

AMERICAN ACADEMY  
OF ARTS & SCIENCES

**2018**

**PROJECTS, PUBLICATIONS, AND MEETINGS  
OF THE ACADEMY**

SCIENCE, ENGINEERING,  
AND TECHNOLOGY

GLOBAL SECURITY AND  
INTERNATIONAL AFFAIRS

EDUCATION AND THE  
DEVELOPMENT OF KNOWLEDGE

THE HUMANITIES,  
ARTS, AND CULTURE

AMERICAN INSTITUTIONS,  
SOCIETY, AND THE PUBLIC GOOD



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## FROM THE PRESIDENT

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Academy projects and publications address issues critical to our country and the wider world.

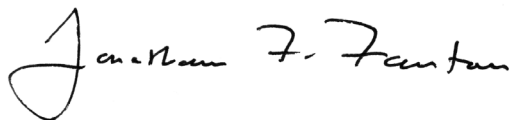
Over a 239-year history, we have earned the public's trust as an independent, non-partisan institution dedicated to applying evidence to policy and engaging civil discourse. We honor this trust by ensuring that our work has impact and that it is effective in advancing the public good – by fostering scholarship, offering advice and recommendations about matters of public interest, and providing a neutral forum for the discussion of important and new ideas.

The Academy has increased its efforts to follow up on the recommendations of its commission and project reports. With support from Morton Mandel and the Jack, Joseph & Morton Mandel Foundation, we have added a staff position dedicated to tracking the impact and influence of the Academy's work. You will notice we have given more attention to follow-up activities in this publication. We hope that Members of the Academy will support the recommendations of the Commission on the Future of Undergraduate Education, the Commission on Language Learning, and forthcoming work on building public trust in science, improving the legal services system, and strengthening the preparation for citizenship in our democracy. The pages that follow document an increasing connection between the substantive work of Academy projects and publications and meetings of Members around the country.

Our Members provide their expertise, write for our publications, participate in project meetings, and connect us to partner organizations and broader audiences. And it is through their efforts that our projects make a difference.

In a 1944 address on “The Future of the Academy,” Academy President Howard Mumford Jones stated: “I believe it to be true that neither the President, nor the Council, nor the whole administrative body of the organization taken together, can work out a destiny worthy of our [ideals] unless the lively and continuing interest of a great majority of the fellows is awakened.”

This volume is a record of the many ways in which the “lively and continuing interest” of our Fellows has been awakened – and put to good use. As always, I welcome your thoughts about the Academy's projects and publications, and your suggestions for maintaining and improving their reach and impact.





# American Institutions, Society, and the Public Good

Since its founding, the American Academy of Arts and Sciences has worked to promote a “strong and virtuous” nation. Today this effort involves projects designed to advance the state of scholarship about the nation’s institutions and to develop innovative solutions to challenges facing American society. Projects in this area interpret the term “institution” broadly, focusing on all of the constituent elements of government and civil society. These projects seek to examine the impact of institutions on broad sectors of American society. They address how individual citizens interact with social structures, how these experiences prepare people to make a positive contribution to a diverse America, and how these institutions are changing and might operate differently in the twenty-first century. The Academy shares this research through publications, conferences, and active outreach to Members, policy-makers, and the public at large.

## AMERICAN INSTITUTIONS, SOCIETY, AND THE PUBLIC GOOD

### Program Advisory Group

**Danielle Allen**  
*Harvard University*

**Thomas Bender**  
*New York University*

**Alan Dachs**  
*The Fremont Group*

**Lee Epstein**  
*Washington University  
in St. Louis*

**Susan Hanson**  
*Clark University*

**Antonia Hernández**  
*California Community  
Foundation*

**William Poorvu**  
*Harvard Business School*

**Kenneth Prewitt**  
*Columbia University*

**Frances McCall Rosenbluth**  
*Yale University*

**James Stone**  
*Plymouth Rock Assurance  
Corporation*

#### PROJECT

#### COMMISSION ON THE PRACTICE OF DEMOCRATIC CITIZENSHIP

The Academy was founded to serve as a resource to the citizens and leaders of a new nation, promoting the spread of useful knowledge.

The founders of the Academy and the country recognized that the engagement of a well-informed citizenry was essential to the future of the democracy. However, both the nation's citizenry and the world it inhabits have changed and, as a result, it is necessary to re-examine our ideas of what defines a "good citizen."

The Commission on the Practice of Democratic Citizenship has a single aim: to enable more Americans to obtain the values, knowledge, and skills needed for participation in a democratic society. The Commission will create a working definition of effective citizenship, compile data on current practices, identify the factors that impede or advance civic engagement, highlight promising local initiatives around the country, and make recommendations for action that communities can implement. The Commission's work will be animated by four broad questions:

- 1) What are the primary points of citizens' interaction with the institutions of civil society, and what determines their level of civic participation?
- 2) Which forms of engagement best exemplify and help individuals develop the practices of effective citizenship?
- 3) How will these practices change as the demographic composition of the nation changes?
- 4) How have technological and media transformations altered opportunities for and the experience of civic engagement?

The Commission plans to hold four or five meetings over the course of two years. These meetings will explore the areas described above, as well as lead to at least two publications. The first will be a primer on current data on civic engagement. The second will be the Commission's final report with recommendations for how schools, nonprofit organizations, religious institutions, business, and government can help Americans develop the skills and values that will lead to a lifetime of engaged citizenship. The Commission will also produce a set of online indicators of civic engagement that will be maintained over time and can serve as a resource for those interested in questions related to civic engagement.

The Academy plans to make use of its Local Program Committees to help discuss the ongoing work of the Commission, gather insight and recommendations from leaders across the country, and disseminate the Commission's work to diverse audiences. The Commission will also hold a series of roundtable discussions and other conversations across the country, in both rural and urban areas, to gain a better understanding of what engaged citizenship looks like and to learn about successful efforts to cultivate civic engagement. Ultimately, the Commission will lay out a plan of action for encouraging civic engagement. These recommendations will be rooted in the belief that affording opportunities for the *practice* of democratic citizenship are just as important as classroom education in civics, and that such recommendations should approach good citizenship as a set of habits and skills acquired over a lifetime rather than as a body of knowledge.

## COMMISSION ON THE PRACTICE OF DEMOCRATIC CITIZENSHIP, *continued*

### **Commission Chairs**

**Danielle Allen**  
*Harvard University*

**Stephen Heintz**  
*Rockefeller Brothers Fund*

**Eric Liu**  
*Citizen University; Aspen Institute  
Citizenship and American Identity  
Program*

### **Commission Members**

**Sayu Bhojwani**  
*The New American Leaders  
Project*

**Danah Boyd**  
*Data & Society*

**Philip Bredesen**  
*former Governor of Tennessee*

**Caroline Brettell**  
*Southern Methodist University*

**David Brooks**  
*The New York Times*

**Lisa Conn**  
*Facebook*

**Alan Dachs**  
*Fremont Group*

**Dee Davis**  
*Center for Rural Strategies*

**Jonathan F. Fanton**  
*American Academy of Arts  
and Sciences*

**Sam Gill**  
*John S. and James L. Knight  
Foundation*

**Marie Griffith**  
*Washington University  
in St. Louis*

**Hahrie Han**  
*University of California,  
Santa Barbara*

**Antonia Hernández**  
*California Community  
Foundation*

**Wallace Jefferson**  
*Alexander Dubose Jefferson &  
Townsend*

**Joseph Kahne**  
*University of California, Riverside*

**Kei Kawashima-Ginsberg**  
*Center for Information &  
Research on Civic Learning and  
Engagement, Tufts University*

**Yuval Levin**  
*National Affairs*

**Carolyn Lukensmeyer**  
*National Institute for Civil  
Discourse*

**Martha McCoy**  
*Everyday Democracy*

**Lynn Nottage**  
*Columbia University*

**Steven Olikara**  
*Millennial Action Project*

**Norman Ornstein**  
*American Enterprise Institute*

**Bob Peck**  
*FPR Partners*

**Pete Peterson**  
*Pepperdine University*

**Alejandro Portes**  
*University of Miami*

**Miles Rapoport**  
*Harvard University*

**Michael Schudson**  
*Columbia University*

**Sterling Speirn**  
*National Conference on  
Citizenship*

**Marcelo Suárez-Orozco**  
*University of California,  
Los Angeles*

**Ben Vinson**  
*George Washington University*

**Diane P. Wood**  
*U.S. Court of Appeals,  
Seventh Circuit*

**Judy Woodruff**  
*PBS NewsHour*

**Ethan Zuckerman**  
*Center for Civic Media,  
Massachusetts Institute  
of Technology*

### **Project Staff**

**Paul Erickson**

**Gabriela Farrell**

**Julian Kronick**

**Natoschia Scruggs**

### **Funder**

*S. D. Bechtel, Jr. Foundation*



**PROJECT MEETINGS \ COMMISSION ON THE PRACTICE OF DEMOCRATIC CITIZENSHIP**

**Citizenship in a Global Digital Era**

October 25, 2017  
Stanford University  
Stanford, CA

Academy Members and staff gathered with leaders of social media campaigns to learn about new forms of online civic engagement and how they connect to different aspects of political engagement.

**Panelists**

- |  |   |
|--|---|
| <b>Brittan Heller</b><br><i>Anti-Defamation League</i> | <b>Matt Mahan</b><br><i>Brigade</i>           |
|  | <b>Adrian Reyna</b><br><i>United We Dream</i> |

**Democratic Citizenship and Civic Engagement**

October 26, 2017  
James Irvine Foundation  
San Francisco, CA

The Stephen D. Bechtel, Jr. Foundation hosted a roundtable discussion for Academy Members, foundation staff, and guests on the varied dimensions of civic engagement in an increasingly diverse nation.

**Panelists**

- |   |   |
|---|---|
| <b>Deborah Cullinan</b><br><i>Yerba Buena Center for the Arts</i> | <b>Thomas Ehrlich</b><br><i>Stanford University</i>               |
|   | <b>Joseph Kahne</b><br><i>University of California, Riverside</i> |

**Meeting of the Commission**

April 2-3, 2018  
American Academy  
Cambridge, MA

The first meeting of the Commission on the Practice of Democratic Citizenship provided an opportunity for the Chairs and Commissioners to discuss several key questions before the Commission moved forward in its work. These items included the group’s working definitions of citizenship and

civic engagement, filling gaps in representation on the Commission, and discussing the intended outcomes and outreach for the work. The meeting ended with a solid plan for furthering the Commission’s work.

**Workshop Chairs**

- |   |  |  |  |
|---|--|--|--|
| <b>Danielle Allen</b><br><i>Harvard University</i>  | <b>Philip Bredesen</b><br><i>former Governor of Tennessee</i>        | <b>Jonathan F. Fanton</b><br><i>American Academy of Arts and Sciences</i>    | <b>Joseph Kahne</b><br><i>University of California, Riverside</i>  |
| <b>Stephen Heintz</b><br><i>Rockefeller Brothers Fund</i>   | <b>Caroline Brettell</b><br><i>Southern Methodist University</i>     | <b>Sam Gill</b><br><i>John S. and James L. Knight Foundation</i>             | <b>Kei Kawashima-Ginsberg</b><br><i>Center for Information &amp; Research on Civic Learning and Engagement, Tufts University</i> |
| <b>Eric Liu</b><br><i>Citizen University; Aspen Institute Citizenship and American Identity Program</i> | <b>David Brooks</b><br><i>The New York Times</i>                     | <b>Hahrie Han</b><br><i>University of California, Santa Barbara</i>          | <b>Julian Kronick</b><br><i>American Academy of Arts and Sciences</i>  |
| <b>Participants</b>   | <b>Dee Davis</b><br><i>Center for Rural Strategies</i>               | <b>Antonia Hernández</b><br><i>California Community Foundation</i>           | <b>Yuval Levin</b><br><i>National Affairs</i>  |
| <b>Sayu Bhojwani</b><br><i>The New American Leaders Project</i>   | <b>Paul Erickson</b><br><i>American Academy of Arts and Sciences</i> | <b>Wallace Jefferson</b><br><i>Alexander Dubose Jefferson &amp; Townsend</i> | <b>Carolyn Lukensmeyer</b><br><i>National Institute for Civil Discourse</i>  |

## MEETING OF THE COMMISSION, *continued*

**Martha McCoy**  
*Everyday Democracy*

**Steven Olikara**  
*Millennial Action Project*

**Norman Ornstein**  
*American Enterprise Institute*

**Bob Peck**  
*FPR Partners*

**Pete Peterson**  
*Pepperdine University*

**Miles Rapoport**  
*Harvard University*

**Michael Schudson**  
*Columbia University*

**Natoschia Scruggs**  
*American Academy of Arts  
and Sciences*

**Sterling Speirn**  
*National Conference on  
Citizenship*

**Robert Townsend**  
*American Academy of Arts  
and Sciences*

**Ben Vinson**  
*George Washington University*

**Diane P. Wood**  
*U.S. Court of Appeals,  
Seventh Circuit*

**Ethan Zuckerman**  
*Center for Civic Media,  
Massachusetts Institute  
of Technology*



Danielle Allen, Eric Liu, and Stephen Heintz



Norman Ornstein and Philip Bredesen

**PROJECT** MAKING JUSTICE ACCESSIBLE

On November 11–12, 2015, the American Academy hosted a symposium on the state of legal services for low-income Americans. Symposium participants – including federal and state judges, legal scholars, and social scientists – agreed that the legal community does not have enough reliable and accessible data to be able to address adequately the scope and variety of the crisis in legal services. The participants also agreed that the American Academy, with its diverse membership and its history of data collection projects in the humanities, could continue to be a valuable partner by organizing an issue of *Dædalus* on the topic, creating a research agenda for future data-collection efforts on unrepresented civil litigants, and curating solutions piloted around the country in order to advance a set of clear, national recommendations for closing the justice gap.

### Data Collection and Legal Services for Low-Income Americans

Currently, data on unrepresented civil litigants is hard to find, incomplete, and inconsistent. Collection and reporting requirements vary from state to state, jurisdiction to jurisdiction, and even court to court. The first phase of the project will therefore identify, to the degree possible, all of the potential sources of existing data on legal services and unrepresented civil litigation nationwide. After an initial survey to gauge the availability and structure of existing data, the Academy will convene a group of subject-area experts to identify research questions that are currently answerable given the available data, and discuss how best to aggregate it for use by researchers.

Once the available data have been identified, the Academy will convene a group of legal scholars, social scientists, and other experts to assess the information and discuss what more can be done with the currently available resources. Study participants will propose questions for further analysis and specify which data will need to be collected in order to advance discussions about civil legal aid and *pro se* litigation, and to inform debates about

future policy shifts. The group might also propose methods for future data collection and identify one or two communities that may be suitable subjects of new data-collection pilot programs.

### *Dædalus*

An issue of *Dædalus* on “Access to Justice,” to be published in Spring 2019, will be organized around three topics: Delivery, Interests, and the Meaning of Access to Justice. The volume will explore the importance of civil legal aid and representation to the American justice system and the rule of law. Drawing from multiple disciplines within legal scholarship, the collection will shed light on what access to justice really means, enumerate the multiple parties and interests with a stake in equal access to civil justice, and educate the broader public about current efforts to deliver quality civil legal representation.

### Designing Legal Services for the 21st Century

This phase of the project will provide a national overview of the challenges in legal services by focusing on three of the most common categories of civil legal problems: family, housing, and health care. By addressing these issues in detail, as case studies within the larger context of legal services, the project will identify practical recommendations to address challenges specific to particular court systems as well solutions to problems that are common across the civil legal spectrum.

The project’s final report will provide actionable steps that could be pursued by the variety of communities reflected in the Academy’s membership, including business, the professions, the media, and academia. The report will help to devise benchmarks of progress that will indicate whether outcomes for individuals are improving – perhaps focusing on data like the number of low-income Americans who are receiving the advice and assistance they need, the number who seek assistance, and the number of would-be litigants who resolve their issues without initiating legal proceedings.

#### **Project Chairs for Data Collection and Legal Services for Low-Income Americans**

Mark Hansen  
*University of Chicago*

Rebecca Sandefur  
*University of Illinois at Urbana-Champaign*

#### **Planning Committee for Designing Legal Services for the 21st Century**

David F. Levi  
*American Law Institute*

John G. Levi  
*Legal Services Corporation;  
Sidley Austin LLP*

Lance Liebman  
*Columbia Law School*

Martha Minow  
*Harvard University*

Rebecca Sandefur  
*University of Illinois at Urbana-Champaign*

James Sandman  
*Legal Services Corporation*

Diane P. Wood  
*U.S. Court of Appeals,  
Seventh Circuit*

#### **Funder**

David M. Rubenstein  
*Enhancement Fund*

## PROJECT MEETINGS \ MAKING JUSTICE ACCESSIBLE

### Legal Services Planning Committee Meeting

February 8, 2018  
American Academy  
Cambridge, MA

The planning committee met to discuss the current state of the Academy's projects in legal services and to begin ideating on further work. The discussions from this meeting formed the

basis of the Academy's work on Designing Legal Services for the 21st Century.

#### Participants

**Jonathan F. Fanton**  
*American Academy of Arts and Sciences*

**David F. Levi**  
*Duke Law School;*  
*American Law Institute*

**John G. Levi**  
*Legal Services Corporation;*  
*Sidley Austin LLP*

**Lance Liebman**  
*Columbia Law School*

**Martha Minow**  
*Harvard Law School*

**Rebecca Sandefur**  
*University of Illinois at Urbana-Champaign*

**James Sandman**  
*Legal Services Corporation*

**John Tessitore**  
*American Academy of Arts and Sciences*

**Diane P. Wood**  
*U.S. Court of Appeals, Seventh Circuit*

### Making Justice Accessible: Data Collection and Legal Services for Low-Income Americans

June 26–27, 2018  
American Academy  
Cambridge, MA

The project committee met to discuss the first phase of the Legal Services data project, which includes the state of currently available data on unrepresented civil litigants, patterns

and problems in the collection of that data, and what the data tell researchers today.

#### Workshop Chairs

**Rebecca Sandefur**  
*University of Illinois at Urbana-Champaign*

**Mark Hansen**  
*University of Chicago*

**Tonya Brito**  
*University of Wisconsin Law School*

**Anna Carpenter**  
*Lobeck-Taylor Community Advocacy Clinic, University of Tulsa College of Law*

**Bonnie Rose Hough**  
*Center for Families, Children & the Courts, Judicial Council of California*

**Natalie Knowlton**  
*Institute for the Advancement of the American Legal System, University of Denver*

**Shelley Spacek Miller**  
*Research Division, National Center for State Courts*

**Erika Rickard**  
*A2J Lab, Harvard Law School*

**Tanina Rostain**  
*Center for the Study of the Legal Profession, Georgetown University Law Center*

#### Participants

**Catherine Albiston**  
*University of California, Berkeley School of Law*

**Katherine Alteneider**  
*Self-Represented Litigation Network*

**Elizabeth Chambliss**  
*NMRS Center on Professionalism, University of South Carolina School of Law*

**April Faith-Slaker**  
*A2J Lab, Harvard Law School*

**Margaret Hagan**  
*Stanford Legal Design Lab*

**James Lynch**  
*Maryland Data Analysis Center, University of Maryland*

**Carlos Manjarrez**  
*Office of Data Governance and Analysis, Legal Services Corporation*

**Betty Balli Torres**  
*Texas Access to Justice Foundation*

**David Udell**  
*National Center for Access to Justice*



## Education and the Development of Knowledge

**P**rojects in the Education and the Development of Knowledge program area inform policy and practice in support of high-quality, lifetime educational opportunities for all Americans. The program area continues the Academy’s enduring focus on the vital role education and knowledge development play in our nation and in our world. From advancing equitable educational outcomes to leveraging new developments in the learning sciences and digital technologies to questioning how domestic and international scholarly work may be affected by advances in machine learning, the Education and the Development of Knowledge program area – through commissions, projects, convenings, and publications – draws upon scholars and practitioners from various fields and disciplines to explore the conditions that foster the creation, transfer, and preservation of knowledge in a global context.

## EDUCATION AND THE DEVELOPMENT OF KNOWLEDGE Program Advisory Committee

Lawrence Bacow  
*Harvard University*

Deborah Ball  
*University of Michigan*

Philip Bredesen  
*former Governor of Tennessee*

Roland G. Fryer  
*Harvard University*

Howard Gardner  
*Harvard Graduate School  
of Education*

David L. Lee  
*Clarity Partners, LP*

Richard Light  
*Harvard Graduate School  
of Education*

Kathleen McCartney  
*Smith College*

Paula D. McClain  
*Duke University*

Michael McPherson  
*formerly, Spencer Foundation*

Arthur Rock  
*Arthur Rock & Company*

Paul Sagan  
*Akamai Technologies*

Marcelo Suárez-Orozco  
*University of California,  
Los Angeles*

Beverly Tatum  
*Spelman College*

### PROJECT

### COMMISSION ON THE FUTURE OF UNDERGRADUATE EDUCATION

Following two years of sustained deliberations grounded in reviews of innovative practices, policies, and studies and informed by meetings with state and federal policy-makers, students and faculty members, and scores of experts from around the country, the Commission on the Future of Undergraduate Education released its final report – *The Future of Undergraduate Education, The Future of America* – in late November 2017. In the report, the Commission offers a comprehensive national strategy that encompasses three broad recommendations:

- 1) Ensure that all students have high-quality educational experiences;
- 2) Increase overall completion rates and reduce inequities among different student populations at every level of undergraduate education; and
- 3) Manage college costs and improve the affordability of undergraduate education.

