

# AMERICAN ACADEMY OF ARTS & SCIENCES



## Projects, Publications & Meetings, 2015–2016

Science, Engineering, and Technology  
Global Security and International Affairs  
The Humanities, Arts, and Education  
Exploratory Initiatives  
Fellowship Programs  
University Affiliates  
Meetings and Events around the Country

## Donors to the Academy

*With Appreciation . . .*

*Academy projects, publications, and fellowships are supported by gifts and grants from Fellows, friends, foundations, corporations, the University Affiliates, and other funding agencies. The Academy expresses its deep appreciation for this support and to the many Fellows who contribute to its work.*

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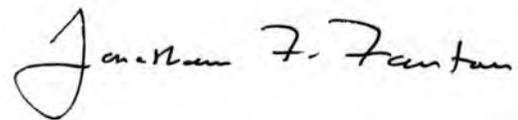
## From the President

Advancing knowledge and learning in service to the nation has been the mission of the Academy since its founding in 1780. Through the study of social and scientific problems and opportunities, the Academy provides critical thinking on the most pressing challenges facing the country and the world.

As you will see in the pages that follow, the Academy is exploring issues from the future of postsecondary education, to the governance of the nuclear nonproliferation treaty regime, to the need to support research that will drive the next generation of scientific and technological advances and affect our quality of life and our understanding of the world around us. These studies draw on the intellectual resources of hundreds of our members and involve many collaborating organizations—both national and international. Our work engages members and other experts from diverse professions and disciplines and brings them together to address critical issues facing our global society.

We are grateful to the many members who support the Academy's projects, publications, and programs. This support gives the Academy the independence to pursue important issues that advance the common good.

As always, I welcome your questions about the Academy and suggestions for its future.

A handwritten signature in black ink, reading "Jonathan F. Fantau". The signature is written in a cursive style with a large initial 'J' and a distinct 'F'.

The Academy's projects in Global Security and International Affairs are conducted in collaboration with the Committee on International Security Studies (CISS). Founded by Harvey Brooks, CISS has been led by distinguished experts such as Paul Doty, Franklin A. Long, and Carl Kaysen. Previous work includes pathbreaking analyses of the implications of the Strategic Defense Initiative, the militarization of space, the relationship between environmental scarcity and violent conflict, the proliferation of small arms and light weapons, and the challenge of strengthening institutions of international justice.

Current work focuses on emerging challenges to international peace and security, with particular attention to military technological advancements, relations among great powers, nuclear weapons, and the threats arising from fragile and failing states.

### *Committee on International Security Studies*

STEVEN E. MILLER, Cochair  
*Harvard University*

JOHN D. STEINBRUNER, † Cochair  
*University of Maryland*

### *Committee Members*

RICHARD L. GARWIN  
*IBM Thomas J. Watson Research Center*

JENNIFER LEANING  
*Harvard University*

ROBERT LEGVOLD  
*Columbia University*

JANNE NOLAN  
*George Washington University*

BARRY POSEN  
*Massachusetts Institute of Technology*

BRUCE RUSSETT  
*Yale University*

SCOTT D. SAGAN  
*Stanford University*

SHIBLEY TELHAMI  
*University of Maryland*

## The Global Nuclear Future

The Global Nuclear Future Initiative is an interdisciplinary and multinational project that advances policies and procedures to allow for the peaceful use of nuclear power, while addressing and minimizing the potential adverse consequences of the spread of inherently risky nuclear technology. By engaging with key constituencies, particularly in Southeast Asia and the Middle East, the initiative identifies and promotes best practices to minimize the security and nonproliferation concerns associated with the spread of nuclear energy. To help reduce the risks that could result from the global expansion of nuclear energy, the Global Nuclear Future Initiative addresses a number of key policy areas, including the international nonproliferation regime, the entirety of the fuel cycle, and the problem of insider threats.

Since its beginnings in 2008, the project has made significant contributions to the development of a more-effective nuclear policy for the twenty-first century. It has encouraged innovative scholarship on a wide range of issues, including solutions to manage most effectively the back-end of the nuclear fuel cycle and strategies to strengthen the global nuclear nonproliferation regime. It has also fostered dialogue and conversations at the regional level in Asia Pacific and the Middle East, bringing together stakeholders from the government and non-government sector. It has trained journalists and experts from these regions to write and examine nuclear-related issues in greater depth. It has produced a guide for nuclear laboratories on how to address the problem of insider threats, and it has continued to raise awareness of the many responsibilities that countries face when they decide to pursue a nuclear power program.

### *Project Directors*

STEVEN E. MILLER  
*Harvard University*

ROBERT ROSNER  
*University of Chicago*

### *Senior Advisor*

SCOTT D. SAGAN  
*Stanford University*

### *Advisory Group*

RICHARD A. MESERVE  
*Covington & Burling LLP; formerly,  
Carnegie Institution for Science*

SAM NUNN  
*Nuclear Threat Initiative*

GEORGE PERKOVICH  
*Carnegie Endowment for  
International Peace*

WILLIAM J. PERRY  
*Stanford University*

WILLIAM POTTER  
*Monterey Institute of  
International Studies*

JOHN W. ROWE  
*Exelon Corporation, ret.*

GEORGE P. SHULTZ  
*Stanford University*

### *Project Staff*

FRANCESCA GIOVANNINI

KATHRYN MOFFAT

### *Funders*

*Carnegie Corporation of New York*

*Flora Family Foundation*

*William and Flora Hewlett Foundation*

*The Kavli Foundation*

*John D. and Catherine T. MacArthur  
Foundation*

*Alfred P. Sloan Foundation*

## Publications

*The Back-End of the Nuclear Fuel Cycle: Establishing a Viable Roadmap for a Multilateral Interim Storage Facility*, Robert Rosner, Lenka Kollar, and James P. Malone (American Academy of Arts and Sciences, 2015)

*Nuclear Power in Vietnam: International Responses and Future Prospects*, Tanya Ogilvie-White (American Academy of Arts and Sciences, 2014)

*Nuclear Liability: A Key Component of the Public Policy Decision to Deploy Nuclear Energy in Southeast Asia*, Mohit Abraham (American Academy of Arts and Sciences, 2014)

*A Worst Practices Guide to Insider Threats: Lessons from Past Mistakes*, Matthew Bunn and Scott D. Sagan (American Academy of Arts and Sciences, 2014)

*Lessons Learned from “Lessons Learned”: The Evolution of Nuclear Power Safety after Accidents and Near-Accidents*, Edward D. Blandford and Michael M. May (American Academy of Arts and Sciences, 2012)

*Nuclear Collisions: Discord, Reform & the Nuclear Nonproliferation Regime*, essay by Steven E. Miller, with responses by Wael Al-Assad, Jayantha Dhanapala, C. Raja Mohan, and Ta Minh Tuan (American Academy of Arts and Sciences, 2012)

*The Back-End of the Nuclear Fuel Cycle: An Innovative Storage Concept*, Stephen M. Goldberg, Robert Rosner, and James P. Malone (American Academy of Arts and Sciences, 2012)

*Game Changers for Nuclear Energy*, Kate Marvel and Michael May (American Academy of Arts and Sciences, 2011)

*Nuclear Reactors: Generation to Generation*, Stephen M. Goldberg and Robert Rosner (American Academy of Arts and Sciences, 2011)

“A Deeply Fractured Regime: Assessing the 2010 NPT Review Conference,” Steven E. Miller, *The International Spectator* (September 2010)

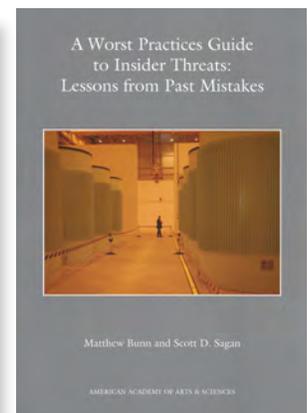
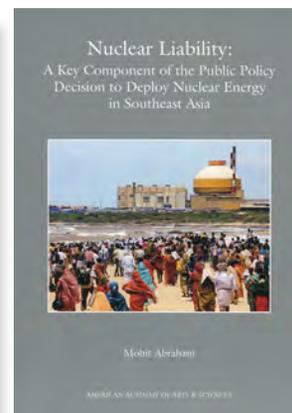
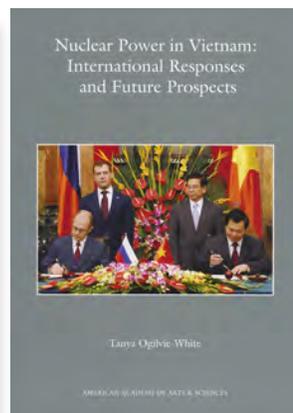
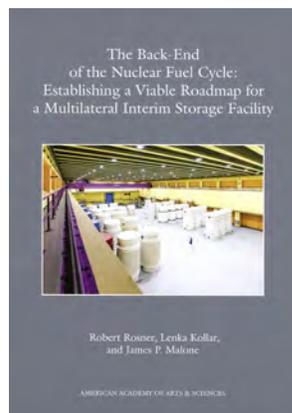
*Challenges to the NPT Review Conference: Lessons from the Past; Opportunities for the Future* (confidential report, May 2010)

*Nuclear Energy in the Middle East: Implications, Challenges, Opportunities* (American Academy of Arts and Sciences, 2010)

*Multinational Approaches to the Nuclear Fuel Cycle*, Charles McCombie & Thomas Isaacs, Noramly Bin Muslim, Tariq Rauf, Atsuyuki Suzuki, Frank von Hippel, and Ellen Tauscher (American Academy of Arts and Sciences, 2010)

*Shared Responsibilities for Nuclear Disarmament: A Global Debate*, essay by Scott D. Sagan, with responses by James M. Acton, Jayantha Dhanapala, Mustafa Kibaroglu, Harald Müller, Yukio Satoh, Mohamed I. Shaker, and Achilles Zaluvar (American Academy of Arts and Sciences, 2010)

“On the Global Nuclear Future,” vols. 1 – 2, *Dædalus*, edited by Steven E. Miller and Scott D. Sagan (MIT Press, Fall 2009 and Winter 2010)



## Project Meetings and Workshops

# Nuclear Energy Briefings

January 18 – 22, 2015

Abu Dhabi, United Arab Emirates

This set of briefings was designed to engage policy-makers and nuclear experts in the United Arab Emirates in closed-door conversations on topics ranging from

nuclear safety and nuclear liability, to the back-end of the nuclear fuel cycle, to capacity building and human resources development.

### Participants

MOHIT ABRAHAM

*Khaitan & Co. ; Supreme Court of India*

JAMAL AL AHBABI

*Emirates Nuclear Energy Corporation*

MAHA AZIZ

*Federal Authority for Nuclear Regulation*

SANA BILAL

*Federal Authority for Nuclear Regulation*

DAVID BOYLE

*Texas A&M University*

ROBERT CASTLE

*Emirates Nuclear Energy Corporation*

MOHAMED CHOOKAH

*Emirates Nuclear Energy Corporation*

HUMAIID AL DHAHERI

*Federal Authority for Nuclear Regulation*

SULTAN AL DHAHERI

*Federal Authority for Nuclear Regulation*

FAROUK ELTAWILA

*Federal Authority for Nuclear Regulation*

JONATHAN F. FANTON

*American Academy of Arts and Sciences*

FRANCESCA GIOVANNINI

*American Academy of Arts and Sciences*

IAN GRANT

*Federal Authority for Nuclear Regulation*

HAMAD AL KAABI

*Permanent Mission of the United Arab Emirates to the International Atomic Energy Agency; United Arab Emirates Ministry of Foreign Affairs*

SAIF AL KAABI

*Federal Authority for Nuclear Regulation*

JOHN LOY

*Federal Authority for Nuclear Regulation*

MARIAM IBRAHIM AL MAHMOUD

*Federal Authority for Nuclear Regulation*

JAMES MALONE

*Lightbridge*

MOHAMED AL MANSOORI

*Emirates Nuclear Energy Corporation*

SHAIMA AL MANSOORI

*Federal Authority for Nuclear Regulation*

CHARLES McCOMBIE

*MCM Consulting; Arius Association*

KATHRYN MOFFAT

*American Academy of Arts and Sciences*

TURKY OTHMAN AL MESMARI

*Federal Authority for Nuclear Regulation*

STEVEN E. MILLER

*Harvard University*

ROBERT ROSNER

*University of Chicago*

AAYDA AL SHEHHI

*Federal Authority for Nuclear Regulation*

OSAMA AL SHEHHI

*Federal Authority for Nuclear Regulation*

ALEXANDER SOLODOV

*Khalifa University*

PAGE STOUTLAND

*Nuclear Threat Initiative*

WILLIAM TRAVERS

*Federal Authority for Nuclear Regulation*

GREGORY WEBB

*Federal Authority for Nuclear Regulation*

HAMAD AL ZAABI

*Federal Authority for Nuclear Regulation*

MOHAMED AL ZAABI

*Federal Authority for Nuclear Regulation*



At a session on capacity building and human resources development in the nuclear field (clockwise from 12 o'clock): Jonathan F. Fanton (American Academy), Sultan Al Dhaheri (Federal Authority for Nuclear Regulation), Mohamed Al Zaabi (Federal Authority for Nuclear Regulation), Turki Othman Al Mesmari (Federal Authority for Nuclear Regulation), Mohit Abraham (Khaitan & Co. ; Supreme Court of India), James Malone (Lightbridge), Robert Rosner (University of Chicago), Robert Castle (Emirates Nuclear Energy Corporation), Humaid Al Dhaheri (Federal Authority for Nuclear Regulation), Charles McCombie (MCM Consulting; Arius Association), Page Stoutland (Nuclear Threat Initiative), Steven E. Miller (Harvard University), Shaima Al Mansoori (Federal Authority for Nuclear Regulation)

## *Project Meetings and Workshops*

### Dual-Use Technologies: Current and Future Governance Prospects

March 16 – 17, 2015  
Chicago, IL

The purpose of this meeting was to identify best practices and lessons learned in the governance of three key technology areas: biotechnology, nuclear energy, and cyber technology.

The participants discussed the challenges that the governance of each area presents and examined the current state of national and international oversight and regulation of the broad dual-use technology domain.

