

# 2003 ANNUAL REPORT

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## ALFRED P. SLOAN FOUNDATION



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## SCIENCE AND TECHNOLOGY

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### FELLOWSHIPS

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#### **Sloan Research Fellowships**

**\$4,680,000**

The Sloan Research Fellowship Program aims to stimulate fundamental research by young scholars with outstanding promise to contribute significantly to the advancement of knowledge. Over the past 48 years, fellowships have been awarded to more than 3,800 scientists and have accounted for expenditures of approximately \$100 million. Twenty-eight Fellows have received Nobel prizes, thirteen have been awarded the prestigious Fields Medal in mathematics, and hundreds have received other notable prizes, awards, and honors in recognition of their major research accomplishments. The program is described in detail in the [Sloan Research Fellowships Brochure](#).

Department heads or other senior scientists familiar with their work nominate candidates for Sloan Research Fellowships. Within each discipline, a committee of three distinguished scientists reviews all nomination documents and recommends the final selections. During 2003, the Foundation awarded Research Fellowships of \$40,000 each, over a two-year term, to 117 scholars at 49 institutions in seven fields: chemistry (23), computer science (16), economics (8), mathematics (20), molecular biology (11), 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 2003 fellowships:

**Chemistry:** Jon C. Clardy, Cornell University; Stephen J. Lippard, Massachusetts Institute of Technology; John C. Tully, Yale University.

**Computational and Evolutionary Molecular Biology:** Barry Honig, Columbia University; Martin Kreitman, University of Chicago; Michael Waterman, University of Southern California.

**Computer Science:** Randy Katz, University of California, Berkeley; Barbara Liskov, Massachusetts Institute of Technology; Jeffrey Ullman, Stanford University.

**Economics:** John Geanakoplos, Yale University; Lars P. Hansen, University of Chicago; Paul Romer, Stanford University.

**Mathematics:** George C. Papanicolaou, Stanford University; Peter Sarnak, Princeton University; Ronald Stern, University of California, Irvine.

**Neuroscience:** David Anderson, California Institute of Technology; Allison Doupe, University of California, San Francisco; John H. Maunsell, Baylor College of Medicine.

**Physics:** Laura H. Greene, University of Illinois at Urbana Champaign; Michael Peskin, Stanford University; Scott Tremaine, Princeton University.

SLOAN RESEARCH FELLOWSHIP RECIPIENTS

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**Arizona, University of**

Physics: Xiaohui Fan

**Boston University**

Economics: Jeffrey C. Ely

Physics: Pritiraj Mohanty

Martin Schmaltz

**Brandeis University**

Chemistry: Li Deng

**California Institute of Technology**

Chemistry: Paul David Asimow

Linda C. Hsieh-Wilson

Jonas Christopher Peters

Brian M. Stoltz

Mathematics: Danny Caligari

Neuroscience: Athanassios G. Siapas

**California, University of, Berkeley**

Computer Science: George C. Necula

Ion Stoica

David Wagner

Economics: Aviv Nevo

Emmanuel Saez

Mathematics: Tom Graber

Michael Hutchings

Molecular Biology: Steven E. Brenner

Lior Pachter

Neuroscience: Kristin Scott

**California, University of, Irvine**

Mathematics: Zhiqin Lu

Physics: David B. Kirkby

**California, University of, Los Angeles**

Mathematics: Luminita Vese

**California, University of, Riverside**

Chemistry: Pingyun Feng

**California, University of, San Diego**

Computer Science: Daniele Micciancio

Mathematics: Wee Teck Gan

Molecular Biology: Jeff Hasty

Neuroscience: Pamela Reinagel

Physics: Douglas E. Smith

**California, University of, San**

**Francisco**

Chemistry: Jack Taunton

Neuroscience: Michael S. Brainard

**California, University of, Santa**

**Barbara**

Physics: Crystal Martin

**California, University of, Santa Cruz**

Molecular Biology: Todd M. Lowe

**Carnegie Mellon University**

Computer Science: Tuomas Sandholm

Neuroscience: Alison L. Barth

**Chicago, University of**

Chemistry: Sergey Kozmin

Economics: Marianne Bertrand

Mathematics: Andrzej Zuk

Neuroscience: Naoum P. Issa

Yimin Zou

**Columbia University**

Chemistry: Virginia W. Cornish

Economics: Atila Abdulkadiroglu

Mathematics: Guillaume Bal

Mu-Tao Wang

Physics: Andrei Beloborodov

**Cornell University**

Computer Science: Johannes E. Gehrke

Molecular Biology: Diana Murray

Neuroscience: David Ming Lin

**Duke University**

Computer Science: Ronald Parr  
Amin M. Vahdat  
Economics: Han Hong

**Georgia Institute of Technology**

Mathematics: Saugata Basu

**Harvard University**

Chemistry: David R. Reichman  
Mathematics: Navin Khaneja  
Neuroscience: Lisa V. Goodrich  
Physics: Mikhail Lukin

**Illinois, University of, at Chicago**

Mathematics: Ian Agol

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

Chemistry: Christopher J. Bardeen  
Neil L. Kelleher  
Physics: Taekjip Ha

**Louisiana State University**

Physics: Luis Lehner

**Maryland, University of**

Chemistry: Robert A. Walker

**Massachusetts Institute of Technology**

Chemistry: Catherine L. Drennan  
Computer Science: Piotr Indyk  
Robert Morris  
Economics: David Autor  
Mathematics: Alexander Postnikov  
Molecular Biology: Leonard Mirny  
Physics: Vladan Vuletic

**Massachusetts, University of, Amherst**

Computer Science: Lixin Gao

**McGill University**

Neuroscience: Karim Nader

**Michigan, University of**

Mathematics: Trachette L. Jackson

**Minnesota, University of**

Neuroscience: Aaron David Redish

**New York University**

Computer Science: Christoph Bregler  
Mathematics: Sylvia Serfaty

**Notre Dame, University of**

Physics: Boldizsar Janko

**Pennsylvania, University of**

Neuroscience: Greg Bashaw

**Princeton University**

Computer Science: Moses Charikar  
Physics: Stephen S. Gubser  
Christopher G. Tully

**Rice University**

Mathematics: Brendan Hassett  
Physics: Kedar Damle

**Rochester, University of**

Chemistry: Kara L. Bren  
Patrick L. Holland

**Rutgers University**

Mathematics: Stephen David Miller  
Physics: Duiliu Emanuel Diaconescu

**Southern California, University of**

Chemistry: Anna Krylov  
Molecular Biology: Magnus Nordborg

**Stanford University**

Computer Science: Ronald Fedkiw  
Molecular Biology: Dimitri A. Petrov  
Neuroscience: Thomas R. Clandinin  
Physics: Ian R. Fisher  
David Goldhaber-Gordon

**State University of New York at Albany**

Molecular Biology: Ing-Nang Wang

**Texas, University of, at Arlington**

Chemistry: Dmitry M. Rudkevich

**Texas, University of, at Austin**

Chemistry: Michael J. Krische

David A. Vandan Bout

Neuroscience: Eyal Seidemann

**Texas, University of, Health Science Center**

Molecular Biology: Willy Wriggers

**Toronto, University of**

Chemistry: Daniel A. Lidar

Mathematics: James Ellis Colliander

Molecular Biology: Peter Andolfatto

Physics: Kentaro Hori

Hae-Young Kee

**Tufts University**

Neuroscience: Maribel Rios

**Utah, University of**

Mathematics: Christopher Hacon

Physics: Katrin Becker

**Virginia, University of**

Economics: Jacob Goeree

Neuroscience: Jun Julius Zhu

**Washington, University of**

Computer Science: Pedro M. Domingos

Zoran Popovic

**Wayne State University**

Chemistry: Theodore Goodson III

**Wisconsin-Madison, University of**

Chemistry: Thomas C. Brunold

Mathematics: Alexandru D. Ionescu

**Yale University**

Physics: Charles A. Ahn

## DIRECT SUPPORT OF RESEARCH

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### THEORETICAL NEUROBIOLOGY, OFFICER GRANTS

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**American Physical Society** **\$10,000**  
College Park, MD 20740

Partial support for a conference, "Opportunities in Biology for Physicists." Project Director: Judy Franz, Executive Officer.

**Massachusetts Institute of Technology** **\$10,000**  
Cambridge, MA 02139

Partial support for a multidisciplinary workshop, "Self-Assembly of Peptides and Proteins in Biology, Medicine and Engineering." Project Director: Shuguang Zhang, Associate Director, Center for Biomedical Engineering.

**Salk Institute for Biological Studies** **\$15,250**  
San Diego, CA 92186

To support a workshop, "Brains, Rewards, and Game Theory." Project Director: Professor Terrence J. Sejnowski, Head, Computational Neurobiology Laboratory.

### COMPUTATIONAL MOLECULAR BIOLOGY, TRUSTEE GRANTS

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#### **Sloan/DOE Postdoctoral Awards in Computational Molecular Biology**

This fellowship program is a joint venture of the Sloan Foundation and the U.S. Department of Energy. Fellowships provide an in-depth experience in a molecular biology laboratory for recent Ph.D.s, mostly from computationally intensive fields such as mathematics, physics, computer science, engineering, and chemistry. There is exceptional scientific potential in applying modern computational techniques to problems related to data arising from the study of human and other genomes. The program aims to increase the number of scientists possessing the cross-disciplinary skills needed to study these problems. Each two-year fellowship award carries a total budget of \$120,000, which includes stipends, benefits, research expenses, and institutional overhead.

A careful review of applications in the eighth year of the program resulted in the following seven awards in 2003, all supported by Foundation funds. The listing below includes the following: name of awardee; Ph.D. field of awardee; Ph.D. institution; postdoctoral sponsoring institution; sponsoring senior scientist(s); proposed research plan.



Cheung, Margaret; Physics; University of California, San Diego; University of Maryland; Devarajan Thirumalai; “Computational and Theoretical Studies on Protein-Protein Interactions in vivo.”

Chorny, Ilya; Chemistry and Biochemistry; University of California, Santa Cruz; University of California, San Francisco; Matt Jacobson; “Prediction of Protein Structure Changes Associated with Single Point Mutations: A Physics Based Approach.”

Forger, Daniel; Applied Mathematics; New York University; New York University; Justin Blau; “Mechanisms that Allow Genetic Networks to Function Accurately at Different Temperatures.”

Kechris, Katherina; Statistics; University of California, Berkeley; University of California, San Francisco; Ru-Fang Yeh and Hao Li; “Exploring the Coupling Between Transcription and Splicing As Reflected in Upstream and Downstream Sequence Features.”

Kussell, Edo; Biophysics; Harvard University; The Rockefeller University; Stanislas Leibler; “Ecologies of Mobile DNA Elements.”

Mura, Cameron; Biochemistry and Molecular Biology; University of California, Los Angeles; University of California, San Diego; J. Andrew McCammon; “Large-Scale Modeling of SnRNP Cores and RNA Splicing.”

Thornton, Kevin; Molecular Biology and Genetics; University of Chicago; Cornell University; Andrew Clark; “A Comparative Genomic Approach to Studying the Evolution of Dosage Compensation in Drosophila.”

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COMPUTATIONAL MOLECULAR BIOLOGY, OFFICER GRANT

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**Rutgers University**  
Piscataway, NJ 08854

**\$45,000**

Partial support for a summer institute for physical and mathematical scientists in molecular and cell biology. Project Director: Paul Ehrlich, Administrative Director.

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ASTROPHYSICS, OFFICER GRANT

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**Princeton University**  
Princeton, NJ 08544

**\$9,000**

Support for a conference on quasar data from the Sloan Digital Sky Survey. Project Director: Gordon Richards, Research Associate, Department of Astrophysical Sciences.

**Cambridge in America**  
New York, NY 10019**\$210,000**

This grant supports a group of scholars based at the University of Cambridge, UK, in an exploration, within the framework of the known, the unknown, and the unknowable, of the early peopling of the world. The confluence of modern molecular genetics with archaeology, linguistics, anthropology, and climatology offers the hope of greater understanding in this new field of archaeogenetics, challenging and expanding what is known and defining what may be unknowable. Part of the research to be carried out will involve the development of simulations to explore complex models of human evolutionary history. The project will also promote debate and spread awareness, primarily through the organization of multidisciplinary conferences and a web site. Efforts will be made to reach the popular media that report on “origins.” Project Director: Professor Colin Renfrew, Director, McDonald Institute for Archaeological Research.

**University of Missouri–Kansas City**  
Kansas City, MO 64110**\$98,267**

A team based at the business school will explore the value of the framework of the known, the unknown, and the unknowable for identifying and characterizing business risks, in particular those faced by firms in the electric power industry. The project will review practices and develop background papers; convene a conference to advance thinking on risk management among academics, regulators, industry analysts, and leading practitioners; and disseminate research results through publications and other means. The project will be carried out in cooperation with the Federal Reserve Bank of Kansas City, the Advisory Council of the Electric Power Research Institute, Edison Electric Institute (the association of investor-owned utilities), and the Sloan Industry Center for the electric power industry at Carnegie Mellon University. Project Director: Professor David L. Bodde, Bloch School of Business and Public Administration.

**University of Pennsylvania**  
Philadelphia, PA 1910**\$300,000**

Investors and others who participate in financial markets act on fragmentary information. They care about the extent and nature of expert knowledge. This grant supports the exploration by a Wharton team of the known, the unknown, and the unknowable in finance. The point of departure is the difference between pure “risk,” where we know the probability an event will occur, and pure “uncertainty,” in which we know nothing about that probability. The conversion of uncertainty into risk is a central objective of the analysis that takes place in most financial institutions. Yet sometimes it is not possible to reduce uncertainty to risk by investing in information and analysis because the probability of an event is unknowable. The Wharton team plans to identify, examine, and refine strategies for use by financial institutions faced with the known, unknown (but knowable), and unknowable. It aims to focus attention on boundaries and limits of knowledge that many often shy away from recognizing. The project will involve research

by the Wharton team, conferences, and commissioned papers by both academic and industry experts. Project Director: Richard J. Herring, Professor of Finance, The Wharton School.

LIMITS TO KNOWLEDGE, OFFICER GRANT

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**Aspen Global Change Institute** **\$40,000**  
Aspen, CO 81611

Support of a workshop on “Climate scenarios and projections: The known, the unknown, and unknowable as applied to California.” Project Director: John Katzenberger, Director.

CENSUS OF MARINE LIFE, TRUSTEE GRANTS

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**Consortium for Oceanographic Research and Education** **\$380,000**  
Washington, DC 20005

The Consortium received a grant in 2001 to form the United States National Committee for the Census for Marine Life (CoML). The greatest responsibility for implementation of the CoML lies with national and regional committees. They influence government support for the program, consolidate the participation of scientific communities, and raise public interest. The US National Committee includes members who have held high appointed positions in the federal and state government, key persons in the oil and fishing industries, prominent environmentalists, leading experts in science education and outreach, and top scientists. The Committee held a 50-person workshop well attended by marine managers in government agencies, published a U.S. implementation plan for CoML, and made many visits to federal agencies. It is championing a \$50 million per year multiagency commitment for CoML by FY 2006. The Consortium also hosts the International Scientific Steering Committee and its Secretariat. This grant extends the Consortium’s work with the National Committee for 2004-2005. Funds were obtained from other sources to match past Sloan funding and it is expected that this new grant will also be matched. Project Director: Penelope Dalton, Vice President and Technical Director.

**Norwegian Broadcasting Company, NRK** **\$105,000**  
Trondheim, Norway

Reports from the 2003 dives made for the mid-Atlantic Ridge Ecosystem (MAR-ECO) project by the Russian MIR submarines engaged the public in discoveries of the Census. At 12,000 feet the MAR-ECO explorers found vast unexpected sponge gardens, blizzards of marine snow, and a never-before reported animal that looked like a purple orchid attached to a worm. The peak field program of MAR-ECO is planned to occur in the summer of 2004. This grant supports part of the cost of a 50-minute documentary about MAR-ECO to be produced by the Norwegian Broadcasting Company for airing by Christmas 2004. Research and discoveries will be featured in the program from the perspective of a Norwegian painter, Ornulf Opdahl. He will participate in the main 2004

summer cruise to the Azores and will interpret and convey discoveries of the fauna and mountain ranges of the sea bottom, facts and impressions not previously portrayed for a wide audience. The documentary, to be produced in both Norwegian and English, will be a unique visual story of the project's progress. The show will air in Norway on the popular science program *Schrödinger's Cat*. Efforts will be made to have the show aired in other countries in the international market. Project Director: Gry Molvær, Journalist and Program Producer.

**Stanford University**  
Stanford, CA 94305

**\$1,500,000**

A 2001 grant of \$395,000, matched by the Packard Foundation, supported the planning and initial phase of a project entitled Tagging of Pacific Pelagics (TOPP). The goal of the project is to have 5,000 tagged animals from 10-12 taxonomic groups, including whales, sharks, tuna, seals, turtles, squid, and seabirds, simultaneously reporting their movements and other behavioral and environmental information for 1-2 years. Analysis of the collected data could yield dramatic insights into how and why animals are distributed as they are. During the past two years, the TOPP team has developed plans for the project, built an international network of interested and highly qualified participants, improved tags, successfully deployed 500 tags on diverse species, including the first-ever tagging of squid, and raised funds for Phase 2 of the project which is expected to extend through 2005. The cost of the full implementation and analysis through 2010 is estimated to be about \$20 million. The complexity of TOPP requires full-time, experienced management. This Sloan grant will be applied to project management, including international collaboration. An international steering committee, with members from the United States, Australia, Japan, Mexico, France, and other countries, will oversee the project and seek additional funding in support of TOPP's goal to cover the world's oceans by 2010. Data assimilation and management have emerged as the major challenges of the project since TOPP in operation will resemble air traffic control, with thousands of objects moving in three dimensions continually reporting positions and other data. Fifteen hundred animals will be tagged in Phase 2 and 5,000 in Phase 3. Project Director: Professor Barbara Ann Block, Hopkins Marine Station.