In the fourth and final section of the report, the Commission takes a more speculative approach, looking to the future through the lens of several factors, including the country's level of social cohesion; the characteristics of the workforce; the level of access to information and educational technologies; and unforeseen natural or human-generated global challenges. The report ends by suggesting topics for further research as we work toward a strengthened and more affordable undergraduate education for a greater share of Americans.

Following the release of the final report in Washington, D.C., the report was covered in *The Chronicle of Higher Education* and *Inside Higher Education*; in a letter to the editor published in *The New York Times*; and in interviews with Commission members on nationally syndicated radio shows on stations WAMU and WGBH. Cochair Roger Ferguson was also interviewed at length for *The Wall Street Journal's* "The Future of: Education" event.

Commission members have discussed the report with academic leaders and policy-makers across the country, including with 21 Congressional offices; with the Department of Education; at the annual meetings of the Association of American Colleges and Universities (AAC&U) and the American Council on Education (ACE); at the Yale Higher Education Leadership Summit; with the National Science Board; with the U.S. Senate Committee on Health, Education, Labor & Pensions; at TIAA's Annual Client Forum; at the Arizona State University + Global Silicon Valley (ASU+GSV) Summit; at the Kentucky Council on Postsecondary Education's Annual Student Success Summit; at the Fish Family Foundation; at the Andrew W. Mellon Foundation; at the Enrollment Planning Network's annual meeting; at the National Science Foundation Advisory Meeting; and at a Wisconsin-focused meeting hosted by University of Wisconsin-Madison Chancellor Rebecca Blank. Other presentations and state-focused meetings are planned for the year ahead. Additional content is also being developed to further discussions with various audiences, including report briefs for state policy-makers and higher education institutions and a forthcoming issue of *Dædalus* on undergraduate education.

## COMMISSION ON THE FUTURE OF UNDERGRADUATE EDUCATION, *continued*

The full body of the Commission’s work seeks to elevate and influence the national dialogue about undergraduate education; bring attention to the priorities identified in the final report; act in concert with and support the efforts underway

at other organizations and institutions; and help lead toward a series of changes over time. The Academy is grateful for Vartan Gregorian’s encouragement and for support from Carnegie Corporation of New York.

### Commission Chairs

Roger W. Ferguson, Jr.  
*TIAA*

Michael S. McPherson  
*formerly, Spencer Foundation*

### Commission Members

Joseph E. Aoun  
*Northeastern University*

Deborah Loewenberg Ball  
*University of Michigan*

Sandy Baum  
*Urban Institute*

Rebecca M. Blank  
*University of Wisconsin-Madison*

John Seely Brown  
*formerly, Xerox PARC Research*

Wesley G. Bush  
*Northrop Grumman*

Carl A. Cohn  
*California Collaborative for Educational Excellence*

Mitchell E. Daniels, Jr.  
*Purdue University*

John J. DeGioia  
*Georgetown University*

Jonathan F. Fanton  
*American Academy of Arts and Sciences*

Robert Hormats  
*Kissinger Associates; formerly, U.S. Department of State*

Freeman A. Hrabowski III  
*University of Maryland, Baltimore County*

Jennifer L. Jennings  
*New York University*

Jeremy Johnson  
*Andela*

Sherry Lansing  
*Sherry Lansing Foundation*

Nicholas Lemann  
*Columbia University Graduate School of Journalism*

J. Michael Locke  
*formerly, Rasmussen, Inc.*

Monica Lozano  
*College Futures Foundation*

Gail O. Mellow  
*LaGuardia Community College*

Diana Natalicio  
*University of Texas at El Paso*

Hilary Pennington  
*Ford Foundation*

Beverly Daniel Tatum  
*Spelman College*

Shirley M. Tilghman  
*Princeton University*

Michelle Weise  
*Strada Education Network*

### Data Advisory Group Members

Tom Bailey  
*Teachers College, Columbia University*

Sandy Baum  
*Urban Institute*

Ronald G. Ehrenberg  
*Cornell University*

Bridget Terry Long  
*Harvard Graduate School of Education*

Judith Scott-Clayton  
*Teachers College, Columbia University*

### Project Staff

Francesca Purcell

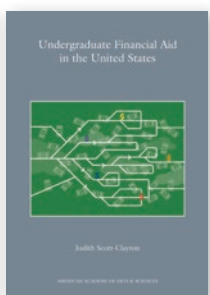
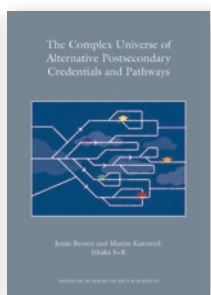
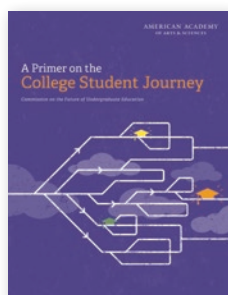
Natoschia Scruggs

Beth Niegelsky

### Funder

Carnegie Corporation of New York

## PROJECT PUBLICATIONS \ COMMISSION ON THE FUTURE OF UNDERGRADUATE EDUCATION



*A Primer on the College Student Journey* (American Academy of Arts and Sciences, 2016)

*The Complex Universe of Alternative Postsecondary Credentials and Pathways*, Jesse Brown and Martin Kurzweil, Ithaca S+R (American Academy of Arts and Sciences, 2017)

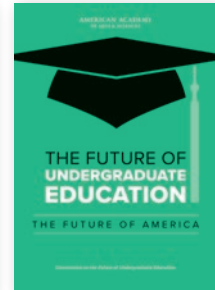
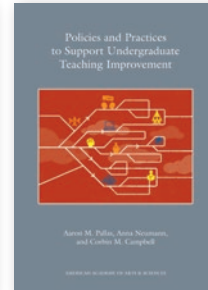
*Undergraduate Financial Aid in the United States*, Judith Scott-Clayton, Columbia University (American Academy of Arts and Sciences, 2017)

## PROJECT PUBLICATIONS, *continued*

*The Economic Impact of Increasing College Completion*, Sophia Koropeckyj, Chris Lafakis, and Adam Ozimek, Moody's Analytics; Foreword by Michael S. McPherson (American Academy of Arts and Sciences, 2017)

*Policies and Practices to Support Undergraduate Teaching Improvement*, Aaron Pallas, Anna Neumann, and Corbin Campbell (American Academy of Arts and Sciences, 2017)

*The Future of Undergraduate Education, The Future of America* (American Academy of Arts and Sciences, 2017)



## PROJECT MEETINGS \ COMMISSION ON THE FUTURE OF UNDERGRADUATE EDUCATION

### Higher Expectations, Higher Education

September 26, 2017  
University of North Carolina at Chapel Hill  
Chapel Hill, NC

Commission Cochair **Michael McPherson** (formerly, Spencer Foundation) spoke on the topics of accountability, accessibility, and affordability in higher education at the “Higher Expectations, Higher Education” conference at the University of North Carolina at Chapel Hill. This conference brought together educators from around the country to discuss the status of higher education since the release of the Spellings Commission report in 2006.

### Member Reception

September 26, 2017  
Duke University  
Durham, NC

Chair of the Academy’s Board of Directors **Nancy C. Andrews** (Duke University) welcomed Academy Members to a reception at Duke University, which featured remarks about the future of undergraduate education from Commission Cochair **Michael McPherson** (formerly, Spencer Foundation).

### Priorities for Progress: Advancing Higher Education in America

October 26, 2017  
University of California, Berkeley  
Berkeley, CA

The Academy hosted a Stated Meeting at the University of California, Berkeley on “Priorities for Progress: Advancing Higher Education in America.” The meeting featured remarks about higher education and the Academy’s work on The Lincoln Project: Excellence and Access in Public Higher Education and *The Future of Undergraduate Education, The Future of America* from Commission Cochair **Michael McPherson** (formerly, Spencer Foundation), Commission member **Monica Lozano** (College Futures Foundation), Lincoln Project Cochair **Robert J. Birgeneau** (University of California, Berkeley), and **Bob Jacobsen** (University of California, Berkeley).





Jonathan Fanton, Michael McPherson, Monica Lozano, Bob Jacobsen, and Robert Birgeneau

## From Enrollment to Excellence: New Opportunities for American Undergraduate Education

November 28, 2017  
Century Association  
New York, NY

The 2063rd Stated Meeting, held in New York, focused on new opportunities for U.S. undergraduate education. The meeting, which served as the Morton L. Mandel Public Lecture, provided an opportunity for Members to hear from several Commissioners, share opinions, and discuss how we can realize the promise of undergraduate education for students and

the nation. The featured speakers included Vartan Gregorian (Carnegie Corporation of New York), Michael McPherson (formerly, Spencer Foundation), Nicholas Lemann (Columbia University), and Gail Mellow (LaGuardia Community College). Diana Natalicio (University of Texas at El Paso) offered remarks at the dinner following the meeting.



Vartan Gregorian, Nicholas Lemann, Gail Mellow, and Michael McPherson

## Release of the Commission's Final Report: *The Future of Undergraduate Education, The Future of America*

November 28–30, 2017  
Washington, D.C.

### Official Release and Public Symposium

At a meeting held at the National Press Club, the Commission on the Future of Undergraduate Education released its final report. Commission Cochairs Roger Ferguson, Jr. (TIAA) and Michael McPherson (formerly, Spencer Foundation) and Commission members Jonathan F. Fanton (American Academy of Arts and Sciences), John DeGioia (Georgetown University), Mitchell Daniels (Purdue University), and Deborah Loewenberg Ball (University of Michigan) discussed the main themes and recommendations contained in the report, which focus on the quality of the student educational experience, increasing completion rates, and improving affordability.

### Meetings with National Higher Education Organizations

Commission Cochairs Roger Ferguson, Jr. (TIAA) and Michael McPherson (formerly, Spencer Foundation) and Commission members Jonathan F. Fanton (American Academy of Arts and Sciences), Deborah Ball (University of Michigan), Jennifer Jennings (Princeton University), Jeremy Johnson (Andela), Nicholas Lemann (Columbia University), J. Michael Locke (formerly, Rasmussen), Gail Mellow (LaGuardia Community College), Hilary Pennington (Ford Foundation), and Michelle Weise (Strada Education Network) met with leaders from several national higher education organizations and discussed initiatives taking place to strengthen undergraduate education. The Commissioners met with

Mary Sue Coleman (Association of American Universities), Peter McPherson (Association of Public and Land-grant Universities), Mary Heiss (American Association of Community Colleges), Tammy Reichelt (American Association of Community Colleges), George Mehaffy (American Association of State Colleges and Universities), Richard Ekman (Council of Independent Colleges), David L. Warren (National Association of Independent Colleges and Universities), Terrell Rhodes (Association of American Colleges and Universities), and Josh Wyner (The Aspen Institute). Celeste Ford (Carnegie Corporation of New York) also joined the group.

### Congressional Meetings

Commission members Jonathan F. Fanton (American Academy of Arts and Sciences), Jennifer Jennings (Princeton University), J. Michael Locke (formerly, Rasmussen), Deborah Ball (University of Michigan), Sandy Baum (Urban Institute), Rebecca Blank (University of Wisconsin-Madison), Jeremy Johnson (Andela), Nicholas Lemann (Columbia University), Michelle Weise (Strada Education Network), and Hilary Pennington (Ford Foundation) met with twenty-one members of Congress and/or their key legislative advisors to discuss the report's recommendations, such as simplifying the FAFSA-based student aid application process, refocusing the Pell Grant Program to focus on completion, and designing a single income-driven repayment plan in which students are automatically enrolled.



Mitchell Daniels, Roger Ferguson, Jr., Michael McPherson, Deborah Ball, and John DeGioia

## RELEASE OF THE COMMISSION'S FINAL REPORT, *continued*

### White House Visit

Commission Cochairs Roger Ferguson, Jr. (TIAA) and Michael McPherson (formerly, Spencer Foundation) and Commission members Jonathan F. Fanton (American Academy of Arts and Sciences) and Sandy Baum (Urban Institute) met with Jim Manning, Acting Under Secretary of Education, to discuss the report and relevant policy recommendations around college affordability, access, and completion.

### Washington, D.C. Program Committee Reception and Dinner

The Washington, D.C. Program Committee, led by Steven Knapp (George Washington University), hosted a dinner for Academy Members and guests following the public release of *The Future of Undergraduate Education, The Future of America*. The dinner featured remarks from Commission members Rebecca Blank (University of Wisconsin-Madison) and Nicholas Lemann (Columbia University Graduate School of Journalism), and the discussion focused on how to realize the promise of undergraduate education for students and the nation.



Hilary Pennington, Senator Tammy Baldwin, and Rebecca Blank

### Annual Meeting of the Association of American Colleges and Universities

January 25, 2018  
Washington, D.C.

At the Annual Meeting of the Association of American Colleges and Universities, Commission Cochair Michael McPherson (formerly, Spencer Foundation) spoke about how colleges and universities can commit to making systematic changes to improve college teaching.

### Higher Education Summit

January 30, 2018  
Yale University  
New Haven, CT

At the Yale School of Management's Higher Education Summit, Commission member Joseph Aoun (Northeastern University) and Ron Pressman (TIAA Institutional Financial Services) discussed the final report, especially the blend of academic, practical, and civic knowledge and skills students need to be successful for careers and for life.

### Reauthorizing the Higher Education Act: Improving College Affordability

February 6, 2018  
Washington, D.C.

Commission member Sandy Baum (Urban Institute) testified before the U.S. Senate Committee on Health, Education, Labor, and Pensions on "Reauthorizing the Higher Education Act: Improving College Affordability." She recommended that Congress should help make college more affordable for students and families by simplifying the aid application process, making Pell Grants more predictable and reliable, eliminating institutions with very poor outcomes from federal aid programs and holding institutions accountable for student success, providing better information and guidance for students, and improving the income-driven system for student-loan repayment.

## Meeting of the National Science Board

February 21–22, 2018  
Alexandria, VA

Commission members **Sandy Baum** (Urban Institute) and **Deborah Loewenberg Ball** (University of Michigan) and program director **Francesca Purcell** (American Academy of Arts and Sciences) presented the Commission’s findings on improving educational quality, increasing completion rates, and making college more affordable at a meeting of the National Science Board.

## The Future of Undergraduate Education, The Future of Kentucky

April 9–10, 2018  
Louisville, KY

Commission Cochair **Michael McPherson** (formerly, Spencer Foundation) delivered the opening plenary at the Kentucky Council on Postsecondary Education’s Annual Student Success Summit and provided a comprehensive overview of the final report. Commission member **Sandy Baum** (Urban Institute) led sessions on the question of “What does college affordability really mean?” The summit, entitled *The Future of Undergraduate Education, The Future of Kentucky*, was named after the Commission’s final report.

## The Future of Undergraduate Education

April 18, 2018  
San Diego, CA

Commission member **J. Michael Locke** (formerly, Rasmussen Inc.) moderated a panel at the annual ASU + GSV Summit. The panel, entitled “The Future of Undergraduate Education,” featured a debate on the role of postsecondary education and drew on topics highlighted in the Commission’s final report.

## Boston-Area Members Discussion

April 19, 2018  
Boston, MA

**Lawrence K. Fish** (Citizen’s Bank) hosted at the Fish Family Foundation a discussion for Boston-area Members on the future of higher education, public perceptions of colleges and universities in a time of growing skepticism of American institutions, and the intersections between colleges and industry in developing the country’s talent. **David Oxtoby** (Pomona College) presented opening remarks.

## TIAA Annual Forum

April 25, 2018  
Scottsdale, AZ

The Commission’s final report set the stage for TIAA’s Annual Forum. Commission Cochairs **Michael McPherson** (formerly, Spencer Foundation) and **Roger Ferguson, Jr.** (TIAA) opened the three-day event, which celebrated TIAA’s 100-year anniversary, with a panel that provided an overview of the key themes from the report, as well as in-depth discussions focused on the Commission’s recommendations to improve college teaching and increase completion rates. The audience included approximately 450 chief business and human resource officers from colleges and universities around the country. The Forum concluded with an executive roundtable session with college and university presidents that focused on how to work more effectively with state legislators as well as how to regain the public’s trust in higher education.

## The Future of Undergraduate Education

May 22, 2018  
South Bend, IN

Commission Cochair **Michael McPherson** (formerly, Spencer Foundation) delivered a keynote address on the future of undergraduate education at the annual meeting of the Enrollment Planning Network.

## A Dialogue on the Future of Higher Education in Wisconsin

May 31, 2018  
University of Wisconsin-Madison  
Madison, WI

Rebecca Blank (University of Wisconsin-Madison) and the Academy hosted a statewide meeting with higher education, government, and business leaders from across Wisconsin that focused on how the higher education community in Wisconsin can best improve college access and completion for students from low-income families and how higher education can best respond to recent criticisms. Michael McPherson (formerly, Spencer Foundation) delivered opening remarks and along with Commission member Sandy Baum (Urban Institute) moderated the event.

## National Conference of the Network of STEM Education Centers

June 6–8, 2018  
Columbus, OH

Commission member Deborah Loewenberg Ball (University of Michigan) delivered a keynote address at the national conference of the Network of STEM Education Centers that highlighted the work of the Commission related to improving undergraduate STEM teaching and teacher preparation on college campuses.

## The AI Disruption of Work-Educational Responses

June 15, 2018  
University of Wyoming  
Jackson Hole, WY

Commission member Joseph Aoun (Northeastern University) spoke at *The AI Disruption of Work – Educational Responses* Summit about the influence of artificial intelligence both in education and in work and highlighted some of the findings from the Commission’s final report, especially the blend of academic, practical, and civic knowledge and skills students need to be successful in their careers and in their lives.



## Global Security and International Affairs

**T**he Global Security and International Affairs program area draws on the expertise of policy-makers, practitioners, and scholars to foster knowledge and inform innovative and more sustainable policies to address critical issues affecting the global community. To achieve this goal, our projects engage with pressing strategic, development, and moral questions that underpin relations among people, communities, and states worldwide. Each of our initiatives embraces a broad conception of security as the interaction among human, national, and global security imperatives. Our recommendations seek to move beyond the idea of security as the absence of war toward higher aspirations of collective peace, development, and justice.

## GLOBAL SECURITY AND INTERNATIONAL AFFAIRS

## Committee on International Security Studies

**Committee Chair**

Scott D. Sagan  
Stanford University

**Committee Members**

Nicholas Burns  
Harvard University

Antonia Chayes  
Tufts University

Christopher Chyba  
Princeton University

Karl Eikenberry  
Stanford University

Tanisha Fazal  
University of Minnesota

Martha Finnemore  
George Washington University

Rita Hauser  
The Hauser Foundation

Robert Legvold  
Columbia University

Rose McDermott  
Brown University

Steven E. Miller  
Harvard University

Barry Posen  
Massachusetts Institute  
of Technology

Adam Roberts  
University of Oxford

Kathryn Sikkink  
Harvard University

Paul Wise  
Stanford University

**PROJECT****NEW DILEMMAS IN ETHICS, TECHNOLOGY, AND WAR**

The project on New Dilemmas in Ethics, Technology, and War explores the ethical and legal issues created by changes in military technology and the evolving character of warfare. This study follows from the observation that although technological innovations and political developments are altering the conventional way in which warfare is conducted, efforts to align the international legal framework with this evolving context have lagged behind. The rise of nonstate actors and the deployment of new military technology, such as drones and cyber weapons, have eroded and undermined the ethical and legal fabric traditionally provided by the International Law of Armed Conflict.

One of the most notable impacts of this project has been in the policy realm, where the gap between law and policy continues to widen, largely justified by national security concerns. The project has shed light on the nefarious consequences of delivering policies divorced from legal obligations and ethical considerations. Scholars, practitioners, and policy-makers have found many of the project's findings of particular interest. These include:

- the principle of necessity in nuclear targeting, which would require the United States to pledge not to use nuclear weapons when a target can be destroyed using conventional capabilities;
- the inclusion of the indirect human costs of war – which usually far exceed the direct costs – in considerations of whether a proposed attack complies with the principles of proportionality; and

- the need to think of emerging technologies not only as potential tools for warfare, but more importantly as tools both for the de-escalation of conflict and for peace.

The project has produced two issues of *Daedalus* that, together with an extensive, ongoing outreach strategy, are influencing and shaping policy debates by identifying and disseminating key lessons learned and policy recommendations that might be of value to policy-makers and military strategists. Through meetings and discussions, the project has engaged with more than eight hundred students, scholars, and policy-makers, including Congressional staff in the United States as well as the leadership from the UN Department of Peacekeeping Operations, Department of Political Affairs, and High Commissioner for Refugees. Organizations ranging from the U.S. National Security Council and Office of the Secretary of the Air Force to the UN Department of Field Support have requested copies of the *Daedalus* issues or have distributed select essays internally. At least six universities and military staff colleges, including Stanford University, Columbia University, the Middlebury Institute of International Studies at Monterey, and the U.S. Military Academy at West Point, have adopted the *Daedalus* volumes as part of their curriculum.