#### *Participants*

JAMES ACTON  
*Carnegie Endowment for  
International Peace*

EMMA BELCHER  
*John D. and Catherine T. MacArthur  
Foundation*

SETH CARUS  
*National Defense University*

RICHARD EBRIGHT  
*Rutgers University*

DAVID FARBER  
*University of Pennsylvania*

STEVE FETTER  
*University of Maryland*

CHARLES FERGUSON  
*Federation of American Scientists*

DAVID FIDLER  
*Council on Foreign Relations; Indiana  
University, Bloomington*

STEPHANIE FORREST  
*University of New Mexico*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

ELISA D. HARRIS  
*Center for International and Security  
Studies at Maryland*

THOMAS V. HOLOHAN  
*Clinical Evaluation LLC*

ROGER HURWITZ  
*MIT Computer Science and  
Artificial Intelligence Laboratory;  
University of Toronto*

JO HUSBANDS  
*National Academy of Sciences;  
Georgetown University*

LUCAS KELLO  
*University of Oxford*

R. SCOTT KEMP  
*Massachusetts Institute of Technology*

GREGORY KOBLENTZ  
*George Mason University*

SUSAN KOCH  
*National Defense University; Missouri  
State University; National Institute for  
Public Policy*

ELAINE KORZACK  
*Stanford University*

JENS KUHN  
*Tunnell Government Services, Inc. ;  
NIH/NIAID Integrated Research Facility,  
Fort Detrick*

MILTON LEITENBERG  
*University of Maryland*

HERBERT LIN  
*Stanford University*

ALLISON MACFARLANE  
*George Washington University*

ANGELA MCKAY  
*Microsoft*

EVAN MICHELSON  
*Alfred P. Sloan Foundation*

STEVEN E. MILLER  
*Harvard University*

KATHRYN MOFFAT  
*American Academy of Arts and Sciences*

MEGAN PALMER  
*Stanford University*

DAVID RELMAN  
*Stanford University*

ROBERT ROSNER  
*University of Chicago*

SCOTT D. SAGAN  
*Stanford University*

LYNN ST. AMOUR  
*Internet Matters*

JODY WESTBY  
*Global Cyber Risk, LLC;  
Georgia Institute of Technology*

### Project Meetings and Workshops

## Roundtable Discussion: The NPT Grand Bargain—Its Historical Evolution, Its Present Challenges, and Its Future Opportunities

May 5, 2015  
New York, NY

The Global Nuclear Future Initiative convened senior-level government representatives who were gathered for the 2015 Nuclear Non-Proliferation Treaty Review Conference in New York. The participants met at Carnegie Corporation of New York and discussed the

constraints and opportunities to advance the global nuclear disarmament agenda, as well as policies and strategies to strengthen the NPT amid the spread of nuclear power worldwide.

### Participants

ANTOINE ABI GHANEM  
*Holy See Mission to the United Nations in Geneva*

SUSAN F. BURK  
*U.S. Department of State*

LIBRAN N. CABACTULAN  
*Permanent Mission of the Republic of the Philippines to the United Nations*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

VARTAN GREGORIAN  
*Carnegie Corporation of New York*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

DELL HIGGIE  
*Permanent Mission of New Zealand to the United Nations*

THEO KALIONZES  
*Carnegie Corporation of New York*

MITSURU KITANO  
*Permanent Mission of Japan to the United Nations*

HENK COR VAN DER KWAST  
*Permanent Mission of the Kingdom of the Netherlands to the United Nations*

KATHRYN MOFFAT  
*American Academy of Arts and Sciences*

HARALD MÜLLER  
*Peace Research Institute Frankfurt*

WILLIAM POTTER  
*Monterey Institute of International Studies*

CARL ROBICHAUD  
*Carnegie Corporation of New York*

ROBERT ROSNER  
*University of Chicago*

SCOTT D. SAGAN  
*Stanford University*

ADAM M. SCHEINMAN  
*U.S. Department of State*

MOHAMED IBRAHIM SHAKER  
*Egyptian Council for Foreign Affairs*



Antoine Abi Ghanem (Holy See Mission to the United Nations in Geneva), Dell Higgle (Permanent Mission of New Zealand to the United Nations), and Henk Cor van der Kwast (Permanent Mission of the Kingdom of the Netherlands to the United Nations)



Susan F. Burk (U.S. Department of State), Mohamed Ibrahim Shaker (Egyptian Council for Foreign Affairs), and Scott D. Sagan (Stanford University)

## Project Meetings and Workshops

### Advancing Discourse among Nuclear Energy Experts, the Government, and the Public

July 13 – 15, 2015  
New Delhi, India

Nuclear experts, government officials, and representatives of the media and civil society met in New Delhi, India, to discuss the current frameworks within which communication about nuclear energy occurs around the

world and especially in India, assess the utility of these frameworks within the lens of current dilemmas, and adapt the frameworks to present-day and prospective challenges.

#### Participants

MOHIT ABRAHAM

*Supreme Court of India; Nuclear Law Association, India*

D. ACHARYA

*Uranium Corporation of India, Ltd.*

MOHAMMAD SHAWKAT AKBAR  
*Bangladesh Atomic Energy Commission;  
Rooppur Nuclear Power Plant (1st Phase)  
Project*

PALLAVA BAGLA  
*NDTV*

KELLE BARFIELD  
*Entergy; International Atomic  
Energy Agency*

R. BHATTACHARYA  
*Atomic Energy Regulatory Board*

PRATYUSH BISWAL  
*TERI University*

ZACKORY T. BURNS  
*American Academy of Arts and Sciences*

AYHAN EVRENSEL  
*International Atomic Energy Agency*

BARUCH FISCHHOFF  
*Carnegie Mellon University*

SHIBANI GHOSH  
*Centre for Policy Research*

AMANDEEP SINGH GILL  
*Ministry of External Affairs,  
Government of India*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

R. B. GROVER  
*Indian Atomic Energy Commission;  
Homi Bhabha National Institute*

S. HARIKUMAR  
*Atomic Energy Regulatory Board*

ZAKKA JACOB  
*CNN-IBN*

D. M. JAGADEESH  
*BHAVINI, Kalpakkam*

MADHURA JOSHI  
*TERI University*

AJISH P. JOY  
*The Week*

MAHESH KAMBLE  
*Tata Institute of Social Sciences*

RAJNEESH KHATTAR  
*UBM India*

GIDEON KHARMALKI  
*Manipal University*

A. VINOD KUMAR  
*Institute for Defence Studies and Analyses*

SASHI KUMAR  
*Media Development Foundation; Asian  
School of Journalism*

MIN LEE  
*National Tsing Hua University*

S. K. MALHOTRA  
*Department of Atomic Energy,  
Government of India*

N. R. MADHAVA MENON  
*National Law School of India University,  
Bangalore; National University of  
Juridical Sciences, Kolkata and National  
Judicial Academy, Bhopal; Menon Institute  
of Legal Advocacy Training*

STEVEN E. MILLER  
*Harvard University*

KATHRYN MOFFAT  
*American Academy of Arts and Sciences*

M. P. RAM MOHAN  
*TERI University; Nuclear Law  
Association, India*

A. K. NEMA  
*Nuclear Power Corporation of India*

SHIKHA PRASAD  
*Indian Institute of Technology Kanpur*

V. S. RAMAMURTHY  
*National Institute of Advanced Studies*

P. B. RASTOGI  
*Ministry of Environment, Forests and  
Climate Change, Government of India*

PETER RICKWOOD  
*Atomic Reporters*

ROBERT ROSNER  
*University of Chicago*

PINAKI ROY  
*Uranium Corporation of India, Ltd.*

RAJIV SETH  
*TERI University*

AKSHAY SHANDILYA  
*National Law University, Raipur*

DEVPREET SINGH  
*All India Radio, New Delhi*

RAMANDEEP SINGH SIDHU  
*Central University of Punjab*

LEENA SRIVASTAVA  
*The Energy and Resources Institute;  
Sustainable Energy for All*

R. S. SUNDAR  
*Kudankulam 1 and 2*

FABBY TUMIWA  
*Institute for Essential Services Reform*

SIDDHARTH VARADARAJAN  
*The Wire; Shiv Nadar University;  
formerly, The Hindu*

SHIV VISVANATHAN  
*O. P. Jindal Global University*

## New Dilemmas in Ethics, Technology, and War

The project on *New Dilemmas in Ethics, Technology, and War* explores the linkage between contemporary political developments and changes in military technology, and the resulting moral and ethical dilemmas that arise in war and postwar settings as a result of these advances. This study of the relationship between ethics, technology, and war follows from the observation that although technological innovations and political developments are changing the way in which modern wars are conducted, efforts to align just war doctrine with this evolving context have lagged behind. The project addresses the growing gap between the scholarship on new wars

and technologies and the needs of decision-makers in government. It fosters dialogue among different groups and creates policy outreach initiatives that explore the evolution of just war doctrine and its potential applications to real world security problems.

The study will produce a multidisciplinary, two-volume *Daedalus* issue that will inform the ongoing debate surrounding the acceptable use of modern instruments of war, and will provide a useful teaching tool for both universities and military service academies.

### Project Chair

SCOTT D. SAGAN  
*Stanford University*

### Steering Committee

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

LLOYD AXWORTHY  
*University of Waterloo*

JAMES ELLIS  
*Stanford University; Institute of Nuclear Power Operations, ret.; U.S. Navy, ret.*

TANISHA FAZAL  
*University of Notre Dame*

J. BRYAN HEHIR  
*Harvard Kennedy School*

JENNIFER LEANING  
*Harvard School of Public Health*

GILMAN LOUIE  
*Aslop Louie Partners; formerly, In-Q-Tel*

DAVID LUBAN  
*Georgetown University*

MARK MARTINS  
*U.S. Army*

ARYEH NEIER  
*Paris School of International Affairs of Sciences Po; formerly, Open Society Foundations and Human Rights Watch*

JANNE NOLAN  
*George Washington University*

BARRY POSEN  
*Massachusetts Institute of Technology*

NANCY SHERMAN  
*Georgetown University*

MICHAEL WALZER  
*Princeton University*

JENNIFER WELSH  
*European University Institute; University of Oxford; United Nations*

### Project Staff

FRANCESCA GIOVANNINI

KATHRYN MOFFAT

### Funders

*Humanity United*  
*John D. and Catherine T. MacArthur Foundation*

### Project Meetings & Workshops

## Steering Committee Meeting

October 8 – 9, 2014  
Cambridge, MA

### Participants

LLOYD AXWORTHY  
*University of Waterloo*

JAMES ELLIS  
*Stanford University; Institute of Nuclear Power Operations, ret.; U.S. Navy, ret.*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

J. BRYAN HEHIR  
*Harvard Kennedy School*

JENNIFER LEANING  
*Harvard School of Public Health*

DAVID LUBAN  
*Georgetown University*

MARK MARTINS  
*U.S. Army*

STEVEN E. MILLER  
*Harvard Kennedy School*

JANNE NOLAN  
*George Washington University*

BARRY POSEN  
*Massachusetts Institute of Technology*

SCOTT D. SAGAN  
*Stanford University*

NANCY SHERMAN  
*Georgetown University*

MICHAEL WALZER  
*Princeton University*

JENNIFER WELSH  
*European University Institute; University of Oxford; United Nations*

## Project Meetings and Workshops

### New Dilemmas in Ethics, Technology, and War Authors' Workshop

June 29 – July 1, 2015  
Palo Alto, CA

#### Participants

LLOYD AXWORTHY

*St. Paul's University College, University of Waterloo*

PHYLLIS BENDELL

*American Academy of Arts and Sciences*

ANTONIA CHAYES

*Tufts University*

WALTER DORN

*Canadian Forces College; Royal Military College of Canada*

JAMES ELLIS

*Stanford University; Institute of Nuclear Power Operations, ret.; U.S. Navy, ret.*

JONATHAN F. FANTON

*American Academy of Arts and Sciences*

TANISHA FAZAL

*University of Notre Dame*

JOSEPH FELTER

*Stanford University; U.S. Army, ret.*

DAVID P. FIDLER

*Council on Foreign Relations; Indiana University*

FRANCESCA GIOVANNINI

*American Academy of Arts and Sciences*

J. BRYAN HEHIR

*Harvard Kennedy School*

C. ROBERT KEHLER

*U.S. Air Force, ret.*

PHIL KLAY

*Author*

KEITH KRAUSE

*Graduate Institute of International and Development Studies in Geneva*

SETH LAZAR

*Australian National University*

JENNIFER LEANING

*Harvard School of Public Health*

JOHN PAUL LEDERACH

*Humanity United*

MARK MARTINS

*U.S. Army*

KATHRYN MOFFAT

*American Academy of Arts and Sciences*

ARYEH NEIER

*Paris School of International Affairs of Sciences Po*

RANDY NEWCOMB

*Humanity United*

JANNE NOLAN

*George Washington University*

BARRY POSEN

*Massachusetts Institute of Technology*

SCOTT D. SAGAN

*Stanford University*

NANCY SHERMAN

*Georgetown University*

NATASHA TRETHERWEY

*Emory University*

BENJAMIN VALENTINO

*Dartmouth College*

LESLIE VINJAMURI

*University of London; Chatham House*

ALLEN WEINER

*Stanford University*

JENNIFER WELSH

*European University Institute; University of Oxford; United Nations*

PAUL WISE

*Stanford University*

JOHN FABIAN WITT

*Yale Law School*

AMY ZEGART

*Stanford University*



back to front: John Paul Lederach (Humanity United), Janne Nolan (George Washington University), Jennifer Welsh (European University Institute; University of Oxford; United Nations), Antonia Chayes (Tufts University), and Scott D. Sagan (Stanford University)



Allen Weiner (Stanford University), Joseph Felter (Stanford University), Mark Martins (U.S. Army), and Tanisha Fazal (University of Notre Dame)

Academy projects in Science, Engineering, and Technology advance critical thinking about the evolving landscape for scientific research. Drawing on the expertise of leading scientists, policy-makers, social scientists, humanists, and technical experts from both academia and industry, the studies explore how science and technology are changing, how to help the public understand those changes, and how society can better adapt to those changes. Areas of interest include the nation's productivity in science and technology; the social and regulatory factors that influence the adoption of new technologies; and public understanding of, and trust in, science and medicine.

## Advisory Committee

NEAL LANE, Chair  
*Rice University*

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

JOHN E. BRYSON  
*Woodrow Wilson International Center for Scholars; formerly, U.S. Department of Commerce*

CLAUDE CANIZARES  
*Massachusetts Institute of Technology*

THOMAS R. CECH  
*University of Colorado Boulder; formerly, Howard Hughes Medical Institute*

GERALD FISCHBACH  
*Simons Foundation*

MARYE ANNE FOX  
*University of California, San Diego*

JOHN L. HENNESSY  
*Stanford University*

RICHARD A. MESERVE  
*Covington & Burling LLP; formerly, Carnegie Institution for Science*

C.D. MOTE, JR.  
*National Academy of Engineering; University of Maryland*

## New Models for U.S. Science and Technology Policy

Scientific and technological advances are fundamental to the prosperity, health, and security of America. Innovation and rapid integration of new knowledge and technologies emerge from investments in research and development, and rely on the partnership among universities, federal and state governments, and industry. Staying globally competitive will require a stronger partnership and a greater focus on long-term planning in scientific and engineering research.

In September 2014, the New Models committee unveiled its report, *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*. The report offers actionable recommendations to all sectors—including federal and state governments, philanthropic and nongovernmental organizations, public and private research universities, and business and industry—to:

- Secure America's leadership in science and engineering research—especially basic research—by providing sustainable federal investments;
- Ensure that the American people receive maximum benefits from federal investments in research; and
- Regain America's standing as an innovation leader by establishing a more robust national government-university-industry research partnership.

Among its recommendations, the report calls for sustaining a national focus on long-term science policy by developing a common message about the importance of science and engineering research; and maintaining the visibility of forward-looking policy recommendations. The Academy has established a series of collaborations to pursue these goals.

Highlights of outreach activities include:

- More than 10,000 copies of the report have been distributed to governmental offices, nongovernmental organizations, business leaders, academic leaders, and American Academy Fellows. Digital copies of the report have been downloaded over 2,000 times.
- The American Academy has assembled a group of nine leading nongovernmental organizations, including AAAS, AAU, APLU, Research!America, the Council on Competitiveness, ASTRA, and the National Academies, to explore ways to equip organizations across America with the resources they need to elevate the importance of research in the minds of the public, business leaders, policy-makers, and others.
- More than forty articles have appeared in national and local news media since the report's release, including an op-ed in *The Wall Street Journal* by committee members and Nobel Laureates Thomas R. Cech and Steven Chu.