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

**\$525,000**

A past grant supported an international network and staff based at the University of Rhode Island in efforts to enhance the public outreach and education dimensions of the Census. Ongoing and planned projects of the CoML have been brought to the attention of the international news media. Scientists associated with individual Census projects have been furnished with resources and tools for presenting the results of their work more effectively and with a consistent image. The foundation was laid for an international education program for timely sharing of the discoveries of the CoML, beginning with an integrated Census portal website in Japanese and Chinese as well as Western languages. A highly visible public event in October 2003 officially launched the Census, showcasing early results as well as plans for the remainder of the decade. These outreach and

education efforts and the resulting greatly enhanced visibility of the Census help national and regional committees and the various field project leaders around the world obtain the public support and funding needed to complete the Census. As the Center continues its rapid growth, necessitating large financial and political commitments, public awareness of, and confidence in, the Census must grow. With this current grant, the University of Rhode Island team will continue the education and outreach efforts for a further 18 months. Project Director: Sara C. Hickox, Director, Office of Marine Programs, Graduate School of Oceanography.

**Vancouver Aquarium Marine Science Center**

**\$1,023,000**

Vancouver V6B 3X8

Canada

A prior Foundation grant supported a team based at the Vancouver Aquarium to plan and develop systems for tracking salmon while they swim along the continental shelf (up to a depth of about 200 meters) and when they venture out in the deeper waters of the open ocean. Results have been encouraging. The most important component of the technical design, its system of miniature acoustic tags and coastal curtains of listening devices, proved more reliable than expected. Plans for coastal curtains have spread to other parts of the world. This grant supports the demonstration phase of the Pacific Ocean Shelf Tracking (POST) project of the Census of Marine Life. The project aims to provide improved data on salmon in the ocean and generally to supply the basis for describing distribution and abundance of life on the continental shelf. The project has been broadened to include working groups on pelagic fish (such as herring and sharks), groundfish and rockfish, and sturgeon. The aims for 2004-2005 are to implement the shelf observing system on a pilot but large scale in the northwestern U.S., British Columbia, and southern Alaska; to gain acceptance and commitments for coastal curtains from Baja California to the Aleutians by 2010; to stimulate comparable large-scale deployments in other suitable world regions; and to provide data and analyses that quantify rates and sites of salmon mortality at sea. The total budget for the 2004-2005 work is about \$6 million. The estimated cost to maintain a system of 1000 nodes from Baja to the Aleutians is \$8 million per year and would need to come mainly from governments as part of the coastal "ocean observing systems" they are developing. Obtaining the necessary financial commitments of governments to own and operate these systems is a crucial part of the POST project. Project Director: David W. Welch, Research Scientist, Fisheries and Oceans Canada.

**Virginia Institute of Marine Science  
at the College of William and Mary**

**\$825,000**

Gloucester Point, VA 23062

Planning for the field project of the Census of Marine Life to study life on and above subsea mountain ridges has been supported with a past Foundation grant. The project focuses on the Mid-Atlantic Ridge, the largest and longest range, and in particular on the segment from the Azores to Iceland. The international leadership team, including scientists from eight countries and headquartered at the Institute of Marine Research in

Bergen, Norway and Virginia Institute of Marine Science, has organized the project and won key commitments from many countries and funding agencies. A good part of the desired \$20 million, including valuable and essential weeks of ship time, has been won. This grant supports project management for the main fieldwork phase of the Mid-Atlantic Ridge Ecosystem (MAR-ECO) work. Core elements of the field phase address distribution patterns and species composition of demersal fish, mid-water and bottom dwelling fish, squids, crustaceans, and zooplankton. Project Director: Michael Vecchione, Adjunct Professor, Department of Fisheries Science.

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The following grants were funded from an appropriation approved by the Sloan Foundation Board of Trustees to support small grants to advance the planning and implementation of the Census of Marine Life. These grants were for a variety of purposes: dissemination of information and outreach; strengthening commitments of U.S. constituencies and cooperation with international organizations and industries; support of national programs for the Census abroad; and field program development.

**Academy of Natural Sciences of Philadelphia** **\$45,000**  
Philadelphia, PA 19103

To develop strategy and protocols for archiving materials and specimens collected during the Census of Marine Life. Project Director: D. James Baker, President and CEO.

**Consortium for Oceanographic Research and Education** **\$30,000**  
Washington, DC 20026

Support to hold a stakeholder workshop on USA priorities for the Ocean Biogeographical Information System of the Census of Marine Life. Project Director: Reginald A. Beach, Research Director.

**National Oceans Office** **\$45,000**  
Hobart, TAS 7001  
Australia

To accelerate the development of the Census of Marine Life in Australia. Project Director: Ian Poiner, Deputy Chief – Research, CSIRO Marine Research.

**Oregon State University** **\$45,000**  
Newport, OR 97365

For a workshop to advance the Census of Marine Life in the sediments of the continental slopes and abyssal plains. Project Director: Professor George Boehlert, Director, Hatfield Marine Science Center.

**Partnership for Observation of the Global Oceans** **\$45,000**

Dartmouth, Nova Scotia  
Canada B2Y 4A2

To stimulate the organization of the Census of Marine Life in the Indian Ocean. Project Director: Shubha Sathyendranath, Executive Director.

**Regents of the University of California** **\$45,000**

La Jolla, CA 92093

To support a workshop to advance the Census of Marine Life for seamounts and submarine canyons. Project Director: Karen Stocks, Postdoctoral Researcher, San Diego Supercomputer Center.

**Universidad de Concepcion** **\$45,000**

Concepcion, Chile

To help build the Census of Marine Life and its regional committee in South America. Project Director: Victor Ariel Gallardo, Director, Centro de Investigacion Oceanografica en el Pacifico Sur-Oriental.

**University of Alaska Fairbanks** **\$40,000**

Fairbanks, AK 99775

To plan and advance the Census of Marine Life in the Arctic Ocean and Bering Sea. Project Director: Katrin Iken, Assistant Professor of Marine Biology, Institute of Marine Science, School of Fisheries and Ocean Sciences.

**University of Cape Town** **\$38,000**

Rondebosch 7701  
South Africa

To assess what is known and unknown about marine biodiversity in the waters of sub-Saharan Africa and to help launch the Census of Marine Life in this region. Project Director: Professor Charles Griffiths, Director, Marine Biology Research Institute.

**University of New Hampshire** **\$45,000**

Durham, NH 03824

For a workshop to plan the planktonic component of the Census of Marine Life. Project Director: Ann C. Bucklin, Professor, Ocean Process Analysis Laboratory.

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

**\$40,000**

To help fund dives by the Russian deep-sea submersibles to the Mid-Atlantic Ridge as part of the Census of Marine Life. Project Director: Michael Vecchione, Adjunct Professor, Department of Fisheries Science.

CENSUS OF MARINE LIFE, OFFICER GRANTS

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

**\$40,000**

For an international workshop to develop the microbial component of the Census of Marine Life. Project Director: Mitchell L. Sogin, Director, Josephine Bay Paul Center.

**Resources for the Future**  
Washington, DC 20036

**\$45,000**

To provide an evaluation framework for and an early assessment of the economic benefits of the Census of Marine Life. Project Director: James N. Sanchirico, Fellow, Quality of the Environment Division.

OTHER SCIENCE, OFFICER GRANTS

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**Columbia University**  
New York, NY 10027

**\$45,000**

For a book on scientific research and concerns of the public about its morality, ethics, and safety. Project Director: Robert Pollack, Professor of Biological Sciences and Director, Center for the Study of Science and Religion.

**Columbia University**  
New York, NY 10027

**\$40,000**

Support for an annual dissertation prize reflecting the spirit of inquiry into science exemplified by Robert K. Merton. Project Director: Jonathan R. Cole, John Mitchell Mason Professor.

**Rockefeller University**  
New York, NY 10021

**\$45,000**

To support exploratory activities on changing the way humans relate to the microbial world. Project Director: Associate Professor David S. Thaler, Lederberg Lab.



**The Royal Institution of Great Britain**

**\$35,000**

London W1S 4BS, England

Support for start-up funding for the Royal Institution World Science Assembly. Project

Director: Daniel A. Sharp, President, Royal Institution World Science Assembly.

## HISTORY OF SCIENCE AND TECHNOLOGY

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### TRUSTEE GRANTS

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#### **Charles Babbage Foundation**

**\$460,500**

Los Altos, CA 94022

An important goal of the Foundation's history websites program is to include more history of what has gone on inside companies. With this grant, the Babbage Foundation, a nonprofit California corporation dedicated to preservation, interpretation, and dissemination of the history of information technology, will form a team that will help achieve this goal. Babbage will work with the Software History Center, founded in 2000 to preserve the history of the software and services industries, and the Computer History Museum, established in 1996 and home of one of the world's largest collections of computing artifacts and software. They will establish, populate, and keep accessible the IT Corporate Histories website. The website will include 40 companies in the IT industry, representing a mix of current and former companies. The aim is to have at least 50 contributions for each company from founders, employees, and customers. The two-year project will focus on six sectors of the industry, for example, the timesharing companies of the 1960s and 1970s and companies that developed PC business applications software. The team has been in close contact with the Sloan-supported Center for the History and the New Media at George Mason University and will employ best practices from earlier efforts in the history website program. Project Director: Luanne Johnson, President.

#### **Internet Archive**

**\$1,000,000**

San Francisco, CA 94129

Use of the Internet will be severely limited unless issues of digital preservation and access are resolved. Created in 1996, the Internet Archive has focused on preserving the contents of the publicly available Web and other digital materials. It has built the largest Web archive to date, accessible and free to the public. A notable service is the "Wayback Machine" that allows users to access Internet sites as they existed at earlier times. The Internet Archive aspires to be a digital library storing and providing access not only to the Web, but also to texts, moving images, software, and music. Some of these materials originate in digital form; others need to be digitized. The Archive has been an aggressive partner in the movement to encourage the rapid digitization of works of all kinds. The Internet Archive will augment its capabilities with this grant. Investments in hardware and staff over the next three years will allow for archiving the Web each month at the rate of 5 terabytes per snapshot (roughly two billion web pages per month). User access will be kept current with the most recent snapshot, access tools will be improved to reflect evolving technology for building and operating websites so users can experience, for example, interactive aspects of sites, and a text search engine for the Wayback Machine will be developed. Project Director: Brewster Kahle, Digital Librarian.

## STANDARD OF LIVING AND ECONOMIC PERFORMANCE

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### INDUSTRIES

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#### INDUSTRY CENTERS, TRUSTEE GRANTS

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**Columbia University** **\$900,000**  
New York, NY 10027

This grant renews support for the Columbia Institute for Tele-Information (CITI), the Sloan Industry Center for the telecommunications industry, initiated with a Foundation grant in 2000. Telecommunications is large, complex, and undergoing considerable change. Portions of the industry are regulated, so government is an important component of the industry. The private sector component includes phone, wireless, and internet services, equipment providers, and now, new entrants such as cable service providers. CITI conducts research across a broad spectrum of these components and organizes conferences and workshops regularly attended by industry and government representatives. One major project has studied network interconnection and the policy issues involved in arrangements for linking the various networks. Another important project is an extensive empirical study evaluating the trends of concentration in the American information sector. These ongoing projects will be part of the work during the renewal period. Project Director: Professor Eli Noam, School of Business; Director, Columbia Institute for Tele-Information.

**Georgia Tech Research Corporation** **\$1,320,000**  
Atlanta, GA 30318

This grant renews support for the Center for Paper Business and Industry Studies (CPBIS) for three years. The initial grant to establish this center was made in 2000 to the Institute of Paper Science and Technology, which merged with Georgia Tech in 2003. Having developed close contacts with people and firms in this industry, CPBIS shaped its research agenda around five broad areas: globalization and international forces; managerial and operational effectiveness; organizational change to improve workplace productivity; innovation and product commercialization; and community issues faced by the industry. Eleven research projects are underway at CPBIS, involving 33 faculty members and 37 graduate students. Projects include study of southern pine trees, the most significant cost component for paper manufacturing in the southern U.S., and the potential of forest biotechnology as a means for U.S. manufacturers to compete effectively with South American and Asian companies located near the equator, where trees grow a lot faster; analysis of supply chains involved in the maintenance, repair, and daily operation of paper mills, identifying ways to improve their efficiency, and quantifying the financial impact of these improvements; and research on adoption of high-performance work systems in the industry and the impact that would have on productivity and employee job satisfaction. CPBIS has been successful in raising money from the industry and has set a goal of raising a \$12 million endowment over the next

three years, during which time Sloan support will decrease to about one-third of the annual budget. Project Director: Professor Patrick S. McCarthy, School of Economics, Georgia Institute of Technology.

**Georgia Tech Research Corporation**  
Atlanta, GA 30318

**\$153,505**

Faculty and students from the Sloan Industry Centers have been meeting at annual conferences for the past decade. These conferences allow participants not only to share research results, but also to learn from the experience of those in long-established centers about such topics as establishing and maintaining industry relations, gaining access to people and data in companies, dealing with confidentiality issues, and developing useful fundraising strategies for the centers. This grant supports the 2004 conference to be held April 19-21 in Atlanta. Panels on globalization, including trends in outsourcing and offshoring in different industries, will be featured. In addition to those from Sloan Industry Centers, "Affiliates" of the industry studies program, a growing group of about 200 scholars interested in industry studies but who are outside the Centers, will also be invited to participate in the 2004 conference. Project Director: Professor Patrick S. McCarthy, School of Economics, Georgia Institute of Technology.

**Harvard University**  
Cambridge, MA 02138

**\$370,250**

Globalization and technology have led to significant structural changes not only in U.S. manufacturing industries, but also in professional services, such as law, accounting, and management consulting, particularly in firms providing services to multinational corporations. Harvard Law School is establishing an industry center on the legal and professional services industry. Although focused on legal services, the center will of necessity look also at other professional services as the lines between these professions have become blurred. The Harvard center, as other Sloan industry centers, will involve close contact with people and firms in the industry. It will organize its research into five major areas: labor; clients; strategy; regulation; and technology. Participants will include faculty and students from the law school, the business school, and from a variety of other disciplines. The center will sponsor seminars and other educational conferences on campus and will incorporate research results into courses. This one-time grant supplies funding to help get the center started. Some \$600 million has already been raised from other sources. Funding for the center will be a key element in the capital campaign of the law school and it is expected that the center will be able to continue on a self-sustaining basis well beyond this initial grant. Project Director: Professor David B. Wilkins, School of Law.

**Industrial Relations Research Association**  
Champaign, IL 61820

**\$387,677**

Since 1999, the Industrial Relations Research Association (IRRA), a 3,000-member society of academics and professionals from business, labor unions, and government, has

been the institutional home for the Human Resources Network (HRN). Originally established by the Sloan Foundation in the early days of the industry studies program, HRN is now a well-established section of IRRA. This one-time grant supports the establishment of a set of “industry councils” within IRRA. The councils will be composed of IRRA members who are interested in research on a particular industry and will link labor, management, and government practitioners to researchers at the Sloan industry centers. They will meet at national IRRA meetings and also at local chapter meetings held where there is generally an active industry presence, e.g., airlines in Chicago, steel in Pittsburgh, automotive in Detroit, etc. IRRA expects to organize and charter 3-6 councils during 2004 and add another 3-4 in each of the following two years. Project Director: Paula D. Wells, Executive Director.

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

**\$199,700**

The Industrial Performance Center (IPC) at MIT, established by a 1991 Foundation grant, has developed an international reputation as an outstanding research unit committed to promoting and supporting high-quality industry studies research. It has also built a community of young scholars devoted to research and teaching about industries. The IPC’s research program is now fully self-sustaining with funds from industries and governments. This grant supports the continuation for two more years of the IPC doctoral fellowship program. Two fellowships per year are awarded to highly qualified, advanced doctoral students at MIT to pursue independent thesis research in industry studies. Fellows participate in weekly doctoral seminars at which they present their work. During the next two years, IPC will distribute papers from the seminars to all doctoral students in the Foundation’s larger industry studies community and will open participation in the weekly doctoral seminars to industry studies graduate students at the six other industry centers in the Boston area. Project Director: Richard K. Lester, Professor of Nuclear Engineering and Director, Industrial Performance Center.

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

**\$150,000**

The Sloan International Motor Vehicle Program (IMVP) was established in 1990 as the first Sloan industry center. Sloan support came to an end in 1999 and since then IMVP has been funded by industry support. Current support is about \$500,000 per year. IMVP has very strong ties to the auto industry and has developed an international network of academics who participate in industry-related research projects. This grant supports efforts to strengthen the IMVP by bringing in an Executive Director to work full-time, in cooperation with the Industry Advisory Board, to reinforce existing ties to the industry and to develop additional contacts and support. The aim is to rebuild so the annual level of support returns to its once \$1 million per year level and thereby to produce the long-term financial stability needed to continue the ongoing research and relationship to the industry. Project Directors: Professors John Paul MacDuffie, Wharton School, University of Pennsylvania, and Michael A. Cusumano, Sloan School of Management, MIT, Co-Directors of the Sloan International Motor Vehicle Program.

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

**\$250,000**

This grant supports efforts to organize a center for study of the personal computer industry. Irvine researchers have been engaged for many years in research on aspects of the huge information technology sector. They have recently focused on the global personal computer industry. The new center at Irvine is envisaged as a key resource for academe, government, and industry. The proposed research agenda includes, among other topics, the examination of trends in global production (e.g., outsourcing of manufacturing and new uses of information technology) and study of the organization of pre-production and service activities within the industry (e.g., location of R&D design, call services, and information technology services). The center will train future researchers in both Ph.D. and postdoctoral programs and it will have an advisory board as a means of involving industry representatives. Project Director: Professor Kenneth L. Kraemer, Information Systems, Graduate School of Management.

**University of Texas at Austin**  
Austin, TX 78712

**\$913,500**

This is a third and final grant in support of the Center for Construction Industry Studies (CSIS), first started with a Foundation grant in 1996. There are four major sectors in this industry: industrial (e.g., building manufacturing facilities); infrastructure (e.g., bridge and highway construction); commercial buildings; and residential construction. CSIS has focused its efforts mainly on the first two of these sectors. The center's research agenda is concerned with four broad areas: project execution; new technologies; the construction workforce; and economic, financial, and legal issues. For example, research at CCIS studied ways to improve highway infrastructure design to increase the efficiency of subsequent construction. This work has garnered national awards, saved many millions of dollars in project costs, and led to significant financial support from the Texas Department of Transportation. CCIS has developed close contacts with people and firms in the industry. About 20 faculty members from many different university departments work on CCIS projects and more than 20 Ph.D. degrees have been awarded. Center researchers regularly present their work at academic conferences, industry forums, and government panels. Prospects are good for sustaining CCIS activities in the future through continued funding from industry and government. Project Director: Professor James T. O'Connor, Department of Civil Engineering.

