use of outsourcing within the U.S. may be distorting official U.S. statistics on economic productivity. This grant supports a three-part project led by the Upjohn Institute in collaboration with the National Academy of Public Administration. It aims to assess whether globalization is affecting the accuracy and interpretation of U.S. statistics on economic output and productivity and, if it is, to determine how these statistics are being impacted. Depending on the results of the first phases of this initiative, the project will seek to develop recommendations for redesigning U.S. economic statistics to provide more accurate guidance for policy purposes. The project will include: a conference on globalization and measurement issues as part of the 2008 World Congress on the National Accounts and Economic Performance Measures for Nations; commissioning of 6-8 original research papers on measurement issues, with topics and invited authors to be identified by a planning group made up of members from the Upjohn Institute, the National Academy of Public Administration, former Commissioners of Labor Statistics, and one or two representatives from each of the three major Federal statistical agencies (Bureau of Labor Statistics, Bureau of Economic Analysis, and Census Bureau); and a preliminary research meeting in the fall of 2008 and a final research workshop in early 2009 on the results of these efforts. The goal of the workshop will be to arrive at a consensus among the statistical agencies and academic researchers as to what measures might be taken to improve the relevant data. Project Director: Susan Houseman, Senior Economist.

### FEDERAL STATISTICS, OFFICER GRANT

---

#### **Economic Policy Institute**

**\$45,000**

Washington, DC 20036

Exploratory research on subjective measures of economic well-being. Project Directors: Jared Bernstein, Director of the Living Standard Program, EPI; and Kevin A. Hassett, Senior Fellow and Director of Economic Policy Studies, American Enterprise Institute.

## THE CIVIC PROGRAM

---

### OFFICER GRANTS

---

**Manhattan Institute for Policy Research, Inc.**  
New York, NY 10017

**\$34,000**

To support research about the siting of electricity substations in New York City by the Manhattan Institute's Center for Rethinking Development. Project Director: Hope Cohen, Deputy Director, Center for Rethinking Development.

**Research Foundation of the City University of New York**  
New York, NY 10021

**\$40,040**

To improve the ability of computer science undergraduates to transfer from two-year to four-year campuses at the City University of New York. Project Director: Theodore Brown, Executive Director, CUNY Institute for Software Design and Development.

**World Cares Center, Inc.**  
New York, NY 10018

**\$15,000**

To support the development of two courses for disaster preparedness. Project Director: Lisa Orloff, Founder and Executive Director.

## **ADDITIONAL GRANTS**

---

Note. Grants made in 2007 within the major programs of the Foundation have been summarized in the above pages of this report. The following 2007 grants fall outside these major programs.

### TRUSTEE GRANTS

---

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

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

**Independent Sector** **\$15,000**  
Washington, DC 20077

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

**New York Regional Association of Grantmakers** **\$20,000**  
New York, NY 10018

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

### OFFICER GRANTS

---

**The Alliance for Science and Technology in America** **\$30,000**  
Washington, DC 20036

Support for a study comparing R&D investment in the United States and selected Asian countries. Project Director: Robert S. Boege, Executive Director.

**University of Michigan** **\$45,000**  
Ann Arbor, MI 48109

To help launch a support network for women scientists and engineers in leadership roles in higher education. Project Director: Abigail J. Stewart, Professor of Psychology and Women's Studies, and Director, ADVANCE Program.

# 2007 FINANCIAL REPORT

---





## 2007 FINANCIAL REVIEW

---

The financial statements and schedules of the Foundation for 2007 and 2006 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 2007 was \$30,432,248, an increase of \$6,268,620 from \$24,163,628 in 2006. After the deduction of investment expenses and provision for taxes, net investment income was \$19,345,642 in 2007 as compared to \$10,045,383 for the prior year. Investment expenses during 2007 totaled \$6,796,606 of which \$3,218,614 represented investment management fees. The provision for taxes amounted to \$4,290,000. The total of these deductions from investment income in 2007 was \$11,086,606 versus \$14,118,245 in 2006. Total investment gains for 2007 were \$191,826,747 as compared with \$285,488,801 in 2006.