# Science, Engineering, and Technology

- *Restoring the Foundation* inspired a bipartisan budget resolution sponsored by thirty-two Senators in support of a deficit-neutral fund for basic research, passed on a unanimous floor vote.
- Since the release of *Restoring the Foundation*, the American Academy has organized seventeen roundtables, workshops, and public symposia to explore ways to implement the report's recommendations. Held at universities across the country and in our nation's capital, these meetings have engaged Academy Fellows and leaders in academia, government, and business in a robust conversation about the future of America's research system.
- In June 2015, ten CEOs and more than 250 organizations signed on to "Innovation: An American Imperative," a statement inspired by *Restoring the Foundation* that calls for action on several key report recommendations. The signers include *Restoring the Foundation* cochair **Norman R. Augustine** and committee member **Charles O. Holliday** (Royal Dutch Shell plc), as well as **Samuel R. Allen** (John Deere), **Marillyn A. Hewson** (Lockheed Martin Corporation), **Satya Nadella** (Microsoft), **Wesley Bush** (Northrop Grumman), **Joseph Jimenez** (Novartis), **Jay Timmons** (National Association of Manufacturers), **Kenneth C. Frazier** (Merck & Co., Inc.), and **W. James McNerney, Jr.** (The Boeing Company).

## Project Chairs

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

NEAL LANE  
*Rice University*

## Committee Members

NANCY C. ANDREWS  
*Duke University School of Medicine*

JOHN E. BRYSON  
*Woodrow Wilson International Center for Scholars; formerly, U.S. Department of Commerce*

THOMAS R. CECH  
*University of Colorado Boulder; formerly, Howard Hughes Medical Institute*

STEVEN CHU  
*Stanford University; formerly, U.S. Department of Energy*

JARED COHON  
*Carnegie Mellon University*

JAMES J. DUDERSTADT  
*University of Michigan*

MARK C. FISHMAN  
*Novartis Institutes for BioMedical Research*

SYLVESTER JAMES GATES, JR.  
*University of Maryland*

BART GORDON  
*K&L Gates; formerly, U.S. House of Representatives*

M.R.C. GREENWOOD  
*University of Hawaii System, ret.*

JOHN L. HENNESSY  
*Stanford University*

CHARLES O. HOLLIDAY  
*Royal Dutch Shell plc; formerly, Bank of America and DuPont*

PETER S. KIM  
*Stanford University; formerly, Merck Research Laboratories*

DANA MEAD  
*MIT Corporation*

RICHARD A. MESERVE  
*Covington & Burling LLP; formerly, Carnegie Institution for Science*

C.D. MOTE, JR.  
*National Academy of Engineering; University of Maryland*

VENKATESH NARAYANAMURTI  
*Harvard University*

MAXINE L. SAVITZ  
*Honeywell, Inc., ret.*

ROBERT F. SPROULL  
*University of Massachusetts, Amherst; formerly, Oracle Corporation*

SUBRA SURESH  
*Carnegie Mellon University; formerly, National Science Foundation*

SHIRLEY M. TILGHMAN  
*Princeton University*

JEANNETTE WING  
*Microsoft Corporation*

ELIAS ZERHOUNI  
*Sanofi; formerly, National Institutes of Health*

## Project Staff

JOHN RANDELL

DOROTHY KOVEAL

ZACKORY BURNS

RACHEL JOHNSON

## Funders

*Louise Henry Bryson and John E. Bryson John D. and Catherine T. MacArthur Foundation*

*Gordon and Betty Moore Foundation Alfred P. Sloan Foundation*

## Publications

*Restoring the Foundation: The Vital Role of Research in Preserving the American Dream* (American Academy of Arts and Sciences, 2014)

Thomas R. Cech and Steven Chu, "How to Stop Winning Nobel Prizes in Science," *The Wall Street Journal*, October 15, 2014

Norman R. Augustine and Neal F. Lane, "What if America had a plan for scientific research?" *InsideSources*, April 28, 2014

*Project Meetings and Workshops*

## Public Release of *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*

September 16, 2014  
Washington, D.C.

*Speakers*

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

BART GORDON  
*K&L Gates; formerly, U.S. House of  
Representatives*

RUSH HOLT  
*U.S. House of Representatives; currently,  
American Association for the Advancement  
of Science*

NEAL LANE  
*Rice University*

PETER McPHERSON  
*Association of Public and Land-grant  
Universities (APLU)*

HUNTER R. RAWLINGS III  
*Association of American Universities  
(AAU)*

*Project Meetings and Workshops*

## Congressional Briefing on *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*

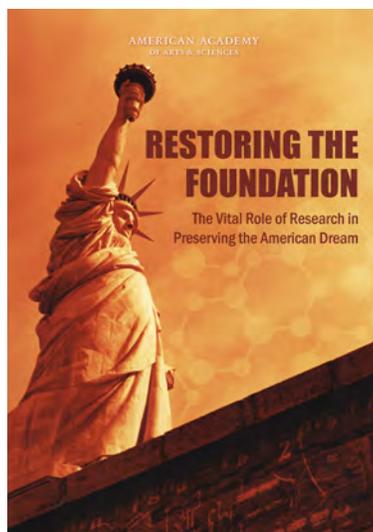
September 16, 2014  
Washington, D.C.

*Speakers*

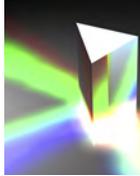
NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

RUSH HOLT  
*U.S. House of Representatives; currently,  
American Association for the Advancement  
of Science*

NEAL LANE  
*Rice University*



Norman R. Augustine (Lockheed Martin Corporation, ret.), Rush Holt (American Association for the Advancement of Science; then U.S. House of Representatives), and Neal Lane (Rice University) brief members of Congress and their staff on *Restoring the Foundation*.



## *Project Meetings and Workshops*

# First NGO Coordination Meeting on *Restoring the Foundation* Outreach

September 16, 2014  
Washington, D.C.

### *Participants*

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

ROBERT BOEGE  
*The Alliance for Science & Technology  
Research in America (ASTRA)*

FRANCE CÓRDOVA  
*National Science Foundation*

ANTHONY DECRAPPEO  
*Council on Governmental Relations*

VICTOR DZAU  
*National Academy of Medicine*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

BART GORDON  
*K&L Gates; formerly, U.S. House of  
Representatives*

M.R.C. GREENWOOD  
*University of Hawaii System, ret.*

NEAL LANE  
*Rice University*

ALAN LESHNER  
*American Association for the Advancement  
of Science*

PETER McPHERSON  
*Association of Public and Land-grant  
Universities (APLU)*

C.D. MOTE, JR.  
*National Academy of Engineering;  
University of Maryland*

HUNTER R. RAWLINGS  
*Association of American Universities  
(AAU)*

ROBERT ROSNER  
*University of Chicago; formerly,  
Argonne National Laboratory*

MATTHEW SCOTT  
*Carnegie Institution for Science*

MARY WOOLLEY  
*Research!America*



*Restoring the Foundation* cochairs Neal Lane and Norman Augustine discuss the report's findings with leaders from federal agencies, universities, and nongovernmental organizations. Pictured (around the table, front right to left): Alan Leshner (American Association for the Advancement of Science), Peter McPherson (APLU), Bob Boege (ASTRA), Mary Woolley (Research!America), Robert Rosner (University of Chicago), Matthew Scott (Carnegie Institution for Science), M.R.C. Greenwood (University of Hawaii System, ret.), Neal Lane (Rice University), Norman R. Augustine (Lockheed Martin Corporation, ret.), Victor Dzau (National Academy of Medicine), Anthony DeCrappeo (Council on Governmental Relations), Bart Gordon (K&L Gates), C.D. Mote, Jr. (National Academy of Engineering), Jonathan F. Fanton (American Academy of Arts and Sciences), and Hunter Rawlings (AAU).

*Project Meetings and Workshops*

## Roundtable Discussion on Public-Private Sector Partnerships with the National Laboratories

November 6, 2014  
Chicago, IL

*Participants*

MICHAEL ANDREW  
*Johnson Controls Power Solutions*

PUSHPALATHA (PUSHPA) BHAT  
*Fermi National Accelerator Laboratory*

RACHEL BRONSON  
*Chicago Council on Global Affairs*

GEORGE CRABTREE  
*Argonne National Laboratory; Joint  
Center for Energy Storage Research*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

ROBERT FEFFERMAN  
*University of Chicago*

JOHN FLAVIN  
*University of Chicago*

BILL FOSTER  
*U.S. House of Representatives*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

RANDY HULTGREN  
*U.S. House of Representatives*

ERIC ISAACS  
*University of Chicago; formerly, Argonne  
National Laboratory*

ROBERT KEPHART  
*Fermi National Accelerator Laboratory*

EDWARD (ROCKY) KOLB  
*University of Chicago*

DOROTHY KOVEAL  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*

MICHELLE LARSON  
*Adler Planetarium*

PETER LITTLEWOOD  
*Argonne National Laboratory*

BARBARA McFADDEN ALLEN  
*Committee on Institutional Cooperation  
(CIC)*

TIMOTHY MEYER  
*Fermi National Accelerator Laboratory*

GREGORY MORIN  
*Argonne National Laboratory*

MICHAEL NORMAN  
*Argonne National Laboratory*

JOHN RANDELL  
*American Academy of Arts and Sciences*

ROBERT ROSNER  
*University of Chicago; formerly, Argonne  
National Laboratory*

MATTHEW TIRRELL  
*University of Chicago; Argonne National  
Laboratory*

ELLEN WILLIAMS  
*Office of the Secretary of Energy at  
U.S. Department of Energy*

*Project Meetings and Workshops*

## Workshop on “The Unstable Biomedical Research Ecosystem: How Can It Be Made More Robust?”

February 24, 2015  
Durham, NC

*Participants*

HASHIM AL-HASHIMI  
*Duke University; Duke Center for  
RNA Biology*

NANCY C. ANDREWS  
*Duke University School of Medicine*

TANIA BAKER  
*Massachusetts Institute of Technology*

DIEGO BOHÓRQUEZ  
*Duke University*

SAMIRA BROOKS  
*UNC—Chapel Hill*

LAWRENCE CARIN  
*Duke University*

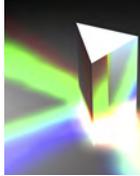
KATHLEEN CARON  
*UNC—Chapel Hill*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

JEROME FEDERSPIEL  
*UNC—Chapel Hill*

MARK C. FISHMAN  
*Novartis Institutes for BioMedical  
Research*

JOSEPH HEITMAN  
*Duke University*



## *Project Meetings and Workshops*

### Workshop on “The Unstable Biomedical Research Ecosystem: How Can It Be Made More Robust?” continued

WILLIAM JECK  
*UNC – Chapel Hill*

JEREMY KAY  
*Duke University*

MELISSA KEENAN  
*Duke University*

MARY KLOTMAN  
*Duke University School of Medicine;  
Duke University Medical Center*

SALLY KORNBLOTH  
*Duke University*

DOROTHY KOVEAL  
*American Academy of Arts and Sciences*

DANIEL LEW  
*Duke University*

QI-JING LI  
*Duke University*

JON LORSCH  
*National Institute of General Medical  
Sciences*

DAVID MACALPINE  
*Duke University*

TERRY MAGNUSON  
*UNC—Chapel Hill; UNC Lineberger  
Comprehensive Cancer Center*

COLLEEN McCLEAN  
*Duke University*

DONALD McDONNELL  
*Duke University*

CHRISTOPHER NICCHITTA  
*Duke University Medical Center*

JOHN RANDELL  
*American Academy of Arts and Sciences*

KIM RATHMELL  
*UNC Lineberger Comprehensive  
Cancer Center*

PATRICK SEED  
*Duke University*

HAROLD VARMUS  
*National Cancer Institute; currently, Weill  
Cornell Medical College, Cornell University*

BENJAMIN VINCENT  
*UNC School of Medicine*

SUSAN R. WENTE  
*Vanderbilt University*

ANNE WEST  
*Duke University*



Jonathan F. Fanton (American Academy of Arts and Sciences) and co-moderators Nancy C. Andrews (Duke University School of Medicine) and Sally Kornbluth (Duke University) discuss “The Unstable Biomedical Research Ecosystem: How Can It Be Made More Robust?” at Duke University.



(left to right): Mark C. Fishman (Novartis Institutes for BioMedical Research), Nancy C. Andrews (Duke University School of Medicine), Sally Kornbluth (Duke University), Susan R. Wente (Vanderbilt University), Richard H. Brodhead (Duke University), Harold Varmus (National Cancer Institute; currently, Weill Cornell Medical College, Cornell University), Tania Baker (Massachusetts Institute of Technology), and Jonathan F. Fanton (American Academy of Arts and Sciences)

*Project Meetings and Workshops***Congressional Roundtable on a proposed “National Research Initiative”**

February 25, 2015  
Washington, D.C.

*Participants*

RALPH CICERONE  
*National Academy of Sciences*

CHRIS COONS  
*U.S. Senate*

DICK DURBIN  
*U.S. Senate*

VICTOR DZAU  
*National Academy of Medicine*

JOHN ENGLER  
*Business Roundtable*

AMY ERICSON  
*Alstom*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

MARK C. FISHMAN  
*Novartis Institutes for BioMedical Research*

BART GORDON  
*K&L Gates ; formerly, U.S. House of Representatives*

RANDY HULTGREN  
*U.S. House of Representatives*

GENE IRISARI  
*Texas Instruments Incorporated*

ANDY KARSNER  
*Manifest Energy*

PRAMOD P. KHARGONEKAR  
*National Science Foundation*

DEREK KILMER  
*U.S. House of Representatives*

KEI KOIZUMI  
*White House Office of Science and Technology Policy*

NEAL LANE  
*Rice University*

PETER McPHERSON  
*Association of Public and Land-grant Universities (APLU)*

DAVID W. MILLER  
*NASA*

MARK MYKITYSHYN  
*Tangible Software*

DAVID PAREKH  
*United Technologies Corporation*

JIM PHILLIPS  
*NanoMech, Inc.*

MICHAEL PLONSKY  
*Alcoa*

BILL PROVINE  
*DuPont*

HUNTER RAWLINGS  
*Association of American Universities (AAU)*

BRIAN J. RAYMOND  
*National Association of Manufacturers*

DEBORAH WINCE-SMITH  
*Council on Competitiveness*

MARY WOOLLEY  
*Research !America*

*Project Meetings and Workshops***Second NGO Coordination Meeting on *Restoring the Foundation Outreach***

February 25, 2015  
Washington, D.C.