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Six grants were made in 2002 from an appropriation approved by the Board of Trustees for various activities designed to strengthen the connections among the Sloan industry centers and to increase their visibility and the impact of their studies. The following 2003 grant was also funded from this appropriation.

**Rochester Institute of Technology**  
Rochester, NY 14623

**\$5,000**

To support presentations by Sloan Industry Centers at the annual conference of business school deans. Project Director: Patricia Sorce, Associate Professor of Marketing and Co-Director, RIT Printing Industry Center.

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The following grant was made from an appropriation approved by the Board of Trustees in 2003 to support services that have been identified by the industry studies community as having the highest priority for achieving the goal of building and strengthening that community.

**University of Pittsburgh**  
Pittsburgh, PA 15260

**\$45,000**

To engage specialized expertise to help develop the fundraising strategies and capabilities of the Industry Centers. Project Director: Professor Frank Giarratani, Department of Economics.

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The following five grants, from an appropriation approved by the Board of Trustees, support the awards of Sloan Industry Center Fellowships. Each fellowship carries a stipend of \$50,000 and includes \$7,500 for related expenses of the center at which the fellowship research will be conducted.

**Carnegie Mellon University**  
Pittsburgh, PA 15213

**\$57,500**

Sloan Industry Center Fellowship at the Carnegie Mellon Software Industry Center for Anita M. Sands, under the supervision of Professors Richard Florida and Mary Shaw.

**Columbia University**  
New York, NY 10027

**\$57,500**

Sloan Industry Center Fellowship at the Columbia Institute for Tele-Information for Heather E. Hudson, under the supervision of Professor Eli M. Noam.

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

**\$57,500**

Sloan Industry Center Fellowship for Gary Herrigel at the MIT Industrial Performance Center, under the supervision of Professor Richard K. Lester.

**Massachusetts Institute of Technology** **\$57,500**  
Cambridge, MA 02139

Sloan Industry Center Fellowship for Matthias Holweg at the MIT International Motor Vehicle Program, under the supervision of Professors John Paul MacDuffie and Fred Moavenzadeh.

**Massachusetts Institute of Technology** **\$57,500**  
Cambridge, MA 02139

Sloan Industry Center Fellowship for Asher Schachter at the MIT Program on the Pharmaceutical Industry, under the supervision of Professors Stan Finkelstein, Charles Cooney, and Thomas Allen.

INDUSTRY CENTERS, OFFICER GRANTS

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**Rensselaer Polytechnic Institute** **\$45,000**  
Troy, NY 12180

Support to develop a funding base to expand the RPI Lighting Research Center to a Sloan Industry Center. Project Director: Mark Rea, Professor of Cognitive Science and Director, Lighting Research Center.

**University of Minnesota** **\$30,000**  
Minneapolis, MN 55455

To publish a special supplement describing the Food Industry Center's supermarket research in the trade magazine, *Supermarket News*. Project Director: Professor Jean D. Kinsey, Department of Applied Economics.

**Virginia Polytechnic and State University** **\$45,000**  
Blacksburg, VA 24061

Support for a conference on the wood industry. Project Director: David Brinberg, Professor of Marketing and Psychology.

**Worcester Polytechnic Institute** **\$45,000**  
Worcester, MA 01609

Support for moving the Sloan Powder Metals Industry Center at WPI to self-sustainability. Project Director: Chickery Kasouf, Associate Professor of Marketing.



BUSINESS ORGANIZATIONS, TRUSTEE GRANTS

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**Aspen Institute**

**\$121,700**

New York, NY 10016

The team production model of the corporation developed by Margaret Blair and Lynn Stout appears to be a compelling alternative to the “principal agent” and shareholder primacy models that for many years have not only dominated corporate law scholarship but also much of the business school curriculum. This grant supports initial testing of a method for moving the team production model into the business school. The Aspen Institute’s Initiative for Social Innovation through Business (ISIB) has developed a website, CasePlace.org, to facilitate curricular change in business schools. Many of the website’s materials are cases since case teaching is a common business school methodology. ISIB will test the idea of using CasePlace.org as a vehicle to disseminate cases, readings and other materials about team production specifically tailored to a business school audience. Groups of 20-25 faculty members from the mainstream business school disciplines, such as finance, accounting, business law, economics, and strategy, will form focus groups to learn about team production and react to ISIB’s plans. Project Director: Judith F. Samuelson, Executive Director, Initiative for Social Innovation through Business.

**University of California, Los Angeles**

**\$422,411**

Los Angeles, CA 90095

Lynn Stout and Margaret Blair’s work on the team production model of the corporation continues to receive a high level of attention and increasing acceptance among legal scholars. This grant supports Professor Stout’s organization of a program at UCLA similar to one established at Georgetown University, from which she recently moved. The program will have three objectives: to support further research and scholarship at UCLA on the team production model of the firm and related topics; to increase opportunities for researchers to present relevant scholarship at conferences and workshops at UCLA and elsewhere; and to raise the public profile of this scholarship through broader dissemination, including media and public relations efforts. Project Director: Professor Lynn A. Stout, School of Law.

BUSINESS ORGANIZATIONS, OFFICER GRANTS

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**American Bar Association Fund for Justice and Education**

**\$45,000**

Washington, DC 20005

To support meetings, papers, and other activities that bring team production to the attention of members of the American Bar Association. Project Director: Jack C. Hanna, Director, Section of Dispute Resolution.

**Search for Common Ground** **\$22,100**  
Washington, DC 20009

To support web-based dissemination and outreach for the team production scholarship of Margaret Blair, Lynn Stout, and others. Project Director: Roger Conner, Executive Director.

**Search for Common Ground** **\$3,000**  
Washington, DC 20009

Support for Margaret Blair's presentation at the World Economic Summit at Davos in 2003. Project Director: Roger Conner, Executive Director.

**University of Iowa** **\$25,000**  
Iowa City, IA 52242

Partial support for a conference to discuss alternatives to the "efficient markets hypothesis" furthering the team production concept. Project Director: Professor Hillary A. Sale, College of Law.

GLOBALIZATION, TRUSTEE GRANTS

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**University of California, Davis** **\$191,000**  
Davis, CA 95616

The movement of certain business practices to India affects U.S. workers, consumers, and companies and is growing fast. This grant supports an investigation of business process outsourcing and offshoring to India. Outsourcing is the shifting of an entire operation such as accounting, payroll, or telephone answering and support. Offshoring is the placement of a U.S. firm's operation in another country. The establishment of R&D and manufacturing facilities abroad, and the location of certain kinds of manufacturing abroad are reasonably well-understood. The business process area is not. This project will only investigate services that can be delivered with no production of physical goods. The research will seek to understand the forces driving business process outsourcing and offshoring and their risks. It will choose a particular U.S. city and undertake to determine how dependent its economy is on the location of business processes and what might be the long-term effect on this city if massive off-shoring takes place. With respect to India, it will determine how large the business process outsourcing and offshoring phenomena are, in what activities they are concentrated, and what the trajectory might be for this industry. Project Director: Professor Martin Kenney, Department of Human and Community Development.

**University of Minnesota**  
Minneapolis, MN 55455

**\$750,000**

In 1996, the Foundation formed a network of industry study researchers who were all interested in studying the globalization issues of their respective industries. Much research has been completed and many publications, both journal articles and books, have been authored by members of the network. Several network members and some new industry studies researchers have planned a project on how globalization is specifically affecting the product development process in different industries. The focus of the group is on five industries within the electronic value chain: semiconductors, flat panel displays, personal computers, other electronic products, and venture capital. This project should lead to a more thorough understanding of how these important industries are changing, how and where value is created and captured, and where jobs are located and which companies and countries are gaining or losing jobs. The research will pay careful attention to the kind of knowledge that is being exchanged among companies in this chain, as well as the means of exchange (e.g., through the movement of people, the purchase of technologies, mergers and joint ventures, etc.), and will be able to show how readily such knowledge migrates and diffuses among companies and countries. Project Director: Professor Tom Murtha, Department of Strategic Management and Organization, Carlson School of Management.

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GLOBALIZATION, OFFICER GRANT

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**University of North Carolina**  
Chapel Hill, NC 27599

**\$45,000**

Support to study globalization in the textile industry. Project Director: Professor Patrick Conway, Department of Economics.

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COMPETITIVENESS, TRUSTEE GRANT

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**Council on Competitiveness**  
Washington, DC 20005

**\$250,000**

A 1999 Foundation grant to the Council supported a new series of briefings on policy aspects of technical subjects for legislators and their staffs. Known as the Forums on Technology and now sponsored by Senators Ensign (R, Nevada) and Wyden (D, Oregon), these briefings have become well-established and valued. About six are held each year and each attracts about 125 attendees. Recent forum topics include electronic medical records, data mining, and hydrogen vehicles. This grant partially funds continued operation of the briefings for another two years. The grant also supports a somewhat newer program known as Breakfast Bytes, sponsored by House members Biggert (R, Illinois) and Doggett (D, Texas), and initiated with an earlier officer grant. This program is smaller than the Forums and more focused on information technology topics. Topics

considered include online learning, cybersecurity, and the information technology workforce. Project Director: William Bates, Vice President for Congressional Outreach

COMPETITIVENESS, OFFICER GRANT

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**Council on Competitiveness**  
Washington, DC 20005

**\$35,000**

Support for breakfast briefings for Members of Congress and congressional staff. Project Director: William Bates, Vice President for Congressional Outreach.

## NONPROFIT SECTORS

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### UNIVERSITIES, TRUSTEE GRANT

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**Teachers College, Columbia University** **\$1,800,000**  
New York, NY 10027

A 1996 Foundation grant supported the founding of the Community College Research Center (CCRC). A renewal grant in 2000 funded continued operation of the Center. CCRC researchers routinely present keynote addresses at major meetings of leaders of community colleges. They serve on important commissions and advisory bodies of the American Association of Community Colleges, League for Innovation in Community Colleges, and of the Department of Education. Their research is published in leading professional journals and trade magazines. A book summarizing the findings of the Center's large national field study of community colleges is scheduled to appear in 2004. Their Ph.D. graduates and postdocs obtain good positions in both higher education research and practice related to community colleges. Leading researchers at other universities spend sabbatical leaves at the CCRC. Enrollments in its courses in the academic year 2002-03 exceeded 300. Columbia University has committed to raise its endowment by an amount sufficient to yield \$400,000 per year to cover the core costs of the Center. In addition, the CCRC plans to raise about \$300,000 per year through research contracts and other fee-for-service functions, assuring that it will continue to work on a significant scale. This grant will cover most operating costs of the Center for the next three years, when its endowment is expected to be in place. The Center's research will focus on three new topics: internal college finances; the mix of activities leading to associate degrees and those yielding credentials of various sorts, such as certificates, but not degrees; and student perceptions of performance of community colleges. Project Director: Professor Thomas R. Bailey, Director, Community College Research Center.

### UNIVERSITIES, OFFICER GRANT

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**Regional Technology Strategies, Inc.** **\$30,000**  
Carrboro, NC 27510

To collect and share information about the roles of community colleges in regional industry clusters. Project Director: Stuart Rosenfeld, President.

**Advocates for Children, Inc.** **\$1,571,000**  
 New York, NY 10001

A 2001 Foundation grant enabled Advocates for Children of New York (AFC) to create an internet-based forum for citizen-based performance assessment of and information about New York City public schools. Their website, [www.insideschools.org](http://www.insideschools.org), contains updated performance assessment information, derived from the Board of Education, on every one of New York City's 1200 public schools. Reviews of many schools are posted on the website, which provides a means by which parents and others can comment on and make requests, offer compliments, or register complaints about individual schools. Usage is growing and about 250 new comments per month are being received. This new grant renews support for continued operation of the website so it will have reviews available for all schools. AFC is committed to finding funding that will allow it to put the project on a self-sustaining basis when this grant period ends in 2007. Project Director: Jill Chaifetz, Executive Director.

**Connecticut Policy and Economic Council** **\$1,125,000**  
 Hartford, CT 06103

Three prior grants to the Connecticut Policy and Economic Council (CPEC) promoted citizen-based performance measurement and reporting in Connecticut. With these grants, CPEC adopted a technique, first developed by the Fund for the City of New York and called City Scan, to equip citizens with hand-held computers and train them to observe and record conditions in their neighborhoods. CPEC also developed an internet-based system, called CivicRADAR, by means of which citizens can make service requests of their local governments and the governments can respond. City Scan has been employed in 32 neighborhoods in five Connecticut cities. CPEC has demonstrated that City Scan can be an effective means by which citizens' perspectives can be brought to government agencies and that these agencies will respond to this input from their citizens. Started in September 2002, CivicRADAR has had low initial usage. Efforts to increase use and to get governments or others to support the technique's implementation and upkeep will be a major task of CPEC during the next few years. The current grant supplies funding for four more years for CPEC to expand the reach and usage of these two techniques and to move toward self-sufficiency. Project Director: Michelle Doucette Cunningham, Director, City Scan Project.

**National Center for Civic Innovation, Inc.** **\$1,425,000**  
 New York, NY 10013

This grant, funded from an appropriation approved by the Board of Trustees, supports a program of experimentation by local and state governments using the criteria for performance reporting suggested by the Government Accounting Standards Board (GASB). Local and state governments participating in this project will receive grants in the \$30,000 to \$40,000 range and will prepare at least two annual performance reports designed according to the GASB reporting criteria. Planning for the reports will involve

citizens, elected officials and government staff. Those participating will be available as resources to other governments wishing to experiment with performance reporting and will prepare a paper on their experience in this project and their views of the effectiveness of the suggested GASB criteria. These reports should be useful to GASB staff as it formulates a recommendation to the GASB concerning the feasibility of issuing standards for a performance report. Making performance assessment part of the GASB reporting guidelines would be an important milestone in the Foundation's program to encourage state and local governments to create and adopt measures of performance that objectively measure outcomes that matter to ordinary people. Project Director: Barbara Cohn, Vice President, Fund for the City of New York, Inc.

**National Civic League**  
Denver, CO 80202

**\$229,046**

This grant supports efforts of the National Civic League (NCL) to stimulate demand of citizens, directed at their own local governments, for citizen-based performance assessment. NCL's strategy is to reach a large number of local organizations through a much smaller set of national organizations with which the local ones are associated. For example, they could seek to reach state and local parent-teacher associations through the national PTA and local environmental groups through the national Sierra Club. NCL will hold workshops on the value and mechanics of performance measurement at the national and regional meetings of such organizations and provide material for their websites, newsletters, and magazines. Examples would be included of how performance measurement has helped local groups achieve their goals. NCL will also create its own website that will post research findings, case studies and other information of value to local activists. This grant will enable NCL to get started and work on the project for a period of eighteen months, at which time the entire strategy will be evaluated. Project Director: Derek Okubo, Vice President.

**Neighborhood Capital Budget Group**  
Chicago, IL 60605

**\$325,000**

A three-year grant was awarded in 2000 to the National Capital Budget Group (NCBG), the founder of the Campaign for a Better Transit (CBT) in Chicago, to enable CBT to do citizen-based performance assessment. CBT has become a real force on public transit issues in Chicago. It has led the effort that resulted in opening up the budget process of the Chicago Transit Authority (CTA) board. This new grant will supply further funding for the Campaign for Better Transit. CBT will continue and expand citizen-based performance assessment of the CTA by producing annual reports evaluating the on-time performance of all CTA rapid transit lines and of its bus system. It will produce at least one report per year measuring the quality of CTA rail and bus service, evaluate the performance of six new "experimental" bus routes in South Chicago, and produce annually a performance assessment report on at least one of the commuter rail lines serving Chicago. CBT will implement plans for generating revenue from other sources in order to be able to carry this transit project into the future as Sloan support declines. Project Director: Jacqueline Leavy, Executive Director.

**New York Public Interest Research Group Fund**  
New York, NY 10007

**\$160,000**

Three past Foundation grants to the New York Public Interest Research Group have supported the transit performance measurement work of its Straphangers Campaign. The Campaign has issued reports, five in 2001 and seven in 2002, based on data provided by New York City Transit, collected by volunteers, and obtained through rider opinion surveys, on overall subway service, subway cleanliness, subway car announcements, subway telephones, rider satisfaction with the busiest subway stations, overall bus service, and bus speeds. Its website, [www.straphangers.org](http://www.straphangers.org), has over 32,000 subscribers, each of whom receives biweekly e-mail alerts. The website provides copies of all reports and other useful information about New York's buses and subways and has become a mechanism for conducting opinion surveys quickly and cheaply. There is considerable evidence that the Straphangers Campaign has contributed to the maintenance and improvement of public transportation in the city. This grant supports the Campaign's work for another two years. During that period, the Campaign will continue its reporting on subways and buses, complete at least three surveys annually on aspects of transit service, maintain its website and e-mail database, and revisit the use of its website to convey complaints to New York Transit. It will continue to assist groups in other cities with transit performance measurement problems. Project Director: Gene Russianoff, Staff Attorney.

**Sustainable Seattle**  
Seattle, WA 98101

**\$622,000**

A 2002 grant to Sustainable Seattle funded plans and preparations for a project intended to use performance measurement to improve the quality of life in Seattle neighborhoods. The current grant funds continuation and extension of that work. Sustainable Seattle and neighborhood partners will develop three types of performance indicators for seven to ten Seattle neighborhoods. These indicators would monitor the implementation of existing neighborhood plans, measure general environmental, social and economic well-being of the neighborhoods, and measure observable conditions in the neighborhoods that relate to the effectiveness of city service delivery. For this last purpose, the project will rely on ComNET, the technique of equipping trained neighborhood people to observe and record street-level conditions that was developed by the Fund for the City of New York. The Seattle city government and its Department of Neighborhoods are fully supportive of this project. They will create ways and means to employ the performance indicator data to serve the participating neighborhoods better. Citizens will be kept informed of developments by the posting of indicator data and the city's responses to these data on the Sustainable Seattle website and in community newspapers, as well as by members of the steering committee in each neighborhood. Annual reports of Sustainable Seattle and the Department of Neighborhoods will be made generally available. Sustainable Seattle is committed to maintaining the project at a viable level and will seek funds from local sources as Sloan support decreases year by year. Project Director: Raymond Victorine, Executive Director.