In addition, the project has initiated new discussions and fostered collaborations with military academies as well as formed a number of strong partnerships with international organizations.

## NEW DILEMMAS IN ETHICS, TECHNOLOGY, AND WAR, *continued*

To complement the New Dilemmas in Ethics, Technology, and War project, the Academy established a new project on Civil Wars, Violence, and International Responses to explore how

the changing nature of conflict necessitates new approaches from the international community. More information about the Civil Wars project is available on page 25.

### **Project Chair**

Scott D. Sagan  
*Stanford University*

### **Steering Committee**

Norman R. Augustine  
*Lockheed Martin Corporation, ret.*

Lloyd Axworthy  
*University of Waterloo; formerly,  
Department of Foreign Affairs,  
Trade, and Development,  
Government of Canada*

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

Tanisha Fazal  
*University of Minnesota*

Jennifer Leaning  
*Harvard University*

Gilman Louie  
*Alsop Louie Partners;  
formerly, In-Q-Tel*

David Luban  
*Georgetown University*

Mark Martins  
*U.S. Army, Judge Advocate  
General's Corps*

Aryeh Neier  
*Paris School of International  
Affairs of Sciences Po*

Janne Nolan  
*George Washington University*

Barry Posen  
*Massachusetts Institute  
of Technology*

Nancy Sherman  
*Georgetown University*

Michael Walzer  
*Institute for Advanced Study*

Jennifer Welsh  
*European University Institute*

### **Project Staff**

Francesca Giovannini  
Kathryn Moffat

### **Funders**

*Humanity United*

*John D. and Catherine T.  
MacArthur Foundation*

*The Rockefeller Foundation*

## PROJECT PUBLICATIONS \ NEW DILEMMAS IN ETHICS, TECHNOLOGY, AND WAR

*“Ethics, Technology & War,” Dædalus (Fall 2016)*

*“The Changing Rules of War,” Dædalus (Winter 2017)*





**PROJECT MEETINGS \ NEW DILEMMAS IN ETHICS, TECHNOLOGY, AND WAR****Briefings with International Organizations and NGOs**

July 5-7, 2017  
Geneva, Switzerland

Project contributor Paul Wise shared the findings of his *Daedalus* essay, which discusses how technology can help us better understand the full human costs of war, with representatives of the United Nations High Commissioner for Refugees, the UN Office for the Coordination of Humanitarian Affairs, the World Health Organization, the International Committee of the Red Cross, and Médecins San Frontières.

**Participants**

Paul Wise  
Stanford University

Kathryn Moffat  
American Academy of Arts  
and Sciences

**Waging Just Wars in the 21st Century?**

September 2, 2017  
San Francisco, CA

The New Dilemmas in Ethics, Technology, and War project convened a panel discussion during the 2017 Annual Meeting of the American Political Science Association. Selected *Daedalus* contributors discussed some of the ethical questions raised by the use of new military technology, and explored whether a new normative and legal framework for warfare in the twenty-first century is possible.

**Participants**

Neta C. Crawford  
Boston University

David Fidler  
Indiana University

Francesca Giovannini  
American Academy of Arts  
and Sciences

Michael C. Horowitz  
University of Pennsylvania

Scott D. Sagan  
Stanford University

Michael Walzer  
Institute for Advanced Study



At the podium, Francesca Giovannini; seated, left to right: Neta Crawford, Michael Walzer, Scott Sagan, Michael Horowitz, and David Fidler

## Objects of Wonder: The Face of Battle without the Rules of War

December 5, 2017  
Washington, D.C.

As part of a lecture series drawing on items in the National Museum of Natural History's Objects of Wonder exhibition, Scott Sagan delivered a lecture drawing on his *Daedalus* essay, "The Face of Battle without the Rules of War: Lessons from Red Horse & the Battle of Little Bighorn." In a series of drawings now housed in the National Anthropological Archives at the National Museum of Natural History, Red Horse, a Minneconjou Sioux warrior who fought at the 1876 Battle

of the Little Bighorn – also known as Custer's Last Stand – vividly and candidly portrayed the unrestrained brutality of the battle and its aftermath. Professor Sagan discussed how this artwork not only helps us gain insight into what warfare was like without the laws of armed conflict to constrain violence, but also understand better contemporary warfare in the age of fast-paced technology.

### Speakers

Scott D. Sagan  
Stanford University

Jake Homiak  
National Anthropological Archives

## The Nuclear Posture Review, North Korea, and Nuclear Use

March 23, 2018  
Washington, D.C.

The New Dilemmas in Ethics, Technology, and War project convened a private, off-the-record discussion on Capitol Hill with Congressional staffers and other D.C.-based experts. Hosted in collaboration with the Nuclear Security Working Group, the discussion featured General C. Robert Kehler (USAF, ret.), former commander of United States Strategic Command and author of "Nuclear Weapons & Nuclear Use,"

which was published in one of the issues of *Daedalus* produced as part of the project. Janne Nolan (George Washington University), also a *Daedalus* contributor for the Ethics project, led the discussion that focused on the ethical and legal aspects of considerations around nuclear use, challenges to stability and nonproliferation, and the 2018 Nuclear Posture Review.

### Speakers

C. Robert Kehler  
U.S. Air Force, ret.

Janne Nolan  
George Washington University



Janne Nolan and Robert Kehler listen to a question from the audience.

## PROJECT

## CIVIL WARS, VIOLENCE, AND INTERNATIONAL RESPONSES

The Civil Wars, Violence, and International Responses project builds and expands on the work of the New Dilemmas in Ethics, Technology, and War project. Civil wars are endemic in the international system and all historical ages have in some form borne the costs resulting from internal violence, weak statehood, and ethnic and religious hatred.

The risks and threats associated with civil wars and state disorder affect more than just the state in question; civil wars often carry adverse consequences for regional and global stability. The project has therefore identified six threats that emerge from civil wars and intrastate violence: pandemic diseases, transnational terrorism, migration, regional instability, great power conflict, and criminality. Some existing approaches, such as the “standard treatment” model – meaning UN peacekeeping plus some foreign assistance – have worked well, but only under very specific and often restrictive conditions. Other more robust approaches, involving deep economic investments and the presence of external actors and international organizations, have drained already scarce international resources and brought about limited results.

The project has produced two issues of *Dædalus* that explore how civil wars and state disorder are situated currently in the international system; highlight some of the most pressing challenges emerging from civil wars and state disorder; present several case studies, such as the Western Balkans, Sri Lanka, Colombia, and Ethiopia; and offer various policy responses to civil wars, more generally.

One of the primary observations that has emerged from the project is that approaches for preventing, mitigating, and resolving civil wars and intrastate violence are often far too ambitious. They frequently overpromise stability, security, peace, democracy, and development to countries experiencing high levels of violence and instability.

**Project Chairs**

Karl W. Eikenberry  
*Stanford University;*  
*U.S. Army, ret.*

Stephen D. Krasner  
*Stanford University*

**Project Members**

Michele Barry  
*Stanford University*

Abdeta D. Beyene  
*Centre for Dialogue, Research,*  
*and Cooperation, Ethiopia*

Project participants traveled to Nigeria in November 2017 and met with Nigerian and U.S. government officials, UN representatives, and nongovernmental organization leaders, among others, to discuss early findings and develop policy recommendations. Several contributors participated in closed-door briefings at the U.S. Department of Defense in January 2018 and met with the National Security Council in April 2018. Future outreach activities will include meetings with government leaders, decision-makers, academics, heads of nongovernmental organizations, and journalists in Ethiopia and Colombia, among other strategically chosen locations. These discussions will help shape an occasional paper, to be published in early 2019, that will be used to inform policy-makers in Washington, D.C., as well as the international community.

Several departments within the United Nations and the U.S. government as well as the United States Institute of Peace and domestic and international academic institutions have consulted with the project participants and used the findings of the project to inform their work. For example, project members participated in workshops with high and mid-level staff at the United Nations and were involved in conversations leading up to the publication of the 2017 *Pathways to Peace* report released jointly by the World Bank and the United Nations. Project contributors also engaged with experts from the World Health Organization on new methodologies for responding to civil wars and health issues. Military and civilian staff in the Office of the Chairman of the Joint Chiefs of Staff at the Department of Defense drew on the ideas and expertise of the project during an internal reexamination of their counterinsurgency strategy. And several project participants met with the U.S. Deputy National Security Advisor and with members of her team to discuss the project’s recommendations.

Stephen D. Biddle  
*Columbia University*

Tanja A. Börzel  
*Freie Universität Berlin*

Charles Call  
*American University*

Susanna Campbell  
*American University*

Martha Crenshaw  
*Stanford University*

Lyse Doucet  
*BBC News*

## CIVIL WARS, VIOLENCE, AND INTERNATIONAL RESPONSES, *continued*

Tanisha Fazal  
*University of Minnesota*

James Fearon  
*Stanford University*

Vanda Felbab-Brown  
*Brookings Institution*

Francis Fukuyama  
*Stanford University*

Sumit Ganguly  
*Indiana University*

Miguel García-Sánchez  
*Universidad de los Andes,  
Colombia*

Richard Gowan  
*New York University*

Sonja Grimm  
*University of Konstanz, Germany*

Jean-Marie Guéhenno  
*International Crisis Group*

Joseph Hewitt  
*United States Institute of Peace*

Stephen Heydemann  
*Smith College*

Bruce Jones  
*Brookings Institution*

Stathis Kalyvas  
*Yale University*

Nancy Lindborg  
*United States Institute of Peace*

Sarah Kenyon Lischer  
*Wake Forest University*

Clare Lockhart  
*Institute for State Effectiveness*

Aila M. Matanock  
*University of California, Berkeley*

Seyoum Mesfin  
*Institute for Advanced Research,  
Ethiopia*

Stewart Patrick  
*Council on Foreign Relations*

Barry Posen  
*Massachusetts Institute  
of Technology*

William Reno  
*Northwestern University*

Thomas Risse  
*Freie Universität Berlin*

Hendrik Spruyt  
*Northwestern University*

Stephen Stedman  
*Stanford University*

Eric Stollenwerk  
*Freie Universität Berlin*

Paul H. Wise  
*Stanford University*

### **Project Staff**

Francesca Giovannini

Summers Hammel

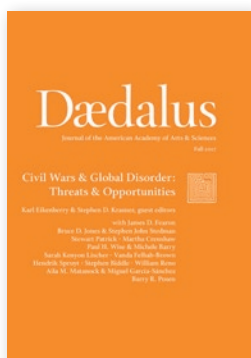
### **Funders**

Humanity United

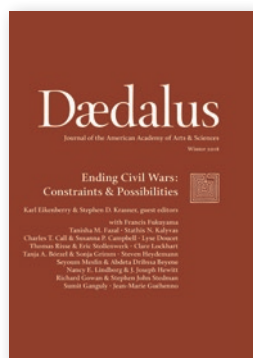
Smith Richardson Foundation

Oak Foundation

## PROJECT PUBLICATIONS \ \ CIVIL WARS, VIOLENCE, AND INTERNATIONAL RESPONSES



“*Civil Wars & Global Disorder:  
Threats & Opportunities*,” *Dædalus*  
(Fall 2017)



“*Ending Civil Wars:  
Constraints & Possibilities*,” *Dædalus*  
(Winter 2018)

**PROJECT MEETINGS \ CIVIL WARS, VIOLENCE, AND INTERNATIONAL RESPONSES**

**Meeting on Civil Wars, Violence, and International Responses**

September 13, 2017  
New York, NY

The UN Assistant Secretaries-General for Peacekeeping and Political Affairs hosted a discussion with selected contributors to the Civil Wars, Violence, and International Responses

project. The meeting focused on strategic challenges to multi-lateral efforts to resolve conflict as well as the evolving role of the United Nations given shifts in the global balance of power.

**Speakers**

**Jonathan F. Fanton**  
*American Academy of Arts and Sciences*

**Jean-Marie Guéhenno**  
*International Crisis Group*

**Stephen Krasner**  
*Stanford University*

**Izumi Nakamitsu**  
*United Nations Office of Disarmament Affairs*

**Stephen Stedman**  
*Stanford University*

**El Ghassim Wane**  
*United Nations Department of Peacekeeping Operations*

**Tayé-Brook Zerihoun**  
*United Nations Department of Political Affairs*



Stephen Krasner, Assistant Secretary-General for Peacekeeping Operations El Ghassim Wane, Assistant Secretary-General for Political Affairs Tayé-Brook Zerihoun, and Under-Secretary-General of Disarmament Affairs Izumi Nakamitsu listen to project contributor Jean-Marie Guéhenno.



Participants at the panel discussion.

## Civil Wars and International Order

September 13, 2017  
New York, NY

At the first in a series of three workshops hosted in collaboration with the UN Department of Political Affairs and Department of Peacekeeping Operations, project contributors

discussed possible trends in future civil wars, how UN peace operations can play a useful role, and the success criteria for peace operations.

### Speakers

Renata Dwan  
*United Nations Department  
of Peacekeeping Operations*

James Fearon  
*Stanford University*

Michèle Griffin  
*Executive Office of the United  
Nations Secretary-General*

Sarah Kenyon Lischer  
*Wake Forest University*

Graham Maitland  
*United Nations Department  
of Political Affairs*

Stephen Stedman  
*Stanford University*

Cris Stephen  
*United Nations Department  
of Peacekeeping Operations*



Graham Maitland, Michèle Griffin, Renata Dwan, Stephen Stedman, and James Fearon participate in the workshop.



Participants in the workshop.

## Institution-Building and Governance in Areas of Limited Statehood

October 18, 2017  
New York, NY

At the second workshop hosted in collaboration with the United Nations, project participants shared findings from their *Daedalus* essays and explored alternative approaches to developing improved governance and state/society relationships in the wake of conflict.

### Speakers

**Susanna Campbell**  
*American University*

**Adedeji Ebo**  
*United Nations Department of Peacekeeping Operations*

**Richard Gowan**  
*New York University; European Council on Foreign Relations*

**David Haeri**  
*United Nations Department of Peacekeeping Operations*

**Steven Heydemann**  
*Smith College*

**David Marshall**  
*Office of the United Nations High Commissioner for Human Rights*

**Eric Stollenwerk**  
*Freie Universität Berlin*

**Katy Thompson**  
*United Nations Development Programme*



Susanna Campbell, Adedeji Ebo, David Haeri, and Katy Thompson participate in the workshop.

## The Evolution of Armed Groups: Crafting Effective Responses

November 17, 2017  
New York, NY

At the final workshop in the series organized in collaboration with the United Nations, the discussion focused on interdisciplinary approaches to thinking about how armed groups affect international order.

### Speakers

**Richard Atwood**  
*International Crisis Group*

**Martha Crenshaw**  
*Stanford University*

**Tanisha Fazal**  
*University of Minnesota*

**Stathis Kalyvas**  
*University of Oxford; formerly, Yale University*

**Thomas Kontgeorgos**  
*United Nations Department of Peacekeeping Operations*

**Teresa Whitfield**  
*United Nations Department of Political Affairs*



Martha Crenshaw (center) answers a question from a participant during the workshop.

## Civil Wars, Violence, and International Responses Capitol Hill Briefing

January 23, 2018  
Washington, D.C.

At a briefing for junior- and senior-level Congressional staffers hosted by the Academy and Stanford University's Hoover Institution, several project participants presented recommen-

dations based on their work and research on civil wars and intrastate violence.

### **Participants**

**Stephen Biddle**  
*Columbia University*

**Karl Eikenberry**  
*Stanford University*

**Summers Hammel**  
*American Academy of Arts  
and Sciences*

**Stephen Krasner**  
*Stanford University*

**Nancy Lindborg**  
*United States Institute of Peace*

**Stephen Stedman**  
*Stanford University*

**Paul Wise**  
*Stanford University*



Karl Eikenberry (center) speaking at the briefing. Left to right: Stephen Stedman, Paul Wise, Nancy Lindborg, Stephen Krasner, and Stephen Biddle

## Briefings at the U.S. Department of Defense

January 23, 2018  
Washington, D.C.

A small group of project contributors, led by project cochairs Karl Eikenberry and Stephen Krasner, met with staff members from the office of the Secretary of Defense and the office of the Chairman of the Joint Chiefs of Staff. The briefings

included a general session attended by more than thirty mid-level Department of Defense personnel and a smaller, closed-door session that focused on counter-terrorism and counter-insurgency strategies.

### **Participants**

**Stephen Biddle**  
*Columbia University*

**Karl Eikenberry**  
*Stanford University*

**Summers Hammel**  
*American Academy of Arts  
and Sciences*

**Stephen Krasner**  
*Stanford University*

**Clare Lockhart**  
*Institute for State Effectiveness*

**Stephen Stedman**  
*Stanford University*

**Paul Wise**  
*Stanford University*



## Briefing with the National Security Council (NSC)

April 13, 2018  
Washington, D.C.

Several project contributors participated in a briefing with Nadia Schadlow, Deputy National Security Advisor to the President of the United States, and more than ten other NSC staff and regional specific directors. The project participants

offered short- and long-term strategic policy planning recommendations for preventing, mitigating, and helping countries recover from civil violence.

### Participants

**Stephen Biddle**  
*Columbia University*

**Karl Eikenberry**  
*Stanford University*

**Francesca Giovannini**  
*American Academy of Arts and Sciences*

**Summers Hammel**  
*American Academy of Arts and Sciences*

**Stephen Krasner**  
*Stanford University*

**Nancy Lindborg**  
*United States Institute of Peace*

**Barry Posen**  
*Massachusetts Institute of Technology*

## Civil Wars and Development Models

April 13, 2018  
Washington, D.C.

In collaboration with the United States Institute of Peace, the Academy co-hosted a small lunch discussion on development models for conflict-ridden states. The speakers included project cochair **Stephen Krasner** as well as representatives from USAID and the World Bank. The discussion centered on the observation that during the post-Cold War era, governments and international institutions designed approaches to treat

intrastate violence using mediation, peacekeeping operations, and development programs aimed at creating good governance and economic growth. The participants discussed the strengths and weaknesses of various development models in light of the current geopolitical landscape and lessons learned from past interventions.

### Participants

**Stephen Biddle**  
*Columbia University*

**Franck Bousquet**  
*World Bank*

**Karl Eikenberry**  
*Stanford University*

**Joseph Hewitt**  
*United States Institute of Peace*

**Stephen Krasner**  
*Stanford University*

**Nancy Lindborg**  
*United States Institute of Peace*

**Barry Posen**  
*Massachusetts Institute of Technology*

**Kate Somvongsiri**  
*USAID*



Karl Eikenberry, Nancy Lindborg, Stephen Krasner, Kate Somvongsiri, and Franck Bousquet

## Ending Civil Wars

April 13, 2018  
Washington, D.C.

The Academy co-hosted a panel discussion with the United States Institute of Peace that featured the issue of *Dædalus* on “Ending Civil Wars: Constraints & Possibilities,” which was published in connection with the project. The authors and

project participants discussed how the United States could respond better to intrastate conflict and promote both development and stability to create lasting peace.

### Participants

Stephen Biddle  
*Columbia University*

Karl Eikenberry  
*Stanford University*

Stephen Krasner  
*Stanford University*

Nancy Lindborg  
*United States Institute of Peace*

Clare Lockhart  
*Institute for State Effectiveness*

Barry Posen  
*Massachusetts Institute  
of Technology*



Nancy Lindborg, Stephen Biddle, Stephen Krasner, Clare Lockhart, Barry Posen, and Karl Eikenberry

## Meetings with International Organizations in Geneva

May 14 and 16, 2018  
Geneva, Switzerland

In collaboration with the British Academy, the American Academy organized a series of briefings and discussions with representatives of several international organizations and NGOs in Geneva, including the Centre of Competence on Humanitarian Negotiation, the International Committee of the Red Cross, the Geneva International Centre for Humani-

tarian Demining, and the UN Development Programme. The participants discussed key findings of two Academy projects – New Dilemmas in Ethics, Technology, and War and Civil Wars, Violence, and International Responses – as well as the British Academy’s work on violence.

### Participants

Christine Bell  
*University of Edinburgh*

Tanisha Fazal  
*University of Minnesota*

Philip Lewis  
*British Academy*

Kathryn Moffat  
*American Academy of Arts  
and Sciences*

Christina Moorhouse  
*British Academy*

Stephen Stedman  
*Stanford University*

Eric Stollenwerk  
*Freie Universität Berlin*

Charles Tripp  
*British Academy;  
University of London*

## The Future of International Responses to Civil Wars and Conflict

May 15, 2018  
Geneva, Switzerland

The American Academy, the British Academy, and the Centre on Conflict, Development, and Peacebuilding at The Graduate Institute of International and Development Studies hosted a workshop that brought Geneva-based scholars and practitioners together with experts who are contributing to the British Academy's work on violence and to the Ameri-

can Academy's projects on New Dilemmas in Ethics, Technology, and War and Civil Wars, Violence, and International Responses. The participants discussed how international responses to civil wars are continuing to evolve. They also deepened their understanding about how different disciplines and organizations are approaching these issues.