*Participants*

ROBERT BOEGE  
*The Alliance for Science & Technology Research in America (ASTRA)*

JOANNE CARNEY  
*American Association for the Advancement of Science*

LEIGH CARROLL  
*National Academy of Medicine*

JOHN C. CROWLEY  
*Charlottesville, Virginia*

ELLIE DEHONEY  
*Research !America*

VICTOR DZAU  
*National Academy of Medicine*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

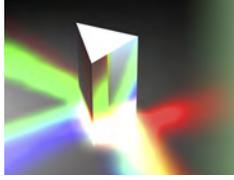
MARY GOOD  
*The Alliance for Science & Technology Research in America (ASTRA); University of Arkansas*

BART GORDON  
*K&L Gates ; formerly, U.S. House of Representatives*

RUSH HOLT  
*American Association for the Advancement of Science ; formerly, U.S. House of Representatives*

DOROTHY KOVEAL  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*



## *Project Meetings and Workshops*

### Second NGO Coordination Meeting on *Restoring the Foundation* Outreach, continued

PETER McPHERSON  
*Associate of Public and Land-grant  
Universities (APLU)*

JENNIFER POULAKIDAS  
*Association of Public and Land-grant  
Universities (APLU)*

JOHN RANDELL  
*American Academy of Arts and Sciences*

HUNTER RAWLINGS  
*Association of American Universities  
(AAU)*

ANDREW STEIGERWALD  
*Council on Competitiveness*

DEBORAH WINCE-SMITH  
*Council on Competitiveness*

MARY WOOLLEY  
*Research !America*

STEVE GOLDBLATT  
*Suffolk Group*

FELICIA KNIGHT  
*Knight-Canney Group*

## *Project Meetings and Workshops*

### A Conversation on *Restoring the Foundation*: The Important Role of Central and Southern Plains Institutions in Driving National Change

May 28, 2015  
Rosemont, IL

#### *Participants*

JASMINE ALMOAYED  
*City of Cedar Rapids, IA*

SHERI ANDERSON  
*North Dakota State University*

KEN BAYLES  
*University of Nebraska Medical Center*

MARY T. BERRY  
*University of South Dakota*

KAREN BURG  
*Kansas State University*

BARRY BUTLER  
*University of Iowa*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

VIMAL CHAITANYA  
*New Mexico State University*

ARCHIE CLUTTER  
*University of Nebraska*

DAVID CONRAD  
*University of Iowa*

MARY JO DANIEL  
*NM EPSCoR; University of New Mexico*

JIM DOOLITTLE  
*South Dakota State University*

KELVIN K. DROEGEMEIER  
*University of Oklahoma;  
National Science Board*

ROB DUNCAN  
*Texas Tech University*

STEPHEN FRAYSER  
*Texas State University*

HOWARD GOBSTEIN  
*Association of Public and Land-grant  
Universities (APLU)*

STEVE GODDARD  
*University of Nebraska-Lincoln*

BETH INGRAM  
*North Dakota State University*

CHRISTA JOHNSON  
*Colorado State University*

*Rachel Johnson American Academy of Arts  
and Sciences*

MICHAEL KHONSARI  
*Louisiana EPSCoR; Louisiana Board  
of Regents*

DOROTHY KOVEAL  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*

BRANDON LIPPS  
*Texas Tech University System*

SOPHIA MAGILL  
*Iowa State University*

JERRY MALAYER  
*Oklahoma EPSCoR; Oklahoma State  
University*

KEVIN MALLOY  
*University of New Mexico*

SALLY MASON  
*University of Iowa*

GAIL McCLURE  
*Arkansas EPSCoR; Arkansas Science &  
Technology Authority*

STEPHEN McKEEVER  
*State of Oklahoma; Oklahoma State  
University*

MATHEW MUÑOZ  
*University of New Mexico*

SARAH NUSSER  
*University of Iowa*

### *Project Meetings and Workshops*

## A Conversation on *Restoring the Foundation*: The Important Role of Central and Southern Plains Institutions in Driving National Change, continued

PREM S. PAUL  
*University of Nebraska-Lincoln*

JAN PUSZYNSKI  
*South Dakota School of Mines and  
Technology*

JOHN RANDELL  
*American Academy of Arts and Sciences*

JIM RANKIN  
*University of Arkansas*

DANIEL A. REED  
*University of Iowa*

KELLY RUSCH  
*North Dakota State University;  
North Dakota EPSCoR*

KENNETH SEWELL  
*Oklahoma State University*

TOBIN SMITH  
*Association of American Universities*

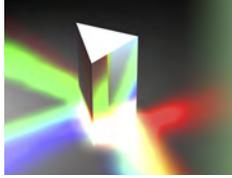
KALLIAT T. VALSARAJ  
*Louisiana State University*



Sally Mason (University of Iowa) addressing university vice presidents for research from the plains states on how a regional working group could implement *Restoring the Foundation's* recommendations.



Oklahoma Secretary of Science & Technology Stephen McKeever (Oklahoma State University) speaks during a breakout session on STEM education at the May 28 workshop in Chicago. Others pictured (clockwise from McKeever): Howard Gobstein (Association of Public and Land-grant Universities), Christa Johnson (Colorado State University), Karen Burg (Kansas State University), Rachel Johnson (American Academy), and Gail McClure (Arkansas Science & Technology Authority).



## *Project Meetings and Workshops*

### Third NGO Coordination Meeting on *Restoring the Foundation* Outreach

June 15, 2015  
Washington, D.C.

#### *Participants*

ROBERT BOEGE  
*The Alliance for Science & Technology  
Research in America (ASTRA)*

JOANNE CARNEY  
*American Association for the Advancement  
of Science*

ANNE CLAIBORNE  
*National Academy of Medicine*

VICTOR DZAU  
*National Academy of Medicine*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

MARY GOOD  
*The Alliance for Science & Technology  
Research in America (ASTRA)*

BART GORDON  
*K&L Gates ; formerly, U.S. House of  
Representatives*

SHALIN JYOTISHI  
*American Academy of Arts and Sciences*

MARC KASTNER  
*Science Philanthropy Alliance*

FELICIA KNIGHT  
*Knight-Canney Group*

DOROTHY KOVEAL  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*

JEFF LIEBERSON  
*Association of Public and Land-grant  
Universities (APLU)*

PETER McPHERSON  
*Association of Public and Land-grant  
Universities (APLU)*

C.D. MOTE, JR.  
*National Academy of Engineering ;  
University of Maryland*

MATT OWENS  
*Association of American Universities  
(AAU)*

JENNIFER POULAKIDAS  
*Association of Public and Land-grant  
Universities (APLU)*

JOHN RANDELL  
*American Academy of Arts and Sciences*

HUNTER RAWLINGS  
*Association of American Universities  
(AAU)*

ANDREW STEIGERWALD  
*Council on Competitiveness*

DEBORAH WINCE-SMITH  
*Council on Competitiveness*

MARY WOOLLEY  
*Research !America*

## *Meetings Around the Country*

### Discussion with Academy Fellows on *Restoring the Foundation*

November 6, 2014  
Northwestern University  
Evanston, IL

#### *Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*

### Discussion with Academy Fellows on *Restoring the Foundation*

December 3, 2014  
Princeton University  
Princeton, NJ

#### *Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

SHIRLEY TILGHMAN  
*Princeton University*

*Meetings Around the Country*Discussion with Academy Fellows on  
*Restoring the Foundation*

December 4, 2014  
University of Pennsylvania  
Philadelphia, PA

*Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

UMA CHOWDHRY  
*E.I. du Pont de Nemours & Company, ret.*

Stated Meeting on “Replenishing  
the Innovation Pipeline: The Role of  
University Research”

February 3, 2015  
Stanford University  
Stanford, CA

*Speakers:*

ANN M. ARVIN  
*Stanford University*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

JOHN L. HENNESSY  
*Stanford University*

PETER S. KIM  
*Stanford University*

CARLA J. SHATZ  
*Stanford University*

Discussion with Academy Fellows on  
*Restoring the Foundation*

February 5, 2015  
University of Southern California  
Los Angeles, CA

*Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

ERIC FRIEDLANDER  
*University of Southern California*

Discussion with Academy Fellows on  
*Restoring the Foundation*

February 6, 2015  
California Institute of Technology  
Pasadena, CA

*Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

THOMAS F. ROSENBAUM  
*California Institute of Technology*

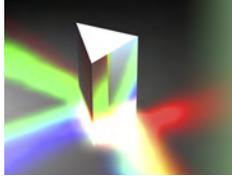
MAXINE L. SAVITZ  
*Honeywell, Inc., ret.*



Shirley Tilghman (Princeton University) discussing one of the figures published in *Restoring the Foundation*.



Ann M. Arvin (Stanford University), Carla J. Shatz (Stanford University), and Peter S. Kim (Stanford University)



## *Meetings Around the Country*

### Stated Meeting on “The Unstable Biomedical Research Ecosystem: How Can It Be Made More Robust?”

February 24, 2015  
Duke University  
Durham, NC

#### *Speakers*

NANCY C. ANDREWS  
*Duke University School of Medicine*

TANIA BAKER  
*Massachusetts Institute of Technology*

RICHARD H. BRODHEAD  
*Duke University*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

MARK C. FISHMAN  
*Novartis Institutes for BioMedical Research*

SALLY KORNBLUTH  
*Duke University*

HAROLD VARMUS  
*National Cancer Institute; currently, Weill Cornell Medical College, Cornell University*

SUSAN R. WENTE  
*Vanderbilt University*

### Civic Scientist Lecture on *Restoring the Foundation: Reviving the U.S. Science, Engineering and Technology Enterprise*

April 30, 2015  
Rice University  
Houston, TX

#### *Speakers*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

NEAL LANE  
*Rice University*

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

STEVEN CHU  
*Stanford University; formerly, U.S. Department of Energy*



Maxine L. Savitz (Honeywell, Inc., ret.) and Gene D. Block (University of California, Los Angeles)



Neal Lane (Rice University), Norman R. Augustine (Lockheed Martin Corporation, ret.), and Steven Chu (Stanford University; formerly, U.S. Department of Energy)

## The Alternative Energy Future

The Alternative Energy Future project examines the social and regulatory barriers to the adoption of new energy technologies and how these barriers might be overcome. Changing the existing energy infrastructure to address economic and environmental challenges will also require addressing these societal considerations, which to date have not been adequately considered by policy-makers.

The Alternative Energy Future project is currently focused on the following two goals:

- Demonstrating the value of social science in accelerating the process of designing and adopting innovations in the physical energy system; and
- Creating a research program aimed at understanding how governing institutions and policy design must adapt to the demands of a changing energy infrastructure. This objective requires building both scholarly and financial support for studying issues that have not received much attention.

Three publications of the Alternative Energy Future project document the importance of these goals, and the complexity of the problems they address. The 2011 report *Beyond Technology: Strengthening Energy Policy through Social Science* outlines the value of social science and recommends strategies for enhancing collaboration between social scientists and policy-makers. In the

Spring 2012 and Winter 2013 issues of *Dædalus*, the Journal of the American Academy, over thirty distinguished scholars examine the coming societal change from a variety of viewpoints. And a consensus statement from a 2013 workshop on energy policy design highlights the need to research the institutional changes that will be required to manage the climate problem.

Last year, a two-day workshop on *Applying Behavioral Strategies to Energy Decisions and Behaviors* highlighted the potential of behavior strategies to increase participation in clean energy programs and to improve overall program effectiveness. This year, two meetings furthered the breadth and depth of the Alternative Energy Future project's objectives. The first meeting of a working group to discuss the durability and adaptability of energy policy explored how more than four decades of experience with the Clean Air Act could offer generalizable lessons for future energy policy development. At the second meeting, the Academy convened representatives from over a dozen foundations and the federal government to discuss emerging issues in social science research; examine how the field's methods and tools can be applied to environmental questions; hear from current researchers, practitioners, and other funders; and develop practical approaches to integrating social sciences into their individual grant portfolios.

### Project Directors

ROBERT W. FRI †  
*Resources for the Future*

GRANGER MORGAN  
*Carnegie Mellon University*

MAXINE L. SAVITZ  
*Honeywell, Inc., ret.*

### Steering Group

STEPHEN ANSOLABEHERE  
*Harvard University*

DOUGLAS ARENT  
*National Renewable Energy Laboratory*

ANN CARLSON  
*University of California, Los Angeles*

THOMAS DIETZ  
*Michigan State University*

STEVEN E. KOONIN  
*New York University; formerly,  
U.S. Department of Energy*

RICHARD NEWELL  
*Duke University*

ROBERT SOCOLOW  
*Princeton University*

MICHAEL VANDENBERGH  
*Vanderbilt Law School*

### Project Staff

JOHN RANDELL

ZACKORY T. BURNS

RACHEL JOHNSON

### Funders

*Cynthia and George Mitchell Foundation  
National Science Foundation*

*New York State Energy Research and  
Development Authority (NYSERDA)*

*Skoll Global Threats Fund*

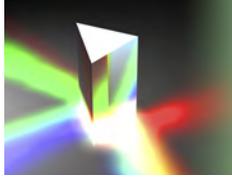
*Alfred P. Sloan Foundation*

*United States Department of Energy*

## Publications

“The Alternative Energy Future,” vols. 1 – 2, *Dædalus*, edited by Robert W. Fri and Stephen Ansolabehere (MIT Press, Spring 2012 and Winter 2013)

*Beyond Technology: Strengthening Energy Policy through Social Science* (American Academy of Arts and Sciences, 2011)



## *Project Meetings and Workshops*

# Durability and Adaptability in Energy Policy

December 15, 2014  
Cambridge, MA

### *Participants*

JOSEPH ALDY  
*Harvard University; Resources for the Future; National Bureau of Economic Research*

WILLIAM BOYD  
*University of Colorado, Boulder School of Law*

ZACKORY T. BURNS  
*American Academy of Arts and Sciences*

DALLAS BURTRAW  
*Resources for the Future*

ANN CARLSON  
*University of California, Los Angeles*

JUDSON JAFFE  
*U.S. Department of the Treasury; formerly, Analysis Group, Inc.*

RACHEL JOHNSON  
*American Academy of Arts and Sciences*

BARBARA KATES-GARNICK  
*Tufts University; formerly, Department of Energy and Environmental Affairs, Commonwealth of Massachusetts*

RICHARD LAZARUS  
*Harvard Law School*

GRANGER MORGAN  
*Carnegie Mellon University*

ERIC PATASHNIK  
*University of Virginia; Brookings Institution*

ROBERT PERCIASEPE  
*Center for Climate and Energy Solutions; formerly, U.S. Environmental Protection Agency*

BARRY RABE  
*University of Michigan; Brookings Institution*

JOHN RANDELL  
*American Academy of Arts and Sciences*

MAXINE L. SAVITZ  
*Honeywell, Inc., ret.*

KENNETH SHEPSLE  
*Harvard University*

ELIZABETH WILSON  
*University of Minnesota*



Dallas Burtraw (Resources for the Future) and Ann Carlson (University of California, Los Angeles) discuss durability and adaptability in energy policy.