**Urban Resource Systems, Inc.**  
San Francisco, CA 94117

**\$1,072,000**

In March 2002, an 18-month grant to Urban Resource Systems, Inc., the parent body of the Neighborhood Parks Council (NPC) in San Francisco, supported launching of a program for citizen-based performance assessment of neighborhood parks in the city. This program, called ParkScan, has proceeded well. Consensus on standards and performance measures was achieved, four parks were selected for the pilot phase work, and a feedback mechanism to city agencies was established and tested. The San Francisco Department of Recreation and Parks (DRP) has been an active participant in the program from the beginning. Training of the first three park groups and pilot scans of the parks were successfully completed. An interactive website to receive and provide access to scanning data and also include the ability to receive complaints from any neighborhood park in the city has been developed. In part as a reaction to ParkScan, DRP plans a major investment in a new facility management system and enhanced communications at all its recreation centers. In the four-year continuation of the project supported by this renewal grant, connectivity between ParkScan and city agencies will grow. A direct electronic interface with the complaint tracking systems of DRP and with the Department of Public Works will be in place by the end of the second year. Use of the citizen comment section of the website is expected to reach 5000-7000 postings by the fourth year. The number of parks participating in the program will likely grow to about 55 out of San Francisco's 220 neighborhood parks and facilities by the end of the grant period. The NPC will work on developing funding to sustain this project as Sloan support decreases over the period of this grant. Project Director: Isabel Wade, Executive Director.

**Worcester Regional Research Bureau**  
Worcester, MA 01608

**\$635,925**

A grant in December 2000 to the Worcester Regional Research Bureau (WRRB) supported citizen-based performance assessment in Worcester, MA. In its first three years, twelve reports have been made. Citizens have been engaged to use hand-held computers, the so-called ComNET methodology developed by the Fund for the City of New York, to record observable street-level conditions. Surveys in four new neighborhoods were done each year, with annual resurveys of those previously completed. Many of the adverse conditions identified by the ComNET surveys have been corrected and some city agencies, for example, the Department of Code Enforcement and the Department of Public Works, are using the results of the performance measurement. The current grant continues support for this project as it transitions to self-sufficiency. The amounts estimated to be needed by WRRB to continue its performance measurement work at roughly its current level as Sloan funding declines from year to year are expected to be obtained from other sources or, if necessary, from the City of Worcester. This strong commitment from the city will allow WRRB to produce five benchmark reports and two other survey reports annually, resurvey each of twelve neighborhoods with ComNET every 18 months, have all ComNET data available online by the end of 2004 and integrated with a geographic information system by the end of 2007, and enable

residents to make online service requests by the end of 2007. WRRB expects to be able to show that all of this has made a demonstrable improvement to the delivery of city services in Worcester. It will also promote its performance measurement model elsewhere in the region. Project Director: Roberta Schaefer, Executive Director.

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The following four grants, funded from an appropriation approved by the Board of Trustees, support small projects and planning efforts for possible larger grants in the Foundation's program on assessment of government performance.

**Clean Air Council** **\$70,000**  
Philadelphia, PA 19103

To determine whether external, citizen-based performance assessment of public transportation in Philadelphia is needed and feasible and, if so, to develop a strategy and plan to conduct such assessment. Project Director: Dennis Winters, Deputy Director, Sustainable Transportation Program.

**Connecticut Policy and Economic Council** **\$57,450**  
Hartford, CT 06103

To support a meeting of Sloan grantees and others to promote the creation and use of Internet-based service request systems for municipal governments. Project Director: Michelle Doucette Cunningham, Director, City Scan Project.

**Radford University Foundation** **\$43,500**  
Radford, VA 24182

To enable Radford University's Governmental and Nonprofit Assistance Center to present, on a website and in a comparative manner, financial information from the annual financial reports of Virginia cities and counties. Project Director: Professor Bruce W. Chase, Department of Accounting, Finance, and Business Law.

**Research Foundation of City University of New York** **\$44,960**  
New York, NY 10010

To determine the feasibility of launching an Internet-based panel survey of citizen satisfaction with their local government. Project Director: Gregg Van Ryzin, Associate Professor, Public Affairs Program, Baruch College.

## WORKPLACE, WORKFORCE AND WORKING FAMILIES

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### WORKPLACE, TRUSTEE GRANTS

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#### **American Council on Education**

**\$484,034**

Washington, DC 20036

The American Council on Education (ACE) will launch a two-phase initiative designed to engage the higher education community in rethinking significant aspects of the tenure and promotion system. ACE seeks to develop a flexible career model that recognizes that people have different career needs at different stages and also move through their careers at different paces. Part-time arrangements, pre and post tenure, for those with significant care-giving responsibilities would be one feature of such a model. Through its meetings and publications, ACE would help raise the issue of workplace flexibility to a senior audience of college and university presidents. ACE plans to focus its efforts to recast the current tenure and promotion model on the research universities. In phase I of the project, the rationale for a flexible career model will be developed and a panel of nationally recognized and respected educational leaders will be convened to address the issues of a flexible career path. Assuming sufficient interest and commitment, panel members will endorse a statement calling for more flexible career paths. Phase II will center on efforts to implement the agreed-upon changes. This grant supports the implementation of Phase I of the ACE initiative. Project Director: Claire Van Ummersen, Vice President.

#### **American University**

**\$347,872**

Washington, DC 20016

With a grant awarded in 2000, American University's Washington College of Law produced the first comprehensive report documenting recent court decisions in which mothers and fathers have successfully challenged the discrimination they face at work. Roughly twenty cases and ten different legal theories have emerged, giving plaintiffs the potential for recovery based on federal and state anti-discrimination and labor statutes, federal and state constitutions, and state common law. Many of these cases involve gender discrimination, against men as well as women engaged in family care. Others involve a different form of gender stereotyping based on dubious assumptions about competence, in which assessments of women's competence fall sharply once they have children or switch to part-time work, even when the mother's job performance remains unchanged. With this new grant, American University will produce and distribute a "Policy with Comments" insert for employers' human resources manuals that describes common patterns of bias against family caregivers and suggests personnel policies effective at avoiding such bias. Articles directed to academia and business will be prepared to continue the documentation of patterns of stereotyping that affect adults with family responsibilities on their jobs. Work will be continued with the legal community to promote opportunities for quality part-time career opportunities for associates and partners in law firms and for counsel in corporate legal divisions. Project Director: Joan Williams, Professor of Law.

**The BOLD Initiative**  
New York, NY 10016

**\$455,837**

This is one of a number of grants aimed at making workplace flexibility a more visible and discussed issue. Workplace flexibility involves flexibility in the scheduling of full-time work hours and in the amount of time spent working (including part-time, part-year, or job sharing), and career flexibility that allows for multiple points of entry, exit, and re-entry over the course of a career. The BOLD Initiative has secured agreement from executives in ten firms in two cities, Seattle and Fort Worth, to work on workplace flexibility. The CEOs in each city join in a so-called learning group and the human resource executives of the firms have also created their own learning groups, where they can discuss ways in which each firm can systemically put its changes for facilitating and increasing workplace flexibility into place. BOLD's reliance on a measurable results-focused change process, with clear before and after assessments of where each firm stands in terms of the utilization of flexible work arrangements, serve to make it clear exactly how each firm is doing. Project Director: Beatrice Fitzpatrick, President and Chief Executive Officer.

**Families and Work Institute**  
New York, NY 10016

**\$1,388,625**

This is one of a number of grants aimed at making workplace flexibility a more visible and discussed issue. The Institute will work in eight major U.S. cities. Through a cooperative marketing effort with the local chamber of commerce in each city, newly conceived Workplace Flexibility Awards will be developed and awarded to a number of small, medium, and large-sized firms. The awards and award ceremonies will attract attention of companies in each city. The best practices of the award-winning firms will be highlighted at the regular meetings of the local chambers of commerce and rotary clubs. The awards are likely to receive coverage in the national press. The Institute will also conduct a national survey of U.S. firms to determine the prevalence of flexible work arrangements as related to firm size and industry. The findings of the survey, known as the Business Work-Life Study, will be released to coincide with the Workplace Flexibility Awards ceremonies in the eight communities. The Institute will also publish an additional report on workplace flexibility, supported by IBM, which is based on yet-to-be published results of their 2002 National Study of the Changing Workforce. Project Director: Ellen Galinsky, President.

**Georgetown University**  
Washington, DC 20001

**\$476,005**

**New America Foundation**  
Claremont, CA 91711

**\$800,000**

These grants, as the two preceding ones, are aimed at making workplace flexibility a more visible and discussed issue. Georgetown and New America, working cooperatively,

will draw together leaders from business, labor, and advocacy groups to explore areas of common interest concerning workplace flexibility. Although working in concert, they will each assume responsibility for distinct activities within their own projects. Georgetown will assemble lawyers from diverse constituent groups to undertake a thorough nonpartisan and objective analysis of federal and state laws relevant to workplace flexibility, to document possible policy problems, and to lay out a full range of policy options. The Georgetown project will produce a number of major papers to set forth the current law as it relates to workplace flexibility and to identify issues arising from this legal framework. These papers will be disseminated to relevant policymakers and constituency groups in Washington and a conference will be sponsored to present the Georgetown findings to a range of stakeholders. New America will work with a group of representatives of interested advocacy groups as well as selected staff from bipartisan members of Congress and researchers from bipartisan think tanks. This group will share research with Washington experts who may be unfamiliar with the full range of what is known about workplace flexibility. It will provide a forum for discussing and possibly resolving differences among the various interests represented. Central to the discussion will be a set of issue briefs that New America Foundation project research staff will commission or produce on workplace flexibility issues. New America will aim to generate interest of television commentators and newspaper and magazine columnists and editorial writers about the issue of workplace flexibility and the possibilities for change in the workplace to produce increased flexibility. Project Directors: Chai R. Feldblum, Professor of Law (Georgetown); Karen Kornbluth, Program Director (New America).

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

**\$420,860**

The University of California, Berkeley will take the lead in designing and implementing a family friendly package for the tenured and tenure-track faculty at the ten campuses of the university system. The package will include: an institutional commitment to part-time work options; the right to one-semester of relief from teaching; the right to a one-year tenure track stoppage for assistant professors; the right to six weeks of fully paid leave for birth mothers; the right to request unpaid leave of up to one year to care for a sick family member; and a centralized university fund for reimbursement of departments for replacement faculty when regular faculty take leave for child care or adult dependent care. In addition to the policies, the university will work to change the culture in which the policies exist so that faculty members can make use of them without career penalties. Faculty at all ten university campuses will be surveyed to determine the use and experience with current policies, and to identify new policies that are felt to be needed. The costs of various policies will be determined. The Chancellor of the California University System and the President of UC, Berkeley have each endorsed the plan to design and implement a family friendly package. Project Directors: Mary Ann Mason, Dean of the Graduate Division, and Angelica Stacy, Professor of Chemistry.

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

**\$475,429**

The Foundation's Dual Ladder Program has two main aims: (1) to promote more flexible career paths by reforming tenure to include part-time tenure arrangements; and (2) to institutionalize a legitimate second career path for instructional and research staff hired off tenure. Considerable interest and support exists within the academy for the program. This grant serves to meet the need expressed by many colleges and universities to learn more about what other institutions throughout the country are doing to provide flexible career paths for their tenured faculty and adequate career opportunities for their instructional and research staff, as well as to feel more connected to others in higher education who share their commitment to addressing the career needs of a changing professoriate. This grant supports a project of the Center for the Study of Higher and Post-Secondary Education, working with the Center for the Education of Women, both at the University of Michigan, to build a community of higher education administrators, researchers, and advocates committed to rethinking career paths in the academy. The project has three objectives: to conduct a national survey of non-tenure academic staff as a complement to the recently completed survey of work-family policies available to tenured faculty; to establish a web-based clearinghouse on best practices, policies, and research regarding careers in the academy; and to develop printed materials and resources for department chairs, deans, and provosts who are involved in decisions regarding the careers of tenured and non-tenure track academics. The project staff will work with a small advisory group in designing the survey, conceptualizing and marketing the clearinghouse, and designing and distributing the resource materials. Project Director: Carol Hollenshead, Director, Center for the Education of Women.

**University of Wisconsin System**  
Madison, WI 53706

**\$499,710**

The University of Wisconsin (UW) System consists of 26 campuses. Like many public institutions of higher education, the UW System has seen the state's contribution to higher education diminish over the last twenty years. As a cost-cutting measure, the System has steadily increased the proportion of non-tenure track academic staff while decreasing the proportion of tenure track faculty. These non-tenure track appointees are often treated as second class citizens within the university. The bar for tenure has risen and created difficult career choices for junior faculty. Finally, tenured and tenure track faculty members, given their authority over academic matters in the university's shared-governance structure, have been reluctant to increase the status of the non-tenure academic staff or to provide more career flexibility for the tenure faculty. Through the establishment of the UW Sloan Institute for Career Advancement, the UW System seeks to develop and implement models for meaningful and sustainable change at the departmental, as well as the school and campus level. These changes aim to provide more equity and status to the non-tenure track academic staff and more career flexibility, including part-time tenure, for faculty members. This grant supports the first 18 months of the Institute's efforts. Project Director: Bernice Durand, Associate Vice Chancellor.

The following two grants are funded from an appropriation approved by the Board of Trustees in 2002 to support the Dual Ladder Program, an action program to provide incentives for colleges and universities to add to the existing tenure ladder a second, or dual, ladder for career advancement of those currently in the secondary labor pool, e.g., adjuncts and part-time instructional staff. The dual ladder will provide opportunities for promotion, equitable compensation, and consideration for tenure-track appointments for these employees. The Program also aims to rethink the current rigid tenure track by promoting part-time tenure track and tenured career paths in order to increase the probability of women advancing to senior faculty positions. (Two grants from this appropriation were also made in 2002.)

**Purdue University**

**\$39,531**

West Lafayette, IN 47907

Support for the preparation of a book on Alternative Faculty Careers. Project Directors: Professors Judith M. Grappa and Andrea G. Trice, Department of Educational Studies, Purdue University, and Professor Ann E. Austin, Department of Educational Administration, Michigan State University.

**University of Washington**

**\$44,913**

Seattle, WA 98195

To implement part-time, tenure-track and tenured career paths. Project Director: Eve A. Riskin, Professor of Electrical Engineering and Director, ADVANCE Center for Institutional Change.

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The following six grants are funded from an appropriation approved by the Board of Trustees to support study of the mismatch between the workplace and the changing workforce. The traditional workplace, requiring full-time, full-year work, with minimal to no time off and maximum opportunities for overtime, no longer fully fits the needs of the diverse workforce. Although many workers, especially working parents and older workers, are interested in part-time and part-year work, such arrangements are limited and often carry penalties of disproportionate pay, few or no benefits, limited career opportunities, and virtually no movement between full-time and part-time work. Grants under this appropriation are designed to study various aspects of the mismatch between the current workplace and the current workforce and to raise awareness of this fundamental problem. (Two grants were made from this appropriation in 2002.)

**Brandeis University**

**\$42,000**

Waltham, MA 02454

For study of parental stress due to long and inflexible work hours. Project Director: Rosalind C. Barnett, Director, Community, Families & Work Program, Women's Studies Research Center.

**Families and Work Institute** **\$44,000**  
New York, NY 10016

To explore the creation of State/Community-based Sloan awards for workplace flexibility. Project Director: Ellen Galinsky, President.

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

Support for a conference on the workplace-workforce mismatch at the annual meeting of Sloan Centers on Working Families and Workplace. Project Directors: Professors Tom Kochan and Lotte Bailyn, Sloan School of Management.

**Pennsylvania State University** **\$44,953**  
University Park, PA 16802

For qualitative research on the work-family challenges faced by hotel managers. Project Director: Jeanette Cleveland, Professor of Psychology.

**University of Maryland** **\$45,000**  
College Park, MD 20742

To co-sponsor with the National Institute of Child Health & Human Development a research conference on the mismatch between the workforce and workplace. Project Director: Professor Suzanne Bianchi, Department of Sociology.

**University of Pennsylvania** **\$30,000**  
Philadelphia, PA 19104

Support for a conference: "Parents on the fast track in demanding professions." Project Directors: Professors Jerry Jacobs and Janice F. Madden, Department of Sociology.

WORKPLACE, OFFICER GRANTS

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**Boston College** **\$45,000**  
Chestnut Hill, MA 02167

Support for a series of international briefs on labor market incentives for older workers in industrial nations. Project Director: Professor Alicia H. Munnell, Finance Department, School of Management.

**Georgetown University** **\$45,000**  
Washington, DC 20057

Analysis of the structural and legal obstacles to providing better alignment between the workplace and the workforce. Project Director: Chai R. Feldblum, Professor of Law.



**Pennsylvania State University** **\$22,800**  
University Park, PA 16802

Research on employee access to flexibility in work hours, work schedules, and work location. Project Director: Professor Lonnie Golden, Department of Economics, Penn State Delaware County.

**Persephone Productions, Inc.** **\$45,000**  
Washington, DC 20006

For support of one show of *To The Contrary* to highlight the mismatch between career paths and workers. Project Director: Bonnie Erbe, Chief Executive Officer.

**Rutgers University** **\$43,103**  
New Brunswick, NJ 08901

For an assessment of the effects of rigid head count systems on part-time opportunities. Project Director: Professor Eileen Appelbaum, Director, Center for Women and Work.

**Rutgers University** **\$45,000**  
New Brunswick, NJ 08901

For research on workplace changes in the pharmaceutical industry to meet employees' life cycle needs. Project Directors: Professor Mary S. Hartman, Department of Women's and Gender Studies; Professor Patricia A. Roos, Department of Sociology; and Mary K. Trigg, Associate Director, Center for Women and Work, School of Management & Labor Relations.

**University of Notre Dame** **\$41,716**  
Notre Dame, IN 46556

Support for a roundtable summit on work options for older Americans. Project Director: Teresa Ghilarducci, Associate Professor of Economics and Director, Higgins Labor Research Center.

WORKFORCE AND WORKING FAMILIES, TRUSTEE GRANTS

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**Brandeis University** **\$392,781**  
Waltham, MA 02454

An important but relatively unstudied problem that families of school-age children often face is the conflict between their workplace schedules and the schedules of major transportation systems upon which they depend. For example, the starting and ending times of school days differ from school to school and can create drop-off and pick-up problems for working parents with more than one child. Also, after-school programs, if

not offered on school property, require transporting children from one place to another in the middle of the afternoon. This grant supports the study of not only the degree to which these and related transportation conflicts exist, but also the stress associated with the conflicts between parental work schedules and the school and transportation schedules upon which they rely. The research will make clear whether some families experience higher stress than do others and if so, which types of families in terms of income levels, number of parents living at home, number and age of children at home, etc. The various impacts on families of this stress (e.g., stress-related health problems and the effects on job productivity) will also be addressed. Data for the study will be obtained from interviews and surveys. Project Director: Rosalind Barnett, Executive Director, Community, Families and Work Program.