### Participants

#### Salman Bal

Office of the Director-General,  
United Nations Office at Geneva

#### Christine Bell

University of Edinburgh

#### Sebastian Brack

Kofi Annan Foundation

#### Christine Chinkin

London School of Economics

#### Eleanor Davey

University of Manchester

#### Alan Doss

Kofi Annan Foundation

#### Tanisha Fazal

University of Minnesota

#### Adrian Foster

Geneva Center for Security  
Policy; formerly, UN Department  
of Peacekeeping Operations;  
formerly, British Army

#### Florence Foster

Quaker United Nations Office

#### Francesca Giovannini

American Academy of Arts  
and Sciences

#### Maria Ottavia Guicciardini

The Graduate Institute  
of International and  
Development Studies

#### Catriona Gourlay

PeaceNexus Foundation

#### Sonja Grimm

University of Konstanz

#### Thomas Guerber

Geneva Centre for the Democratic  
Control of Armed Forces

#### Daniel Hyslop

Interpeace

#### Nora Keller

ETH Zurich

#### Keith Krause

The Graduate Institute  
of International and  
Development Studies

#### David Lanz

Swisspeace

#### Philip Lewis

British Academy

#### Gianluca Maspoli

Geneva International Centre for  
Humanitarian Demining

#### Brian McQuinn

International Committee  
of the Red Cross;  
The Graduate Institute  
of International and  
Development Studies

#### Kathryn Moffat

American Academy of Arts  
and Sciences

#### Christina Moorhouse

British Academy

#### Vanessa Parada González

World Health Organization

#### Sandra Reimann

The Graduate Institute  
of International and  
Development Studies

#### Tuesday Reitano

Global Initiative Against  
Transnational Organized Crime

#### Sara Sekkenes

United Nations Development  
Programme

#### Rhithu Siddharth

UN High Commissioner  
for Refugees

#### Anki Sjöberg

Geneva Call

#### Hugo Slim

International Committee  
of the Red Cross

#### Stephen Stedman

Stanford University

#### Eric Stollenwerk

Freie Universität Berlin

#### Charles Tripp

British Academy;  
University of London

#### Emmanuel Tronc

Conflict Dynamics International

#### Achim Wennmann

Geneva Peacebuilding Platform;  
The Graduate Institute  
of International and  
Development Studies



Brian McQuinn, Tanisha Fazal, Charles Tripp, Eleanor Davey, and Salman Bal participate in a panel discussion at the workshop in Geneva.

## PROJECT THE GLOBAL NUCLEAR FUTURE

The Global Nuclear Future (GNF) Initiative is an interdisciplinary and multinational project that is seeking to engage nuclear newcomers in conversations on nuclear safety, security, and nonproliferation.

As an increasing number of countries today explores the possibility of establishing nuclear power plants to meet the mounting energy needs of a growing population, it is important for the nuclear policy community worldwide to assist these countries in developing responsible nuclear programs in accordance with international standards of regulation and governance. The GNF project brings together diverse communities, including leading experts from academia, government, nongovernmental organizations, and the nuclear industry, to foster dialogue and debate with and among nuclear newcomers and encourage transparency and international cooperation.

The GNF Initiative has focused its work in three main areas:

- 1) developing regional networks of knowledge in Southeast Asia and the Middle East that could assist nuclear newcomers and nuclear aspirant countries in establishing a safe, secure, and proliferation-resistant program;
- 2) identifying the best strategies and policies to manage the nuclear fuel cycle, including the back-end of the nuclear fuel cycle and the transfer and governance of dual-use technology; and
- 3) identifying possible strategies to minimize the risks of insider threats within nuclear laboratories and power plants.

Some of the project's activities include convening nuclear experts and scholars to promote dialogue among regional players; hosting policy briefings and consultations with government officials and representatives of the nuclear industry; and commissioning papers and publications, often co-authored by regional experts, to enhance academic cooperation and nurture interstate intellectual exchanges.

### **Project Chairs**

Steven E. Miller  
*Harvard Kennedy School*

Robert Rosner  
*University of Chicago*

### **Senior Advisor**

Scott D. Sagan  
*Stanford University*

### **Project Advisors**

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  
*Middlebury Institute of International Studies at Monterey*

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*

*The William and Flora Hewlett Foundation*

*The Kavli Foundation*

*John D. and Catherine T. MacArthur Foundation*

*Alfred P. Sloan Foundation*

**PROJECT PUBLICATIONS \ THE GLOBAL NUCLEAR FUTURE**

**Main project publications:**

*Governance of Dual-Use Technologies: Theory and Practice*, edited by Elisa D. Harris (American Academy of Arts and Sciences, 2016)

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

*Nuclear Collisions: Discord, Reform & the Nuclear Non-proliferation 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)

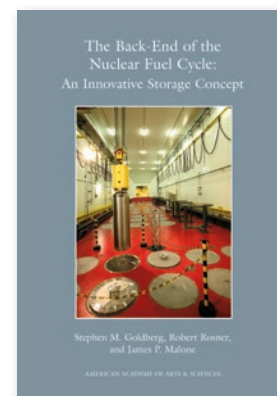
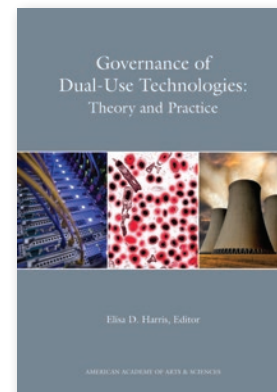
*The Back-End of the Nuclear Fuel Cycle: An Innovative Storage Concept*, Stephen M. Goldberg, Robert Rosner, and James P. Malone (American Academy of Arts and Sciences, 2012)

*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 Zaluar (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 (Fall 2009 and Winter 2010)



A full list of all of the Global Nuclear Future project publications may be found on the Academy’s website at <https://www.amacad.org/gnf>.

**PROJECT MEETINGS \ THE GLOBAL NUCLEAR FUTURE**

**Multilateral Approach in Spent Fuel Management**

September 26, 2017  
Seoul, South Korea

The Global Nuclear Future Initiative co-convened a panel discussion during the 2017 GLOBAL International Nuclear Fuel Cycle conference that examined the status of multilateral approaches to spent fuel management and the key challenges –

including regionally and nationally specific issues – that will need to be overcome in order to identify new ways forward for multilateral spent fuel management.

**Speakers**

Yongsoo Hwang  
Korea Atomic Energy Research  
Institute

William D. Magwood IV  
OECD Nuclear Energy Agency

Andrew Newman  
Nuclear Threat Initiative

Robert Rosner  
University of Chicago

Man-Sung Yim  
Korea Advanced Institute  
of Science and Technology

## Solving the Unsolvable: Nuclear Waste Solutions for the New Millennium

April 6, 2018  
Washington, D.C.

Managing spent fuel is one of the most significant challenges surrounding the use of nuclear energy. Although the technical means to build repositories exist, disposal attempts have often faced strong political and societal pushback. The Stim-

son Center and the American Academy convened experts from academia, government, NGOs, and the nuclear industry to discuss the existing interim storage facility proposals as well as the opportunities and challenges that lie ahead.

### Speakers

**Francesca Giovannini**  
*American Academy of Arts and Sciences*

**Geordan Graetz**  
*Department of State Development, Government of South Australia*

**Carlyn Greene**  
*UxC*

**Mark Hibbs**  
*Carnegie Endowment for International Peace*

**Tom Isaacs**  
*Lawrence Livermore National Laboratory*

**Jacqueline Kempfer**  
*Stimson Center*

**Charles McCombie**  
*ARIUS Association*

**Andrew Newman**  
*Nuclear Threat Initiative*

**Daniel B. Poneman**  
*Centrus Energy Corp.*

**Robert Rosner**  
*University of Chicago*

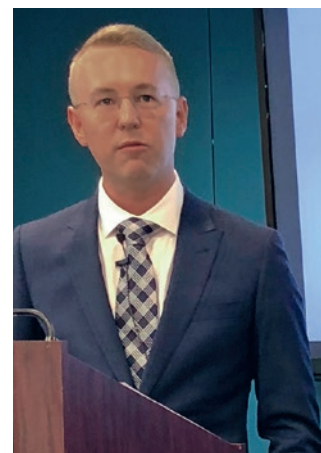
**Robert Sloan**  
*Tulane Law School*

**Yea-Jen Tseng**  
*Southern Taiwan University of Science and Technology*

**Cindy Vestergaard**  
*Stimson Center*



Tom Isaacs, Yea-Jen Tseng, and Andrew Newman



Geordan Graetz

## PROJECT

## MEETING THE CHALLENGES OF THE NEW NUCLEAR AGE

Meeting the Challenges of the New Nuclear Age will examine the challenges and opportunities presented by the changing nuclear age. The global nuclear order is evolving today along three main dimensions: 1) the nuclear posture of several nuclear weapons states has changed because of the possible use of nuclear weapons in war fighting; 2) technological innovations (in the space and cyber realm in particular, although not exclusively) are impacting existing nuclear arrangements (including the extended deterrence architecture and strategic stability); and 3) the changes in the current global nuclear order affect the prospects for nuclear arms control in a multipolar world.

This initiative is working to articulate a new framework for governing relations among the existing nine nuclear weapons states (with particular attention to strengthening strategic stability within the two critical nuclear triangles: China, the United States, and Russia as well as India, Pakistan, and China).

In order to achieve this goal, the project will:

- 1) identify the four or five major dangers generated by the dynamics of a multipolar nuclear world – dangers that pose the greatest threat of inadvertent nuclear war;
- 2) offer alternative approaches to addressing each of these dangers and then facilitate discussions with relevant communities in the United States and abroad; and
- 3) encourage and assist policy-makers, Congress, the analytical community, and the media to think systematically about a world that is now multipolar.

**Project Chairs**

**Christopher Chyba**  
*Princeton University*

**Robert Legvold**  
*Columbia University*

**Steering Committee**

**Thomas J. Christensen**  
*Princeton University*

**Lynn Eden**  
*Stanford University*

**Steven E. Miller**  
*Harvard Kennedy School*

**Janne Nolan**  
*George Washington University*

**Scott D. Sagan**  
*Stanford University*

**Jon Wolfsthal**  
*Nuclear Crisis Group*

**Working Group Members**

**James M. Acton**  
*Carnegie Endowment for International Peace*

**Mark Bell**  
*University of Minnesota*

Two cochairs, a small steering committee, and a larger working group lead the project. Six nuclear experts, with in-depth knowledge of nuclear issues, serve on the steering committee. They are helping to identify ways in which the project can have policy impact as well as how the project can engage internationally with nuclear communities beyond the United States.

Members of the working group include established scholars, rising scholars, former policy-makers, and diplomats. The inclusion of rising scholars is particularly significant. The working group serves as the main body for intergenerational and multidisciplinary discussions on current nuclear issues. The involvement of rising scholars brings fresh perspectives and innovative methodologies to the fore and greatly expands the capacity of the project to propose cutting-edge solutions to enduring nuclear risks.

In the past year, the working group has discussed five commissioned papers on key questions related to the current role that nuclear weapons play in global security. Among the topics discussed in the papers are the prospects for future arms control agreements between Russia and the United States; the conditions that make the use of nuclear weapons increasingly plausible in today's world; and the increased complexity of nuclear deterrence among multiple nuclear weapons states. These essays appear in a series of occasional papers published in 2018.

**Linton Brooks**  
*Center for Strategic and International Studies; formerly, U.S. Department of Energy and U.S. National Nuclear Security Administration*

**M. Taylor Fravel**  
*Massachusetts Institute of Technology*

**Sumit Ganguly**  
*Indiana University, Bloomington*

**Francis J. Gavin**  
*Johns Hopkins School of Advanced and International Studies*

**Michael Krepon**  
*Stimson Center*

**Hans Kristensen**  
*Federation of American Scientists*

**Jessica Tuchman Mathews**  
*Carnegie Endowment for International Peace*

**Nicholas Miller**  
*Dartmouth College*

**Steven E. Miller**  
*Harvard Kennedy School*

**Vipin Narang**  
*Massachusetts Institute of Technology*

## MEETING THE CHALLENGES OF THE NEW NUCLEAR AGE, *continued*

**Janne Nolan**  
*George Washington University*

**Olga Oliker**  
*Center for Strategic and International Studies*

**George Perkovich**  
*Carnegie Endowment for International Peace*

**Steven Pifer**  
*Brookings Institution; formerly, U.S. Department of State*

**William Potter**  
*James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies at Monterey*

**Mira Rapp-Hooper**  
*Yale Law School*

**Scott D. Sagan**  
*Stanford University*

**Michael Swaine**  
*Carnegie Endowment for International Peace*

**Nina Tannenwald**  
*Brown University*

**Jane Vaynman**  
*Temple University*

**Keren Yarhi-Milo**  
*Princeton University*

### **Project Staff**

**Francesca Giovannini**

**Kathryn Moffat**

### **Funders**

*Louise Henry Bryson and John E. Bryson*

*John F. Cogan, Jr.*

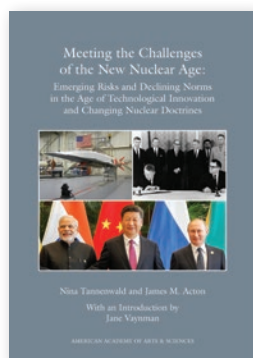
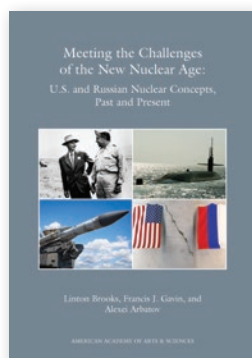
*Lester Crown*

*Alan M. Dachs*

*Bob and Kristine Higgins*

*Kenneth L. and Susan S. Wallach*

## PROJECT PUBLICATIONS \ MEETING THE CHALLENGES OF THE NEW NUCLEAR AGE



*Meeting the Challenges of the New Nuclear Age: U.S. and Russian Nuclear Concepts, Past and Present*, Linton Brooks, Alexei Arbatov, and Francis J. Gavin (American Academy of Arts and Sciences, 2018)

*Meeting the Challenges of the New Nuclear Age: Emerging Risks and Declining Norms in the Age of Technological Innovation and Changing Nuclear Doctrines*, Nina Tannenwald and James M. Acton, with an Introduction by Jane Vaynman (American Academy of Arts and Sciences, 2018)

## PROJECT MEETINGS \ MEETING THE CHALLENGES OF THE NEW NUCLEAR AGE

### Meeting the Challenges of the New Nuclear Age: Working Group Meeting

December 18–19, 2017  
Cambridge, MA

Members of the working group met to discuss some of the current nuclear challenges facing the international community, including the implications of the decline or collapse of arms control agreements, the consequences of a multipolar nuclear world, and the potential risks for nuclear escalation created by

new technological developments. They also talked about possible policy responses and the best ways for the project to contribute to those discussions. The meeting helped to inform the selection of topics for forthcoming project publications and future convenings with international experts.



**WORKING GROUP MEETING, *continued***

**Participants**

**James M. Acton**  
*Carnegie Endowment for International Peace*

**Mark Bell**  
*University of Minnesota*

**Leyatt Betre**  
*Princeton University*

**Linton F. Brooks**  
*Center for Strategic and International Studies; formerly, U.S. Department of Energy; formerly, National Nuclear Security Administration*

**Thomas J. Christensen**  
*Princeton University*

**Christopher Chyba**  
*Princeton University*

**Jonathan F. Fanton**  
*American Academy of Arts and Sciences*

**M. Taylor Fravel**  
*Massachusetts Institute of Technology*

**Sumit Ganguly**  
*Indiana University, Bloomington*

**Francesca Giovannini**  
*American Academy of Arts and Sciences*

**Summers Hammel**  
*American Academy of Arts and Sciences*

**Robert Legvold**  
*Columbia University*

**David C. Logan**  
*Princeton University*

**Jessica Tuchman Mathews**  
*Carnegie Endowment for International Peace*

**Steven E. Miller**  
*Harvard Kennedy School*

**Kathryn Moffat**  
*American Academy of Arts and Sciences*

**Janne E. Nolan**  
*George Washington University*

**Olga Oliker**  
*Center for Strategic and International Studies*

**George Perkovich**  
*Carnegie Endowment for International Peace*

**Steven Pifer**  
*Brookings Institution*

**William Potter**  
*James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies at Monterey*

**Peter Robinson**  
*American Academy of Arts and Sciences*

**Scott D. Sagan**  
*Stanford University*

**Michael D. Swaine**  
*Carnegie Endowment for International Peace*

**Nina Tannenwald**  
*Brown University*

**Jane Vaynman**  
*Temple University*

**Kristin Ven Bruusgaard**  
*Stanford University*

**Jon Wolfsthal**  
*Harvard University*



Linton Brooks, Mark Bell, Nina Tannenwald, Jane Vaynman, Sumit Ganguly, and Leyatt Betre



## Science, Engineering, and Technology

Academy projects in Science, Engineering, and Technology seek to strengthen the capacity of science and engineering to improve the human condition. This goal has never been more important for the nation or for the world. Global challenges increasingly require collaboration across disciplinary, professional, and national boundaries, while rapid advances in information processing and transmission raise new issues for both the management of scientific and technical information and for the ability of individuals and institutions to assimilate and act on new discoveries.

Drawing on the broad expertise of its membership and outside experts, Academy studies in Science, Engineering, and Technology analyze the impact of advances in these areas and develop policy recommendations that are made available to government, academia, nongovernmental organizations, and the private sector. Activities focus on increasing public understanding of current research and technological change, and on helping society adapt effectively and make meaningful use of new scientific and technical knowledge. Areas of interest include U.S. productivity in science and engineering; public understanding of, and trust in, science, engineering, and medicine; and how the adoption of new technologies shapes, and is shaped by, societal values and individual and institutional decision-making.

SCIENCE, ENGINEERING, AND TECHNOLOGY

Program Advisory Group

**Program Advisory Group Chairs**

Alan Leshner  
formerly, American Association  
for the Advancement of Science

Geraldine L. Richmond  
University of Oregon

**Program Advisory Group Members**

Nancy C. Andrews  
Duke University School  
of Medicine

Mary Beckerle  
University of Utah

Arthur Bienenstock  
Stanford University

Emery Brown  
Massachusetts Institute  
of Technology;  
Harvard Medical School;  
Massachusetts General Hospital

Claude Canizares  
Massachusetts Institute  
of Technology

Gerald Chan  
The Morningside Group

David Clark  
Massachusetts Institute  
of Technology

Wayne Clough  
Georgia Institute of Technology;  
formerly, Smithsonian Institution

Robert Horvitz  
Massachusetts Institute  
of Technology

Leah Jamieson  
Purdue University

Cora Marrett  
formerly, National Science  
Foundation

James Simons  
Euclidean Capital

Jeannette Wing  
Columbia University

**PROJECT**

**THE PUBLIC FACE OF SCIENCE**

The Academy’s initiative on the Public Face of Science addresses various aspects of the complex and evolving relationship between scientists and the public, and examines how trust in science is shaped by individual experiences, beliefs, and engagement with science. The project is also looking at the role of science in the legal system and the coordination and deployment of scientific teams as part of crisis response. The initiative has brought together a broad range of experts in communication, law, humanities, the arts, journalism, public affairs, and the physical, social, and life sciences. While this project does not directly address scientific literacy in K-12 and adult education, it will inform such efforts by fostering a greater understanding of the public’s attitude toward science.

The first project report, *Perceptions of Science in America*, was published in February 2018 and summarizes the existing data

on the current understanding of how Americans view science, scientists, and the impacts of scientific research. The report has been incorporated into teaching materials for university courses in science communication and outreach, and has been distributed and discussed at training workshops for science communicators. The report is being used by professional societies; governmental organizations; science advocacy groups; and the university community – including provosts, vice presidents and vice chancellors of research, science communication faculty, and public engagement specialists.

Subsequent reports will highlight the numerous ways that individuals encounter science in their everyday lives and present recommendations for improving the practice of science communication and engagement.

**Project Chair**

Richard Meserve  
Covington & Burling LLP;  
formerly, Carnegie Institution  
for Science

**Steering Group Members**

Emilio Bizzi  
Massachusetts Institute of  
Technology

Geoffrey Cowan  
University of Southern California

Ellen Futter  
American Museum of  
Natural History

Sylvester James Gates, Jr.  
Brown University

Robert Hauser  
American Philosophical Society

Rush D. Holt, Jr.  
American Association for the  
Advancement of Science

Kathleen Hall Jamieson  
University of Pennsylvania

Venkatesh Narayanamurti  
Harvard University

THE PUBLIC FACE OF SCIENCE, *continued*

**Nora Newcombe**  
Temple University

**Geneva Overholser**  
Formerly, *The Democracy Fund*;  
formerly, USC Annenberg School  
for Communication and Journalism

**Kenneth Prewitt**  
Columbia University

**Rebecca Rimel**  
Pew Charitable Trusts

**Cristián Samper**  
Wildlife Conservation Society

**Samuel Thier**  
Harvard Medical School;  
Massachusetts General Hospital

**Project Staff**

John Randell

Erica Kimmerling

Gregory Savageau

**Funders**

Gordon and Betty Moore  
Foundation

Rita Allen Foundation

Alfred P. Sloan Foundation

PROJECT PUBLICATION \ \ THE PUBLIC FACE OF SCIENCE



*Perceptions of Science in America*  
(2018)

PROJECT MEETINGS \ \ THE PUBLIC FACE OF SCIENCE

Roundtable Discussion with Academy Members on the Public Face of Science

September 11, 2017  
Cornell University  
Ithaca, NY

Participants discussed a preliminary draft of *Perceptions of Science in America* and focused on the data presentations, inter-

pretations, and takeaways. The draft was revised in response to the feedback received at the roundtable.