Grants authorized (net of grant refunds) and management expenses during 2007 totaled \$86,367,276, which was \$67,021,634 greater than 2007 net investment income. Of this total, grants authorized (net of refunds) amounted to \$78,427,882 while management expenses were \$7,939,394. Since the Foundation's inception in 1934, the cumulative excess of grants and expenses over the Foundation's net investment income has amounted to \$573.9 million.

Grant payments in 2007 were \$72,732,888 compared to \$66,465,559 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 2007 was \$91,744,088 while in 2006 the amount was \$87,388,430.

Grants authorized and payments made during the year ended December 31, 2007 are summarized in the following table:

Grants unpaid at December 31, 2006	\$ 72,407,093
Authorized during 2007	78,908,898
Payments during 2007	<u>(72,732,888)</u>
Grants unpaid at December 31, 2007	<u>\$ 78,583,103</u>

The fair value of the Foundation's total assets was \$1,940,925,266 at December 31, 2007 including investments valued at \$1,937,984,549 as compared with total assets of \$1,807,499,949 at December 31, 2006.

## 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, 2007 and 2006, 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, 2007 and 2006, 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.

As discussed in note 6, the Foundation adopted the provisions of Statement of Financial Accounting Standards No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans*, effective December 31, 2007.

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, 2007 and 2006 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**

June 3, 2008  
New York, New York

**BALANCE SHEETS**  
**DECEMBER 31, 2007 AND 2006**

---

	<u>2007</u>	<u>2006</u>
<b>Assets</b>		
Cash	\$ 2,155,534	\$ 1,045,211
Investments:		
Equities	1,332,554,386	1,244,404,207
Fixed income	286,899,449	285,958,260
Limited marketability	318,530,714	275,138,737
Total investments	<u>1,937,984,549</u>	<u>1,805,501,204</u>
Other	785,183	953,534
Total	<u>\$1,940,925,266</u>	<u>\$1,807,499,949</u>
<b>Liabilities and Net Assets</b>		
Grants payable	\$ 78,583,103	\$ 72,407,093
Federal excise tax payable	11,066,505	9,102,528
Accrued postretirement benefit obligation	<u>4,933,414</u>	<u>—</u>
	94,583,022	81,509,621
Net assets - unrestricted	<u>1,846,342,244</u>	<u>1,725,990,328</u>
Total	<u>\$1,940,925,266</u>	<u>\$1,807,499,949</u>

See accompanying notes to financial statements.

**STATEMENTS OF ACTIVITIES**  
**YEARS ENDED DECEMBER 31, 2007 AND 2006**

	<u>2007</u>	<u>2006</u>
Investment income:		
Interest and dividends	\$ 30,432,248	\$ 24,163,628
Less:		
Investment expenses	6,796,606	9,693,245
Provision for taxes	4,290,000	4,425,000
	<u>11,086,606</u>	<u>14,118,245</u>
Net investment income	<u>19,345,642</u>	<u>10,045,383</u>
Expenses:		
Grants authorized (net of refunds of \$481,016 in 2007 and \$511,899 in 2006)	78,427,882	69,408,995
Management expenses	7,939,394	6,593,525
	<u>86,367,276</u>	<u>76,002,520</u>
Excess of expenses over net investment income	<u>(67,021,634)</u>	<u>(65,957,137)</u>
Investment gains:		
Net gain on disposal of investments	111,221,430	132,727,786
Unrealized gain in investments, net of deferred federal excise tax of \$1,645,011 and \$3,117,573 in 2007 and 2006, respectively	80,605,317	152,761,015
	<u>191,826,747</u>	<u>285,488,801</u>
Increase in net assets before initial recording of SFAS No. 158	124,805,113	219,531,664
Initial recording of SFAS No. 158	(4,453,197)	—
Increase in net assets	<u>120,351,916</u>	<u>219,531,664</u>
Net assets at beginning of year	1,725,990,328	1,506,458,664
Net assets at end of year	<u>\$1,846,342,244</u>	<u>\$1,725,990,328</u>

See accompanying notes to financial statements.