**Harvard University**  
Cambridge, MA 02138

**\$635,230**

While firms measure the effect of working condition on their productivity, they do not measure the effect of working conditions on the well being of their employees. Nor do they measure the effect on workers' families and on the communities in which they are situated. Yet this knowledge is essential for assessing the full impact of firm behavior. This grant supports a study to measure the external costs and benefits of working conditions. The project will attempt to develop a methodology and baseline data for measuring employee, family, and community externalities. A survey instrument for carrying out a national telephone survey will be developed. Working conditions and practices and a wide range of related employee, family, and community outcomes will be explored. The project will not only provide some understanding of the effects of current U.S. working conditions, but tools developed will be useful for measuring the impact of changes in working conditions on the health, development, and well being of employees, their families, and their communities. Project Directors: Professor Jody Heymann, Department of Society, Human Development and Health, School of Public Health, and Robert Putnam, Professor of Public Policy, Kennedy School of Government.

**University of Chicago**  
Chicago, IL 60637

**\$2,994,200**

This grant renews support of the Sloan Center on Parents, Children and Work for an additional three years. A core past effort of the Center has been the 500 Family Study, including 300 middle and upper middle class families with adolescents and 200 such families with kindergarten children. Surveys, time diaries, and personal interviews were conducted to examine multiple aspects of work and family life. Analysis of this rich database, as well as other national datasets, provides comprehensive information about the strategies used by working parents today to cope with stress and balance work and family demands. The Center's work has involved faculty, graduate students, and postdoctoral fellows from a variety of departments, including economics, sociology, psychology, human development, anthropology, and public policy, and from the business school. In addition to having produced four books during the last three years, Center scholars have published scores of journal articles, book chapters, and working papers.

During the renewal period, the Center will continue to train doctoral and postdoctoral students, and will continue analysis of data from the 500 Family Study. Project Directors: Professors Barbara Schneider and Linda Waite, Department of Sociology, and Co-Directors, Sloan Center on Parents, Children and Work.

WORKFORCE AND WORKING FAMILIES, OFFICER GRANTS

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**Boston College** **\$45,000**  
Chestnut Hill, MA 02467

Support for development of a viable business plan for a proposed magazine, *Retirement Income*. Project Director: Professor Alicia H. Munnell, Finance Department.

**New School University** **\$42,441**  
New York, NY 10003

Support for the study of the development of dual identities of mothers and professionals among college educated women. Project Director: Jennifer Stuart, Assistant Clinical Professor, Psychology Department.

**Portland State University** **\$45,000**  
Portland, OR 97207

Support for a book on the “sandwiched generation.” Project Directors: Professor Margaret Neal, Institute on Aging, and Professor Leslie Hammer, Department of Psychology.

**University of California, Los Angeles** **\$45,000**  
Los Angeles, CA 90095

Support for research on adolescent girls’ views of future work and family roles. Project Director: Rena Repetti, Professor of Clinical Psychology.

**University of California, Los Angeles** **\$45,000**  
Los Angeles, CA 90095

Support for research on the effects of California paid family leave on employers. Project Director: Professor Ruth M. Milkman, Department of Sociology.

## EDUCATION AND CAREERS IN SCIENCE AND TECHNOLOGY

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### SCIENTIFIC AND TECHNICAL CAREERS

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ANYTIME, ANYPLACE LEARNING, TRUSTEE GRANTS

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#### **Council for Adult and Experiential Learning**

**\$460,000**

Chicago, IL 60603

Past Foundation grants to the Council for Adult and Experiential Learning (CAEL) supported discussions with representatives of electric utilities and the International Brotherhood of Electrical Workers (IBEW) concerning the creation of an online associate degree curriculum in Electric Power Technology for technicians working in the generation and transmission of electricity. An Energy Providers Coalition for Education (EPCE) was started in 2001. Modeled on the successful National Coalition for Telecommunications Education and Learning, it is a partnership between CAEL, Bismarck State College in North Dakota, 12 energy companies, and the IBEW. The EPCE program, consisting of three associate degrees in power plant operation, power distribution, and power plant system operation, is growing and the three degree programs are self-sustaining. Under this grant, CAEL, in partnership with Bismarck State College, will add a degree and certificate ALN program for technicians in nuclear plants. CAEL will also bring online a new certificate program for radiology technicians in hospitals and other medical facilities. This six-course program, for technicians who already have a bachelor's degree, will qualify them to be practicing radiology technologists. Courses for this program will be provided by MGH Institute of Health Professionals, an organization affiliated with Massachusetts General Hospital in Boston. CAEL will create project offices for the two efforts, create coalitions of the relevant industry elements, and fund activities to market the program nationally. Project Director: Pamela Tate, President.

#### **Franklin W. Olin College of Engineering**

**\$720,000**

Needham, MA 02492

This grant renews support for a variety of activities, carried out through the Franklin W. Olin College of Engineering's Sloan Center for Online Learning Environments (SCOLE), to strengthen mechanisms for disseminating knowledge about effective ALN practices. The online refereed *Journal of Asynchronous Learning Networks* will continue to be published. The annual ALN conference will continue to receive Center assistance. The book, *Online Education*, with volumes published summarizing the proceedings at each of the last four Sloan Summer Workshops, will remain a Center activity. SCOLE will also continue to screen and qualify new members into Sloan-C, the consortium of higher education institutions and some corporations involved in e-learning products. The Sloan-C catalog of higher education programs (degrees and certificates) offered in ALN format will be maintained. The speaker/consultant service will continue to be available for institutions wishing to initiate or strengthen ALN programs. SCOLE also offers online workshops on a variety of topics, such as How to Create an Online Course, Implementing Quality ALN Programs, etc. A special section of the Sloan-C website reports on effective

ALN practices in the areas of learning effectiveness, access, faculty involvement, cost-effectiveness, and overall student satisfaction. Project Director: John R. Bourne, Professor of Electrical and Computer Engineering.

**Franklin W. Olin College of Engineering**  
Needham, MA 02492

**\$80,000**

Corporations generally entered the online learning arena some years after higher education institutions and their programs have evolved into forms quite different from ALN, the style largely adopted by colleges and universities. The grant aims to begin creating bridges between the two worlds of Sloan-type ALNs and corporate e-learning. It will support costs for a special workshop at the large annual conference of the American Society for Training and Development, during which exemplary ALN and corporate e-learning techniques will be presented. A subsequent session will have experts from both communities presenting ideas for industry-specific programs and preferred online delivery programs. Expenses for travel to the conference for about ten members of Sloan-C who will attend and participate, for the staffing of a Sloan-C booth, and for follow-on publications will be covered by this grant. Project Director: John R. Bourne, Professor of Electrical and Computer Engineering.

**Institute for Healthcare Improvement**  
Boston, MA 02215

**\$450,000**

Face-to-face workshops known as Collaboratives are a major component of the program for healthcare professionals at the Institute for Healthcare Improvement (IHI). Each Collaborative might run a year or so and involve professionals from many different institutions performing at different levels in a similar practice, e.g., intensive care practices, congestive heart failure care, etc. Collaborative participants meet three or four times during the year. They help each other and gain access to technical advice and encouragement from experts recruited by IHI. As part of the process, they commit to institute reforms at their institutions. These Collaboratives work well but are expensive for the participating organizations and hence are limited in their reach. With this grant, IHI would begin moving Collaboratives to an online format. The first project, as a pilot to test learning effectiveness and cost-effectiveness of the new format, will deal with improving access (better scheduling of appointments) and office efficiency (minimizing office wait times). One initial meeting will be face-to-face, but three synchronous webcasts will follow, with asynchronous interaction between the webcasts. The grant supports IHI staff, the lead Collaborative expert, and IHI instructors in learning about e-learning tools and then developing the Collaborative in the new medium. The entire process will be documented so it can be modified and improved for future use. If the online approach proves cost-effective, IHI will continue converting Collaboratives and other workshops to an online format. Project Director: Penny Carver, Senior Vice President.

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

**\$375,000**

Community colleges, being responsive to educational requirements of local businesses and industries, tend to supplement their general education programs with specialty courses and programs that are in highest demand in their region. Other high demand programs cannot be offered due to budget constraints and so a portion of the local population remains underserved. The ALN approach allows online courses to be made available by one community college to another that is any distance away. This grant funds efforts of the League for Innovation in the Community Colleges to develop the idea of an ALN course exchange. The League believes there is a way for ALN courses in specialty fields to be offered for sale or exchange. A community college would arrange a transaction with another remote community college to have a complete set of courses in some specialty taught through ALN by faculty of the remote college. General education courses would still be taught by the college receiving the courses. To the extent that the new specialty program attracts new students, both colleges benefit. The project will run for eighteen months. At the end of that period, the League hopes to demonstrate a prototype collaboration in which 50 community colleges are participating and at least 15 transactions have been recorded. Project Director: Stella A. Perez, Senior Consultant for League Online.

**Rutgers University**

New Brunswick, NJ 08901

**\$150,000**

In 2001, the U.S. Department of Labor awarded \$500,000 to New Jersey to explore the effectiveness of online learning for a small population of low-income working adults. About 125 women (average income \$16,900) were accepted into the pilot project, each receiving a computer, Internet access, and a choice of online courses to improve their office skills. These women had many responsibilities, such as child-care, jobs, and home-making, and had little support for dealing with them. Many faced transportation problems. In spite of these handicaps, the results were surprisingly positive. Over 90% of the women stayed with the program, completing a number of courses each and upgrading their office skills. In some cases, full certification, such as a Microsoft Office User Certificate, was gained. Some have gone on to better jobs. Nearly all claimed that they could not have enrolled for traditional classroom courses because of their life circumstances. The pilot project demonstrated that the online approach permits access to education resources to many in this population who would otherwise be excluded, and that this population can achieve both high retention and effective learning. The current grant will enable Rutgers to stay involved in assessment of this project as it expands (within the pilot locations and to other parts of the state), to disseminate the results to other states, and to assist other states in getting similar efforts underway. Project Director: Mary L. Gatta, Director of Research and Analysis, Center for Women and Work.

**Stevens Institute of Technology**  
Hoboken, NJ 07030

**\$260,000**

The Foundation has been making a special effort to establish ALN as a strong and visible option at New York City educational institutions. A number of the larger colleges and universities in NYC (e.g., CUNY, New School University, NYU, and Pace) are Sloan grantees and have adopted the ALN model for many of their course offerings. This grant will enable Stevens Institute of Technology to establish a center to coordinate support for mostly smaller schools in the New York metropolitan area. Stevens will actively contact all local educational institutions to make them aware that a Sloan-C speaker/consultant can be made available for a visit focused on the ALN model. Assistance will be provided for them to prepare proposals for small Foundation grants. Two one-day meetings will be organized to bring together members of the New York ALN community to discuss topics of interest. Local corporations and city agencies involved in online learning for their employees will be introduced to the ALN community and participate in this pilot project. Project Director: Robert N. Ubell, Dean, Online Learning.

**Vanderbilt University**  
Nashville, TN 37420

**\$525,000**

This grant will assist Vanderbilt to establish a Center for Internet Retailing (I-R). Although not exactly an industry at this time, I-R is clearly a fact of commercial life and is steadily increasing in importance as a marketing channel. Participants include established brick and mortar retailers, retailers who formerly relied mainly on print direct-mail, and new kinds of retailers, like Ebay and Amazon, who did not exist a few years ago. The segment is growing at a healthy clip, much faster than retailing in general. The Vanderbilt Center will be devoted exclusively to study of online consumer retailing. Five broad research themes will be emphasized: customer experience; loyalty; multichannel retailing; pricing and promotion strategies; and supply chain management. Particular projects in customer experience might involve study of what makes the online experience so compelling in some cases that it can displace the offline alternative, what level and kinds of effort are consumers willing to expend to shop online, and what benefits do they perceive in shopping online. Projects under the loyalty theme might involve study of what builds customer loyalty in the online environment and what factors influence repeat purchasing and long-term retention rates. Direct and strong connections with the industry will be pursued via visits, advisory boards, and joint projects. There is confidence that industry funds will be able to be obtained for most of the expenses of the Center. Project Director: Donna L. Hoffman, Professor of Management, Marketing Division, Owen Graduate School of Management.

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The following seven grants were made from appropriations approved by the Sloan Foundation Board of Trustees to fund small projects for the ALN Program and ALN conferences and workshops.

**Babson College** **\$20,000**  
Babson Park, MA 02457

For initial planning for a project on business issues in online learning. Project Director: Stephen J. Schiffman, Associate Professor of Entrepreneurship.

**Hunter College** **\$6,500**  
New York, NY 10021

Support for a session at the Wisconsin Distance Education Conference. Project Director: Professor Anthony Picciano, School of Education.

**Hunter College** **\$38,500**  
New York, NY 10021

To systemize and continue the program for a Sloan-C presence at academic online learning conferences. Project Director: Professor Anthony Picciano, School of Education.

**New Mexico State University** **\$45,000**  
Las Cruces, NM 88003

Support for a conference focused on ALNs for American Indian learners. Project Director: Carmen Gonzales, Vice Provost for Distance Education.

**North Dakota State College of Science** **\$45,000**  
Wahpeton, ND 58076

Partial support for an A.A.S. ALN degree with an emphasis on architectural drafting. Project Director: Margaret Wall, Distance Education Director.

**University of Massachusetts, Lowell** **\$85,000**  
Lowell, MA 01854

Support for the annual Sloan-C summer workshop. Project Director: Professor Jacqueline Moloney, Department of Continuing Studies and Corporate Education.

**University of Oregon** **\$15,000**  
Eugene, OR 97403

Support for the addition of ALN courses to the graduate Information Management program. Project Director: Professor Linda F. Ettinger, Director, Advanced Information Management Program.



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

**Georgian Court College** **\$30,000**  
Lakewood, NJ 08701

Support to develop online portions of nine nursing courses. Project Director: Michael F. Gross, Associate Provost for Academic Program Development.

**St. John's University** **\$45,000**  
Jamaica, NY 11439

For ALN course development prior to offering full degrees. Project Director: Jeffrey E. Olson, Associate Vice President, Online Learning and Services.

**St. Joseph's College** **\$20,000**  
Brooklyn, NY 11201

For development of 15 ALN courses applicable to the B.S. degree in Organizational Management. Project Director: Cindy Mercer, E-learning Consultant.

ANYTIME, ANYPLACE LEARNING, OFFICER GRANTS

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**Franklin W. Olin College of Engineering** **\$45,000**  
Needham, MA 02492

Support for planning an initiative connecting corporate e-learning with ALN. Project Director: John Bourne, Professor of Electrical and Computer Engineering.

**Santa Monica College** **\$45,000**  
Santa Monica, CA 90405

Support to develop on-line portions of nine nursing courses. Project Director: Winnephred Stone, Dean, Distance Education.

PROFESSIONAL MASTER'S DEGREES, TRUSTEE GRANTS

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**Council on Competitiveness** **\$201,192**  
Washington, DC 20005

This grant funds efforts of the Council to support the professional science master's degree movement and to highlight the relationship of such degrees to U.S. workforce issues and global competitiveness. Ways to increase visibility for the new degrees among

corporate leaders will be explored, as will ways to recruit business champions and corporate funding for support of the new degree programs and recruitment of their graduates. The Council will create a network of university presidents, and coalitions of economic development agencies, state leaders, business and industry associations to champion the new degrees among their peers. More generally, professional science master's degree programs will be part of a broad range of Council activities, including speeches, op-ed articles, Congressional testimony, newsletters, and annual meetings. Project Directors: Jennifer Bond, Senior Advisor, and Kimberley S. West, Director, Special Projects.

**Council of Graduate Schools, Inc.**

**\$1,000,000**

Washington, DC 20036

An earlier grant supported a project by the Council in which some 100 institutions offering master's degrees and having strong science faculties were invited to undertake a planning and assessment process among their faculties, and a careful survey among employers in their regions concerning the feasibility of strengthening existing one-year master's programs and initiating new two-year, high quality professional master's degrees in the sciences. The present grant, made from an appropriation approved by the Board of Trustees, supported a careful review of proposals emerging from this project by an expert committee consisting of graduate deans, employers of science professionals, and experts on master's-level education. Funds from this grant will provide up to \$25,000 for about 20 institutions to transform existing graduate degrees into professional master's degrees and up to \$40,000 for an additional 10 institutions to develop wholly new professional science master's degrees. Project Directors: Peter Syverson, Vice President for Research and Information Services, and Les Sims, Dean in Residence and Director, External Grants Program.

**San Diego State University**

**\$182,000**

San Diego, CA 92182

The California State University (CSU) has over 400,000 students, including more than 80,000 post-baccalaureate and graduate students, as well as a large number of underrepresented groups, for example, 60,000 Mexican Americans. Nearly 5,000 CSU students are pursuing master's degrees in the sciences, but only two of the programs are professional science master's degree programs of the sort that are Sloan-supported at San Diego State and San Jose State. With this grant, CSU would encourage planning on the various campuses for the conversion of existing master's programs to the more demanding professional master's degree and for the initiation of new professional science master's degree programs. Assessment and evaluation of such preliminary plans are expected to lead to formation or improvement of at least 30 programs at some 12 of the institutions. The support of the Chancellor of the State University System may make it possible for students in a program at one CSU campus to take a course offered by another CSU campus, perhaps via the Internet, without incurring added fees. Specialized courses may thereby find a larger audience than one campus can supply, leading to a more cost-

effective arrangement for the entire system. Project Director: Professor Faramarz Valafar, Department of Computer Science.

**University of Arizona**  
Tucson, AZ 85721

**\$355,000**

Foundation-supported professional science master's degree programs are expected to number almost 100 in 45 institutions by 2005. This growth and success is partly the result of the activity of Sheila Tobias, science/education consultant based at the University of Arizona. She has effectively advised programs on how to start, counseled them on how to grow, publicized their successes, convened workshops about professional science master's degree programs, and attracted allies in industry, government and the academy. The sciencemasters.com website, a current source of information about science master's degrees, also is part of the Arizona project. This grant funds two more years of activities in support of the professional science master's degree program. Project Director: Joaquin Ruiz, Dean, College of Science.