**Featured Speaker**

**Diane Ackerman**  
Ithaca, NY

**Participants**

**Nancy C. Andrews**  
Duke University School of  
Medicine

**Barbara A. Baird**  
Cornell University

**Jonathan Culler**  
Cornell University

**Stephen T. Emlen**  
Cornell University

**Thomas D. Gilovich**  
Cornell University

**Leonard Gross**  
Cornell University

**Martha Patricia Haynes**  
Cornell University

**Peter Uwe Hohendahl**  
Cornell University

**Paul Lyon Houston**  
Georgia Institute of Technology

**Erica Kimmerling**  
American Academy of Arts  
and Sciences

**Carol L. Krumhansl**  
Cornell University

**Sidney Leibovich**  
Cornell University

**G. Peter Lepage**  
Cornell University

**Paul L. McEuen**  
Cornell University

**Fred Warren McLafferty**  
Cornell University

**Jerrold Meinwald†**  
Cornell University

**Malden C. Nesheim**  
Cornell University

**Don M. Randel**  
Ithaca, NY

**John Randell**  
American Academy of Arts  
and Sciences

**John D. Reppy**  
Cornell University

**Gretchen Ritter**  
Cornell University

**Fred B. Schneider**  
Cornell University

**Steven H. Strogatz**  
Cornell University

**Saul A. Teukolsky**  
Cornell University

**Sandra L. Vehrencamp**  
Cornell University

**Benjamin Widom**  
Cornell University

† Deceased

## Roundtable Discussion with Academy Members on the Public Face of Science

November 1, 2017  
University of Michigan  
Ann Arbor, MI

Following an introduction from Arthur Lupia, Academy Members discussed the final draft of *Perceptions of Science in America* and identified key takeaways from the report.



Arthur Lupia (third from left) speaking at a roundtable discussion in Ann Arbor.

### Featured Speaker

Arthur Lupia  
University of Michigan

### Participants

Hyman Bass  
University of Michigan

John Carethers  
University of Michigan

James Duderstadt  
University of Michigan

David L. Featherman  
University of Michigan

Philip Gingerich  
University of Michigan

David Ginsburg  
University of Michigan

Linda Gregerson  
University of Michigan

James Stephen House  
University of Michigan

Mary Kelley  
University of Michigan

Shinobu Kitayama  
University of Michigan

Juanita Merchant  
University of Michigan

James Morrow  
University of Michigan

John O'Shea  
University of Michigan

John Randell  
American Academy of Arts  
and Sciences

Mark Schlissel  
University of Michigan

George Tsebelis  
University of Michigan

Joseph Vining  
University of Michigan

Marina von Neumann  
Whitman  
University of Michigan

## Roundtable Discussion with Academy Members on *Perceptions of Science in America*

February 14, 2018  
University of Texas at Austin  
Austin, TX

This roundtable discussion followed the release of *Perceptions of Science in America*. The discussion focused on the implications of the data for the current dialogue around support for evidence-based policy and the role of scientists in communi-

cating and engaging with the public. Insights from this discussion shaped the early outreach activities and provided context for the forthcoming project reports.

### Participants

Rainer Assé  
American Academy of Arts  
and Sciences

Allen Joseph Bard  
University of Texas at Austin

Larry R. Faulkner  
University of Texas at Austin

George Georgiou  
University of Texas at Austin

Erica Kimmerling  
American Academy of Arts  
and Sciences

Xiaoquin Li  
University of Texas at Austin

Nicholas A. Peppas  
University of Texas at Austin

John Randell  
American Academy of Arts  
and Sciences

Michael Joseph Ryan  
University of Texas at Austin

Kenneth I. Shine  
University of Texas System

## Roundtable Discussion on *Perceptions of Science in America* with MIT Knight Science Journalism and Rita Allen Science Communication Fellows

March 6, 2018  
American Academy  
Cambridge, MA

*Perceptions of Science in America* was discussed in a roundtable setting with a group of professional journalists associated with the MIT Knight Science Journalism program. Following an introductory presentation by Erica Kimmerling, Hellman Fellow in Science and Technology Policy at the Academy, on

the key takeaways for science writers from the report, participants discussed how the data presented in the report might influence their work as journalists. The discussion helped to shape the early outreach efforts by identifying the primary areas of interest for science journalists.

### Participants

Deborah Blum <i>MIT Knight Science Journalism Program</i>	Adam Falk <i>Alfred P. Sloan Foundation</i>	Ehsan Masood <i>Research Fortnight</i>	Kelsey Tsipis <i>Science Writing Graduate Student at MIT</i>
Teresa Carr <i>Knight Science Journalism Fellow</i>	Jonathan F. Fanton <i>American Academy of Arts and Sciences</i>	Jane Qiu <i>Knight Science Journalism Fellow</i>	Adnaan Wasey <i>Rita Allen Science Communication Fellow</i>
Laura Castañón <i>Science Writing Graduate Student at MIT</i>	Sujata Gupta <i>Knight Science Journalism Fellow</i>	John Randell <i>American Academy of Arts and Sciences</i>	Caroline Winter <i>Bloomberg Businessweek</i>
David Corcoran <i>MIT Knight Science Journalism Program; Undark</i>	Joshua Hatch <i>Knight Science Journalism Fellow</i>	Gregory Savageau <i>American Academy of Arts and Sciences</i>	
Caty Enders <i>Knight Science Journalism Fellow</i>	Rowan Jacobsen <i>Knight Science Journalism Fellow</i>	Kolawole Talabi <i>Knight Science Journalism Fellow</i>	
	Erica Kimmerling <i>American Academy of Arts and Sciences</i>	Mičo Tatalović <i>Knight Science Journalism Fellow</i>	

### PROJECT

### PUBLIC FACE OF SCIENCE: SCIENCE AND THE LEGAL SYSTEM

Scientific and technological advances have increased the overlap between scientific learning and legal issues. Yet leading scientists often express reluctance to engage with the legal system or difficulties in communicating their knowledge. Despite the importance of the issue, there are few systematic studies of how scientists view the legal system and of their experiences as consultants to lawyers or judges or as expert witnesses. The American Academy is studying these issues through a survey of its scientist members and through

in-depth conversations with selected scientific and legal experts. The goal is to learn what motivates scientists to participate or to refuse to participate in legal processes and to recommend ways to improve the science-law relationship. The Fall 2018 issue of *Dædalus* on “Science and the Legal System” contains a series of essays by leading scientists and lawyers and a summary of the survey of Academy Members designed to understand better how scientists and engineers perceive and interact with the legal system.

### Project Chairs

Shari Seidman Diamond <i>Northwestern University Pritzker School of Law</i>	Richard Lempert <i>University of Michigan</i>
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**PROJECT MEETING \ PUBLIC FACE OF SCIENCE: SCIENCE AND THE LEGAL SYSTEM***Dædalus* Authors' Workshop on Science and the Legal System

July 20–21, 2017  
American Academy  
Cambridge, MA

The Academy convened the *Dædalus* authors to review initial drafts of their essays and identify ways to share the issue effectively with the legal and scientific communities.

**Participants****Huda Akil***University of Michigan***Robert Cook-Deegan***Duke Global Health Institute***Shari Seidman Diamond***Northwestern University Pritzker  
School of Law***Rebecca Eisenberg***University of Michigan School  
of Law***Nancy Gertner***Harvard Law School; United  
States District Court for the  
District of Massachusetts, ret.***Linda Greenhouse***Yale Law School***Susan Haack***University of Miami  
School of Law***Valerie Hans***Cornell Law School***Sheila Jasanoff***Harvard Kennedy School***Jay Kadane***Carnegie Mellon University***Erica Kimmerling***American Academy of Arts  
and Sciences***Richard Lempert***University of Michigan***Elizabeth Loftus***University of California, Irvine***Anne-Marie Mazza***National Academies of Sciences,  
Engineering, and Medicine***Jennifer Mnookin***University of California,  
Los Angeles School of Law***John Randell***American Academy of Arts  
and Sciences***Jed Rakoff***United States District Court for  
the Southern District of New York***Daniel Rubinfeld***University of California, Berkeley;  
New York University***Michael Saks***Arizona State University Sandra  
Day O'Connor College of Law***Joseph Sanders***University of Houston Law***Patti Saris***United States District Court for  
the District of Massachusetts***Keerthi Shetty***American Academy of Arts  
and Sciences*

Richard Lempert and Shari Seidman Diamond at the Science and the Legal System *Dædalus* authors' workshop.

**PROJECT** THE ALTERNATIVE ENERGY FUTURE

Extensive studies of energy and climate have concluded that the energy system in the United States must undergo a substantial transformation to address economic, environmental, and geopolitical challenges. As this transformation takes place, both individuals and public- and private-sector institutions will need to adapt to the profound societal change that will accompany the adoption of new energy technologies. The Alternative Energy Future project is developing a cohesive understanding of the social and regulatory factors that can either inhibit or facilitate transformative change in the U.S. energy system. The project objectives are: 1) to demonstrate the value of social science in designing and adopting innovations in the physical energy system; and 2) to create a research program aimed at understanding how governing institutions and policy design must adapt to the demands of a changing energy infrastructure.

Building on the 2011 Academy report *Beyond Technology: Strengthening Energy Policy through Social Science* and two special issues of *Dædalus* on the Alternative Energy Future, the Academy is undertaking a two-year research project to understand better the factors that contribute to policy durability and flexibility. The study draws on lessons from the Clean Air Act (CAA), which is a prominent example of a policy that has persisted for decades while adapting continuously to new scientific, technological, and economic information. The Academy study uses five specific components of the CAA as case studies to facilitate identification of crucial design attributes that promote or detract from both policy durability and flexibility and positive program outcomes. The case studies and their conclusions will be published in a forthcoming book from Cambridge University Press. The book will serve as a resource for policy-makers who seek to create effective energy policies at all levels of government, as well as for university programs in sustainability and public policy.

**Project Chairs**

Granger Morgan  
Carnegie Mellon University

Maxine L. Savitz  
Honeywell, Inc., ret.

**STUDY GROUP ON DURABILITY AND ADAPTABILITY IN ENERGY POLICY**

**Study Group Chairs**

Dallas Burtraw  
Resources for the Future

Ann Carlson  
University of California,  
Los Angeles School of Law

**Study Group Members**

Joseph Aldy  
Harvard University

William Boyd  
University of California,  
Los Angeles School of Law

Eric Patashnik  
Brown University

Barry Rabe  
University of Michigan

Hannah Wiseman  
Florida State University  
College of Law

**Project Staff**

John Randell  
Gregory Savageau

**Funders**

Alfred P. Sloan Foundation  
The Kresge Foundation

**PUBLICATIONS \ THE ALTERNATIVE ENERGY FUTURE**



*Lessons from the Clean Air Act: Building Durability and Adaptability into U.S. Climate and Energy Policy* (Cambridge University Press, forthcoming)

“*The Alternative Energy Future*,” vols. 1–2, *Dædalus* (Spring 2012 and Winter 2013)

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



**PROJECT MEETINGS \ THE ALTERNATIVE ENERGY FUTURE**

With support from the Kresge Foundation, the Academy convened three workshops with state and municipal policy-makers and practitioners to discuss how the conclusions from the Academy study could be integrated into existing and new policies and programs. These workshops focused on three regions of the country: California, the Great Lakes, and

New England. The Academy plans to publish the proceedings from these workshops as a companion occasional paper to the forthcoming edited volume from Cambridge University Press to illustrate the potential implications of this research for subnational energy policy.

## Strengthening Energy Policy in the Great Lakes Region

November 1, 2017

Gerald R. Ford School of Public Policy

Ann Arbor, MI

The first of the three regional workshops organized by the Academy examined the integration of municipal and state policies in the Great Lakes region.

### Participants

**Joseph Aldy**

*Harvard Kennedy School*

**Janice Beecher**

*Michigan State University*

**Valerie Brader**

*Michigan Agency for Energy*

**Stephen Brooks**

*University of Windsor*

**Kathryn Buckner**

*Council of Great Lakes Industries*

**Dallas Burtraw**

*Resources for the Future*

**Liesl Clark**

*5 Lakes Energy*

**James Clift**

*Michigan Environmental Council*

**Anne Evens**

*Elevate Energy*

**Luke Forrest**

*Michigan Municipal League*

**Douglas George**

*Consul General of Canada  
in Detroit*

**Kristine Hartman**

*National Conference of  
State Legislatures*

**Catie Hausman**

*University of Michigan*

**Melissa Greene Hopfer**

*Lucas County Commissioner's  
Office*

**Hoon-Yung Hopgood**

*Michigan Senate Environmental  
Quality Subcommittee of the  
Appropriations Committee*

**Chris Kolb**

*Michigan Environmental Council*

**Mary Maupin**

*Department of Environmental  
Quality, State of Michigan*

**Sarah Mills**

*University of Michigan*

**Matthew Naud**

*City of Ann Arbor, MI*

**Barry Rabe**

*University of Michigan*

**Daniel Raimi**

*Resources for the Future;  
University of Michigan*

**John Randell**

*American Academy of Arts  
and Sciences*

**Sean Reed**

*Clean Energy Coalition*

**Gregory Savageau**

*American Academy of Arts  
and Sciences*

**Andy Stocking**

*Principal Business Enterprises,  
Inc.*

**Frank Szollosi**

*National Wildlife Federation*

## Strengthening Energy Policy in the Northeast Region

December 4, 2017  
American Academy  
Cambridge, MA

The second regional workshop convened by the Academy study group focused on the development and implementation of energy policy in New England.

### Participants

<b>Joseph Aldy</b> <i>Harvard Kennedy School</i>	<b>Kelly Sims Gallagher</b> <i>Tufts University</i>	<b>Kristen McCormack</b> <i>Harvard University</i>	<b>Dan Sosland</b> <i>Acadia Center</i>
<b>Jacquie Ashmore</b> <i>Boston University</i>	<b>Joseph Goffman</b> <i>Harvard Law School</i>	<b>Tom McShane</b> <i>Dewey Square Group</i>	<b>Will Space</b> <i>Massachusetts Department of Environmental Protection</i>
<b>Janet Gail Besser</b> <i>Northeast Clean Energy Council</i>	<b>Paul Hibbard</b> <i>Analysis Group</i>	<b>John Randell</b> <i>American Academy of Arts and Sciences</i>	<b>Jordan Stutt</b> <i>Acadia Center</i>
<b>Laurie Burt</b> <i>Laurie Burt LLC</i>	<b>Bruce Ho</b> <i>Natural Resources Defense Council</i>	<b>Stephen Russell</b> <i>Department of Energy Resources, Commonwealth of Massachusetts</i>	<b>Sharon Weber</b> <i>Massachusetts Department of Environmental Protection</i>
<b>Dallas Burtraw</b> <i>Resources for the Future</i>	<b>Judson Jaffe</b> <i>U.S. Department of the Treasury; formerly, Analysis Group, Inc.</i>	<b>Gregory Savageau</b> <i>American Academy of Arts and Sciences</i>	<b>Matthew Willner</b> <i>Ceres</i>
<b>David Cash</b> <i>University of Massachusetts Boston</i>	<b>Barbara Kates-Garnick</b> <i>Tufts University</i>	<b>Nancy L. Seidman</b> <i>Regulatory Assistance Project</i>	
<b>Robert Ethier</b> <i>ISO New England</i>	<b>Amelia Keyes</b> <i>Resources for the Future</i>		

## Bryson Symposium on Climate and Energy Policy

Thursday, March 1, 2018  
California Institute of Technology  
Pasadena, CA

The Bryson Symposium on Climate and Energy Policy drew on the diverse experiences of several California leaders in climate and energy, as well as the Academy's research program on Durability and Adaptability in Energy Policy, to explore how

new research and innovations in both public policy and scientific research are contributing to the mitigation of climate change, and how local, state, and regional action can drive progress toward national climate and energy goals.

### Speakers

<b>Dallas Burtraw</b> <i>Resources for the Future</i>	<b>Nathan S. Lewis</b> <i>California Institute of Technology</i>	<b>Ronald O. Nichols</b> <i>Southern California Edison</i>	<b>Thomas F. Rosenbaum</b> <i>California Institute of Technology</i>
<b>Ralph Cavanagh</b> <i>NRDC</i>	<b>Mary Nichols</b> <i>California Air Resources Board</i>	<b>John Randell</b> <i>American Academy of Arts and Sciences</i>	<b>Maxine L. Savitz</b> <i>formerly Honeywell, Inc.</i>
			<b>Robert B. Weisenmiller</b> <i>California Energy Commission</i>

## Strengthening Energy Policy in California

March 2, 2018  
University of California, Los Angeles School of Law  
Los Angeles, CA

On March 2, 2018, the third regional workshop convened under the Academy's study on Durability and Adaptability in Energy Policy was held in Los Angeles, California.

### Participants

**Eric Biber**  
*University of California,  
Berkeley School of Law*

**William Boyd**  
*University of Colorado  
Law School*

**Sarah Brady**  
*California Council on Science  
and Technology*

**Dallas Burtraw**  
*Resources for the Future*

**Ann Carlson**  
*University of California,  
Los Angeles School of Law*

**Linda Cohen**  
*University of California,  
Irvine School of Law*

**J. R. DeShazo**  
*University of California,  
Los Angeles Luskin School  
of Public Affairs*

**Anthony Eggert**  
*ClimateWorks Foundation*

**Ethan Elkind**  
*University of California,  
Los Angeles School of Law;  
University of California,  
Berkeley School of Law*

**Meredith Hankins**  
*University of California,  
Los Angeles School of Law*

**Sean Hecht**  
*University of California,  
Los Angeles School of Law*

**Cara Horowitz**  
*University of California,  
Los Angeles School of Law*

**Laurel Hunt**  
*Los Angeles Regional  
Collaborative for Climate  
Action and Sustainability*

**Amelia Keyes**  
*Resources for the Future*

**Alexandra Klass**  
*University of Minnesota  
Law School*

**Daniel Lashof**  
*NextGen Policy*

**Nathaniel Logar**  
*University of California,  
Los Angeles School of Law*

**Amber Mace**  
*California Council on Science  
and Technology*

**Timothy Malloy**  
*University of California,  
Los Angeles School of Law*

**Daniel Melling**  
*University of California,  
Los Angeles School of Law*

**Peter Miller**  
*Natural Resources Defense  
Council*

**George Minter**  
*Southern California Gas*

**Mary Nichols**  
*California Air Resources Board*

**Tanya Peacock**  
*Southern California Gas*

**Carla Peterman**  
*California Public Utilities  
Commission*

**Deepak Rajagopal**  
*University of California,  
Los Angeles*

**John Randell**  
*American Academy of Arts  
and Sciences*

**Cassandra Rauser**  
*University of California,  
Los Angeles*

**Daniel Sanchez**  
*American Association for the  
Advancement of Science*



California Energy Commissioner **Carla Peterman** addresses project workshop participants.

## STRENGTHENING ENERGY POLICY IN CALIFORNIA, *continued*

**Gregory Savageau**  
*American Academy of Arts  
and Sciences*

**Maxine Savitz**  
*Honeywell, Inc., ret.*

**Adam Smith**  
*Southern California Edison*

**Nancy Sutley**  
*Los Angeles Department of  
Water and Power*

**Gerald Torres**  
*Cornell University*

**David Vogel**  
*University of California,  
Berkeley Haas School of Business*

**Alex Wang**  
*University of California,  
Los Angeles School of Law*

### PROJECT

## CHALLENGES FOR INTERNATIONAL SCIENTIFIC PARTNERSHIPS

This project is articulating the benefits of international research collaborations and exploring solutions to ongoing challenges associated with their design and execution. The project is examining a range of types of international scientific collaborations involving university-affiliated researchers, government and international research agencies, and/or nongovernment organizations. The first phase of the project is evaluating the organizational dynamics and institutional support structures that enable successful collaboration across borders, and elaborating the key metrics and strategies to

assess the success of such partnerships. The project is also highlighting evolving trends among a range of types of international research collaborations. The Academy is conducting consultations with key practitioners and policy-makers in international science to identify successful and unsuccessful case studies that could be particularly informative for the final project reports. In the second phase of the project, the Academy will establish working groups to develop recommendations and best practices for the implementation of various types of international scientific partnerships.