*Project Meetings and Workshops*

## Philanthropic Leadership Symposium: Integrating Social Sciences into Environmental Grantmaking

February 26 – 27, 2015  
Cambridge, MA

*Participants*

MATT BAKER

*William and Flora Hewlett Foundation;  
formerly, Colorado Public Utilities  
Commission*

JANE BLOCH

*Skoll Global Threats Fund*

ZACKORY T. BURNS

*American Academy of Arts and Sciences*

DALLAS BURTRAW

*Resources for the Future*

FAY LOMAX COOK

*National Science Foundation*

ERIN CORYELL

*Margaret A. Cargill Foundation*

RENE DINESEN

*KR Foundation*

JONATHAN F. FANTON

*American Academy of Arts and Sciences*

SARAH FIORENZA

*Cynthia and George Mitchell Foundation*

BARUCH FISCHHOFF

*Carnegie Mellon University*

MARILU HASTINGS

*Cynthia and George Mitchell Foundation*

RACHEL JOHNSON

*American Academy of Arts and Sciences*

ARAM KANG

*Robertson Foundation*

BETH KARLIN

*University of California, Irvine*

IRENE KRARUP

*V. Kann Rasmussen Foundation*

GINNY KREITLER

*National Audubon Society*

TODD KUIKEN

*Woodrow Wilson International  
Center for Scholars*

DIANA LIVERMAN

*University of Arizona*

AMY LUERS

*Skoll Global Threats Fund*

BREWSTER McCracken

*Pecan Street Inc.*

ALAN MEIER

*Lawrence Berkeley National Laboratory*

EVAN MICHELSON

*Alfred P. Sloan Foundation*

ED MILLER

*The Joyce Foundation*

GRANGER MORGAN

*Carnegie Mellon University*

JOHN PETERSEN

*Charles and Anne Morrow Lindbergh  
Foundation; The Arlington Institute*

MARIELLA PUERTO

*Barr Foundation*

JOHN RANDELL

*American Academy of Arts and Sciences*

RAMSAY RAVENEL

*Grantham Foundation*

TODD ROGERS

*Harvard University*

MAXINE L. SAVITZ

*Honeywell, Inc., ret.*

DAVID THAYER

*Pacific Gas and Electric*

DAVID TUFT

*Energy Foundation*

DAN WAGNER

*CIVIS Analytics*

# The Humanities, Arts, and Education

The Academy is collaborating with organizations across the country—colleges and universities, learned societies, libraries, state councils, museums, and government—to develop policy recommendations and resources that strengthen American education from kindergarten through graduate school. Current projects examine the future of postsecondary education and the importance of supporting public universities. The Academy’s ongoing initiative for the humanities includes the Commission on the Humanities and Social Sciences, the Humanities Indicators data project, and a new Commission on Language Learning. All of this work reaffirms the Academy’s underlying commitment to education as a prerequisite for a well-functioning democracy.

## Commission on the Humanities and Social Sciences

In 2010, a bipartisan group of Congressional leaders called upon the Academy to organize an examination of the importance of the humanities and social sciences to American democracy and competitiveness. They asked the Academy to consider the following question:

*What are the top actions that Congress, state governments, universities, foundations, educators, individual benefactors, and others should take now to maintain national excellence in humanities and social scientific scholarship and education, and to achieve long-term national goals for our intellectual and economic well-being; for a stronger, more vibrant civil society; and for the success of cultural diplomacy in the 21st century?*

To meet this challenge, in 2011 the Academy established the Commission on the Humanities and Social Sciences. The Commission convened leaders from the sciences, business, public affairs, social sciences, humanities, and the arts to advance a new conversation about the importance of these disciplines to the nation’s intellectual and economic strength, its public institutions, and its civil society. The Commission’s report, *The Heart of the Matter*, was released on June 19, 2013.

Highlights of the Commission’s outreach include:

- Nearly 200,000 copies of *The Heart of the Matter* have been distributed online and in print to individuals and at large-scale humanities events across the country. The companion film has been viewed over 33,000 times online.
- Colleges and universities have used *The Heart of the Matter* to bolster their own humanities activities. Several national organizations have launched their own, complementary liberal arts initiatives.
- *The Heart of the Matter* report has been used to inform the governing boards at academic associations, including the National Humanities Alliance, Federation of State Humanities Councils, Phi Beta Kappa, and the National Endowment for the Humanities.
- The report has been the focus of a series of public events in communities around the country.
- With cooperation from state humanities councils and learned societies, Commission members have participated in ongoing outreach activities on campuses, in libraries, on radio and television programs, and in print and online news sources nationwide.
- In October 2014, Representative Rush Holt (D-New Jersey) proposed a bill based on a recommendation from *The Heart of the Matter* for a K–12 Master Teacher Program that would encompass all disciplines, expanding President Obama’s 2012 proposal for a STEM Master Teacher Corps.
- In November 2014, the Academy received two letters expressing a bipartisan request from members of the United States Senate and House of Representatives that the Academy undertake a new study of the nation’s language education needs as a follow-up to *The Heart of the Matter*.

Commission members have spoken about *The Heart of the Matter* at events around the country, including:

- Richard H. Brodhead, John W. Rowe, and Diane P. Wood at the first Chicago Humanities Summit, a collaboration with the Modern Language Association and the Chicago Humanities Festival, January 9, 2014
- James Cuno and Drew Gilpin Faust at the World Economic Forum in Davos, Switzerland, discussion of “The Humanities in the Digital Age,” January 23, 2014
- Annette Gordon-Reed at University of Maryland-College Park, *Worldwise: Arts & Humanities Lecture Series*, February 27, 2014
- Richard H. Brodhead, Karl Eikenberry, and Representative David Price at North Carolina State University, March 7, 2014
- Pauline Yu at Arizona State University, Humanities Program, March 17, 2014
- Francisco Cigarroa at the National Humanities Alliance, Annual Meeting, March 10, 2014
- Norman Augustine and Hunter Rawlings at Carnegie Mellon University, Presidential Lecture Series, April 21, 2014
- Earl Powell at University of Maine Humanities Center event in Washington, D.C., May 12, 2014
- Karl Eikenberry, Hunter Rawlings, Diane P. Wood, and Pauline Yu at an American Academy – British Academy conference in London on the humanities, June 23 and 24, 2014

- David Souter at Carnegie Mellon University, John and Mary Lou Lehoczky Lecture Series in the Humanities and Social Sciences, October 10, 2014
- David Skorton in an interview by Philip Kennicott (*The Washington Post*), October 29, 2014
- Karl Eikenberry at the Twenty-Fifth Anniversary of the Chicago Humanities Festival, November 8, 2014
- G. Wayne Clough at the Teaching Digital Humanities Conference in partnership with Emory University, April 2, 2015

## Forthcoming Publication

*The Heart of the Matter Around the Country*



G. Wayne Clough (Smithsonian Institution; Georgia Institute of Technology) and Jessica Johnson (Michigan State University)



Karl Eikenberry (Stanford University) on “The Humanities and ‘Soft Power’” at the Chicago Humanities Festival



Subra Suresh (Carnegie Mellon University) and David Souter (formerly, Supreme Court of the United States)

The Humanities, generally consisting of languages and the arts,<sup>5</sup> history,<sup>6</sup> music, linguistics, and philosophy. While the exact definition of the humanities remains debated, the characterization of the field is highly diverse.

# The Humanities, Arts, and Education

## Commission on the Humanities and Social Sciences

### *Project Chairs*

RICHARD H. BRODHEAD  
*Duke University*

JOHN W. ROWE  
*Exelon Corporation, ret.*

### *Advisory Committee*

DANIELLE S. ALLEN  
*Harvard University*

KWAME ANTHONY APPIAH  
*New York University*

NORMAN R. AUGUSTINE  
*Lockheed Martin Corporation, ret.*

ROBERT M. BERDAHL  
*formerly, Association of American Universities*

LESLIE C. BERLOWITZ  
*Cambridge, MA*

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

PHILIP BREDESEN, JR.  
*former Governor of Tennessee*

DAVID BROOKS  
*The New York Times*

LOUISE H. BRYSON  
*The J. Paul Getty Trust*

KEN BURNS  
*Florentine Films*

TOM CAMPBELL  
*Chapman University School of Law ; formerly, U.S. House of Representatives*

FRANCISCO CIGARROA  
*University of Texas Health Science Center at San Antonio*

G. WAYNE CLOUGH  
*formerly, Smithsonian Institution and Georgia Institute of Technology*

JAMES CUNO  
*The J. Paul Getty Trust*

GERALD EARLY  
*Washington University in St. Louis*

KARL W. EIKENBERRY  
*Stanford University ; former U.S. Ambassador to Afghanistan ; U.S. Army Lieutenant General, ret.*

DREW GILPIN FAUST  
*Harvard University*

ROGER W. FERGUSON, JR.  
*TIAA-CREF*

RICHARD B. FREEMAN  
*Harvard University*

DANA GIOIA  
*University of Southern California ; formerly, National Endowment for the Arts*

ANNETTE GORDON-REED  
*Harvard University*

ANTHONY GRAFTON  
*Princeton University*

AMY GUTMANN  
*University of Pennsylvania*

EMMYLOU HARRIS  
*Musician ; Songwriter*

ROBERT M. HAUSER  
*National Research Council, National Academy of Sciences*

F. WARREN HELLMAN†  
*Hellman & Friedman LLC*

JOHN L. HENNESSY  
*Stanford University*

JILL A. HORNOR  
*Sound Postings, LLC*

KATHLEEN HALL JAMIESON  
*University of Pennsylvania*

REV. JOHN I. JENKINS  
*University of Notre Dame*

STEVEN KNAPP  
*The George Washington University*

JOHN LITHGOW  
*Actor*

GEORGE LUCAS  
*Skywalker Properties, Ltd.*

YO-YO MA  
*Musician*

CAROLYN "BIDDY" MARTIN  
*Amherst College*

ANTHONY W. MARX  
*The New York Public Library*

JAMES McNERNEY  
*Boeing Company*

EDUARDO J. PADRÓN  
*Miami Dade College*

CARL H. PFORZHEIMER III  
*Carl H. Pforzheimer and Co. LLC*

EARL A. POWELL III  
*National Gallery of Art*

HUNTER R. RAWLINGS III  
*Association of American Universities*

JOHN SEXTON  
*New York University*

DONNA E. SHALALA  
*Clinton Foundation ; formerly, University of Miami*

DAVID J. SKORTON  
*Smithsonian Institution ; formerly, Cornell University*

DAVID SOUTER  
*formerly, Supreme Court of the United States*

ERIC SUNDQUIST  
*Johns Hopkins University*

BILLIE TSIEN  
*Tod Williams Billie Tsien Architects*

CHARLES M. VEST †  
*National Academy of Engineering*

JOHN E. WARNOCK  
*Adobe Systems, Inc.*

DIANE P. WOOD  
*United States Court of Appeals for the Seventh Circuit*

PAULINE YU  
*American Council of Learned Societies*

### *Project Staff*

JOHN TESSITORE

PETER KARDON

### *Funders*

*Carnegie Corporation of New York  
Andrew W. Mellon Foundation*

## The Humanities Indicators

The Humanities Indicators ([www.humanitiesindicators.org](http://www.humanitiesindicators.org)) are a resource for educators, policy-makers, journalists, and others seeking data to assess the welfare of the humanities. Drawing on existing data sets and original research, the Indicators offer trend data and analysis

ranging from primary and secondary education to wider engagement with the humanities in American society. The Indicators are regularly updated to assure their continuing vitality and utility to the ongoing national conversation about the state of the field.

### Project Chair

NORMAN M. BRADBURN  
National Opinion Research Center;  
University of Chicago

### Advisory Committee

JONATHAN R. COLE  
Columbia University

RONALD G. EHRENBERG  
Cornell University

FELICE LEVINE  
American Educational Research  
Association

JUDITH TANUR  
State University of New York  
at Stony Brook

### Project Staff

CAROLYN FUQUA

JOHN HAMMER

JOHN TESSITORE

ROBERT B. TOWNSEND

### Funders

Andrew W. Mellon Foundation

National Endowment for the Humanities

### With advice and assistance from:

American Academy of Religion

American Council of Learned Societies

American Historical Association

American Philosophical Association

American Political Science Association

College Art Association

Federation of State Humanities Councils

History of Science Society

Linguistic Society of America

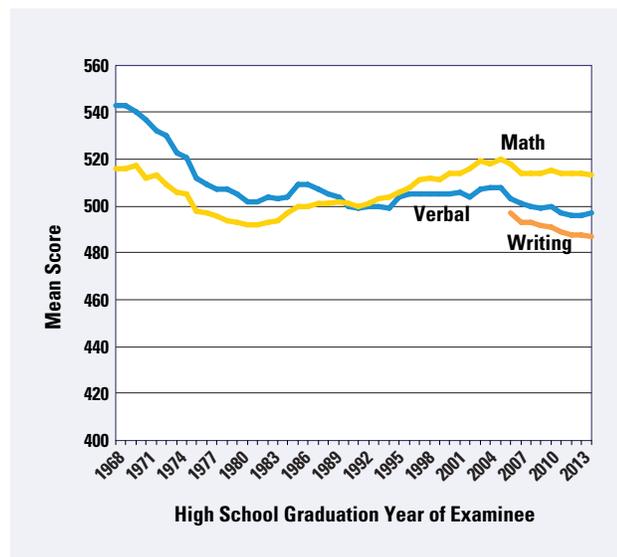
Modern Language Association of America

National Communication Association

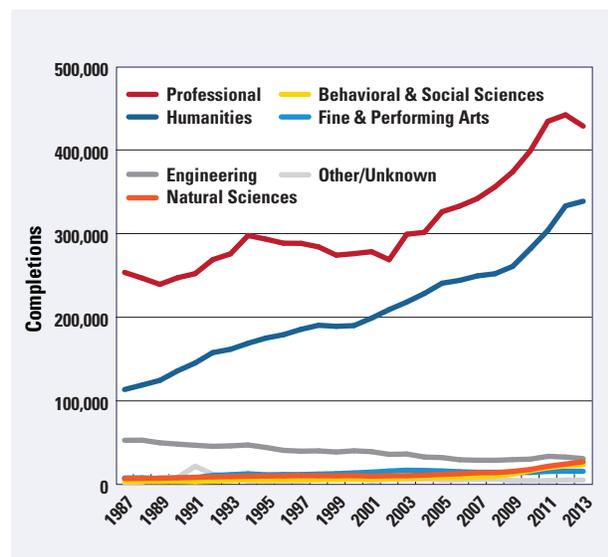
National Humanities Alliance

Society for Biblical Literature

Average SAT Scores, 1968 – 2014



Associate's Degree Completions, by field, 1987 – 2013



The Humanities, generally consisting of languages and literature, history, music, linguistics, the arts,<sup>5</sup> philosophy. While the exact characterization of the humanities remains debated, diversity

# The Humanities, Arts, and Education

## Project Meetings and Workshops

- “What Are the Humanities Good For?” (cosponsored with the National Humanities Alliance and Phi Beta Kappa), Washington, D.C., November 14, 2014
- Humanities Indicators Advisory Committee, Washington, D.C., January 5, 2015

## Recent Publications

- *Findings from the 2013 Humanities Department Survey* (September 2014)
- *The State of the Humanities: Higher Education 2015* (April 2015)