**University of Texas at El Paso**  
El Paso, TX 79968

**\$101,672**

The University of Texas at El Paso (UTEP) will undertake an exploratory effort to engage minority-serving universities in professional science master's degree initiatives, including collaborations among two or more such institutions to develop web-based courses and modules. The overall goal is to extend the visibility and reputation of professional science master's degree programs among the nation's many minority and minority-serving institutions. A workshop will be organized with key participants from minority-serving institutions, existing professional science master's programs, diversity-oriented corporate employers, and relevant government agencies. The workshop will develop a set of recommendations for enhancing minority participation in professional science master's programs and will seek to establish a foundation on which to build a network of minority institutions that are science and engineering oriented. Consulting assistance will be made available for the preliminary development of proposals for new professional science master's degrees at interested minority-serving institutions. Project Director: Charles H. Ambler, Dean of the Graduate School.

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The following grant is funded from an appropriation approved by the Board of Trustees to provide support for new professional master's degree programs in bioinformatics. This specialty offers real promise for developing attractive scientific career paths at the master's level and there is strong and growing demand for skilled scientists in this field.

**University of British Columbia**  
Vancouver, B.C., Canada

**\$70,000**

Partial support for new professional master's degrees in bioinformatics. Project Director: Steven Jones, Head, Bioinformatics, Genome Sciences Centre, British Columbia Cancer Research Centre.

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PROFESSIONAL MASTER'S DEGREES, OFFICER GRANTS

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**American Institute of Physics**  
College Park, MD 20740

**\$30,000**

To update information about master's degrees in physics and strengthen the professional science master's programs. Project Director: Roman Czujko, Director, Statistical Research Center.

**Xavier University**  
New Orleans, LA 70125

**\$10,000**

Support for planning to explore the feasibility of professional science master's degrees. Project Director: Deidre Labat, Senior Vice President, Academic Affairs.

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INFORMATION ABOUT CAREERS, OFFICER GRANT

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**Commission on Professionals in Science and Technology**  
Washington, DC 20005

**\$32,600**

To produce an update of an earlier Foundation-supported analysis of the information technology workforce in the United States. Project Director: Eleanor Babco, Executive Director.

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RETENTION, OFFICER GRANTS

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**City College of the City University of New York**  
New York, NY 10031

**\$10,473**

To support the completion of a study of African American undergraduate engineering students' perceptions of campus climate and their effect on graduation rates. Project Director: Ramona Brown, Assistant Dean for Student Development, School of Engineering.

**University of Maryland**  
College Park, MD

**\$45,000**

For an examination of the implicit requirements for Ph.D. dissertations and how these requirements can be made explicit in order to raise completion levels. Project Director: Barbara Lovitts, Research Associate, Department of Sociology.

SCIENCE AND ENGINEERING WORKFORCE, OFFICER GRANTS

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**National Society of Black Physicists**  
Arlington, VA 22205

**\$24,560**

To fund a symposium on the workforce in science, technology, engineering and mathematics. Project Director: Lawrence S. Norris, Treasurer and Managing Director.

**RAND Corporation**  
Santa Monica, CA 90407

**\$45,000**

Support for a workshop and book aimed at reaching agreement on data and methods by which future claims of “science and engineering shortages” might be credibly assessed. Project Directors: Terrence Kelly, Senior Operations Researcher, and Stephen J. Carroll, Senior Economist.

**Society for Advancement of Chicanos and Native Americans in Science** **\$45,000**  
Santa Cruz, CA 95060

Support for a postdoctoral career development initiative at the 2003 SACNAS Conference. Project Director: Lin Hundt, Associate Director, Programs.

## EDUCATION FOR MINORITIES AND WOMEN

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### MINORITIES, TRUSTEE GRANTS

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**University of Arizona** **\$151,014**  
Tucson, AZ 85721

**National Action Council for Minorities in Engineering, Inc.** **\$216,000**  
New York, NY 10118

These grants support a project at the University of Arizona to increase the number of American Indian students earning master's and Ph.D. degrees in mathematics, science and engineering. For talented American Indian students who graduate with bachelor's degrees in science, a Ph.D. program is rarely the next logical step. Many who are interested in graduate school aspire to teaching in tribal colleges or working for their tribal governments, careers for which a master's degree is considered sufficient. The University of Arizona is one of very few research universities near reservations and rural areas in the West that have done well with American Indian students at the graduate level. Sufficient numbers of such students are enrolled to make newcomers feel welcome and to justify maintaining tailored support programs. The grant to the University will support a special recruitment and retention program that expects to produce 30 master's degree and 7 doctoral students in mathematics, science, and engineering over the next three years. Being able to maintain the current retention rate of 90% among American Indian students at the graduate level in these fields is anticipated. The Dean of the graduate school is committed to cover in-state or out-of-state tuition, as appropriate, and the cost of health insurance for the recruited students. They would be eligible for research and teaching assistantships, just like any other graduate students in these special fields. The first year of an associated scholarship program is funded by the grant to NACME. The program includes Sloan scholarships of \$30,000 for new M.S. students and \$36,000 for new Ph.D. students and will be administered by NACME in the same manner as in the regular minority Ph.D. program. Project Directors: Maria Teresa Velez, Associate Dean of the Graduate School, University of Arizona; and Aileen Walter, Vice President, Scholar Management, NACME.

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The following grants are funded from appropriations approved by the Sloan Foundation Board of Trustees for the Minority Ph.D. program. The aim of the program is to increase the number of underrepresented minority Ph.D.s in mathematics, science, and engineering. Recruitment and retention efforts and direct aid for students are part of the program, as are meetings of faculty participants and Sloan Scholars (students participating in the program). The program is now administered by the National Action Council for Minorities in Engineering (see the grant description below for details). The program includes a feeder component in which grants are made to selected departments that (1) have a high percentage of minority students and (2) send on for Ph.D.s in science

and technology fields a significant number of their minority graduates following the predoctoral degree. The aim is to encourage and support efforts within such selected departments to increase this number of minority Ph.D. students.

**National Action Council for Minorities in Engineering, Inc.** **\$3,984,538**  
New York, NY 10118

This grant enables the National Action Council for Minorities in Engineering (NACME) to continue to administer the Sloan Foundation's minority Ph.D. program during the academic year 2003-04. NACME receives applications for Sloan scholarships from eligible students, i.e., new minority students entering Ph.D. programs to work with faculty approved by the Foundation. It selects awardees using Foundation-specified criteria, makes awards, receives student requests for payments, and makes these payments. It monitors the progress of each student and ensures that students report on their academic progress and expenditures. NACME awards the recruitment grants of \$2000 per Sloan Scholar to participating universities and also makes payments for and monitors the grants to the undergraduate and master's feeder programs. NACME will continue to provide some assistance to faculty participating in the minority Ph.D. program as they seek and recruit new minority doctoral students for their departments. It will advertise this minority Ph.D. program to its undergraduate fellowship recipients and to the many minority undergraduates who attend the annual meetings of various science and engineering societies where it has a presence. Finally, it will continue to maintain a website ([www.sloanphds.org](http://www.sloanphds.org)) that serves as a source of information for minority mathematics, science, and engineering undergraduates and for faculty about the Sloan Minority Ph.D. Program. Project Director: Aileen Walter, Vice President, Scholar Management.

**National Action Council for Minorities in Engineering, Inc.** **\$10,300**  
White Plains, NY 10601

To produce a guide on how to recruit minority students into science and engineering Ph.D. programs. Project Director: Aileen Walter, Vice President, Scholar Management

MINORITIES, OFFICER GRANTS

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**American Association for the Advancement of Science** **\$44,885**  
Washington, DC 20005

To support a conference on the implications of U.S. Supreme Court affirmative action rulings on programs to promote underrepresented minorities in science and engineering. Project Director: Shirley M. Malcom, Head, Directorate for Education and Human Resources.

**Gordon Research Conferences** **\$45,000**  
West Kingston, RI 02892

To encourage more underrepresented faculty, postdocs, and students to attend Gordon Research Conferences. Project Director: Gerri A. Miceli, Program Manager.

**National Action Council for Minorities in Engineering, Inc.** **\$30,000**  
New York, NY 10118

For partial coverage of the cost of NACME's relocation. Project Director: John Eppolito, Vice President of Administration and Chief Financial Officer.

**Polytechnic University** **\$30,000**  
Brooklyn, NY 11201

To support aspects of the October 2003 Student Leadership Conference of the National Consortium of Specialized Secondary Schools of Mathematics, Science and Technology that will promote minority participation. Project Director: Noel Kriftcher, Executive Director, Department of Humanities and Social Sciences.

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WOMEN, TRUSTEE GRANTS

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**Carnegie Mellon University** **\$400,000**  
Pittsburgh, PA 15213

A series of past Foundation grants supported efforts of the undergraduate program in computer science at Carnegie Mellon to attract more women students and to enable a larger fraction of enrolled women to succeed. The results have been positive. For example, women among entering first year computer science majors rose from 7 percent in 1995 to about 35 percent in recent years. Retention rates for women and men are now about the same. This new project is focused on similar efforts, but at the graduate level. The School of Computer Science (SCS) will recruit talented women students who lack the undergraduate training normally required for admission to the SCS graduate program and will work to reduce the attrition of such nontraditional and other women students. To attract nontraditional students, SCS plans to alter its recruiting practices, implement appropriate admissions criteria, and offer three fellowships annually to such students. Two of these fellowships will be fully funded by the University. To improve completion rates, the current programs of Women@IT, the support and community-building network for women in SCS, will be enhanced. Professional development workshops will be offered. Policy changes will be identified and implemented to make work and family life more compatible for students. The aim is to raise the completion rate for women Ph.D. students to the level of that for men in both the Computer Science Department and in the School overall. Project Director: Professor Lenore Blum, Computer Science Department.



The following grants were made from an appropriation approved in 2000 by the Sloan Board of Trustees to support the Sloan Pre-Tenure Leave Fellowship Program. The goal of this program was to make more acceptable a faculty member's taking of a leave for purposes of childbearing, infant care, and other unexpected dependent care, and to promote institutional mechanisms that would minimize the career cost of taking such a leave. Each grant provides funds for a fellowship to the indicated faculty member, the amount to be supplemented by the faculty member's home institution. In each case, funds have been added for the fellow's department, to be used to focus attention on and address work-family issues for other faculty, postdoctoral fellows, or graduate students. (This program has now been discontinued. In its place is the Dual Ladder Program, designed to improve the career advancement of women in the academy. Grants in this new program are described under the heading "Workplace, Workforce and Working Families" in the section of the Annual Report titled "Standard of Living and Economic Performance.")

**North Carolina State University**  
Raleigh, NC 27695

**\$8,334**

Fellowship for Dr. Gail McLaughlin. Project Director: Professor Christopher Gould, Head, Department of Physics.

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

**\$16,667**

Fellowship for Dr. Tracey Pulliman Holoman. Project Director: Professor Timothy Barbari, Chair, Department of Chemical Engineering.

WOMEN, OFFICER GRANT

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**American Institute of Physics**  
College Park, MD 20740

**\$34,000**

For preparation and dissemination of *Women in Physics and Astronomy, 2003*. Project Director: Rachel Ivie, Senior Research Associate.

## PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY

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### BOOKS, TRUSTEE GRANTS

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The following grants are funded from an appropriation approved by the Board of Trustees to support small grants to writers of science and technology books.

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

For a scientific autobiography of Eric Kandel and the new science of the mind. Project Director: Eric R. Kandel, M.D., College of Physicians and Surgeons.

**Katherine Eban Finkelstein** **\$45,000**  
Brooklyn, NY 11217

For research and writing of a book on adulterated medicine. Project Director: Katherine Eban Finkelstein, Writer.

### BOOKS, OFFICER GRANTS

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**National Association of Science Writers** **\$30,000**  
Hedgesville, WV 25427

To expand and update *A Field Guide for Science Writers*. Project Director: Deborah Blum, President.

### SLOAN TECHNOLOGY BOOK SERIES

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The Foundation is sponsor of a series of books intended to broaden public understanding of important modern technologies. Books in the Sloan Technology Series describe the development of specific technologies, including the circumstances of their emergence, their early development and use, their applications, and their actual and potential impacts on society.

Sixteen books have been published in the series:

Craig Canine, *Dream Reaper: The Story of an Old-Fashioned Inventor in the High-Tech, High-Stakes World of Modern Agriculture* (Knopf, 1995)

T. A. Heppenheimer, *Turbulent Skies: The History of Commercial Aviation* (Wiley, 1995)

- Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (Simon & Schuster, 1955)
- Robert Buder, *The Invention That Changed the World: How a Small Group of Radar Pioneers Won the Second World War and Launched a Technological Revolution* (Simon & Schuster, 1996)
- Martin Campbell-Kelly and William Aspray, *Computer: A History of the Information Machine* (Basic Books, 1996)
- David E. Fisher and Marshall Jon Fisher, *Tube: The Invention of Television* (Counterpoint, 1996)
- Stephen S. Hall, *A Commotion in the Blood: Life, Death, and the Immune System* (Henry Holt, 1997)
- Robert Kanigel, *The One Best Way: Frederick Winslow Taylor and the Enigma of Efficiency* (Viking, 1997)
- Bettyann Holtzmann Kevles, *Naked to the Bone: Medical Imaging in the Twentieth Century* (Rutgers University Press, 1997)
- Robert Pool, *Beyond Engineering: How Society Shapes Technology* (Oxford University Press, 1997)
- Michael Riordan and Lillian Hoddesen, *Crystal Fire: The Birth of the Information Age* (Norton, 1997)
- Victor K. McElheny, *Insisting on the Impossible: The Life of Edwin Land* (Perseus Books, 1998)
- Dorsey, Gary, *Silicon Sky: How One Small Start-Up Went Over the Top to Beat the Big Boys Into Satellite Heaven* (Perseus Books, 1999)
- Hecht, Jeff, *City of Light: The Story of Fiber Optics* (Oxford University Press, 1999)
- Rhodes, Richard (Editor), *Visions of Technology: A Century of Vital Debate About Machines, Systems and the Human World* (Simon and Schuster, 1999)
- Waldrop, M. Mitchell, *The Dream Machine: J.C.R. Licklider and the Revolution That Made Computing Personal* (Viking, 2001)

RADIO, TRUSTEE GRANTS

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**Public Radio International**  
Minneapolis, MN 55403

**\$600,000**

This grant funds a three-year renewal of Public Radio International's technology coverage on *The World*, its popular news and information program. Earlier grants supported the creation of a technology desk and the hiring of a full-time technology reporter to encourage increased reporting of technology stories from around the world. Daily technology coverage now includes feature reports, interviews, roundtable discussions, and special multi-part series. It also includes a "lab report" format in which the host interviews a technology reporter about the latest technological developments. *The World* is a co-production of Public Radio International, BBC World Service, and WGBH in Boston. It has an audience of nearly 2 million listeners daily and reaches 167 stations worldwide. This new grant renews support for *The World's* global technology coverage and for a full-time technology reporter. It will allow him to research many more new stories as well as to train the program's international network of journalists to identify technology stories that might otherwise be overlooked. Project Director: Melinda Ward, Senior Vice President, Productions.

**SoundVision Productions**  
Berkeley, CA 94705

**\$447,274**

Past grants supported the production by SoundVision of the award-winning documentary series, *DNA*, which focused on the latest developments in genetics. With this grant, SoundVision will research and produce five additional one-hour radio documentaries on genomics and systems biology to be aired on National Public Radio. Expanding and enriching the website for the series will also be part of this project. The noted commentator and host of the first two series, John Hockenberry, will again act as host. Subjects under consideration for the new programs include toxicology and individual variation, RNA and immunology, neurobiology and our genes, and ethics beyond the genome. Project Director: Ms. Bari Scott, Executive Director.

PUBLIC TELEVISION, TRUSTEE GRANTS

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**Catticus Corporation**  
Berkeley, CA 94710

**\$650,000**

With this grant, a 90-minute documentary will be produced based on Jon Cohen's Sloan-supported book, *Shots in the Dark: The Wayward Search for an AIDS Vaccine*. The show will tell the story of one of the greatest scientific challenges — the search for an AIDS vaccine — and of the people and organizations that are trying to meet it. It will take viewers from high tech labs to high-power board rooms, from halls of government to outdoor clinics in Africa where dying patients seek treatment. It will include stories of

those who seem to have some natural immunity so that HIV does not lead to AIDS. The International AIDS Vaccine Initiative, a global organization founded in 1996 and working to speed the development and distribution of preventive AIDS vaccines, and Dr. Seth Berkeley, its President, will feature prominently in the show. The program will look forward to the day when a vaccine exists and explore the obstacles to ensuring access for all who need it. Project Director: Michael Schwartz, CEO/Founder, Kikim Media, San Carlos, CA.

**National Geographic Society** **\$1,150,000**  
Washington, DC 20036

National Geographic Television will produce a three-part documentary series based on Jared Diamond's Pulitzer Prize winning book, *Guns, Germs, and Steel: The Fates of Human Societies*. The Series will air on PBS in the U.S. and in over 100 other countries. Diamond's book, which looks at the development of human societies in different continents across history, focuses on the role of geography and technology. The book recently sold its millionth copy in the U.S. and has been translated into 25 languages. The series, in which Diamond plays a scientific detective hunting for clues to the origin and catastrophic collapse of various civilizations around the world, should be a significant television event. This grant supports part of the \$4.1 million budget for the series, other funding coming from National Geographic and Clear Blue Sky Productions. Project Director: Michael Rosenfeld, Senior Executive Producer.

**Twin Cities Public Television** **\$550,000**  
St. Paul, MN 55101

This grant helps fund the production of a two-hour PBS documentary based on the Sloan-supported book, *Absolute Zero and the Conquest of Cold*. The film will give a vivid sense of four centuries of progress in low-temperature physics by focusing on our growing mastery of cold, from refrigeration and air conditioning to rockets propelled by super-cooled gases and computers and cell phones whose parts are manufactured in ultra cold temperatures. Despite the importance of these advances and the fact that many Nobel prizes have been awarded in low-temperature physics, this is a story that has been virtually ignored by the media. The show will use an innovative combination of dramatic recreations, contemporary photography, archival film, and a range of interviews. Historians, Nobel laureate physicists, and researchers on the leading edge of today's science will complement the cast of historical characters. The National Science Foundation has provided significant funding for promotion and a major educational outreach campaign to accompany the series. Project Director: Richard C. Hudson, Director of Science Production.