#### **Project Chairs**

**Arthur Bienenstock**  
*Stanford University*

**Peter Michelson**  
*Stanford University*

#### **Project Steering Group**

**Claude Canizares**  
*Massachusetts Institute  
of Technology*

**David Fidler**  
*Indiana University Maurer  
School of Law*

**Matthias Hentze**  
*European Molecular  
Biology Laboratory*

**John Hildebrand**  
*University of Arizona*

**David Korn**  
*Harvard Medical School*

**William Lee**  
*Wilmer Cutler Pickering Hale  
and Dorr*

**Shirley Malcom**  
*American Association for the  
Advancement of Science*

**Cherry Murray**  
*Harvard University*

**Venkatesh Narayanamurti**  
*Harvard University*

**Olufunmilayo Olopade**  
*University of Chicago*

**Geraldine Richmond**  
*University of Oregon*

**Vaughan Turekian**  
*National Academies of Sciences,  
Engineering, and Medicine*

**Caroline Wagner**  
*The Ohio State University*

#### **Project Advisor**

**Kerri-Ann Jones**  
*Pew Charitable Trusts*

#### **Project Staff**

**John Randell**

**Rainer Assé**

**Gregory Savageau**

#### **Funders**

*Gordon and Betty Moore  
Foundation*

*William and Flora Hewlett  
Foundation*

*Alfred P. Sloan Foundation*

**PROJECT MEETINGS \ CHALLENGES FOR INTERNATIONAL SCIENTIFIC PARTNERSHIPS**

**Roundtable Discussion**

March 28, 2018  
 Georgia Institute of Technology  
 Atlanta, GA

The first in a series of roundtable discussions that were held in Spring 2018, the Atlanta meeting convened a multidisciplinary group of Academy Members and experts in international science. The discussion characterized the current landscape of global science in terms of research collaborations that are executed across institutional borders as well as institutional and disciplinary boundaries. Participants identified key capacities and factors necessary for American researchers to succeed in the current global science landscape.

**Discussion Leaders**

Arthur Bienenstock  
 Stanford University

Peter Michelson  
 Stanford University

**Participants**

Maryam Alavi  
 Georgia Institute of Technology

Rafael Bras  
 Georgia Institute of Technology

Michael Cassidy  
 Georgia Research Alliance

Wayne Clough  
 Georgia Institute of Technology;  
 formerly, Smithsonian Institution

James W. Curran  
 Emory University

Zvi Galil  
 Georgia Institute of Technology

Aris Georgakakos  
 Georgia Institute of Technology



Academy Members, guests, and project staff discuss the challenges and opportunities presented by international research collaborations.

Paul Goldbart  
 Georgia Institute of Technology

Seymour E. Goodman  
 Georgia Institute of Technology

E. Brooks Holifield  
 Candler School of Theology,  
 Emory University

Kaye Husbands Fealing  
 Georgia Institute of Technology

Nicholas Kovacs  
 Georgia Institute of Technology

Robert Nerem  
 Georgia Institute of Technology

W. Ronald Schuchard  
 Emory University

Philip Wainwright  
 Emory University

James Weyhenmeyer  
 Georgia State University

Larry Young  
 Emory University

**Meeting on Medical and Public Health Research**

March 28, 2018  
 Emory University  
 Atlanta, GA

Leaders and practitioners in global health met to discuss emerging international collaborations for research and management of communicable diseases and global pandemic threats. Participants highlighted the capacity-building and data governance models that are needed in order to create shared systems across countries for tackling these health challenges.

James W. Curran with project cochairs Arthur Bienenstock and Peter Michelson, Roslyn Bienenstock, and project staff Rainer Assé and Gregory Savageau.



## MEETING ON MEDICAL AND PUBLIC HEALTH RESEARCH, *continued*

### Participants

**Rainer Assé**  
*American Academy of Arts and Sciences*

**James W. Curran**  
*Rollins School of Public Health, Emory University*

**Susanna Fletcher Greer**  
*American Cancer Society*

**Angela Hilmers**  
*Training Programs in Epidemiology and Public Health Interventions Network - TEPHINET*

**Vikas Kapil**  
*U.S. Centers for Disease Control and Prevention*

**Gregory Savageau**  
*American Academy of Arts and Sciences*

**Dean G. Sienko**  
*Health Programs at the Carter Center*

**Serena Vinter**  
*U.S. Centers for Disease Control and Prevention*

**Philip Wainwright**  
*Emory University*

## Workshop

April 25, 2018  
University of Illinois at Urbana-Champaign  
Champaign, IL

A workshop with faculty and administrators from the University of Illinois at Urbana-Champaign highlighted international collaborations in engineering, agriculture, health, and technology at the University of Illinois. The successes and

challenges of these collaborations exemplified the topics that the Academy project is addressing through case studies involving a broad range of international scientific collaborations.

### Moderators

**John Katzenellenbogen\***  
*University of Illinois at Urbana-Champaign*

**Jeffrey Moore\***  
*University of Illinois at Urbana-Champaign*

**Gene Robinson\***  
*University of Illinois at Urbana-Champaign*

### Participants

**Rainer Assé**  
*American Academy of Arts and Sciences*

**Peter Beak**  
*University of Illinois at Urbana-Champaign*

**May Berenbaum\***  
*University of Illinois at Urbana-Champaign*

**Arthur Bienenstock**  
*Stanford University*

**Martin Burke**  
*University of Illinois at Urbana-Champaign*

**Andreas Cangellaris**  
*University of Illinois at Urbana-Champaign*

**Jianjun Cheng**  
*University of Illinois at Urbana-Champaign*



Project codirector Arthur Bienenstock



Monica Uddin describes an international collaboration on social stress and epigenetics in Rwanda.

**WORKSHOP, continued**

**W. Jerry Dávila**  
University of Illinois  
at Urbana-Champaign

**Elif Ertekin**  
University of Illinois  
at Urbana-Champaign

**Jonathan F. Fanton**  
American Academy of Arts  
and Sciences

**Peter Goldsmith**  
University of Illinois  
at Urbana-Champaign

**Robert Jones**  
University of Illinois  
at Urbana-Champaign

**Anthony Leggett**  
University of Illinois  
at Urbana-Champaign

**Reitu Mabokela\***  
University of Illinois  
at Urbana-Champaign

**Susan Martinis**  
University of Illinois  
at Urbana-Champaign

**Paul McNamara**  
University of Illinois  
at Urbana-Champaign

**Peter Michelson**  
Stanford University

**Ralph Nuzzo**  
University of Illinois  
at Urbana-Champaign

**Don Ort**  
University of Illinois  
at Urbana-Champaign

**John Randell**  
American Academy of Arts  
and Sciences

**Jay Roloff**  
University of Illinois  
at Urbana-Champaign

**Gregory Savageau**  
American Academy of Arts  
and Sciences

**Petros Sofronis**  
University of Illinois  
at Urbana-Champaign

**Monica Uddin**  
University of Illinois  
at Urbana-Champaign

**Alex Winter-Nelson**  
University of Illinois  
at Urbana-Champaign

**Martin Wong**  
University of Illinois  
at Urbana-Champaign

\*Planning Committee Members

**Roundtable Discussion**

April 26, 2018  
Rice University  
Houston, TX

A group of Academy Members and other experts discussed American leadership in global science as well as the value of international scientific collaborations as a vehicle for improving diplomatic relations among participating countries. Draw-

ing on historical perspectives, international collaborations in space science and biomedical science were presented as models of how high-quality science can contribute to diplomacy.

**Discussion Leaders**

**Arthur Bienenstock**  
Stanford University

**Peter Michelson**  
Stanford University

**Participants**

**David Alexander**  
Rice University

**Rainer Assé**  
American Academy of Arts  
and Sciences

**Robert Curl**  
Rice University

**Edward Djerejian**  
Rice University

**Ethan Dmitrovsky**  
National Institute of Health

**Kenny Evans**  
Rice University

**Martin Gruebele**  
University of Illinois at  
Urbana-Champaign

**Neal Lane**  
Rice University

**David Leebron**  
Rice University

**Kirstin Matthews**  
Rice University

**Ricardo Quinonez**  
Baylor College of Medicine

**John Randell**  
American Academy of Arts  
and Sciences

**Peter Rossky**  
Rice University

**Gregory Savageau**  
American Academy of Arts  
and Sciences

**Geeta Singhal**  
Baylor College of Medicine

**Pol Spanos**  
Rice University

## Roundtable Discussion

June 18, 2018

Massachusetts Institute of Technology

Cambridge, MA

This meeting brought together leaders in the physical and life sciences to discuss the changing landscape of global science. Participants highlighted the factors that are driving this

change as well as policies that would serve to better support international collaborations and science diplomacy.

### **Discussion Leaders**

**Arthur Bienenstock**  
*Stanford University*

**Peter Michelson**  
*Stanford University*

### **Participants**

**Rainer Assé**  
*American Academy of Arts and Sciences*

**Duane Boning**  
*Massachusetts Institute of Technology*

**Claude Canizares**  
*Massachusetts Institute of Technology*

**Bruno Coppi**  
*Massachusetts Institute of Technology*

**Nina Dudnik**  
*Seeding Labs*

**Merton Flemings**  
*Massachusetts Institute of Technology*

**Edward Hackett**  
*Brandeis University*

**Linden Hu**  
*Tufts University School of Medicine*

**Steven Hyman**  
*The Broad Institute*

**Daniel Kleppner**  
*Massachusetts Institute of Technology*

**David Korn**  
*Harvard Medical School*

**David Latham**  
*Harvard University*

**Venkatesh Narayanamurti**  
*Harvard University*

**John Randell**  
*American Academy of Arts and Sciences*

**Orit Rozenblatt-Rosen**  
*The Broad Institute*

**Gregory Savageau**  
*American Academy of Arts and Sciences*

**Diane Souvaine**  
*Tufts University*

**Anne Stevenson**  
*Harvard T.H. Chan School of Public Health; The Broad Institute*

**Kevin Struhl**  
*Harvard Medical School*

**Bruce Tidor**  
*Massachusetts Institute of Technology*

**Krystyn Van Vliet**  
*Massachusetts Institute of Technology*

**Sarah White**  
*The Multi-Regional Clinical Trials Center of Brigham and Women's Hospital and Harvard*





## The Humanities, Arts, and Culture

**T**he American Academy was founded to promote the pursuit of knowledge and the education of citizens in all fields of knowledge. Since 1780, the Academy has advocated for the importance of the humanities, arts, and culture in American society, and has called on both private citizens and the nation's government to help foster advances in these areas.

Today, the Academy conducts research and develops policy recommendations to advance the humanities in academic scholarship and in the public sector, to display the importance of the arts in society, and to enrich the nation's cultural life. By bringing together scholars, artists, and leaders from both the public and private sectors, Academy programs in the Humanities, Arts, and Culture put practitioners and scholars in conversation with individuals from other disciplines, ensuring that the arts and humanities are valued in all areas of civic life.

Projects in this area demonstrate the value of the humanities, arts, and culture to the nation's security and prosperity, and call attention to the role played by work in these fields to enriching the health of communities and the daily lives of its citizens.

## THE HUMANITIES, ARTS, AND CULTURE Program Advisory Group

**Richard Brodhead**  
*Duke University*

**Colin Dayan**  
*Vanderbilt University*

**Johanna Drucker**  
*University of California,  
Los Angeles*

**Tom Gunning**  
*University of Chicago*

**Gish Jen**  
*Cambridge, MA*

**Jacqueline Jones**  
*University of Texas at Austin*

**Mary Kelley**  
*University of Michigan*

**Jane McAuliffe**  
*Library of Congress*

**Jahan Ramazani**  
*University of Virginia*

**Oscar Tang**  
*New York, NY*

**Maria Hummer Tuttle**  
*J. Paul Getty Trust*

**Pauline Yu**  
*American Council of  
Learned Societies*

### PROJECT COMMISSION ON LANGUAGE LEARNING

In 2014, a bipartisan group of members of Congress asked the American Academy of Arts and Sciences to undertake a new study of the nation's language education needs. Four members of the United States Senate – Tammy Baldwin (D-Wisconsin), Mark Kirk (R-Illinois), Orrin Hatch (R-Utah), and Brian Schatz (D-Hawaii) – and four members of the House of Representatives – Rush Holt (D-New Jersey), Leonard Lance (R-New Jersey), David Price (D-North Carolina), and Don Young (R-Alaska) – signed two letters requesting that the Academy 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?

In response to this request, the Academy created the Commission on Language Learning. The Commission's final report, *America's Languages: Investing in Language Education for the 21st Century*, offers concrete recommendations to improve access to as many languages as possible, for people of every age, ethnicity, and socioeconomic background.

#### **Commission Chair**

**Paul LeClerc**  
*Columbia Global Center-Paris,  
Columbia University*

#### **Commission Members**

**Martha G. Abbot**  
*American Council on the Teaching  
of Foreign Languages*

**Mark Aronoff**  
*Stony Brook University*

**Jessie "little doe" Baird**  
*Wôpanâak Language  
Reclamation Project*

**David Chu**  
*Institute for Defense Analyses*

**Dan E. Davidson**  
*American Councils for  
International Education;  
Bryn Mawr College*

On February 28, 2017, the day of the public release of *America's Languages*, Representative David Price (D-North Carolina) introduced the World Language Advancement and Readiness Act, a bill cosigned by eighteen of his colleagues. The act proposes three-year competitive grants to support local and state school districts that want to establish, improve, or expand innovative programs in world language learning. Subsequently, the Commission's final report has influenced several additional federal bills and has been cited in Congressional "Dear Colleague" letters in defense of federal funding for Title VI education programs and Fulbright-Hays Fellowships. It has inspired curricular reviews on college and university campuses and is providing an intellectual foundation for the *Lead with Languages* public campaign organized by the American Council on the Teaching of Foreign Languages. Representatives of language and learned societies, education advocacy organizations, government agencies, and international business are now collaborating as the America's Language Working Group to advance the Commission's recommendations. The group's first product, a call-to-action called "Bridging America's Language Gap," has been endorsed by nearly two hundred leaders and institutions from a variety of sectors. The call-to-action is posted on the Commission's website.

COMMISSION ON LANGUAGE LEARNING, *continued*

Nicholas B. Dirks  
*University of California, Berkeley*

Brian T. Edwards  
*Northwestern University*

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

Rosemary G. Feal  
*Modern Language Association*  
*of America*

Carol Gluck  
*Columbia University*

Nancy McEldowney  
*Foreign Service Institute,*  
*U.S. Department of State*

Philip Rubin  
*Haskins Laboratories; formerly,*  
*White House Office of Science*  
*and Technology Policy*

Rubén G. Rumbaut  
*University of California, Irvine*

Marta Tienda  
*Princeton University*

Kenneth L. Wallach  
*Central National Gottesman Inc.*

Diane P. Wood  
*U.S. Court of Appeals,*  
*Seventh Circuit*

Pauline Yu  
*American Council of*  
*Learned Societies*

**Project Staff**

John Tessitore

Julian Kronick

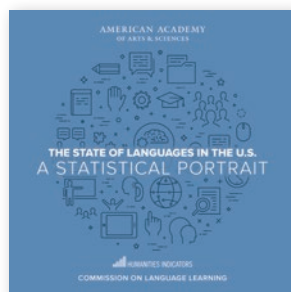
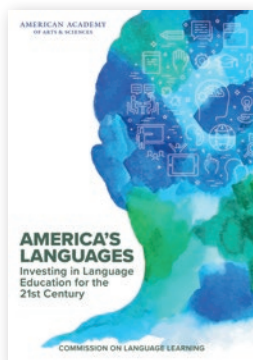
Esha Senchaudhuri

**Funders**

*Henry Luce Foundation*

*The Andrew W. Mellon*  
*Foundation*

PROJECT PUBLICATIONS \ COMMISSION ON LANGUAGE LEARNING



*America's Languages: Investing in Language Education for the 21st Century* (American Academy of Arts and Sciences, 2017)

*The State of Languages in the U.S.: A Statistical Portrait* (American Academy of Arts and Sciences, 2016)

**PROJECT THE HUMANITIES INDICATORS**

The Humanities Indicators are descriptive statistics that chart trends over time in aspects of the humanities that are of interest to a wide audience and for which there are available data. The Indicators provide data on a diverse array of topics pertaining to the role of the humanities in the contemporary United States. These topics are organized into five major parts:

- *Part I. Primary and Secondary Education in the Humanities:* These Indicators cover national measures of achievement at the primary and secondary school levels; high school course-taking; and the characteristics of primary and secondary faculty.
- *Part II. Undergraduate and Graduate Education in the Humanities:* The Indicators in this section focus on the types of courses undergraduate and graduate students take and the degrees they receive, and consider both preparedness for graduate school and the conditions of graduate education.
- *Part III. The Humanities Workforce:* These Indicators describe employment in humanistic settings and occupations, with emphasis on postsecondary faculty, and also the career paths of those with undergraduate and graduate degrees in the humanities.
- *Part IV. Humanities Funding and Research:* These Indicators include data on federal, state, and private funding for the humanities, as well as on support for academic research.

## THE HUMANITIES INDICATORS, *continued*

- *Part V. The Humanities in American Life*: The topics currently treated in this section include humanistic skills and practices, such as reading and multilingualism; support for and utilization of various humanistic institutions, such as libraries and museums; and public attitudes toward the humanities.

In addition to regular updates to the existing content, the project also develops original research, including a survey of the

humanities in community colleges (reported in fall 2018) and a survey of humanities activities in the general public. Over the course of 2017, material from the Indicators was cited more than 70 times in the media, in publications ranging from *Inside Higher Ed* and *The Chronicle of Higher Education* to *The Wall Street Journal* and *Time*.

The Humanities Indicators are accessible at [www.humanitiesindicators.org](http://www.humanitiesindicators.org).

### Project Director

Norman M. Bradburn  
NORC at the University  
of Chicago

Felice J. Levine  
American Educational Research  
Association

Esther Mackintosh  
Federation of State Humanities  
Councils

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American Institutes for Research

Judith Tanur  
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Steven Wheatley  
American Council of  
Learned Societies

John Dichtl  
American Association for State  
and Local History

### Project Staff

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The William and Flora Hewlett  
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The Andrew W. Mellon  
Foundation

National Endowment  
for the Humanities

Peck Stacpoole Foundation

The Rockefeller Foundation

Sara Lee Corporation

The Teagle Foundation

### 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

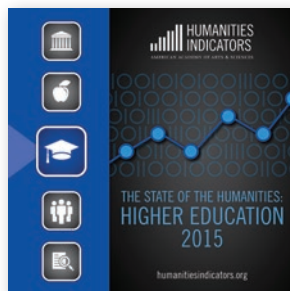
Modern Language Association  
of America

National Communication  
Association

National Humanities Alliance

Society for Biblical Literature

## PROJECT PUBLICATIONS \ THE HUMANITIES INDICATORS



*The State of the Humanities 2018: Graduates in the Workforce & Beyond* (American Academy of Arts and Sciences, 2018)

*The State of the Humanities: Higher Education 2015* (American Academy of Arts and Sciences, 2015)

*The State of the Humanities: Funding 2014* (American Academy of Arts and Sciences, 2014)

**PROJECT MEETINGS \ THE HUMANITIES INDICATORS****Planning a Survey of the Humanities and the Public**

December 5, 2017  
New York, NY

The Andrew W. Mellon Foundation asked the Humanities Indicators project to design a survey of public opinion regarding the humanities. The project convened two meetings with leaders from the humanities communities in New York City

and Washington, D.C., to discuss potential topics and questions, which were developed subsequently into a test survey for cognitive interviews.

**Participants**

**Norman Bradburn**, *Chair*  
*NORC at the University of Chicago*

**John Paul Christy**  
*American Council of Learned Societies*

**Paul Erickson**  
*American Academy of Arts and Sciences*

**Carolyn Fuqua**  
*American Academy of Arts and Sciences*

**John Garnett**  
*American Academy of Arts and Sciences*

**Christine Henseler**  
*4Humanities; Union College*

**Paula Krebs**  
*Modern Languages Association*

**David Laurence**  
*Modern Languages Association*

**Alan Liu**  
*4Humanities; University of California, Santa Barbara*

**Hunter O'Hanian**  
*College Art Association*

**Valerie Paley**  
*New York Historical Society*

**Kathy Rosa**  
*American Library Association*

**Judy Tanur**  
*Stony Brook University*

**Robert Townsend**  
*American Academy of Arts and Sciences*

**Steven Wheatley**  
*American Council of Learned Societies*

**Planning a Survey of the Humanities and the Public**

December 7, 2017  
Washington, D.C.

**Participants**

**Norman Bradburn**, *Chair*  
*NORC at the University of Chicago*

**Amy Ferrer**  
*American Philosophical Association*

**Jim Grossman**  
*American Historical Association*

**Sunil Iyengar**  
*National Endowment for the Arts*

**Stephen Kidd**  
*National Humanities Alliance*

**Elise Lipkowitz**  
*National Science Board*

**Esther Mackintosh**  
*Federation of State Humanities Councils*

**Jane McAuliffe**  
*Library of Congress*

**Lynn Pasquarella**  
*American Association of Colleges and Universities*

**William Rivers**  
*Joint National Committee for Languages—National Council for Languages and International Studies*

**Jeffrey Thomas**  
*National Endowment for the Humanities*

**Ann Wise**  
*Phi Beta Kappa*

## Advisory Committee Meeting

January 13, 2018  
Washington, D.C.