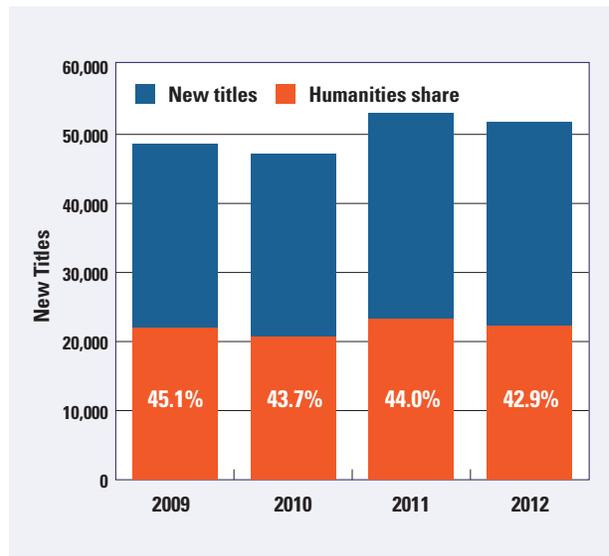
## Forthcoming Publications

- *The State of the Humanities in American Life 2016*

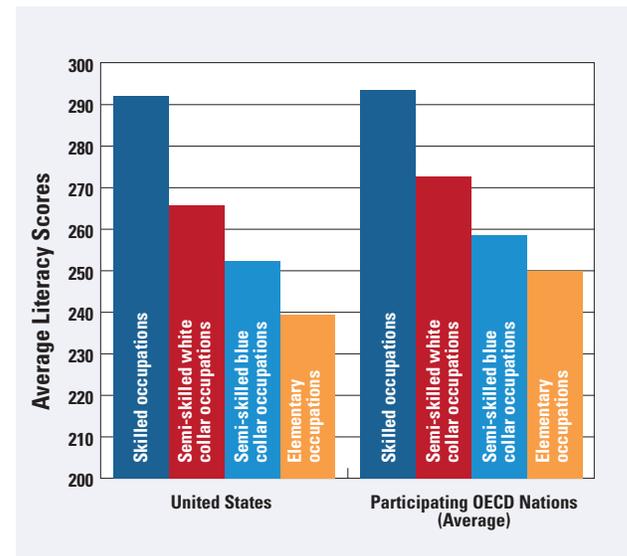
## Recent Appearances in the Media

- “Community Colleges Buck the Trend of Shrinking Humanities,” *The Chronicle of Higher Education* (January 20, 2015)
- “If You’re Thinking about Grad School, This Chart Will Scare You,” *Vox* (March 21, 2015)
- “An Academic Job Slump is Making Graduate Students Depressed,” *Bloomberg Business* (April 24, 2015)
- “Claims of Demise of Humanities Greatly Exaggerated,” *Edwardsville Intelligencer* (May 4, 2015)
- “Technology Edging Out Humanities at Ohio Colleges,” *Columbus Dispatch* (May 9, 2015)
- “Cutting the Liberal Arts Undermines Our Cultural Traditions,” *Washington Post* (June 19, 2015)

New North American Academic Books on Humanities Subjects Published, by field, 2009 – 2012



Average Scores on PIAAC Literacy Proficiency Test by Occupation, 2011 – 2012



## Commission on Postsecondary Education

Postsecondary education continues to be one of the most important avenues of opportunity in American society. But the education landscape is changing rapidly. There are more options for how and when Americans receive their postsecondary education. New populations, for whom the traditional four-year degree was once an impossibility, can now pursue undergraduate education in two-year, four-year, for-profit, and online institutions, according to schedules that fit their own lives. And technological advances offer new approaches to student instruction and collaboration. At the same time, rising costs are challenging the affordability of traditional postsecondary degrees.

The American Academy is beginning a three-year project to examine the state of postsecondary education in America, and to provide ideas for how to ensure that individual Americans receive the education they need to thrive in the twenty-first century. To make sure that the Commission has a clear direction at the outset, the Academy will begin the project by compiling a comprehensive and data-rich portrait of American postsecondary education—incorporating quantitative and qualitative studies that examine every type of postsecondary institution, from early college high schools to private universities.

### Chair

MICHAEL S. McPHERSON  
Spencer Foundation

### Funder

Carnegie Corporation of New York

## Commission on Language Learning

The American Academy has received two letters expressing a bipartisan request from members of the United States Senate and House of Representatives to undertake a new study of the nation's language education needs. Signed by Senators Tammy Baldwin (D-Wisconsin), Mark Kirk (R-Illinois), Orrin Hatch (R-Utah), and Brian Schatz (D-Hawaii), and Representatives Rush Holt (D-New Jersey), Leonard Lance (R-New Jersey), David Price (D-North Carolina), and Don Young (R-Alaska), the letters ask the Academy to provide answers to the following questions:

*How does language learning influence economic growth, cultural diplomacy, the productivity of future generations, and the fulfillment of all Americans?*

*What actions should the nation take to ensure excellence in all languages as well as international education and research, including how we may more effectively use current resources to advance language attainment?*

This charge follows—indeed, it was inspired by—the successful work of the Commission on the Humanities and Social Sciences. In response to their request, the Academy is convening a new committee of experts for a two-year study. The Commission will work with scholarly and professional organizations around the country to gather available research about the benefits of language instruction at every educational level, from pre-school through lifelong learning, and will help to initiate a nationwide conversation about the need for greater investment in languages and international education.

This national commission will examine the current state of language education, project what the nation's education needs will be in the near future, and offer recommendations for ways to meet those needs.

### Chair

PAUL LeCLERC  
Columbia University

### Funder

Andrew W. Mellon Foundation

# The Humanities, Arts, and Education

## The Lincoln Project: Excellence and Access in Public Higher Education

The Lincoln Project is considering the implications of reduced state funding for public higher education, examining the role of the federal government in funding our great public research universities, and developing recommendations for ensuring that public universities continue to serve the nation as engines of economic development and opportunity for Americans from all backgrounds.

In meetings held around the country, the Lincoln Project has brought together local leaders representing public higher education, government, policy, business, and philanthropy to identify common concerns and advance innovative initiatives. Discussion topics include:

- How public universities can address financial challenges while fulfilling their commitment to providing an accessible and affordable undergraduate education;
- How public universities can maintain the education of graduate students, essential to the research mission and the production of faculty, while best serving the needs of undergraduate students;
- How public universities should respond to changing demographics and evolving student needs to ensure success for all students;
- What role the federal government, the business sector, and philanthropy should play in sustaining the excellence of America's public research universities.

### Project Chairs

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

MARY SUE COLEMAN  
*University of Michigan*

### Advisory Committee

LAWRENCE S. BACOW  
*Tufts University*

GENE D. BLOCK  
*University of California, Los Angeles*

HENRY BRADY  
*University of California, Berkeley*

PHILIP BREDESEN  
*former Governor of Tennessee*

NANCY CANTOR  
*Rutgers University-Newark*

JOHN T. CASTEEN III  
*University of Virginia*

JONATHAN COLE  
*Columbia University*

GRAY DAVIS  
*former Governor of California*

PATRICK DOYLE  
*Domino's Pizza, Inc.*

DAVID B. FROHNMAYER †  
*University of Oregon*

E. GORDON GEE  
*West Virginia University*

MATTHEW GOLDSTEIN  
*The City University of New York*

DONALD GRAHAM  
*Graham Holdings Company*

CARL GUARDINO  
*Silicon Valley Leadership Group*

ROBERT D. HAAS  
*Levi Strauss & Co.*

JIM HACKETT  
*Steelcase*

ANN WEAVER HART  
*University of Arizona*

MICHAEL HOUT  
*New York University*

KAY BAILEY HUTCHISON  
*former U.S. Senator, Texas*

JAMES LEACH  
*University of Iowa*

EARL LEWIS  
*The Andrew W. Mellon Foundation*

ANN MARIE LIPINSKI  
*Nieman Foundation for Journalism at Harvard*

GEORGE MILLER  
*former U.S. Representative, California*

WILLIAM POWERS, JR.  
*The University of Texas at Austin*

JOHN W. ROGERS, JR.  
*Ariel Investments*

THOMAS SIEBEL  
*C3; First Virtual Group*

SHIRLEY M. TILGHMAN  
*Princeton University*

PHYLLIS M. WISE  
*University of Illinois at Urbana-Champaign*

FRANK YEARY  
*CamberView Partners LLC*

PAULINE YU  
*American Council of Learned Societies*

### Project Staff

JOHN TESSITORE

SAMANTHA CARNEY

ELIZA BERG

### Funders

*Carnegie Corporation of New York*

*Robert and Colleen Haas*

*William and Flora Hewlett Foundation*

*Thomas and Stacey Siebel Foundation*

*The Spencer Foundation*

*Project Activities***First Regional Forum**

October 26, 2014  
Charlottesville, VA

*Participants*

GERALD L. BALILES  
*The Miller Center*

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

PETER BLAKE  
*State Council of Higher Education for Virginia*

GENE D. BLOCK  
*University of California, Los Angeles*

HENRY BRADY  
*University of California, Berkeley*

PHILIP BREDESEN  
*former Governor of Tennessee*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

JOHN T. CASTEEN III  
*University of Virginia*

JONATHAN COLE  
*Columbia University*

MARY SUE COLEMAN  
*University of Michigan*

JOHN C. CROWLEY  
*Charlottesville, Virginia*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

CAROL FOLT  
*University of North Carolina at Chapel Hill*

MATTHEW GOLDSTEIN  
*The City University of New York*

CARL GUARDINO  
*Silicon Valley Leadership Group*

ROBERT D. HAAS  
*Levi Strauss & Co.*

JAMES HACKETT  
*Steelcase*

MICHAEL HOUT  
*New York University*

FELICIA KNIGHT  
*Knight Vision International*

EARL LEWIS  
*The Andrew W. Mellon Foundation*

MICHAEL RAO  
*Virginia Commonwealth University*

HUNTER RAWLINGS  
*Association of American Universities*

LINWOOD ROSE  
*Virginia Business Higher Education Council*

TIMOTHY SANDS  
*Virginia Tech*

RAY SCHEPPACH  
*The Miller Center*

TERESA SULLIVAN  
*University of Virginia*

JOHN TESSITORE  
*American Academy of Arts and Sciences*

PAULINE YU  
*American Council of Learned Societies*



Carol Folt (University of North Carolina at Chapel Hill) and Earl Lewis (The Andrew W. Mellon Foundation)

The Humanities, generally consisting of languages and the arts, history, music, linguistics, and philosophy. While the exact characterization of the humanities remains debated, the diversity of the field is widely recognized.

# The Humanities, Arts, and Education

## Project Activities

### Third Full Committee Meeting

October 27, 2014  
Charlottesville, VA

#### Participants

GERALD BALILES  
*The Miller Center*

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

MARY SUE COLEMAN  
*University of Michigan*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

LAWRENCE S. BACOW  
*Tufts University*

GENE D. BLOCK  
*University of California, Los Angeles*

HENRY BRADY  
*University of California, Berkeley*

PHILIP BREDESEN  
*former Governor of Tennessee*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

JONATHAN COLE  
*Columbia University*

JOHN C. CROWLEY  
*Charlottesville, Virginia*

CAROL FOLT  
*University of North Carolina  
at Chapel Hill*

DAVID FROHNMAYER  
*University of Oregon*

MATTHEW GOLDSTEIN  
*The City University of New York*

CARL GUARDINO  
*Silicon Valley Leadership Group*

ROBERT D. HAAS  
*Levi Strauss & Co.*

JAMES HACKETT  
*Steelcase*

ANN WEAVER HART  
*University of Arizona*

MICHAEL HOUT  
*New York University*

FELICIA KNIGHT  
*Knight Vision International*

EARL LEWIS  
*The Andrew W. Mellon Foundation*

PETER McPHERSON  
*Association of Public and Land-grant  
Universities*

HUNTER RAWLINGS  
*Association of American Universities*

RAY SCHEPPACH  
*The Miller Center*

JOHN TESSITORE  
*American Academy of Arts and Sciences*

PAULINE YU  
*American Council of Learned Societies*

## Project Activities

### Second Regional Forum

March 26, 2015  
Austin, TX

#### Participants

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

HENRY BRADY  
*University of California, Berkeley*

PHILIP BREDESEN  
*former Governor of Tennessee*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

MARY SUE COLEMAN  
*University of Michigan*

DAVID DANIEL  
*The University of Texas at Dallas*

LARRY FAULKNER  
*The University of Texas at Austin*



(From left to right) James Henderson (University of Louisiana at Lafayette), Diana Natalicio (The University of Texas at El Paso), Robert J. Birgeneau (University of California, Berkeley), Kay Bailey Hutchison (former U.S. Senator, Texas), Henry Brady (University of California, Berkeley), and Vistasp Karbhari (The University of Texas at Arlington)

*Project Activities*

## Second Regional Forum, continued

JOHN FITZPATRICK

*Educate Texas*

JAMES HENDERSON

*University of Louisiana at Lafayette*

KAY BAILEY HUTCHISON

*former U.S. Senator, Texas*

VISTASP KARBHARI

*The University of Texas at Arlington*

HARRISON KELLER

*The University of Texas at Austin*

DIANA NATALICIO

*The University of Texas at El Paso*

RAYMUND PAREDES

*Texas Higher Education  
Coordinating Board*

WILLIAM POWERS, JR.

*The University of Texas at Austin*

AMY WOHLERT

*The University of New Mexico**Project Activities*

## Third Regional Forum

April 2, 2015

Atlanta, GA

*Participants*

MARK BECKER

*Georgia State University*

ROBERT J. BIRGENEAU

*University of California, Berkeley*

CARLTON BROWN

*Clark Atlanta University*

SAMANTHA CARNEY

*American Academy of Arts and Sciences*

MARY SUE COLEMAN

*University of Michigan*

JONATHAN F. FANTON

*American Academy of Arts and Sciences*

ROBERT FRANKLIN

*Morehouse College; Emory University*

KENT McGUIRE

*Southern Education Foundation*

PETER McPHERSON

*Association of Public and Land-grant  
Universities*

JERE W. MOREHEAD

*University of Georgia*

G.P. "BUD" PETERSON

*Georgia Institute of Technology*

MARK ROSENBERG

*Florida International University*

M. DAVID RUDD

*University of Memphis*

DOUG SHIPMAN

*Center for Civil and Human Rights*

JOHN TESSITORE

*American Academy of Arts and Sciences*

JAMES W. WAGNER

*Emory University*

Robert Franklin (Morehouse College; Emory University) and Doug Shipman (Center for Civil and Human Rights)

The Humanities, generally, consist of languages and the arts, history, music, linguistics, and philosophy. While the exact characterization of the humanities remains debated, diversity

# The Humanities, Arts, and Education

## Project Activities

### Fourth Regional Forum

April 6, 2015  
New York, NY

#### Participants

DENNIS ASSANIS  
*Stony Brook University*

LAWRENCE S. BACOW  
*Tufts University*

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

GENE D. BLOCK  
*University of California, Los Angeles*

PHILIP BREDESEN  
*former Governor of Tennessee*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

MARY SUE COLEMAN  
*University of Michigan*

FADI DEEK  
*New Jersey Institute of Technology*

PATRICK DOYLE  
*Domino's Pizza, Inc.*

RICHARD EDWARDS  
*Rutgers University-New Brunswick*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

MATTHEW GOLDSTEIN  
*The City University of New York*

CARL GUARDINO  
*Silicon Valley Leadership Group*

ROBERT D. HAAS  
*Levi Strauss & Co.*

MICHAEL HOUT  
*New York University*

ROBERT JONES  
*University at Albany, State University of New York*

HELENE KAPLAN  
*formerly, Skadden, Arps, Slate, Meagher & Flom LLP & Affiliates*