**WGBH Educational Foundation** **\$2,225,000**  
Boston, MA 02134

With this grant, WGBH's award-winning team at *The American Experience* will research, produce, and broadcast three documentaries about major technological

achievements: building of the Golden Gate Bridge at the mouth of San Francisco Bay, the largest land-locked harbor in the world; constructing the Alaska Highway linking the lower 48 states to Alaska and ensuring a supply line to U.S. military bases in the region; and laying the first transatlantic cable, over 2,000 miles long and three miles deep, linking Europe and America. Many colorful characters appear in these stories, but the narrative focus will be on great engineering challenges and the resourcefulness and technical ingenuity needed to overcome them. As for similar past grants, accompanying web sites and an advertising campaign are planned. The entire series of Foundation-supported WGBH shows focusing on science and technology demonstrate in appealing narrative and pictorial terms that history is not only about great political leaders and diplomats but also about great scientific and engineering achievements. Project Director: Margaret Drain, Executive Producer, *The American Experience*.

**WGBH Educational Foundation** **\$500,000**  
 Boston, MA 02134

NOVA plans to produce a new series, *The Leading Edge*, to present the latest ideas in scientific research in a lively, fast-paced format meant to appeal to a younger audience. Major funding support has already been received from the National Science Foundation. The series, to be aired five times a year, has been promised the coveted NOVA prime time slot, guaranteeing a large audience. This Sloan grant extends over two years. It will support a specific 10-12 minute sequence in each one-hour show designed to portray some of the drama and day-to-day challenges in the life of a working scientist. The emphasis will be on the personal, human side of the story. Project Director: Paula Apsell, Senior Executive Producer, NOVA.

COMMERCIAL TELEVISION AND FILMS, TRUSTEE GRANTS

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**American Film Institute** **\$342,675**  
 Los Angeles, CA 90027

**New York University** **\$297,000**  
 New York, NY 10003

**University of California, Los Angeles** **\$270,000**  
 Los Angeles, CA 90095

**University of Southern California** **\$282,600**  
 Los Angeles, CA 90089

These are three-year renewal grants to film schools to continue awarding screenwriting and production awards for science and technology films and holding an annual science and technology seminar. The number of student filmmakers who elect to attend a Sloan seminar and submit a screenplay or production treatment for a film focused on science and technology and/or on scientists and engineers as complex human beings has steadily

increased. The quality of the submitted work, both in its artistic value and in its treatment of science and technology, has continually improved. As part of its renewal grant, the American Film Institute will add a new scholarship for students with a science or engineering background who wish to study film. NYU was the first recipient of the Sloan feature film production award. The NYU renewal includes a modest increase in the film production award to reflect the rising cost of film stock and other materials. UCLA will maintain two screenwriting fellowships and one production award each year. A graduate level critical studies course on science and technology films will be developed. USC will continue its normal scriptwriting and production awards along with a special science and technology animation award. A new award for interactive media will be initiated. Project Directors: Joe Petricca, Vice Dean, AFI Conservatory Administration; Mary Schmidt Campbell, Dean, Tisch School of the Arts, NYU; Robert Rosen, Dean, School of Theater, Film and Television, UCLA; Elizabeth M. Daley, Dean, School of Cinema-Television, USC.

**American Museum of the Moving Image**  
Astoria, NY 11106

**\$495,000**

The American Museum of the Moving Image (AMMI), a renowned national center for film, television, and digital images, will construct a website containing all award-winning films from the six film schools participating in the Sloan film program. By making these films part of the museum's permanent collection, the Sloan program will be showcased and these digitized films will be available to the general public. Being selected for inclusion in the AMMI national collection will be a significant achievement for young filmmakers. The website will also include commentaries on the films by AMMI's curators and by leading scientists, scholars, and filmmakers. The commentaries will be accompanied by clips from other historic and current films in order to locate the student films in the larger history of film and science. The site will also include information about the broader range of the Foundation's film and television efforts, including work with film festivals (Sundance, Tribeca, and the Hamptons), as well as collaboration with various Hollywood and independent producers. As part of this grant, AMMI will organize an annual weekend-long event consisting of screenings and discussions with film professionals and science advisors. Project Director: Rochelle Slovin, Founding Director.

**Tribeca Film Institute Inc.**  
New York, NY 10013

**\$599,000**

A 2002 grant supported the first-ever Tribeca Film Festival in downtown New York, as well as a new screenwriting program under the tutelage of Hollywood producers Jane Rosenthal and Robert De Niro. The current grant renews this successful program for another two years. The Sloan Science and Technology Series at the annual film festival will consist of three parts: screenings of at least two science and technology feature films and two science and technology shorts programs, each including 4-5 short films; a panel discussion for the public about the role of science and technology in film, with filmmakers, screenwriters, actors, producers, and scientists and engineers; and a

filmmaker forum event, also on the role of science and technology in film, but aimed at emerging filmmakers participating in the festival and graduate film students from Sloan-supported films schools such as NYU and Columbia. The Tribeca/Sloan screenwriting effort will continue to seek and develop two science and technology screenplays each year. It will encourage their production with a kick-off reception to announce the winners, mentoring by established screenwriters and scientists, and staged readings by famous actors at the festival, followed by a reception for leading industry executives. Project Director: Jane Rosenthal, Chair and Co-Founder.

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COMMERCIAL TELEVISION AND FILMS, OFFICER GRANT

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**Beverly J. Camhe** **\$40,000**  
New York, NY 10023

To research and write a treatment for a television movie about bioterrorism. Project Director: Beverly J. Camhe, Film/Television Producer.

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THEATER, TRUSTEE GRANT

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**Manhattan Theatre Club** **\$500,000**  
New York, NY 10036

A 2000 Foundation three-year grant allowed the Manhattan Theatre Club (MTC) to commission the writing of three science and technology plays and encouraged the production of new plays dealing with these themes. During that grant period, MTC has had three playwrights in residence working on science and technology plays and has organized many readings of and workshops on such plays. *Humble Boy*, an award-winning play that debuted in London, was produced at City Center Stage. With the current grant, three playwrights each year will receive commissions ranging from \$10,000 to \$20,000 to write plays having science and technology themes. The aim is to attract creative playwrights whose work is most likely to reach the stage. Also, a project manager will be hired to oversee the commissions and to manage the Sloan MTC program. A formal advisory board of scientists and engineers to review each play will be established. A \$200,000 production fund will be created to be used to help support a new Sloan-commissioned science and technology play that actually reaches the MTC stage. Project Director: Barry Grove, Executive Director.



THEATER, OFFICER GRANT

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**Second Stage Theater**

**\$45,000**

New York, NY 10036

To hold a symposium promoting the new play, *The Notebooks of Leonardo da Vinci*.  
Project Director: Carol Rothman, Artistic Director.

NEW MEDIA, TRUSTEE GRANT

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**Project Rebirth**

**\$294,000**

New York, NY 10272

Project Rebirth is an ongoing effort to record the rebuilding of Ground Zero, the site of the destruction of the twin towers in New York City, minute by minute, over a decade. The project began six months after the attack. It uses six 35 mm time-lapse cameras, positioned strategically around the site, to record an image every five minutes, 24 hours a day. When complete, the entire rebuilding will be able to be run through a projector in 20 minutes, creating an astonishing time-lapse effect. The Project also conducts annual interviews with a sample of New Yorkers who experienced the horrors of 9/11 in varying ways and plans to track how they cope with the aftermath of the tragedy over the next decade. This grant will support the development and building of a website to expand the reach of this landmark effort and to enable millions of people who are not able to make the trip to Ground Zero to log on and watch the time-lapse images of the site and close-ups of the rebuilding. A section of the website focused on the scientific and technological aspects of the reconstruction will include photographs, archival footage, diagrams of plans, and detailed explanations of the engineering challenges faced along the way.  
Project Director: Jim Whitaker, Director/Producer.

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

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### **SELECTED NATIONAL ISSUES**

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

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**The Advertising Council, Inc.** **\$2,127,978**  
New York, NY 10016

The Advertising Council (AC) is a private, nonprofit organization that has been the leading producer of public service communications programs in the United States since 1942. A 2002 Foundation grant to AC supported the development, in collaboration with the Office of Homeland Security, of a public education media campaign to empower people to prepare for and respond to potential terrorist attacks and thereby increase the anti-terrorism preparedness of the American public. The campaign, named READY, was launched by Secretary Tom Ridge in February 2003. Educational materials were developed, produced, and distributed. They include a brochure, "Preparing Makes Sense. Get Ready Now," the [www.ready.gov](http://www.ready.gov) website, a series of television and radio public service announcements, and the toll-free number 1-800-be-ready where people can call for the brochure. Although the campaign has been a success, a number of developments resulted in major cost overruns. The original plan included a website that would exist as part of Homeland Security's website. However, it turned out that Homeland Security could not host the READY website with confidence that it would be secure and able to withstand high traffic. About \$1.8 million was needed to hire outside vendors to provide appropriate hosting and security for the site. Almost \$300,000 was required for production of advertising materials when it became apparent that multimillion dollars worth of donated advertising space was available on billboards, bus shelters, and other outdoor space, as well as when magazine publishers began requesting READY materials, leading to a decision to increase the production of the brochure from 125,000 to 500,000 copies. The current grant covers these costs. The entire READY campaign will be taken over by the Department of Homeland Security on October 1, 2003. Project Director: Arie Weissman, Executive Vice President and CFO.

**The Advertising Council, Inc.** **\$394,209**  
New York, NY 10016

This grant, approved in June 2003, supplies funds to improve and enhance the READY campaign until the U.S. Department of Homeland Security takes it over on October 1, 2003. A Spanish language public education campaign, including website, brochure, and public service announcements, will be developed. Also to be produced and distributed through the Citizen Corps Councils of the Department of Homeland Security (DHS) are 2,500 site kits, consisting of television, radio and print materials, press information, and other materials. The goal is to educate local volunteers about the READY message and provide them with the tools and knowledge to help them advance the message at the local level. In addition to producing the Spanish language website, the Ad Council will update

the READY website. A 4-color “Tri-fold” piece containing the essence of the READY message will be produced. The grant includes funds for ongoing maintenance of the campaign until DHS takes over. Project Director: Kathleen Crosby, Senior Vice President.

**The America Prepared Campaign, Inc.**  
New York, NY 10111

**\$3,971,500**

A 2002 Foundation grant to the Advertising Council supported the development of a public education media campaign to empower American citizens to prepare for and respond to potential terrorist attacks. The resulting READY advertising campaign produced a brochure and a website [www.READY.gov](http://www.READY.gov) where people can learn to make a preparedness kit and plan, and how to deal with the various forms of terrorism. The Department of Homeland Security has assumed the costs of going forward with the READY program from October 1, 2003. As of September 21, 2003, the website had over 16.7 million unique visitors and over 2.7 million downloads of the brochure. However, this is only a beginning for citizen preparedness. This grant supports a major 15-month campaign to improve citizens’ terrorism preparedness. It will build on the READY campaign. It will include innovative commercial spots, new pamphlets and one-page handouts, a nationally televised “Teach In,” an extension of the reach of [READY.gov](http://READY.gov), production of a workplace protection pamphlet, and media education and awareness roundtables. Steven Brill has engaged the support of many key people for the Campaign. Jeff Katzenberg, the co-CEO of Dreamworks who organized the successful, national telethon for the September 11<sup>th</sup> Fund, will help with the Teach In. Ogilvy & Mather has agreed to provide pro bono services for researching and creating the advertising. Roper, a market research firm, and Frank Luntz & Associates, a leading focus group firm, have agreed to do qualitative research at sharply discounted rates. Discussions are underway with morning television shows to run a weekly America Prepared short segment. With regard to education and awareness, based on quantitative research, the goals of the Campaign are to triple the public’s ability to name the [READY.gov](http://READY.gov) website, to prepare 30 million people so that they can correctly answer at least three of six specific and basic questions related to preparedness, and by the campaign’s conclusion to have fifty million people able to answer a question related to the one preparedness fact that experts consider to be the most important to saving lives. Project Director: Steven Brill, President.

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

**\$300,000**

The National Academies have initiated the Roundtable on Scientific Communication and National Security (RSCANS), in collaboration with the Center for Strategic and International Studies (CSIS), to foster dialogue among the science, national security, and business communities with the goal of ensuring both strengthened national security and enhanced scientific progress. This grant supports the roundtable program for two years. The Academies have assembled a strong roundtable committee, co-chaired by David Baltimore, President of California Institute of Technology, and Harold Brown, former Secretary of Defense. Committee membership includes several university presidents,

former heads of the CIA and NSA, two other Nobel Prize winners, a former Science Advisor to the President, leaders from the financial and information technology sectors and the pharmaceutical industry, and four former general counsels to national security agencies. The first RSCANS meeting was held in June 2003 and included panels on “Managing the Risks of Malevolent Use of Sensitive Unclassified Information” and “Managing Foreign Interactions.” There are six working groups: three led by staff of the National Academies (Foreign Interactions, Impact on Universities, and Dissemination of Scientific Information) and three by CSIS staff (Impact on Industry, Assessing International Perspectives, and Understanding the Nature of the Threat). Four roundtables will be conducted during the grant period. The six working groups will deliberate via conference calls and serve as the locus for problem identification, priority setting, strategic planning, and follow-up. One of the topics to be considered by the roundtables will be follow-up to the October 2003 NRC report, “Biotechnology Research in an Age of Terrorism: Confronting the Dual Use Dilemma.” Grant funds will cover staff time to coordinate the regular activities of RSCANS, the expense of conducting one meeting per year (CSIS will cover the costs of a second meeting), and related travel expenses of the full RSCANS membership. Project Director: Patricia S. Wrightson, Senior Program Officer.

**New York Academy of Medicine**  
New York, NY 10029

**\$697,000**

A 2002 grant to a consortium of institutions made up of the New York Academy of Medicine, the New York City Department of Health, and the University of Connecticut, funded the development and dissemination of easy-to-use syndromic surveillance software for early warnings of a bioterrorist attack or disease outbreak. The software is now used in daily operations by the New York City Department of Health. Ambulance dispatch and emergency department visit data are analyzed daily for aberrations that could be indicative of a bioterrorist attack and these aberrations are promptly investigated by public health officers. The software has been improved and is now easy to use. It has been made available at no charge at [www.satscan.org](http://www.satscan.org). The software was demonstrated and taught to others in the public health community at the National Syndromic Surveillance Conference which was attended by over 400 public health practitioners, academics, and military and private industry personnel from 8 countries, 42 states, the District of Columbia, and Puerto Rico. With this new grant, the group will make further improvements of the syndromic surveillance software, add new data sources from pharmacy sales, and incorporate findings from “Biowatch,” a newly deployed system of sensors and lab-based analyses, to detect multiple bioterrorism agents. The software will be made easier to use for health departments with no prior experience. A free “hands on” workshop will be held for local public health departments to help them set up a basic surveillance system. The second national syndromic surveillance conference will be organized in collaboration with the Centers for Disease Control and Prevention of the Department of Health and Human Services. Project Director: Farzad Mostashari, Assistant Commissioner, New York City Department of Health.

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

**\$600,000**

A 2001 grant to the Center for International and Security Studies at the University of Maryland (CISSM) supported a project to develop an institutional framework to prevent deliberate or inadvertent use of biological pathogens for destructive purposes. The CISSM group examined existing research rules, associated legal issues, and current practices for disclosure and monitoring work with dangerous pathogens. Workshops were held and key issues and options were identified with the assistance of a network of scientists, lawyers, regulators, and institutional experts. An oversight regime was drafted and discussed at numerous conferences. The anthrax attacks, new research creating infectious poliovirus from scratch, and the ongoing sequencing of the deadly 1918 influenza virus have made more urgent the need to explore and discuss dangerous research and dangerous pathogens. With this renewal grant, the draft framework for oversight of high consequence research will be expanded into a technically workable and politically viable prototype system. Research rules for those carrying out the research, verification procedures to be followed by oversight bodies, and legal measures and institutional arrangements necessary to implement the system will all be developed. The CISSM group will expand their outreach to the scientific and policy making communities to discuss the need for new oversight arrangements on a global scale. The group will continue to use the tools and techniques developed during the first grant: a series of workshops, case studies, policy briefs, and presentations at policy meetings to identify key problems and explore possible solutions. Project Director: Professor John D. Steinbruner, School of Public Affairs, University of Maryland.

**University of Pittsburgh**  
Pittsburgh, PA 15260

**\$300,000**

In the event of a covert bioterrorist attack, it may be possible to obtain early warning through real-time electronic surveillance of non-specific disease indicators, such as ambulance calls, emergency room visits, and sales of over-the-counter medications (“syndromic surveillance”). Scientists at the University of Pittsburgh’s Realtime Outbreak and Disease Surveillance (RODS) Laboratory are developing a National Retail Data System to collect, analyze, and make available to local health departments data on nationwide retail sales of over-the-counter home health remedies. At the time of this grant (June 2003), some 10,000 retailers were sending data to the system with a time delay of 24 hours or less. These data are made available to public health officials via the Internet. Although a number of state and local health departments are using the system in its current form, it covers only 23% of sales nationwide and there is a 12-24 hour delay from the time data are collected to the time they are made available. This grant will enable the RODS Laboratory group to develop the national system by adding retailers so that the system covers 70% of all product sales. The time it takes to make the data available will be shortened and the software interface for local and state health departments will be improved. The Pittsburgh researchers are working closely with the Centers for Disease Control and Prevention (CDC) and it is expected that ongoing operations of the National Retail Data System will become a CDC responsibility, freeing

the Pittsburgh group to continue to develop state-of-the-art detection and visualization tools to use with the national system. Project Director: Michael M. Wagner, Director, RODS Laboratory, Center for Bio medical Informatics.

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

**American Society of Heating, Refrigerating  
and Air-Conditioning Engineers, Inc.** **\$45,000**  
Atlanta, GA 30329

To conduct a satellite broadcast of ASHRAE's current homeland security recommendations. Project Director: Martin J. Weiland, Manager, Government Outreach.

**Center for the Study of the Presidency** **\$75,000**  
Washington, DC 20036

To support a roundtable series on issues of homeland security and bioterrorism. Project Director: Jonah J. Czerwinski, Senior Research Associate.