At the annual meeting of the Advisory Committee for the Humanities Indicators project, the participants reviewed the previous year's updates to the website and the news coverage the project received. The committee also discussed planned revisions to the site for the coming year and made recommen-

dations related to upcoming projects, such as the National Inventory of Humanities Organizations, the survey of the humanities in community colleges, and the upcoming third iteration of the Humanities Department Survey.

### Participants

**Norman M. Bradburn**  
*NORC at the University  
of Chicago*

**Jack Buckley**  
*American Institutes for Research*

**Jonathan R. Cole**  
*Columbia University*

**John Dichtl**  
*American Association for  
State and Local History*

**Ronald G. Ehrenberg**  
*Cornell University*

**Paul Erickson**  
*American Academy of Arts  
and Sciences*

**Carolyn Fuqua**  
*American Academy of Arts  
and Sciences*

**Michael Hout**  
*New York University*

**Felice J. Levine**  
*American Educational  
Research Association*

**Esther Mackintosh**  
*Federation of State  
Humanities Councils*

**Judith Tanur**  
*Stony Brook University*

**Jeffrey Thomas**  
*National Endowment for the  
Humanities*

**Robert Townsend**  
*American Academy of Arts  
and Sciences*

**Steven Wheatley**  
*American Council of  
Learned Societies*

## PROJECT COMMISSION ON THE ARTS

In February 2016, the Academy began holding a series of conversations on the possibility of forming a national Commission on the Arts. Since then, the Academy has held twelve conversations in eleven cities around the country with groups of arts leaders, funders, and practicing artists. These conversations engaged a range of Academy Members with an interest in the arts.

The consensus among participants in these meetings was that the Academy could play an important role in the national conversation on the arts, as long as the Commission was given a tightly focused mandate and that it made an affirmative case for the importance of the arts in the life of a twenty-first-century democracy.

The most salient recommendation from the sounding meetings was that an Academy commission ought to focus on the role of the arts in American life rather than on the state of the arts. Numerous studies exist that chart attendance at art museums, measure the economic impact of the arts on particular

cities (or on the nation), or track changes in school attendance and graduation rates relative to the number of art classes available. But participants in the sounding meetings stressed that there was no national conversation taking place about what the arts can do that other forms of communication cannot, and about why that matters, both for the health of individuals and our communities.

Overall, these sounding conversations made clear that artists and arts institutions play a crucial role in building resilient communities, fostering cultural empathy, overcoming social isolation, and cultivating creativity and innovation. They also play an enormously important role in individual lives. Everyday Americans find solace and meaning through making music, or writing poetry, or painting – indeed, the scope and the significance of individual participation in the arts in the course of daily life are crucial to maintaining cultural traditions and simply creating joy. These factors are more difficult to measure than economic impact or school attendance, but they are areas where the arts play a distinctive role.

**COMMISSION ON THE ARTS, *continued***

The Academy convened a planning committee to evaluate feedback from the sounding meetings, craft a clear mandate for the Commission, and identify potential outcomes that would inform

a proposal for the full Commission. The Academy’s Council and Board approved the proposal in April 2018, and the Commission will be moving forward over the course of the coming year.

**Planning Committee**

**Louise Bryson**  
*J. Paul Getty Trust*

**Julie Burros**  
*Department of Arts and Culture,  
City of Boston, MA*

**Katherine Farley**  
*Lincoln Center for the  
Performing Arts*

**John Lithgow**  
*Actor*

**Kevin Young**  
*Schomburg Center for Research  
in Black Culture at the New York  
Public Library*

**Laura Zabel**  
*Springboard for the Arts*

**Project Staff**

**Paul Erickson**

**Julian Kronick**

**Natoschia Scruggs**

**Esha Senchaudhuri**

**Funders**

*The Ford Foundation*

*The Getty Foundation*

*The John S. and James L.  
Knight Foundation*

*The Kresge Foundation*

*Roger and Victoria Sant*

**PROJECT MEETINGS \ COMMISSION ON THE ARTS**

**Planning Committee Meetings**

**August 3, 2017**  
**American Academy**  
**Cambridge, MA**

**October 5, 2017**  
**American Academy**  
**Cambridge, MA**

**March 28, 2018**  
**teleconference meeting**

The Planning Committee reviewed feedback from the sounding meetings, discussed areas of focus for the Commission, responded to drafts of the proposal for the Commission, and

provided suggestions on the Commission’s leadership, membership, and timeline.

**Sounding Meeting**

**January 19, 2018**  
**Crystal Bridges Museum of American Art**  
**Bentonville, AR**

Academy staff traveled to Bentonville for a conversation hosted by the Crystal Bridges Museum of American Art. Participants discussed the role of the arts in Northwest Arkansas and the particular challenges facing the arts, artists, and arts

education in a rural area. This discussion added to the Academy’s understanding of the role of the arts and the place of artists in communities outside of major metropolitan areas, which informed the final proposal for the Commission.

**Participants**

**Rod Bigelow**  
*Crystal Bridges Museum  
of American Art*

**Megan Bolinder**  
*NorthWest Arkansas  
Community College*

**John Brown III**  
*Windgate Charitable Foundation*

**Charlotte Buchanan-Yale**  
*Museum of Native American  
History*

**Diane Carroll**  
*Crystal Bridges Museum  
of American Art*

**Simone Cottrell**  
*Artist’s Laboratory Theatre*

**Paul Erickson**  
*American Academy of Arts  
and Sciences*

## SOUNDING MEETING, *continued*

**Bernice Hembree**  
*Musician, Smokey & The Mirror*

**Bryan Hembree**  
*Musician, Smokey & The Mirror*

**Katy Henriksen**  
“Of Note,” KUAf;  
“Ozarks at Large”

**Matt Herren**  
*Symphony of Northwest Arkansas*

**Erin Hogue**  
*The Walmart Foundation*

**Jeannie Hulen**  
*University of Arkansas*

**Steve Jenkins**  
*NorthWest Arkansas  
Community College*

**Debbie Jones**  
*Bentonville Schools*

**Sharon Killian**  
*Art Ventures NWA*

**Julian Kronick**  
*American Academy of Arts  
and Sciences*

**Peter B. Lane**  
*Walton Arts Center and  
Walmart AMP*

**Mary Ley**  
*Arkansas Arts Academy*

**Octavio Logo**  
*Artist*

**Peter MacKeith**  
*University of Arkansas*

**Martin Miller**  
*TheatreSquared*

**Joe Randel**  
*Walton Family Foundation*

**Michael Riha**  
*University of Arkansas*

**Paul Savas**  
*Trike Theatre*

**Eve Smith**  
*Artist; Arts Center of the Ozarks*

## Sounding Meeting

January 22, 2018

New Orleans Center for the Gulf South at Tulane University  
New Orleans, LA

This sounding meeting served as another opportunity to hear from artists, scholars, and arts administrators in smaller communities and those outside of major coastal metropolitan areas. This meeting enriched the final proposal for the Com-

mission by providing perspectives on the complex interplay between commercial pressures and political engagement in artists’ careers, the role of individuals and institutions in the arts, and the importance of arts education.

### Participants

**Bruce Sunpie Barnes**  
*Musician, Ethnographer*

**Willie Birch**  
*Artist*

**Rachel Breunlin**  
*University of New Orleans*

**Courtney Bryan**  
*Tulane University*

**Joel Dinerstein**  
*Tulane University*

**Paul Erickson**  
*American Academy of Arts  
and Sciences*

**Denise Frazier**  
*New Orleans Center for the Gulf  
South at Tulane University*

**Gia Hamilton**  
*Joan Mitchell Center*

**Julian Kronick**  
*American Academy of Arts  
and Sciences*

**Zachary Lazar**  
*Tulane University*

**Bryan Lee Jr.**  
*Colloqate Design;  
Arts Council of New Orleans*

**Deborah Luster**  
*Photographer*

**Stephanie McKee**  
*Junebug Productions*

**Elsie B Michie**  
*Louisiana State University*

**Aurora Nealand**  
*Musician*

**Mónica Ramirez-Montagut**  
*Newcomb Art Museum of Tulane*

**Kathy Randels**  
*ArtSpot Productions*

**Sonya Robinson**  
*Arts Learning Consultant*

**Ama Rogan**  
*A Studio in the Woods, A Program  
of Tulane University*

**Maurice Carlos Ruffin**  
*Author*

**Nick Slie**  
*Performer, Producer, and Cultural  
Organizer from Mondo Bizarro*

**Rebecca Snedeker**  
*New Orleans Center for the Gulf  
South at Tulane University*

**Monique Verdin**  
*Documentarian*



## Sounding Meeting

January 29, 2018  
Neubauer Family Foundation  
Philadelphia, PA

This sounding meeting focused primarily on the role of K-12 arts education in an urban environment, using as a case study a framework for the presentation of arts content in the Philadelphia Public Schools that was developed in partnership with

the Neubauer Family Foundation. The meeting, with its focus on K-12 education, added a valuable dimension to the Commission's proposal and to the program staff's understanding of the issues surrounding arts education.

### Participants

<b>Dan Berkowitz</b> <i>Neubauer Family Foundation</i>	<b>Carolyn Fuqua</b> <i>American Academy of Arts and Sciences</i>	<b>Pheng Lim</b> <i>Folk Arts Cultural Treasures</i>	<b>Mike O'Bryan</b> <i>The Village of Arts</i>
<b>Sarah Cooper</b> <i>Pennsylvania Ballet</i>	<b>Naomi Gonzalez</b> <i>The Philadelphia Orchestra</i>	<b>John Lithgow</b> <i>Actor</i>	<b>John Orr</b> <i>ArtReach</i>
<b>Becky Cornejo</b> <i>Neubauer Family Foundation</i>	<b>Liz Grimaldi</b> <i>Fleisher Art Memorial</i>	<b>Frank Machos</b> <i>Office of Arts and Academic Enrichment, School District of Philadelphia</i>	<b>Jean-Michel Rabate</b> <i>University of Pennsylvania</i>
<b>Paul Erickson</b> <i>American Academy of Arts and Sciences</i>	<b>Robert Hauser</b> <i>American Philosophical Society</i>	<b>Lisa Murch</b> <i>Mural Art</i>	<b>Christine Witkowski</b> <i>ArtistYear</i>

## Previous Sounding Meetings

<b>February 5, 2016</b> Los Angeles, CA	<b>May 11, 2016</b> Chicago, IL (two meetings)	<b>September 26, 2016</b> Cambridge, MA	<b>January 13, 2017</b> Miami, FL
<b>March 28, 2016</b> New York, NY	<b>September 12, 2016</b> Washington, D.C.	<b>November 17, 2016</b> San Francisco, CA	<b>February 10, 2017</b> St. Louis, MO

# THE EXPLORATORY FUND

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The Exploratory Fund was established in 2015 to support Members who wish to work together, and with other scholars, experts, and practitioners, 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. Through the Exploratory Fund, the Academy is committed to encouraging forward-thinking collaborations that incorporate diverse perspectives and bring together creative thinkers and leaders representing a range of disciplines, career stages, backgrounds, and experiences.

Proposals are accepted on a rolling basis and awarded funds to cover the costs associated with an Exploratory Meeting. The Exploratory Fund has supported proposals on a wide array of topics, from *The Future of Jazz in America* to *Understanding the New Nuclear Age*. Members are encouraged to contact the Academy President and staff to discuss their ideas for Exploratory Meetings.

The Exploratory Fund is made possible through the generous support of the Arnhold Foundation, John F. Cogan, Jr., Michael E. Gellert, Bob and Kristine Higgins, Carl and Betty Pforzheimer, William Poorvu, and Kenneth L. and Susan S. Wallach.

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## RECENT EXPLORATORY MEETINGS

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### Technology and the Future of Work

February 20–21, 2018  
Cambridge, MA

In partnership with the Royal Society and the U.K. Science and Innovation Network, the Academy held an exploratory meeting on “Technology and the Future of Work.” Led by cochairs Peter Donnelly, Margaret Levi, and Moshe Vardi, the participants discussed how AI-enabled automation will affect the workforce, what can be learned from history, and the use of AI for the social good. The participants represented a wide range

of fields: from sociology, business, and public policy to labor, computer science, and economics. Keynote speakers included Earl Lewis, President of The Andrew W. Mellon Foundation, Antony Phillipson, Her Majesty’s Trade Commissioner to the United States, and Megan Smith, CEO of shift7 and formerly Third U.S. Chief Technology Officer.

TECHNOLOGY AND THE FUTURE OF WORK, *continued***Chairs**

**Peter Donnelly**  
*University of Oxford*

**Margaret Levi**  
*Stanford University*

**Moshe Vardi**  
*Rice University*

**Participants**

**Daron Acemoglu**  
*Massachusetts Institute of Technology*

**Andrew Blake, FRS**  
*Alan Turing Institute*

**Brad Burnham**  
*Union Square Ventures*

**James Caldwell**  
*University of Wyoming*

**Luke Clarke**  
*Royal Society*

**Gail Cohen**  
*National Academies of Sciences, Engineering, and Medicine*

**Christina Colclough**  
*UNI Global Union*

**Claire Craig**  
*Royal Society*

**Marcus du Sautoy, FRS**  
*University of Oxford*

**Juan Enriquez**  
*Excel Venture Management*

**Jonathan F. Fanton**  
*American Academy of Arts and Sciences*

**Richard B. Freeman**  
*Harvard University*

**Howard Gardner**  
*Harvard Graduate School of Education*

**Katherine Gorman**  
*Talking Machines*

**Mary L. Gray**  
*Microsoft Research;  
Harvard University*

**Barbara Grosz**  
*Harvard University*

**Wendy Hall, FRS**  
*University of Southampton*

**Andrew Hopper, FRS**  
*University of Cambridge*

**Louis Hyman**  
*Cornell University*

**Jeff Inglis**  
*The Conversation*

**Anita Jivani**  
*Envision Business Consulting*

**Frank Kelly, FRS**  
*University of Cambridge*

**Will Knight**  
*MIT Technology Review*

**Bruce Laurie**  
*University of Massachusetts,  
Amherst*

**Earl Lewis**  
*The Andrew W. Mellon  
Foundation*

**Nelson Lichtenstein**  
*University of California,  
Santa Barbara*

**J. Michael Locke**  
*formerly, Rasmussen Inc.*

**James Manyika**  
*McKinsey Global Institute*

**Robert Margo**  
*Boston University*

**Ehsan Masood**  
*Massachusetts Institute of Technology*

**Angela McLean, FRS**  
*University of Oxford*

**Jamie Merisotis**  
*Lumina Foundation*

**Jess Montgomery**  
*Royal Society*

**Alondra Nelson**  
*Social Science Research Council;  
Columbia University*

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**Alex Pentland**  
*Massachusetts Institute of Technology*

**Nancy Peretsman**  
*Allen & Company, Inc.*

**Carl Pforzheimer**  
*Carl H. Pforzheimer & Co.*

**Antony Phillipson**  
*U.K. Government*

**Ronit Praver**  
*U.K. Science & Innovation  
Network*

**Jason Resnikoff**  
*Columbia University*

**Dan Restuccia**  
*Burning Glass Technologies*

**Alex Rosenblat**  
*Data & Society Research Institute*

**Daniela Rus**  
*Massachusetts Institute of Technology*

**Juliet Schor**  
*Boston College*

**Kristin Sharp**  
*New America*

**Megan Smith**  
*shift7*

**Alfred Z. Spector**  
*Two Sigma Investments*

**James M. Stone**  
*Plymouth Rock Companies*

**John Van Reenen**  
*Massachusetts Institute of Technology*

**Michelle Weise**  
*Strada Education Network*

**Irving Wladawsky-Berger**  
*Massachusetts Institute of Technology; Wall Street Journal  
CIO Journal*



Wendy Hall and Howard Gardner

## Moving Toward Equality: Mapping Women’s Achievements and Challenges around the World

December 15–16, 2017  
Cambridge, MA

On December 15 – 16, 2017, Academy Members Nannerl Keohane and Frances McCall Rosenbluth convened a meeting at the Academy that explored the social, political, and economic realities for women across multiple and diverse contexts – considering, for example, how women exercise influence as leaders, managers, mothers, and citizens to make changes in their communities, and how women relate to power. The participants represented numerous fields of study and practice,

including politics, economics, gender studies, public policy, human rights activism, history, law, and more. The discussions focused on five major areas: Work and the Economy; the Care Agenda; Vulnerability and Resilience; Innovation in Global Development; and Feminism and Inclusion. The meeting grew out of an exploratory meeting on Women and Equality, held at the Academy in 2016.

### **Chairs**

**Nannerl O. Keohane**  
*Princeton University*

**Frances McCall Rosenbluth**  
*Yale University*

**Rafaela Dancygier**  
*Princeton University*

**Paula England**  
*New York University*

**Yassine Fall**  
*African Women Millennium Initiative on Poverty and Human Rights*

**Jonathan F. Fanton**  
*American Academy of Arts and Sciences*

**Nancy Folbre**  
*University of Massachusetts, Amherst*

**Anne Marie Goetz**  
*New York University*

**Darlene Clark Hine**  
*Michigan State University*

**Mala Htun**  
*University of New Mexico*

**Anita Jivani**  
*Deloitte*

**Anne E. Lacsamana**  
*Hamilton College*

**Jieyu Liu**  
*SOAS China Institute*

**Sara Lowes**  
*Bocconi University*

**Catharine Alice MacKinnon**  
*University of Michigan Law School*

**Rose McDermott**  
*Brown University*

**Anne Patterson**  
*formerly, U.S. Department of State*

**Marshanda Smith**  
*Michigan State University*

**Marta Tienda**  
*Princeton University*

### **Participants**

**Tithi Bhattacharya**  
*Purdue University*

**Kamala Chandrakirana**  
*Musawah*

**Martha Chen**  
*Harvard Kennedy School*



Participants at the conference on Moving Toward Equality: Mapping Women’s Achievements and Challenges around the World

## Constraints on Revising National Memories Planning Meeting

December 4, 2017  
Cambridge, MA

In too many countries today one hears comments about how people in power feel entitled to rewrite history. At a time when nationalist and populist leaders are emerging across the globe, this issue takes on especially ominous overtones. Recent research in cognitive psychology has shown that people interpret current events and imagine events in the future based on how they recollect similar events from the past. Some of these

findings also extend to the latest research in neuroscience on how various areas of the brain work. Academy Members Henry Roediger and James Wertsch convened a small group of scholars from psychology, history, and sociology to begin planning a larger interdisciplinary exploratory meeting on the implications of psychological and neuroscientific research on collective memories held by people in nation-states and their leaders.

### Chairs

Henry L. Roediger III  
*Washington University in  
St. Louis*

James V. Wertsch  
*Washington University in  
St. Louis*

### Participants

David Blight  
*Yale University*

Amy Corning  
*University of Michigan Institute  
for Social Research*

Carol Gluck  
*Columbia University*

Jeffrey Olick  
*University of Virginia*

Roger Petersen  
*Massachusetts Institute  
of Technology*

Daniel Schacter  
*Harvard University*

## Science and the Legal System

July 20–21, 2017  
Cambridge, MA

As the overlap between scientific learning and legal issues increases, leading scientists have reportedly shied away from involvement with the legal system or have had difficulties communicating their knowledge. Despite the importance of this issue, there are few systematic studies on how scientists view the legal system or on their experiences as consultants to lawyers or judges or as expert witnesses. Academy Members

Shari Diamond and Richard Lempert, who are guest editing an issue of *Daedalus* on “Science and the Legal System,” convened leading scientists, lawyers, and legal scholars to learn what motivates scientists to participate in legal processes and to recommend ways to improve the relationship between science and the law.