**STATEMENTS OF CASH FLOWS**  
**YEARS ENDED DECEMBER 31, 2007 AND 2006**

	<u>2007</u>	<u>2006</u>
<b>Cash flows from operating activities:</b>		
Increase in net assets	\$ 120,351,916	\$ 219,531,664
Adjustments to reconcile increase in net assets to net cash used in operating activities:		
Net gain on disposal of investments	(111,221,430)	(132,727,786)
Unrealized gain on investments	(82,250,328)	(155,878,588)
Initial recording of SFAS No. 158	4,453,197	—
Increase in federal excise tax payable	1,963,977	3,162,075
Decrease (increase) in other assets	168,351	(755,950)
Increase in grants payable	6,176,010	3,455,335
Increase in accrued postretirement benefit obligation	480,217	—
Net cash used in operating activities	<u>(59,878,090)</u>	<u>(63,213,250)</u>
<b>Cash flows from investing activities:</b>		
Proceeds from sales of investments	1,205,614,644	917,839,951
Purchases of investments	(1,144,626,231)	(854,295,128)
Net cash provided by investing activities	<u>60,988,413</u>	<u>63,544,823</u>
Net increase in cash	1,110,323	331,573
Cash at beginning of year	1,045,211	713,638
Cash at end of year	<u>\$ 2,155,534</u>	<u>\$ 1,045,211</u>

See accompanying notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

### DECEMBER 31, 2007 AND 2006

#### (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 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. Alfred P. Sloan Foundation (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, 2007 and 2006 are summarized as follows:

	2007		2006	
	Cost	Fair value	Cost	Fair value
Equities:				
Large capitalization	\$ 247,662,010	300,976,457	229,888,483	311,903,921
Small capitalization	22,000,000	49,586,881	47,000,000	73,055,990
Equity hedge funds	106,210,528	215,820,720	96,283,000	176,348,725
Absolute return strategies	301,219,773	477,326,533	235,424,780	364,085,640
Non-US	163,803,204	291,012,258	181,401,905	318,984,806
Pending equity transactions, net	(2,168,463)	(2,168,463)	25,125	25,125
Fixed income:				
Bonds and notes	315,588,271	321,859,833	356,862,445	333,613,250
Obligations to return collateral held under securities lending agreement	(34,918,846)	(34,918,846)	(50,587,626)	(50,587,626)
Pending fixed income transactions, net	(41,538)	(41,538)	2,932,637	2,932,636
Limited marketability:				
Real estate	44,787,929	57,209,929	33,986,748	39,662,672
Private equity	240,767,908	261,320,785	221,460,262	235,476,065
Total	\$ 1,404,910,776	1,937,984,549	1,354,677,759	1,805,501,204

At December 31, 2007, the Foundation had unfunded commitments to limited partnerships of approximately \$262 million.

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

The Foundation's investment strategy incorporates certain financial instruments that 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, 2007 and 2006. 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, 2007 and 2006 amounted to \$35 million and \$51 million, respectively. The Foundation holds collateral of 102% 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, 2007 and December 31, 2006. Therefore, current taxes are estimated at 2 percent of net investment income for 2007 and for 2006. Additionally, certain of the Foundation's investments give rise to unrelated business income tax liabilities. Such tax liabilities for 2007 and 2006 are not significant to the accompanying financial statements; however, the provision for taxes, as of December 31, 2007 and 2006, 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, 2007 and 2006.

**(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 \$544,042 and \$537,884 in 2007 and 2006, respectively.

**(6) Postretirement Benefits Other Than Pensions**

The Foundation provides health care benefits for qualified retirees. The Foundation adopted the provisions of Statement of Financial Accounting Standards No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106 and 132R* (Statement 158) effective December 31, 2007. The accumulated postretirement benefit obligation is \$4,933,414 as of December 31, 2007.

The cost of providing these benefits was \$219,039 and \$204,364 in 2007 and 2006, respectively.