**National Organization on Disability** **\$45,000**  
Washington, DC 20006

To enhance the Emergency Preparedness section of the organization's website. Project Director: Elizabeth A. Davis, Director of the Emergency Preparedness Initiative.

**New York Academy of Medicine** **\$10,000**  
New York, NY 10029

To provide travel funds for speakers to the Royal Society of Medicine and the New York Academy of Medicine joint conference on April 3-4, 2003 in London. Project Director: Alan R. Fleischman, M.D., Senior Vice President.

**Spectrum BD Consulting** **\$85,000**  
Frederick, MD 21701

To support a workshop of thought leaders in bioterrorism and homeland security. Project Director: David R. Franz, President.

**American Society of Law, Medicine & Ethics, Inc.** **\$45,000**  
Boston, MA 02215

To provide partial support for “The Public’s Health and the Law in the 21<sup>st</sup> Century: Second Annual Partnership Conference,” June 16-18, 2003. Project Director: Benjamin W. Moulton, Executive Director.

**Center for Strategic and International Studies** **\$25,000**  
Washington, DC 20006

To provide partial support for a one-day conference: “Americans and Homeland Security.” Project Director: Amanda J. Dory, International Affairs Fellow.

**City of New York** **\$45,000**  
Brooklyn, NY 11201

To support the development of “A Household Preparedness Guide.” Project Director: Michael Berkowitz, Deputy Commissioner of Special Projects, Office of Emergency Management.

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

To support the third annual MIT Technology and Policy Symposium. Project Director: Professor Daniel Hastings, Director, MIT Technology and Policy Program.

**National Strategy Forum, Inc.** **\$45,000**  
Chicago, IL 60604

To support a conference entitled “Schools: Prudent Preparation for a Catastrophic Terrorism Incident.” Project Director: Richard E. Friedman, President/Chair.

**University of the Pacific** **\$45,000**  
Sacramento, CA 95817

To support a two-day workshop, “Bioterrorism and Beyond — Claiming a Place for Public Health Law in the Law School Curriculum.” Project Director: Elizabeth Rindskopf Parker, Dean, McGeorge School of Law.

FEDERAL STATISTICS, TRUSTEE GRANT

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**Yale University**

**\$172,000**

New Haven, CT 06520

The broad goal of the Foundation's program on federal statistics is to improve the conceptual underpinnings of federal statistics, especially economic statistics. From the beginning of this initiative, one of the most attractive ideas was the possibility of the creation of a standing committee of the American Economic Association (AEA), the primary professional society of U.S. economists. In 2002 the AEA Board of Directors established a small exploratory committee to consider the merits of such a standing committee. Based on this committee's extensive consultations and its review of activities elsewhere, the Board has now established a new AEA Committee on Economic Statistics, to which it has appointed an outstanding membership. This grant supports the first three start-up years of the committee's work. During this period, the committee will seek to promote involvement of economists to improve the collection, analysis, and reporting of economic statistics. It will facilitate improved communication between the economics profession and federal statistical agencies. It will conduct a survey of U.S. economists to identify key datasets and emerging issues related to them, and their assessment of which data improvements are particularly important. Results of the survey will be reported to the AEA membership in special sessions at AEA national meetings and to federal statistical agency leaders at a separate Washington workshop. The AEA Committee will also work with others to begin to develop a conceptually valid system of integrated national economic accounts for the United States, designed to provide a full and consistent framework for understanding the evolution of income, capital formation, and wealth. Project Director: Professor William Nordhaus, Department of Economics.

FEDERAL STATISTICS, OFFICER GRANT

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**The Urban Institute**

**\$30,000**

Washington, DC 20037

Support of a conference of Sloan industry center directors, state labor market information directors, and Census Bureau researchers on collaborative use of the Census Bureau's new Longitudinal Employment Household Dynamics database. Project Director: Julia Lane, Principal Research Associate, Labor and Social Policy Center.



## THE CIVIC PROGRAM

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### THE CIVIC PROGRAM, TRUSTEE GRANT

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**Pace University** **\$350,000**  
New York, NY 10038

A 2001 Foundation grant funded Co-op Scholarships to Rebuild New York for Pace students serving as interns at downtown businesses and nonprofit organizations trying to recover from the devastating effects of the September 11 attacks. This internship program, having demonstrated its effectiveness in providing assistance to such businesses and organizations, is extended for another year by the current grant. About two-thirds of the internship positions will be fully funded from the grant. The balance will be partly funded, with the business or nonprofit covering half the cost. Project Director: David Sachs, Associate Dean, School of Computer and Information Systems.

### THE CIVIC PROGRAM, OFFICER GRANTS

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**ACCION New York, Inc.** **\$40,000**  
New York, NY 11211

To help finance ACCION New York's relocation to Manhattan. Project Director: Robert A. Espaillat, President and CEO.

**Brooklyn Economic Development Corporation** **\$45,000**  
Brooklyn, NY 11209

For partial funding of the development of a market-based strategy for economic development of Brooklyn in cooperation with the Initiative for a Competitive Inner City. Project Director: Joan Bartolomeo, President.

**Municipal Art Society** **\$45,000**  
New York, NY 10022

To help equip New York City Community Boards with GIS mapping technology. Project Director: Eva Handhardt, Director of Planning Center.

**Municipal Art Society** **\$45,000**  
New York, NY 10022

To enable the Municipal Art Society and its partners to translate *Making It In New York* into policy. Project Director: Eva Handhardt, Director of Planning Center.

**New York University**  
New York, NY 10003

**\$45,000**

To fund an evaluation of post-September 11<sup>th</sup> economic assistance for small businesses and nonprofits in lower Manhattan. Project Director: Mitchell L. Moss, Professor of Urban Policy and Planning, and Director, Taub Urban Research Center.

**Research Foundation of the City University of New York**  
New York, NY 10029

**\$44,638**

To enable CUNY Computer Science to create and put in place new curricula intended to prepare graduates for employment with finance firms. Project Director: Theodore Brown, Executive Director, CUNY Institute for Software Design and Development.

## **ADDITIONAL GRANTS**

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### TRUSTEE GRANTS

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

General support (dues). Project Director: Dorothy S. Ridings, President and CEO.

**Independent Sector** **\$12,500**  
Washington, DC 20036

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

**New York Regional Association of Grantmakers** **\$14,500**  
New York, NY 10018

General support (dues). Project Director: Barbara Bryan, President.

### OFFICER GRANT

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**The Foundation Center** **\$45,000**  
New York, NY 10003

To support further development of The Foundation Center's online services. Project Director: Sara L. Engelhardt, President.

# 2003 FINANCIAL REPORT

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## 2003 FINANCIAL REVIEW

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The financial statements and schedules of the Foundation for 2003 and 2002 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 2003 was \$23,249,929, an increase of \$1,944,442 from \$21,305,487 in 2002. After the deduction of investment expenses and provision for taxes, net investment income was \$16,329,528 in 2003 as compared with \$14,124,873 for the prior year. Investment expenses during 2003 totaled \$6,280,401 of which \$4,025,867 represented investment management fees. The provision for taxes amounted to \$640,000. The total of these deductions from investment income in 2003 was \$6,920,401 versus \$7,180,614 in 2002. Total investment gains for 2003 were \$255,917,264 as compared with total investment losses of \$93,100,846 in 2002.

Grants authorized (net of grant refunds) and management expenses during 2003 totaled \$72,403,700, which was \$56,074,172 greater than 2003 net investment income. Of this total, grants authorized (net of refunds) amounted to \$66,883,639 while management expenses were \$5,520,061. Since the Foundation's inception in 1934, the cumulative excess of grants and expenses over the Foundation's net investment income has amounted to \$320.0 million.

Grant payments in 2003 were \$65,045,903 compared with \$58,882,225 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 2003 was \$77,784,435 while in 2002 the amount was \$71,075,451.

Grants authorized and payments made during the year ended December 31, 2003 are summarized in the following table:

Grants unpaid at December 31, 2002	\$ 57,464,549
Authorized during 2003	67,188,364
Payments during 2003	<u>(65,045,903)</u>
Grants unpaid at December 31, 2003	<u>\$ 59,607,010</u>

The fair value of the Foundation's total assets was \$1,376,350,059 at December 31, 2003 including investments valued at \$1,375,360,450 as compared with total assets of \$1,170,659,494 at December 31, 2002.

## AUDITORS' REPORT

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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, 2003 and 2002, 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 examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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, 2003 and 2002, and the changes in its net assets and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

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, 2003 and 2002 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**

February 13, 2004  
New York, New York

**BALANCE SHEETS**  
**DECEMBER 31, 2003 AND 2002**

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	<u>2003</u>	<u>2002</u>
<b>Assets</b>		
Cash	\$ 730,363	\$ -
Investments:		
Equities	1,004,405,582	836,244,737
Fixed income	248,118,270	223,547,193
Limited marketability	122,836,598	110,492,540
Total investments	<u>1,375,360,450</u>	<u>1,170,284,470</u>
Other	259,246	375,024
Total	<u><u>\$1,376,350,059</u></u>	<u><u>\$1,170,659,494</u></u>
<b>Liabilities and Net Assets</b>		
Grants payable	\$ 59,607,010	\$ 57,464,549
Deferred federal excise tax	3,705,012	-
	<u>63,312,022</u>	<u>57,464,549</u>
Net assets - unrestricted	1,313,038,037	1,113,194,945
Total	<u><u>\$1,376,350,059</u></u>	<u><u>\$1,170,659,494</u></u>

See accompanying notes to financial statements.

**STATEMENTS OF ACTIVITIES**  
**YEARS ENDED DECEMBER 31, 2003 AND 2002**

	<u>2003</u>	<u>2002</u>
<b>Investment Income:</b>		
Interest and dividends	\$ 23,249,929	\$ 21,305,487
	<hr/>	<hr/>
Less:		
Investment expenses	6,280,401	6,840,614
Provision for taxes	640,000	340,000
	<hr/>	<hr/>
	6,920,401	7,180,614
	<hr/>	<hr/>
Net investment income	16,329,528	14,124,873
	<hr/>	<hr/>
<b>Expenses:</b>		
Grants authorized (net of refunds of \$304,725 in 2003 and \$287,174 in 2002)	66,883,639	50,935,978
Management expenses	5,520,061	5,496,761
	<hr/>	<hr/>
	72,403,700	56,432,739
	<hr/>	<hr/>
Excess of expenses over net investment Income	(56,074,172)	(42,307,866)
	<hr/>	<hr/>
<b>Investment Gains (Losses):</b>		
Net gain (loss) on disposal of investments	21,237,935	(8,603,348)
Unrealized gain (loss) in investments, net of deferred federal excise tax	234,679,329	(84,497,498)
	<hr/>	<hr/>
	255,917,264	(93,100,846)
	<hr/>	<hr/>
Increase (decrease) in net assets	199,843,092	(135,408,712)
Net assets at beginning of year	1,113,194,945	1,248,603,657
	<hr/>	<hr/>
Net assets at end of year	\$1,313,038,037	\$1,113,194,945
	<hr/> <hr/>	<hr/> <hr/>

See accompanying notes to financial statements.



**STATEMENTS OF CASH FLOWS**  
**YEARS ENDED DECEMBER 31, 2003 AND 2002**

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	<u>2003</u>	<u>2002</u>
<b>Cash Flows From Operating Activities:</b>		
Increase (decrease) in net assets	\$ 199,843,092	\$ (135,408,712)
Adjustments to reconcile increase (decrease) in net assets to net cash used in operating activities:		
Net (gain) loss on disposal of investments	(21,237,935)	8,603,348
Unrealized (gain) loss in investments	(238,384,341)	85,137,576
Increase (decrease) in deferred federal excise tax	3,705,012	(640,078)
Decrease in other assets	115,778	553,802
Increase (decrease) in grants payable	2,142,461	(7,659,073)
Net cash used in operating activities	<u>(53,815,933)</u>	<u>(49,413,137)</u>
 <b>Cash Flows From Investing Activities:</b>		
Proceeds from sales of investments	1,277,943,162	2,189,765,469
Purchases of investments	(1,223,396,866)	(2,141,026,748)
Net cash provided by investing activities	<u>54,546,296</u>	<u>48,738,721</u>
Net increase (decrease) in cash	<u>730,363</u>	<u>(674,416)</u>
Cash at beginning of year	-	674,416
Cash at end of year	<u>\$ 730,363</u>	<u>\$ -</u>

See accompanying notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

### 1. Summary of Significant Accounting Policies

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

Gains or losses on disposal of investments are determined on the first-in, first-out basis. Fair value for public securities is based on quoted market prices. Investments within equity hedge funds, focused equity strategies, and limited marketability are reported at estimated fair values based upon information provided by the managers of the various interests.

Certain amounts in the prior year financial statements have been reclassified to conform with the current year presentation. The principal reclassification was pending equity and fixed income transactions, net as presented in Note 2, Investments.

### 2. Investments

Investments at December 31, 2003 and 2002 are summarized as follows:

	2003		2002	
	<u>Cost</u>	<u>Fair Value</u>	<u>Cost</u>	<u>Fair Value</u>
<i>Equities</i>				
Large Capitalization	\$ 261,678,985	\$ 314,800,323	\$ 256,474,100	\$ 235,069,461
Small Capitalization	105,744,163	133,279,754	79,219,651	75,214,009
Equity Hedge Funds	84,021,837	122,200,582	110,000,000	106,391,184
Focused Equity Strategies	149,506,576	197,564,987	239,434,446	252,276,049
Non-U S	163,656,032	226,707,292	168,480,089	169,425,372
Pending equity transactions, net	9,852,644	9,852,644	(2,131,338)	(2,131,338)
<i>Fixed Income</i>				
Bonds and Notes	290,418,740	291,305,072	372,902,698	378,831,260
Pending fixed income transactions, net	-	-	(122,373,650)	(122,373,650)
Obligations to return collateral held under securities lending agreement	(43,186,802)	(43,186,802)	(32,910,417)	(32,910,417)
<i>Limited Marketability</i>				
Real Estate	5,865,265	3,596,209	6,027,515	4,037,352
Private Equity	162,552,352	119,240,389	148,295,059	106,455,188
Total	<u>\$1,190,109,792</u>	<u>\$1,375,360,450</u>	<u>\$1,223,418,153</u>	<u>\$ 1,170,284,470</u>

At December 31, 2003, the Foundation had unfunded commitments to limited partnerships of approximately \$139 million.

### 3. Financial Instruments with Off-Balance-Sheet Credit or Market Risk

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

In addition a Foundation investment advisor engaged in futures contracts to implement certain of its investment strategies. These transactions were discontinued in 2003 and, therefore, no transactions were outstanding at December 31, 2003. Below is a table summarizing the long and short exchange-traded financial futures positions at December 31, 2002.

	<u>2002</u>	
<u>Futures Contracts</u>	<u>Number of Contracts</u>	<u>Value (Millions)</u>
<i>U.S. Treasury Futures</i>		
Long	260	\$ 52.6
Short	(463)	(66.4)
<i>Eurodollar Futures</i>		
Long	288	70.5

The Foundation was subject to market risk associated with the changes in the value of the futures contracts. The net appreciation in the market value was recognized as received. The margin requirements on deposit with a third party for futures contracts were approximately \$1.0 million at December 31, 2002.

The Foundation purchases forward foreign currency contracts as a hedge against fluctuations in currency prices. Forward foreign currency buy and sell contracts held as of December 31, 2003 were valued at approximately \$6.4 million and \$6.3 million, respectively, and, as of December 31, 2002, at approximately \$6.1 million and \$5.9 million, respectively. Such contracts involve, to varying degrees, risk of loss arising from the possible inability of counterparties to meet the terms of the contract.

Through a securities lending program managed by a custodian firm, the Foundation loans certain stocks and bonds included in its investment portfolio. The custodian firm has indemnified the program. The Foundation's gross securities loaned to certain borrowers at December 31, 2003 and 2002 amounted to \$42 million and \$32 million, respectively. The Foundation holds collateral of 103 percent of the market value of the lent 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 met the requirements for the 1 percent tax for the years ended December 31, 2003 and December 31, 2002. Therefore, current taxes are estimated at 1 percent of net investment income for 2003 and 2002. Additionally, certain of the Foundation's investments give rise to unrelated business income tax liabilities. Such tax liabilities for 2003 and 2002 are not significant to the accompanying financial statements; however, the provision for taxes, as of December 31, 2003 and 2002, includes an estimate of tax liabilities for unrelated business income.

#### **4. Taxes (continued)**

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, 2003. There was no deferred tax liability at December 31, 2002 because the fair value of investments was less than cost on that date.

#### **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 \$475,430 and \$465,483 in 2003 and 2002, respectively. In addition, the Foundation provides certain health care and life insurance benefits to its retirees. The cost of providing these benefits to retirees was \$162,851 and \$136,170 in 2003 and 2002, respectively, on a pay-as-you-go basis.

#### **6. Lease**

The Foundation entered into a ten-year lease effective January 1, 1999. The lease contains an escalation clause which provides for rental increases resulting from increases in real estate taxes and certain operating expenses. Annual base rent expense is approximately \$652,000 in 2003 and will increase in 2004 to approximately \$707,000. Rent expense for 2003 and 2002, including escalations, was \$775,969 and \$742,515, respectively.

**SCHEDULES OF MANAGEMENT AND INVESTMENT EXPENSES  
YEARS ENDED DECEMBER 31, 2003 AND 2002**

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	<u>2003</u>	<u>2002</u>
<b>Management expenses</b>		
Salaries and employees' benefits:		
Salaries	\$3,864,452	\$3,555,612
Employees' retirement plan and other benefits	1,452,336	1,362,088
Total	<u>5,316,788</u>	<u>4,917,700</u>
Rent	775,969	742,515
Program expenses	799,599	698,064
Office expenses	551,854	511,147
Website and publications	47,863	52,804
Professional fees	282,522	241,018
Total management expenses	<u>7,774,595</u>	<u>7,163,248</u>
Less management expenses allocated to investments	<u>2,254,534</u>	<u>1,666,487</u>
Management expenses	<u><u>\$5,520,061</u></u>	<u><u>\$5,496,761</u></u>
<b>Investment expenses</b>		
Investment management fees and expenses	\$4,025,867	\$5,174,127
Management expenses allocated to investments	<u>2,254,534</u>	<u>1,666,487</u>
Investment expenses	<u><u>\$6,280,401</u></u>	<u><u>\$6,840,614</u></u>