MARK KAPLAN  
*Skadden, Arps, Slate, Meagher & Flom LLP & Affiliates*

FELICIA KNIGHT  
*Knight Vision International*

JASON LANE  
*The State University of New York*

JAMES LEACH  
*University of Iowa*

NICHOLAS LEMANN  
*Columbia University*

DANIEL ROSE  
*Rose Associates, Inc.*

THOMAS RUDIN  
*National Academy of Sciences*

JOHN TESSITORE  
*American Academy of Arts and Sciences*

KENNETH WALLACH  
*Central National-Gottesman, Inc.*

SUSAN WALLACH  
*Susan S. and Kenneth L. Wallach Foundation*

PAULINE YU  
*American Council of Learned Societies*

CHARLES ZUKOSKI  
*University at Buffalo*

## Project Activities

### Fourth Full Committee Meeting

April 7, 2015  
New York, NY

#### Participants

F. KING ALEXANDER  
*Louisiana State University*

LAWRENCE S. BACOW  
*Tufts University*

ROBERT J. BIRGENEAU  
*University of California, Berkeley*

GENE D. BLOCK  
*University of California, Los Angeles*

HENRY BRADY  
*University of California, Los Angeles*

PHILIP BREDESEN  
*former Governor of Tennessee*

NANCY CANTOR  
*Rutgers University-Newark*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

MARY SUE COLEMAN  
*University of Michigan*

JOHN C. CROWLEY  
*Charlottesville, Virginia*

PATRICK DOYLE  
*Domino's Pizza, Inc.*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

MATTHEW GOLDSTEIN  
*The City University of New York*

CARL GUARDINO  
*Silicon Valley Leadership Group*

*Project Activities*

## Fourth Full Committee Meeting, continued

ROBERT D. HAAS  
*Levi Strauss & Co.*

MICHAEL HOUT  
*New York University*

MARTHA KANTER  
*New York University*

FELICIA KNIGHT  
*Knight Vision International*

JULIA LANE  
*American Institutes for Research*

JAMES LEACH  
*University of Iowa*

ELISSA LU  
*American Academy of Arts and Sciences*

PETER McPHERSON  
*Association of Public and Land-grant  
Universities*

JASON OWEN-SMITH  
*University of Michigan*

JOHN W. ROGERS, JR.  
*Ariel Investments*

THOMAS RUDIN  
*National Academy of Sciences*

JOHN TESSITORE  
*American Academy of Arts and Sciences*

PHYLLIS WISE  
*University of Illinois at Urbana-  
Champaign*

FRANK YEARY  
*CamberView Partners LLC*

PAULINE YU  
*American Council of Learned Societies*

*Project Activities*

## Fifth Regional Forum

May 7, 2015  
Chapel Hill, NC

*Participants*

NANCY ALLBRITTON  
*University of North Carolina  
at Chapel Hill*

VALERIE ASHBY  
*University of North Carolina  
at Chapel Hill*

GENE D. BLOCK  
*University of California, Los Angeles*

ROBERT BLOUIN  
*University of North Carolina  
at Chapel Hill*

SAMANTHA CARNEY  
*American Academy of Arts and Sciences*

JONATHAN COLE  
*Columbia University*

JUDITH CONE  
*University of North Carolina  
at Chapel Hill*

JOSEPH DESIMONE  
*University of North Carolina at Chapel  
Hill; North Carolina State University*

FRED ESHELMAN  
*Eshelman Ventures LLC*

MATTHEW FAJACK  
*University of North Carolina  
at Chapel Hill*

CAROL FOLT  
*University of North Carolina  
at Chapel Hill*

ROBERT GEOLAS  
*The Research Triangle Park*

ANN GOODNIGHT  
*SAS Institute*

RICK GUNN  
*North Carolina General Assembly*

KEVIN GUSKIEWICZ  
*University of North Carolina  
at Chapel Hill*

ZHI HONG  
*GlaxoSmithKline*

MARK KATZ  
*University of North Carolina  
at Chapel Hill*

JAMES LEACH  
*University of Iowa*

TOM MARSICO  
*Marsico Capital Management*

BEAU MILLS  
*University of North Carolina  
at Chapel Hill*

DAVID PRICE  
*U.S. House of Representatives*

DAVID ROUTH  
*University of North Carolina  
at Chapel Hill*

DEBRA SAUNDERS-WHITE  
*North Carolina Central University*

ANNA SPANGLER NELSON  
*University of North Carolina Board  
of Governors*

JOHN TESSITORE  
*American Academy of Arts and Sciences*

CLAY THORP  
*Hatteras Venture Partners*

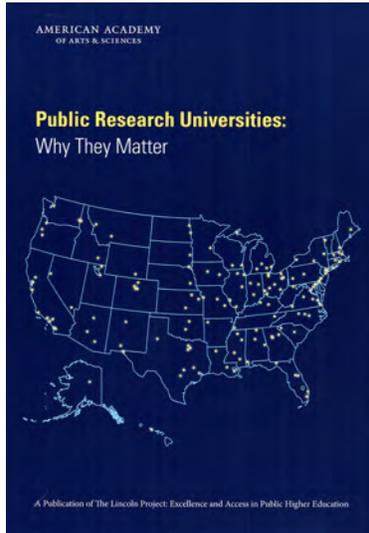
RANDY WOODSON  
*North Carolina State University*

quarry and  
world of everyday  
The Humanities, gener  
ing, consist of languages and  
the arts,<sup>5</sup> history,<sup>6</sup> music, lingu  
philosophy. While the exact  
the humanities remains deb  
and characterization off  
ery diversity

# The Humanities, Arts, and Education

## Publications

*Public Research Universities: Why They Matter* (American Academy of Arts & Sciences, 2015)



## Forthcoming Publications

- An overview of the state appropriations process and where higher education falls within it (September 2015)
- An examination of current financial models of public research universities (October 2015)
- An exploration of the ways in which public research universities serve as a public good (November 2015)
- A final report with recommendations and strategies to secure the future of public research universities (February 2016)

The Exploratory Fund supports Fellows who want to work together to look over the horizon for issues and opportunities not well understood, to think of problems in a fresh way, and to search for connections between research and policy that advance the common good. By encouraging smaller scale initiatives in a variety of venues, the Academy assists Fellows in pursuing the subjects that concern them most.

The Fund provides up to \$30,000 for a limited number of projects each year. Funds can be used in any way that furthers the proposed work, including covering costs associated with the organization of meetings, symposia, and conferences that can be held at the Academy's headquarters in Cambridge, at the home institutions of interested Fellows, or at other locations relevant to discussion topics. Recipients also receive the organizational and logistical support of the Academy staff.

Current Exploratory Initiatives include:

- A discussion of the future of jazz in American life, addressing both the failing economics of jazz—from the struggling recording industry to the decline in performance venues—as well as new opportunities for educational institutions and other organizations to broaden access to jazz education for young people.
- A conference of judges, lawyers, and legal scholars concerned about the state of legal services for the poor. Conference participants will examine obstacles to access in both the civil and the criminal justice systems, evaluate the most recent research, and discuss possible solutions.

#### *Organizers*

FELTON EARLS  
*Harvard University*

WILLIAM DAMON  
*Stanford University*

- A meeting on understanding the new nuclear age, convening experts in international security to examine recent changes in the dynamics of the nuclear order, explore the effect of new technologies on nuclear strategies, and assess how future arms control agreements may be designed in order to address these contextual changes.

#### *Organizer*

ROBERT LEGVOLD  
*Columbia University*

#### *Organizers*

JOHN LEVI  
*Legal Services Corporation*

MARTHA MINOW  
*Harvard Law School*

LANCE LIEBMAN  
*Columbia Law School*

- A meeting of the Collaborative on Autism and Sign Language that seeks to apply recent advances in communication among the deaf to problems of communication with and among people with autism.

#### *Organizers*

MARK ARONOFF  
*State University of New York at Stony Brook*

SUSAN GOLDIN-MEADOW  
*University of Chicago*

CHARLES NELSON  
*Harvard University*

## Special Meetings

# Understanding the New Nuclear Age

## Exploratory Meeting

June 19, 2015

Cambridge, MA

This exploratory meeting on Understanding the New Nuclear Age focused on how the dynamics of the nuclear order have shifted since the first nuclear age; explored how nuclear calculations are being impacted by technological developments in both the nuclear and con-

ventional spaces, and by geostrategic crises involving nuclear powers; and assessed how future arms control agreements may be designed in order to address these contextual changes.

### Chair

ROBERT LEGVOLD  
*Columbia University*

### Participants

JAMES ACTON  
*Carnegie Endowment for  
International Peace*

JONATHAN F. FANTON  
*American Academy of Arts and Sciences*

FRANCESCA GIOVANNINI  
*American Academy of Arts and Sciences*

SUMMERS HAMMEL  
*American Academy of Arts and Sciences*

CATHERINE KELLEHER  
*University of Maryland; Brown University*

MICHAEL KREPON  
*The Stimson Center*

KATHRYN MOFFAT  
*American Academy of Arts and Sciences*

NINA TANNENWALD  
*Brown University*

BARRY POSEN  
*Massachusetts Institute of Technology*

MICHAEL D. SWAINE  
*Carnegie Endowment for  
International Peace*



Barry Posen (Massachusetts Institute of Technology), Robert Legvold (Columbia University), and Michael D. Swaine (Carnegie Endowment for International Peace)



Catherine Kelleher (University of Maryland; Brown University) and Nina Tannenwald (Brown University)



## The Visiting Scholars Program

This interdisciplinary fellowship program, housed at the Academy headquarters in Cambridge, Massachusetts, is open to untenured junior faculty or postdoctoral researchers who are working on projects in the humanities and social sciences relating to American history, culture, and public policy.

The program offers scholars a year for research and writing free from teaching and administrative duties, a collaborative environment, and the opportunity to interact with Fellows of the Academy, senior scholars, and publishing experts. The Visiting Scholars use their fellowship year to transform a dissertation into a book, prepare journal articles, or begin a second project.

### Visiting Scholars Program Selection Committee

LAWRENCE BUELL  
*Harvard University*

AMANDA CLAYBAUGH  
*Harvard University*

JANE KAMENSKY  
*Brown University*

HARRIET RITVO  
*Massachusetts Institute of Technology*

JAMES STIMSON  
*University of North Carolina at Chapel Hill*

ALAN TRACHTENBERG  
*Yale University*

### 2015–2016 Visiting Scholars

LESLIE EMIL BELDO, JR.  
*Lecturer, University of Chicago. Ph.D., Comparative Human Development, University of Chicago. Project title: "Makah Whaling: An Ethnography of Conflict."*

MERVE GUL EMRE  
*Ph.D., English, Yale University. Project title: "Paraliterary Institutions."*

RACHEL M. GUBERMAN  
*Ph.D., History, University of Pennsylvania. Project title: "The Real Silent Majority: Denver and the Realignment of American Politics after the Sixties."*

KATHERINE MARIE MARINO  
*Assistant Professor, Departments of History and Women's, Gender, and Sexuality Studies, Ohio State University. Ph.D., American History, Stanford University. Project title: "La Vanguardia Feminista: Pan-American Feminism and the Rise of International Women's Rights, 1915–1946."*

EMILY ALYSSA OWENS  
*Teaching Fellow, African and African American Studies, Harvard University. Ph.D., African American Studies, Harvard University. Project title: "Fantasies of Consent: Black Women's Sexual Labor in Nineteenth-Century New Orleans."*

JOY MARIE LISI RANKIN  
*Ph.D., History, Yale University. Project title: "Becoming Digital: How 1960s Users Created the Computing Age."*

LUKAS RIEPPEL  
*Assistant Professor of History, Brown University. Ph.D., History of Science, Harvard University. Project title: "Assembling the Dinosaur: Science, Museums, and American Capitalism, 1870–1930."*

RACHEL ANN WISE  
*Presidential Excellence Postdoctoral Fellow, University of Texas, Austin. Ph.D., American Literature, University of Texas, Austin. Project title: "Losing Appalachia: Literature, Material Culture, and the Fate of Regional Writing."*

## The Hellman Fellowship in Science and Technology Policy

As part of the Academy's Initiative for Science, Engineering, and Technology, the Hellman Fellowship in Science and Technology Policy provides an opportunity for an early-career professional with training in science or engineering to learn about a career in public policy and administration. While in residence, Hellman Fellows work with senior scientists and policy experts on critical national and international policy issues related to science, engineering, and technology.

Hellman Fellows contribute to one or more of the ongoing projects under the Academy's Initiative for Science, Engineering, and Technology. The studies explore how science and technology are evolving, how to help the public understand those changes, and how society can better adapt to those changes. The Initiative convenes leading scientists and public policy experts from both academia and industry to advance critical thinking about the evolving landscape for scientific research.

The Hellman Fellowship program has three objectives:

- To support and guide an early-career professional who wants to develop expertise on issues of science, engineering, and technology policy;
- To increase the number of science-policy professionals who are engaged in substantive discussion of science and engineering research questions, with a broad understanding of their social implications; and
- To expand the scale of Academy projects and studies focused on challenges facing scientific research and science education.

### 2015–2016 Hellman Fellows

ALISON E. LEAF

*Ph.D., Cell Biology, University of California, San Francisco; B.A., Biochemistry, Cornell University.* As a graduate student at UCSF, she investigated how signaling receptors are delivered to the primary cilium, an antennae-like extension from the cell that is critical for appropriate cell signaling. Additionally, she worked to raise awareness on science policy issues in the UCSF community, and was a leader for the graduate student-led National Science Policy Group. She was also active in science education outreach efforts in San Francisco.

KEERTHI SHETTY

*Ph.D., Immunobiology, Yale University; A.B., Molecular Biology, Princeton University.* Her thesis research involved studying the recruitment of RAG1 and RAG2, two important proteins of the immune system that help create antibodies, to chromatin. At Yale, she was Co-President of the Yale Science Diplomats, a science policy group, where she helped develop a science lecture series for local high schools and the general public, organized policy writing workshops and seminars, and contacted local legislators about funding issues concerning biomedical research. She was also an eIntern through the State Department's Virtual Student Foreign Service program, where she wrote about global science and technology issues.



# University Affiliates

The University Affiliates is a partnership between the Academy and the nation’s leading cultural institutions and institutions of higher education. Sixty-three organizations are collaborating with the Academy by participating in its studies on higher education and by helping to support its fellowships and outreach programs.