The following table sets forth the financial information for the plan for 2007 and 2006:

	<u>2007</u>	<u>2006</u>
Change in accumulated benefit obligation:		
Benefit obligation at beginning of year	\$ 4,453,197	6,747,772
Service cost	161,277	321,857
Interest cost	259,176	371,128
Actuarial (gain) loss	278,803	539,165
Assumption change	—	(3,322,361)
Benefits paid	<u>(219,039)</u>	<u>(204,364)</u>
Benefit obligation at end of year	<u>\$ 4,933,414</u>	<u>4,453,197</u>
Unrecognized net obligation	\$ —	—
Unrecognized net loss	—	—
Accrued postretirement benefit obligation	4,933,414	4,453,197
Components of net periodic benefit cost reported as expense in the statement of activities include:		
Service cost	\$ 161,277	321,857
Interest cost	259,176	371,128
Recognized actuarial loss	—	—
Amortization of prior service cost	<u>343,979</u>	<u>476,061</u>
Net periodic postretirement benefit cost	<u>\$ 764,432</u>	<u>1,169,046</u>
Benefit obligation weighted average assumptions at December 31, 2007 and 2006:		
Discount rate	5.82%	5.82%
Periodic benefit cost weighted average assumptions for the years ended December 31, 2007 and 2006:		
Discount rate	5.82	5.50

The medical trend and inflation rate is 9% in 2006 grading down to 5.5% in 2011 and thereafter.

The effects of a 1% increase (decrease) in trend rates on total service and interest cost and the postretirement benefit obligation are as follows:

	<u>2007</u>		<u>2006</u>	
	<u>1% Increase</u>	<u>1% Decrease</u>	<u>1% Increase</u>	<u>1% Decrease</u>
Effect on total service and interest cost	\$ 45,789	(40,589)	35,465	(32,338)
Effect on postretirement benefit obligation	584,667	(484,349)	531,849	(439,634)



Projected premium payments for each of the next five fiscal years and thereafter are as follows:

Year ending December 31:	
2008	\$ 309,880
2009	309,586
2010	324,118
2011	334,051
2012	343,713
Thereafter through 2017	<u>1,941,687</u>
	<u>\$ 3,563,035</u>

The \$4,453,197 appears on the fiscal year 2007 statement of activities as the initial recording of SFAS No. 158, decreasing unrestricted net assets.

**(7) Lease**

The Foundation entered into a ten-year lease effective January 1, 1999. The lease contains an escalation clause that provides for rental increases resulting from increases in real estate taxes and certain operating expenses. Rent expense for 2007 and 2006, including escalations, was \$1,445,630 and \$953,863, 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. On February 19, 2008, the Foundation notified the landlord of its intent to exercise its expansion space option to acquire the adjacent space effective January 1, 2009 and ending on December 31, 2016 at an annual rent of \$386,250.

**SCHEDULES OF MANAGEMENT AND INVESTMENT EXPENSES  
YEARS ENDED DECEMBER 31, 2007 AND 2006**

---

	<u>2007</u>	<u>2006</u>
<b>Management expenses:</b>		
Salaries and employees' benefits:		
Salaries	\$4,836,617	\$4,499,620
Employees' retirement plan and other benefits	<u>2,490,466</u>	<u>1,745,562</u>
Total	7,327,083	6,245,182
 Rent	 1,445,630	 953,863
Program expenses	1,038,208	1,198,288
Office expenses	893,499	918,932
Website and publications	67,348	32,709
Professional fees	<u>745,618</u>	<u>327,895</u>
Total management expenses	11,517,386	9,676,869
 Less direct investment and other management expenses allocated to investments	 <u>3,577,992</u>	 <u>3,083,344</u>
Management expenses	<u>\$7,939,394</u>	<u>\$6,593,525</u>
 <b>Investment expenses:</b>		
Investment management fees and expenses	\$3,218,614	\$6,609,901
Direct investment and other management expenses allocated to investments	<u>3,577,992</u>	<u>3,083,344</u>
Investment expenses	<u>\$6,796,606</u>	<u>\$9,693,245</u>

See accompanying auditors' report.