**American University**  
Cornelius Kerwin,  
President



**Dartmouth College**  
Philip J. Hanlon,  
President



**New York University**  
John Sexton, President



**Amherst College**  
Carolyn A. “Biddy”  
Martin, President



**Duke University**  
Richard H. Brodhead,  
President



**Northeastern University**  
Joseph Aoun, President



**Boston College**  
William P. Leahy, S.J.,  
President



**Emory University**  
James W. Wagner,  
President



**Northwestern University**  
Morton O. Schapiro,  
President



**Boston University**  
Robert A. Brown,  
President



**George Washington University**  
Steven Knapp, President



**Ohio State University**  
Michael V. Drake,  
President



**Bowdoin College**  
Clayton S. Rose, President



**Georgetown University**  
John J. DeGioia, President



**Pennsylvania State University**  
Eric J. Barron, President



**Brandeis University**  
Lisa Lynch, President  
(Interim)



**Harvard University**  
Drew Gilpin Faust,  
President



**Pomona College**  
David W. Oxtoby,  
President



**Brown University**  
Christina Hull Paxson,  
President



**Indiana University**  
Michael A. McRobbie,  
President



**Princeton University**  
Christopher L. Eisgruber,  
President



**City University of New York**  
James B. Milliken,  
Chancellor



**Johns Hopkins University**  
Ronald J. Daniels,  
President



**Rice University**  
David W. Leebron,  
President



**Columbia University**  
Lee C. Bollinger,  
President



**Massachusetts Institute of Technology**  
L. Rafael Reif, President



**Rutgers, The State University of New Jersey**  
Robert L. Barchi,  
President



**Cornell University**  
Elizabeth Garrett,  
President



**Michigan State University**  
Lou Anna K. Simon,  
President



**Smith College**  
Kathleen McCartney,  
President



# University Affiliates



**Stanford University**  
John L. Hennessy,  
President



**University of Florida**  
W. Kent Fuchs, President



**University of Southern California**  
C. L. Max Nikias,  
President



**Syracuse University**  
Kent D. Syverud,  
Chancellor and President



**University of Illinois at Urbana-Champaign**  
Phyllis Wise, Chancellor



**University of Texas at Austin**  
William Powers Jr.,  
President



**Tufts University**  
Anthony P. Monaco,  
President



**University of Iowa**  
Sally Mason, President



**University of Virginia**  
Teresa A. Sullivan,  
President



**University of Arizona**  
Ann Weaver Hart,  
President



**University of Maryland**  
Wallace D. Loh,  
President



**University of Wisconsin-Madison**  
Rebecca M. Blank,  
Chancellor



**University of California, Berkeley**  
Nicholas B. Dirks,  
Chancellor



**University of Miami**  
Julio Frenk, President



**Virginia Commonwealth University**  
Michael Rao, President



**University of California, Davis**  
Linda P.B. Katehi,  
Chancellor



**University of Michigan**  
Mark S. Schlissel,  
President



**Virginia Polytechnic Institute and State University**  
Timothy D. Sands,  
President



**University of California, Irvine**  
Howard Gillman,  
Chancellor



**University of Minnesota**  
Eric W. Kaler, President



**Washington University in St. Louis**  
Mark S. Wrighton,  
Chancellor



**University of California, Los Angeles**  
Gene D. Block,  
Chancellor



**University of North Carolina at Chapel Hill**  
Carol L. Folt, Chancellor



**Wellesley College**  
H. Kim Bottomly,  
President



**University of California, San Diego**  
Pradeep Khosla,  
Chancellor



**University of Notre Dame**  
Rev. John I. Jenkins, C.S.C.,  
President



**Wesleyan University**  
Michael S. Roth,  
President



**University of California, San Francisco**  
Sam Hawgood,  
Chancellor



**University of Pennsylvania**  
Amy Gutmann, President



**Yale University**  
Peter Salovey, President



**University of Chicago**  
Robert J. Zimmer,  
President



**University of Pittsburgh**  
Patrick D. Gallagher,  
Chancellor



**Cultural Institutions**  
**The J. Paul Getty Trust**  
James Cuno, President  
and CEO

# Meetings and Events Around the Country

Academy projects, as well as the research and writings of Academy members, are the focus of meetings held across the country each year. The House of the Academy, university campuses, research institutes, museums, and corporate headquarters serve as venues for these meetings. The Academy sponsors formal lectures, panel discussions, and informal gatherings that highlight topics ranging from challenges facing higher education, to the state of the humanities and social sciences, to global security, to U.S. science and technology policy, to the future of energy.

## *Berkeley, California*

February 4, 2015  
University of California, Berkeley

### *Policy Perspectives on Police Use of Lethal Force*

Featured Speakers: **Nicholas B. Dirks** (University of California, Berkeley), **Andrea Roth** (University of California, Berkeley School of Law), **Franklin E. Zimring** (University of California, Berkeley School of Law)

## *Palo Alto, California*

February 3, 2015  
Stanford University

### *Replenishing the Innovation Pipeline: The Role of University Research*

Featured Speakers: **John L. Hennessy** (Stanford University), **Ann M. Arvin** (Stanford University), **Carla J. Shatz** (Stanford University), **Peter S. Kim** (Stanford University)

## *Los Angeles, California*

February 5, 2015  
University of California, Los Angeles

### *Reception for Southern California Area Members and discussion of the Lincoln Project: Excellence and Access in Public Higher Education and of the Academy report *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream**

Featured Speakers: **Gene D. Block** (University of California, Los Angeles) and **Maxine L. Savitz** (Honeywell, Inc., ret.)

## *Houston, Texas*

April 30, 2015  
Rice University

### *Baker Institute Civic Scientist Symposium, featuring *Restoring the Foundation**

Featured Speakers: **Norman R. Augustine** (Lockheed Martin Corporation, ret.), **Steven Chu** (Stanford University), **Neal Lane** (Rice University)

## *Chicago, Illinois*

November 6, 2014  
University of Chicago

### *Reception for Chicago Area Members*

November 8, 2014  
University of Illinois at Chicago, UIC Forum in  
collaboration with the Chicago Humanities Festival  
*The Humanities and "Soft Power"*

Featured Speaker: **Karl W. Eikenberry** (Stanford University)

March 5, 2015  
Skadden, Arps, Slate, Meagher & Flom LLP  
& Affiliates

### *40 Years of Evolution*

Featured Speakers: **Trevor Price** (University of Chicago); via video: **B. Rosemary Grant** (Princeton University), **Peter R. Grant** (Princeton University), **Jonathan B. Losos** (Harvard University)

# Meetings and Events Around the Country



Franklin E. Zimring (University of California, Berkeley School of Law) and Andrea Roth (University of California, Berkeley School of Law)



John L. Hennessy (Stanford University), Ann M. Arvin (Stanford University), Carla J. Shatz (Stanford University), and Peter S. Kim (Stanford University)



Jonathan F. Fanton (American Academy) addresses Members and guests at a reception at the University of California, Los Angeles



Chicago Area Members gather at a reception at the University of Chicago



Trevor Price (University of Chicago) leads a discussion with Chicago area Members and guests following a video presentation by Peter Grant and B. Rosemary Grant on 40 Years of Evolution.



Nancy C. Andrews (Duke University School of Medicine), Harold Varmus (then National Cancer Institute; currently Weill Cornell Medical College), Susan R. Wentz (Vanderbilt University), and Tania Baker (Massachusetts Institute of Technology)



Stephen Holmes (New York University School of Law) leads a discussion with Members and guests in New York City following the live stream of the panel discussion on “Russia: At the Crossroads Again?”



Victor Navasky (*The Nation*; Columbia University), Louis Nelson (New York, NY), Judith Collins (New York, NY), Louise Hirschfeld Cullman (New York, NY), Jonathan Fanton (American Academy), Lewis Cullman (Cullman Ventures, LLC), Henry Arnhold (Arnhold and S. Bleichroeder Holdings, Inc.)



Edward J. Hall (Harvard University), Lisa Sowle Cahill (Boston College), and Alan Lightman (Massachusetts Institute of Technology)



Valerie Bunce (Cornell University), George W. Breslauer (University of California, Berkeley), and Timothy J. Colton (Harvard University)



Robert D. Ballard (Ocean Exploration Trust; Center for Ocean Exploration; University of Rhode Island Graduate School of Oceanography)



Ellen T. Harris (American Musicological Society; Massachusetts Institute of Technology)



John W. Rogers, Jr. (Ariel Investments)



Jill Lepore (Harvard University; *The New Yorker*)



## Meetings and Events Around the Country

### *Atlanta, Georgia*

April 2, 2015  
Emory University

#### Teaching and the Digital Humanities

Featured Speakers: **James W. Wagner** (Emory University), **Erika Farr** (Emory University), **William G. Thomas** (University of Nebraska-Lincoln), **Anne Cong-Huyen** (Whittier College), **Angel Nieves** (Hamilton College), **Jessica Johnson** (Michigan State University), **Stephen Nichols** (Johns Hopkins University), **G. Wayne Clough** (formerly, Smithsonian Institution and Georgia Institute of Technology)

### *Durham, North Carolina*

February 24, 2015  
Duke University

#### The Unstable Biomedical Research Ecosystem: How Can It Be Made More Robust?

Featured Speakers: **Richard H. Brodhead** (Duke University), **Nancy C. Andrews** (Duke University School of Medicine), **Sally Kornbluth** (Duke University), **Harold Varmus** (then National Cancer Institute; currently, Weill Cornell Medical College), **Susan R. Wentz** (Vanderbilt University), **Tania Baker** (Massachusetts Institute of Technology), **Mark C. Fishman** (Novartis Institutes for BioMedical Research)

### *Charlottesville, Virginia*

October 27, 2014  
Robert H. Smith Center at Montalto  
in partnership with the Thomas Jefferson Foundation

#### The Jeffersonian Tradition of Higher Education

Featured Speakers: **John T. Casteen III** (University of Virginia), **Jonathan R. Cole** (Columbia University), **Peter S. Onuf** (University of Virginia; Robert H. Smith International Center for Jefferson Studies at Monticello)

### *Washington, D.C.*

September 17, 2014  
Newseum

#### Constitution Day Panel Discussion on Stewarding America: Institutions and Civic Life

Featured Speakers: **Norman Ornstein** (American Enterprise Institute), **Mickey Edwards** (Aspen Institute; formerly, U.S. House of Representatives), **Stephen Heintz** (Rockefeller Brothers Fund), **Joel I. Klein** (Amplify; formerly, New York City Department of Education), **Patricia McGowan Wald** (former Chief Judge of the U.S. Court of Appeals, District of Columbia Circuit)

Keynote Address: **William “Bro” Adams** (National Endowment for the Humanities)

June 15, 2015  
The Ritz-Carlton Georgetown

#### Reception for Washington, D.C., Area Members and Guests and Welcome Newly Elected Members

### *New York City*

November 12, 2014  
Skadden, Arps, Slate, Meagher & Flom LLP  
& Affiliates

#### Russia: At the Crossroads Again?

Featured Speakers: **Stephen Holmes** (New York University School of Law); via video: **Timothy J. Colton** (Harvard University), **George W. Breslauer** (University of California, Berkeley), and **Valerie Bunce** (Cornell University)

December 4, 2014  
Harvard Club

#### The Invention of Courts

Featured Speakers: **Judith Resnik** (Yale Law School), **Linda Greenhouse** (Yale Law School), **Jonathan Lippman** (Chief Judge of the State of New York and Chief Judge of the Court of Appeals), **Susan S. Silbey** (Massachusetts Institute of Technology), **Jamal Greene** (Columbia Law School), **Carol S. Steiker** (Harvard Law School)

March 5, 2015  
Skadden, Arps, Slate, Meagher & Flom LLP  
& Affiliates

### 40 Years of Evolution

Featured Speakers: **Jonathan Weiner** (Columbia University School of Journalism); via video: **B. Rosemary Grant** (Princeton University), **Peter R. Grant** (Princeton University), **Jonathan B. Losos** (Harvard University)

May 4, 2015  
The Century Association

Reception for New York Area Members and Guests  
and Welcome Newly Elected Members

### Cambridge, Massachusetts

October 10, 2014  
Harvard University

### A Celebration of the Arts and Humanities

Featured Speakers and Performers: **Jill Lepore** (Harvard University; *The New Yorker*), **Linda Gregerson** (University of Michigan), **Ralph Stanley** (Musician, Composer), **Maxwell K. Hearn** (The Metropolitan Museum of Art), **Frank Lentricchia** (Duke University), **El Anatsui** (Artist; formerly, University of Nigeria), **Amy Hempel** (Harvard University), **Tere O'Connor** (Tere O'Connor Dance; University of Illinois at Urbana-Champaign), **Mary Jo Salter** (Johns Hopkins University)

October 11, 2014  
Harvard University

### 2014 Induction Ceremony

Featured Speakers: **John Fabian Witt** (Yale Law School), **Linda Darling-Hammond** (Stanford University), **Ramamurti Shankar** (Yale University), **Diana H. Wall** (Colorado State University), **Sherry Turkle** (Massachusetts Institute of Technology), **Mary Kelley** (University of Michigan), **John W. Rogers, Jr.** (Ariel Investments)

October 12, 2014  
House of the Academy

### Ocean Exploration: Past, Present, and Future

Featured Speaker: **Robert D. Ballard** (Ocean Exploration Trust; Center for Ocean Exploration; University of Rhode Island Graduate School of Oceanography)

November 12, 2014  
House of the Academy

### Russia: At the Crossroads Again?

Featured Speakers: **Timothy J. Colton** (Harvard University), **George W. Breslauer** (University of California, Berkeley), **Valerie Bunce** (Cornell University)

December 10, 2014  
House of the Academy

### Winter Concert

Featuring: Boston Symphony Orchestra Brass Quintet

February 11, 2015  
House of the Academy  
in collaboration with the  
Catalyst Collaborative@MIT

### Mr g— The Story of Creation as Told by God

Staged reading and panel discussion featuring **Alan Lightman** (Massachusetts Institute of Technology), **Lisa Sowle Cahill** (Boston College), **Edward J. Hall** (Harvard University)

March 5, 2015  
House of the Academy

### 40 Years of Evolution

Featured Speakers: **B. Rosemary Grant** (Princeton University), **Peter R. Grant** (Princeton University), **Jonathan B. Losos** (Harvard University)



B. Rosemary Grant (Princeton University) and Peter R. Grant (Princeton University)

## Meetings and Events Around the Country

March 30, 2015  
House of the Academy

### An Evening with Robert Levin and Ya-Fei Chuang

Featuring **Robert Levin** (Harvard University; Sarasota Music Festival) and **Ya-Fei Chuang** (Boston Conservatory; New England Conservatory)

April 16, 2015  
House of the Academy

### Technology, Surveillance & the Contemporary Self

Featured Speakers: **Peter L. Galison** (Harvard University) and **Jonathan Zittrain** (Harvard University)

May 11, 2015  
House of the Academy

### Lecture-Recital: Discovering Handel's London Through His Music

Featuring **Ellen T. Harris** (Massachusetts Institute of Technology) and a performance by musicians of the Boston Early Music Festival

June 18, 2015  
House of the Academy  
in collaboration with IBM Watson

### Symposium on Cognitive Computing

Featured Speakers: **Michael Rhodin** (IBM Watson), **Shahram Ebadollahi** (IBM Watson Health Group), **Isaac Kohane** (Harvard Medical School), **Stanley Shaw** (Massachusetts General Hospital), **Mitchell Chester** (Massachusetts Department of Elementary and Secondary Education), **Richard Culatta** (U.S. Department of Education), **Stanley S. Litow** (IBM; IBM International Foundation), **Stefan Pryor** (Rhode Island Department of Commerce; formerly, Connecticut State Department of Education)

### *London, United Kingdom*

June 24, 2014  
The British Academy

### Global Power, Influence and Perception in the 21st Century

A joint event of the British Academy and the American Academy of Arts and Sciences

Featured Speakers: **Karl W. Eikenberry** (Stanford University; U.S. Army, ret.), **Adam Roberts** (British Academy; Oxford University), **Martin Davidson** (British Council)



Robert Levin (Harvard University; Sarasota Music Festival) and Ya-Fei Chuang (Boston Conservatory; New England Conservatory)



Jonathan Zittrain (Harvard University) and Peter L. Galison (Harvard University)



Members of the Boston Early Music Festival Vocal and Chamber Ensembles



American Academy of Arts & Sciences

136 Irving Street

Cambridge, MA 02138

telephone: 617-576-5000; facsimile: 617-576-5050

email: [aaas@amacad.org](mailto:aaas@amacad.org); website: [www.amacad.org](http://www.amacad.org)