### Chairs

Shari Diamond  
*Northwestern University*

Richard Lempert  
*University of Michigan*

### Participants

Huda Akil  
*University of Michigan*

Robert Cook-Deegan  
*Arizona State University*

Rebecca Eisenberg  
*University of Michigan  
Law School*

Nancy Gertner  
*Harvard Law School;  
U.S. District Court for the  
District of Massachusetts, ret.*

Linda Greenhouse  
*Yale Law School*

Susan Haack  
*University of Miami*

Valerie Hans  
*Cornell Law School*

Sheila Jasanoff  
*Harvard Kennedy School*

Jay Kadane  
*Carnegie Mellon University*

Elizabeth Loftus  
*University of California, Irvine*

Anne-Marie Mazza  
*National Academies of Sciences,  
Engineering, and Medicine*

Jennifer L. Mnookin  
*University of California,  
Los Angeles School of Law*

Jed Rakoff  
*U.S. District Court for the  
Southern District of New York*

SCIENCE AND THE LEGAL SYSTEM, *continued*

Daniel Rubinfeld  
*University of California,  
Berkeley School of Law;  
New York University*

Michael Saks  
*Sandra Day O'Connor College of  
Law, Arizona State University*

Joseph Sanders  
*University of Houston Law*

Patti Saris  
*U.S. District Court for the  
District of Massachusetts*



Valerie Hans and Jennifer Mnookin



Patti Saris, Linda Greenhouse, and Anne-Marie Mazza



Huda Akil and Joseph Sanders



Nancy Gertner and Daniel Rubinfeld

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**PREVIOUS EXPLORATORY MEETINGS**

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Nationalism, Populism, and the  
Future of Global Governance

June 12, 2017  
Cambridge, MA

The Future of Public Media

June 5, 2017  
New York, NY

The Children of Immigrants  
in New Places of Settlement

April 20–21, 2017  
Cambridge, MA

Building and Strengthening the Joint  
Comprehensive Plan of Action (JCPOA)

February 5–6, 2017  
Cambridge, MA

Women and Equality

December 10, 2016  
Cambridge, MA

R2P: Cultural Heritage

November 29–December 1, 2016  
London, England

Best Practices in Philanthropic Funding

October 17–18, 2016  
Cambridge, MA

Preserving Intellectual Legacies in a Digital Age

September 22–23, 2016  
Cambridge, MA

Native Americans and Academia

August 21–23, 2016  
Cambridge, MA

The Future of Jazz in America

May 19, 2016  
Cambridge, MA

Bridging the Gap between  
Area and Global Studies

March 7, 2016  
Cambridge, MA

Collaborative on Autism and Sign Language

December 12–13, 2015  
Cambridge, MA

Making Justice Accessible

November 11–12, 2015  
Cambridge, MA

Understanding the New Nuclear Age

June 19, 2015  
Cambridge, MA

## LOCAL PROGRAM COMMITTEES

The Academy's Local Program Committees bring local Members together to explore topics of interest at the local or national level; to provide opportunities for social and intellectual connection; to advise on current Academy projects; and to elevate the impact of Academy reports and publications. During the 2017 – 2018 fiscal year, 153 Members served on 14 committees and hosted 26 events around the country. The Academy is working to establish committees in additional locations, as well as identify local representatives in smaller communities.

### BERKELEY PROGRAM COMMITTEE

Jesse H. Choper, *Chair*  
University of California,  
Berkeley School of Law

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University of California, Berkeley

Randy W. Schekman  
University of California, Berkeley;  
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Susan Paine  
*formerly, Museum of Fine Arts  
Boston*

Katharine Park  
Harvard University

Steven Pinker  
Harvard University

William Poorvu  
Harvard Business School

Gigliola Staffilani  
Massachusetts Institute  
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### BOSTON-CAMBRIDGE PLANNING COMMITTEE

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Harvard T. H. Chan School  
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Richard E. Cavanagh  
Harvard Kennedy School

Felton Earls  
Harvard T. H. Chan  
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Harvard Medical School

Lawrence K. Fish  
*formerly, Citizens Bank*

Sally Haslanger  
Massachusetts Institute  
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Arthur Jaffe  
Harvard University

Mriganka Sur  
Massachusetts Institute  
of Technology

Sherry Turkle  
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Shari Diamond  
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Mark Hansen  
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Carol Lee  
Northwestern University

John W. McCarter, Jr.  
Field Museum of Natural History

Eric Neilson  
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Seventh Circuit

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 Perelman School of Medicine*

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Nathan Sivin  
*University of Pennsylvania*

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*Princeton University*

Froma Zeitlin  
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San Diego School of Medicine*

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*Washington University in  
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*The Pulitzer Foundation  
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**Peter Raven**  
*Missouri Botanical Garden*

**Robert E. Ricklefs**  
*University of Missouri at St. Louis*

**Larry Shapiro**  
*University Health Partners  
of Hawaii*

**James Wertsch**  
*Washington University in  
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**Mark Wrighton**  
*Washington University in  
St. Louis*

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*George Washington University*

**Norman Augustine**  
*Lockheed Martin Corporation*

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*New York Times Company*

**A'Leia Bundles**  
*Washington, D.C.*

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*Association of American  
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**John J. Degioia**  
*Georgetown University*

**Donald Graham**  
*Graham Holdings Co.*

**Sanford D. Greenberg**  
*TEI Industries, Inc.*

**Irene Hirano Inouye**  
*U.S.-Japan Council*

**Alan I. Leshner**  
*American Association for the  
Advancement of Science*

**Richard Meserve**  
*Covington & Burling LLP;  
formerly, Carnegie Institution  
for Science*

**Erin K. O'Shea**  
*Howard Hughes Medical Institute*

**Earl A. Powell III**  
*National Gallery of Art*

**Rebecca W. Rimel**  
*Pew Charitable Trusts*

**Roger Sant**  
*The Summit Foundation*

**Victoria P. Sant**  
*The Summit Foundation*

**Margaret C. Simms**  
*Center on Labor, Human  
Services, and Population at the  
Urban Institute*

**David J. Skorton**  
*Smithsonian Institution*

**Patty Stonesifer**  
*Martha's Table*

## MEMBER EVENTS, 2017–2018

The annual program of Academy events held around the country as well as internationally is designed to connect Members, experts, and audiences in diverse geographic locations; promote civic discourse on topics of national and global concern from multidisciplinary perspectives; and gather feedback on, raise awareness of, and amplify the impact of the Academy's work. During the 2017–2018 fiscal year, the Academy held events in 31 cities with nearly a thousand Members attending at least one event in person.

### CALIFORNIA

#### BERKELEY

October 26, 2017\*  
University of California, Berkeley

#### *Priorities for Progress: Advancing Higher Education in America*

*Featured Speakers:* Robert J. Birgeneau (University of California, Berkeley), Bob Jacobsen (University of California, Berkeley), Monica Lozano (College Futures Foundation), Michael S. McPherson (formerly, Spencer Foundation)

#### LOS ANGELES

July 18, 2017\*  
Los Angeles, CA

#### *Los Angeles Program Committee Meeting*

October 22, 2017\*  
Los Angeles, CA

#### *Creativity: What Is It and Can It Be Taught?*

*Featured Speakers:* Dianne Newman (California Institute of Technology), John Seely Brown (University of Southern California; Deloitte Center for Edge Innovation), Leo Braudy (University of Southern California). *Moderator:* Louis Gomez (University of California, Los Angeles)

May 29, 2018\*  
Los Angeles, CA

#### *Los Angeles Program Committee Meeting*

#### PASADENA

March 1, 2018  
California Institute of Technology

#### *Bryson Symposium on Climate and Energy Policy*

*Featured Speakers:* Dallas Burtraw (Resources for the Future), Ralph Cavanagh (NRDC), Nathan S. Lewis (California Institute of Technology), Mary Nichols (California Air Resources Board), Ronald Nichols (Southern California Edison), Thomas Rosenbaum (California Institute of Technology), Maxine L. Savitz (Honeywell, Inc., ret.), Robert Weisenmiller (California Energy Commission)

#### SAN DIEGO

September 25, 2017\*  
University of California, San Diego

#### *San Diego Program Committee Meeting*

October 23, 2017\*  
Sanford Consortium

#### *Morton L. Mandel Public Lecture How Are Humans Different from Other Great Apes?*

*Featured Speakers:* Fred H. Gage (The Salk Institute; CARTA), Margaret J. Schoeninger (University of California, San Diego; CARTA), Pascal Gagneux (University of California, San Diego; CARTA), Ajit Varki (University of California, San Diego; CARTA)

\* Activity of a Local Program Committee or Representative

February 1, 2018\*

University of California, San Diego

## *San Diego Local Program Committee Meeting*

February 13, 2018\*

University of California, San Diego

## *Why are American Politics Polarized?*

*Featured Speakers:* Gary C. Jacobson (University of California, San Diego), Thad Kousser (University of California, San Diego). *Moderator:* Peter Alexis Gourevitch (University of California, San Diego)

## SAN FRANCISCO

October 26, 2017

The James Irvine Foundation

## *Democratic Citizenship and Civic Engagement*

*Featured Speakers:* Deborah Cullinan (Yerba Buena Center for the Arts), Thomas Ehrlich (Stanford University), Joseph Kahne (University of California, Riverside)

## STANFORD

October 23, 2017

Stanford University

## *Civil Wars, Global Disorder, and the Future of the International System*

*Featured Speakers:* Michael McFaul (Stanford University), Michele Barry (Stanford School of Medicine), Karl W. Eikenberry (Stanford University), James D. Fearon (Stanford University), Francis Fukuyama (Stanford University), Stephen D. Krasner (Stanford University), Stephen Stedman (Stanford University), Paul Wise (Stanford University)

October 25, 2017

Stanford University

## *Citizenship in a Global Digital Era*

*Featured Speakers:* Brittan Heller (Anti-Defamation League), Matt Mahan (Brigade), Adrian Reyna (United We Dream)

## CONNECTICUT

### NEW HAVEN

September 8, 2017\*

Yale University

## *Investment and Matching: The Economics of Specialized Markets*

*Featured Speaker:* Larry Samuelson (Yale University)

November 3, 2017\*

Yale University

## *Why Study Close Relationships?*

*Featured Speaker:* Margaret Clark (Yale University)

December 1, 2017\*

Yale University

## *Gains from Trade and Inequality*

*Featured Speaker:* Samuel S. Kortum (Yale University)

February 2, 2018\*

Yale University

## *Does Agency Structure Affect Decisionmaking?*

*Featured Speaker:* Roberta Romano (Yale University)

April 6, 2018\*

Yale University

## *The Practice of Democratic Citizenship*

*Featured Speaker:* Stephen Heintz (Rockefeller Brothers Fund)

April 27, 2018\*

Yale University

## *Who Is Elite Higher Education For? Some Data Points from the History of an Answer*

*Featured Speaker:* Richard H. Brodhead (Duke University)

May 4, 2018\*

Yale University

## *The Evolution of Beauty: How Darwin's Forgotten Theory of Mate Choice Shapes the Animal World*

*Featured Speaker:* Richard O. Prum (Yale University)



Pascal Gagneux, Fred Gage, Margaret Schoeninger, Ajit Varki, and Gordon Gill



Steven Beckwith and Carol Mimura



Scott Sagan and Francisco Wong-Diaz



Michael McPherson, Kenneth Wachter, and Randy Schekman



Louis Gomez, Leo Brady, Dianne Newman, and John Seely Brown

## DISTRICT OF COLUMBIA

### WASHINGTON, D.C.

November 30, 2017  
National Press Club

#### *Report Launch and Discussion: The Future of Undergraduate Education, The Future of America*

*Featured Speakers:* Deborah Loewenberg Ball (University of Michigan); Mitchell E. Daniels, Jr. (Purdue University); John J. DeGioia (Georgetown University); Roger W. Ferguson, Jr. (TIAA); Michael S. McPherson (formerly, Spencer Foundation)

November 30, 2017\*  
The Cosmos Club

#### *Member Dinner and Discussion: The Future of Undergraduate Education, The Future of America*

*Featured Speakers:* Rebecca Blank (University of Wisconsin-Madison), Steven Knapp (George Washington University), Nicholas Lemann (Columbia University Graduate School of Journalism)

December 5, 2017  
National Museum of Natural History

#### *Objects of Wonder: The Face of Battle without the Rules of War*

*Featured Speakers:* Jake Homiak (National Museum of Natural History), Scott D. Sagan (Stanford University)

## FLORIDA

### HOBE SOUND

January 14, 2018\*  
Hobe Sound, FL

#### *Member Luncheon*

### PALM BEACH

January 14, 2018\*  
Palm Beach, FL

#### *Member Dinner*

## GEORGIA

### ATLANTA

March 27, 2018  
Georgia Institute of Technology

#### *Roundtable Discussion: Challenges for International Scientific Partnerships*

*Featured Speakers:* Wayne Clough (Georgia Institute of Technology), Arthur Bienenstock (Stanford University), Peter Michelson (Stanford University)

## ILLINOIS

### CHAMPAIGN

April 25, 2018  
University of Illinois at Urbana-Champaign

#### *Roundtable Discussion: Challenges for International Scientific Partnerships*

*Featured Speakers:* Arthur Bienenstock (Stanford University), Robert Jones (University of Illinois at Urbana-Champaign), John Katzenellenbogen (University of Illinois at Urbana-Champaign), Reitu Mabokela (University of Illinois at Urbana-Champaign), Peter Michelson (Stanford University), Gene Robinson (University of Illinois at Urbana-Champaign)

### CHICAGO

November 5, 2017  
University of Chicago

#### *Reception Honoring Alan Alda and Edward O. Wilson*

*Featured Speakers:* Mark Hansen (University of Chicago), John McCarter (Field Museum of Natural History)

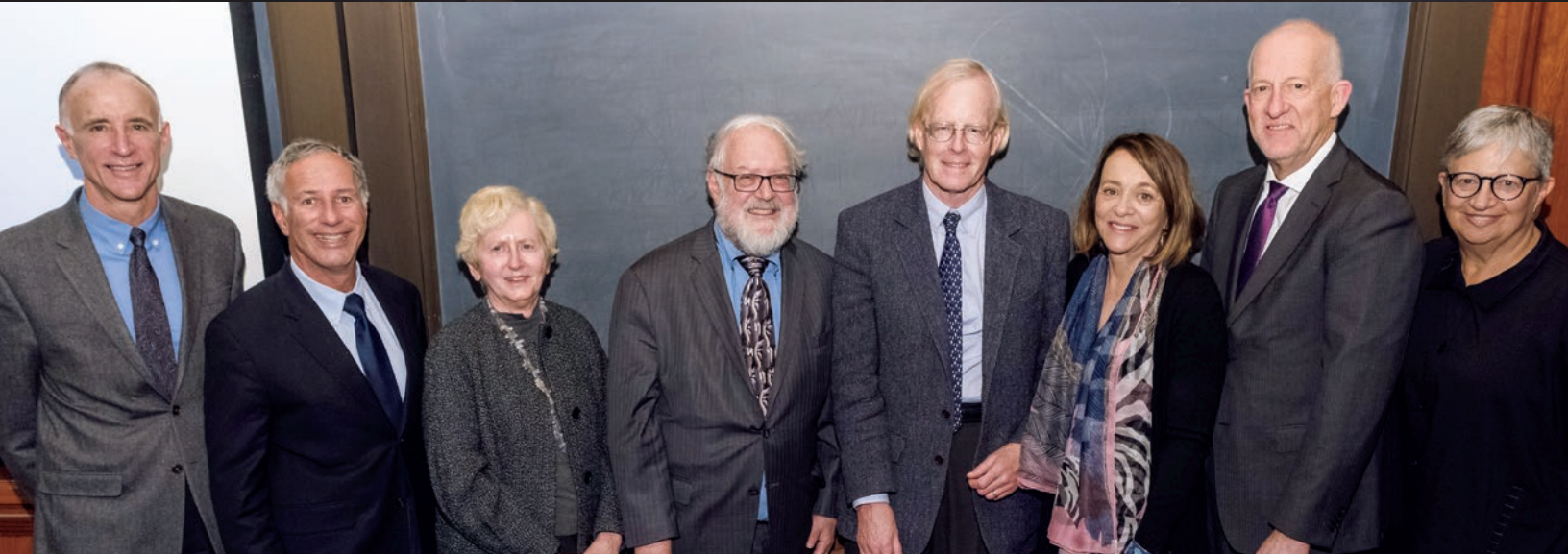
November 5, 2017  
Rockefeller Memorial Chapel

#### *Chicago Humanities Festival: The Humanities, Sciences, and the Origins of Creativity*

*Featured Speakers:* Alan Alda (New York, NY), Edward O. Wilson (Harvard University), Natasha Trethewey (Northwestern University)



Francis Fukuyama, Stephen Stedman, James Fearon, Karl Eikenberry, Stephen Krasner, Michele Barry, and Paul Wise



Bryson Symposium on Climate and Energy Policy: Dallas Burtraw, Nathan S. Lewis, Maxine L. Savitz, Robert B. Weisenmiller, Ralph Cavanagh, Louise Bryson, Ronald O. Nichols, and Mary Nichols



Loren Rothschild, Jonathan Fanton, Thomas Rosenbaum, and Steven Koblak



Natasha Trethewey

April 23, 2018  
University of Chicago

## ***Roundtable Discussion: Stability and Instability in the Nuclear Age***

*Featured Speakers:* Robert Rosner (University of Chicago), Francesca Giovannini (American Academy of Arts and Sciences)

April 23, 2018  
Chicago, IL

## ***Member Dinner***

*Featured Speaker:* Diane Wood (United States Court of Appeals, Seventh Circuit)

## **EVANSTON**

April 24, 2018  
Northwestern University

## ***Roundtable Discussion: An Africa Story***

*Featured Speaker:* Natasha Trethewey (Northwestern University)

## **MARYLAND**

## **BALTIMORE**

January 24, 2018  
Johns Hopkins University

## ***Roundtable Discussion: Public Health and Local Communities***

*Featured Speakers:* Paul Spiegel (Center for Humanitarian Health), Paul Wise (Stanford University)

## **MASSACHUSETTS**

## **CAMBRIDGE**

August 29, 2017  
House of the Academy

## ***A Discussion of Current Events***

September 22, 2017  
House of the Academy

## ***An Evening with the Holberg Prize***

*Featured Speakers:* Sigmund Grønmo (University of Bergen), Manuel Castells (University of Southern California), Stephen Greenblatt (Harvard University), Eliza Griswold (New America Foundation)

October 6, 2017  
House of the Academy

## ***A Celebration of the Arts and Humanities***

*Featured Speakers:* Elizabeth Broun (Smithsonian American Art Museum), Brenda L. Hillman (St. Mary's College of California), Greil Marcus (Oakland, CA), Lynn Nottage (Columbia University), Faith Ringgold (University of California, San Diego), Mark S. Slobin (Wesleyan University), Arthur C. Sze (Institute of American Indian Arts)

October 7, 2017  
Harvard University

## ***Induction Ceremony***

*Featured Speakers:* Ursula Burns (Xerox Corporation), James P. Allison (University of Texas MD Anderson Cancer Center), Heather K. Gerken (Yale Law School), Jane Mayer (*The New Yorker*), Gerald Chan (Morningside)

October 8, 2017  
House of the Academy

## ***Annual David M. Rubenstein Lecture Looking at Earth: An Astronaut's Journey***

*Featured Speakers:* Kathryn D. Sullivan (Smithsonian Institution National Air and Space Museum), David M. Rubenstein (The Carlyle Group; Smithsonian Institution)

October 17, 2017\*  
House of the Academy

## ***Social Reception***

*Featured Speakers:* Laurence Senelick (Tufts University), David Gullete (The Poets' Theatre), Robert Scanlon (The Poets' Theatre)





Robert Gallucci, Richard Meserve, and Alan Leshner



Rebecca Blank, Steven Knapp, and David Ward



Jonathan Fanton, Roger Ferguson, Jr., Michael McPherson, Mitchell Daniels, Deborah Ball, and John DeGioia



Mary Sue Coleman and Jane McAuliffe



Alice Eagly and Jonathan Holloway

November 3, 2017

House of the Academy

## ***Exit: The Endings That Set Us Free***

*Featured Speaker:* Sarah Lawrence-Lightfoot (Harvard University)

November 8, 2017

House of the Academy

## ***Redistricting and Representation***

*Featured Speakers:* Gary King (Harvard University), Patti B. Saris (United States District Court for the District of Massachusetts), Jamal Greene (Columbia Law School), Moon Duchin (Tufts University)

November 9, 2017

House of the Academy

## ***Conversation with Robert Kraft***

*Featured Speaker:* Robert Kraft (The Kraft Group)

November 17, 2017

House of the Academy

## ***Mozart, Beethoven, and Haydn***

Chamber series in collaboration with the Cantata Singers

December 1, 2017

House of the Academy

## ***American Philosophy: A Love Story***

*Featured Speaker:* John Kaag (University of Massachusetts Lowell)

December 5, 2017

House of the Academy

## ***The Origins of Creativity***

*Featured Speaker:* Edward O. Wilson (Harvard University)

December 6, 2017

House of the Academy

## ***Winter Concert featuring the Boston Symphony Orchestra Horn Quartet***

December 8, 2017

House of the Academy

## ***The Collapse of Ancient Civilizations***

*Featured Speaker:* Malcolm Wiener (Institute for Aegean Prehistory; Harvard University)

February 2, 2018

House of the Academy

## ***Who Was Elizabeth Bishop?***

*Featured Speaker:* Lloyd Schwartz (University of Massachusetts Boston)

February 2, 2018

House of the Academy

## ***Music of South America and Spain***

Chamber series in collaboration with the Cantata Singers

February 6, 2018

House of the Academy

## ***Jefferson, Race, and Democracy***

*Featured Speakers:* Annette Gordon-Reed (Harvard University), Peter Onuf (American Antiquarian Society; University of Virginia)

February 22, 2018\*

House of the Academy

## ***Boston-Cambridge Planning Committee Meeting***

February 23, 2018

House of the Academy

## ***The Leadership Challenges of Artificial Intelligence***

*Featured Speaker:* Jonathan Zittrain (Harvard University)

April 6, 2018

House of the Academy

## ***Dying in America***

*Featured Speaker:* Marcia Angell (Harvard Medical School)

April 6, 2018

House of the Academy

## ***Music of the Baltic Nations***

Chamber series in collaboration with the Cantata Singers



Jonathan Fanton and Daniel Diermeier

Gene Robinson and John Katzenellenbogen



A Celebration of the Arts and Humanities, featuring Arthur C. Sze, Lynn Nottage, Mark S. Slobin, Faith Ringgold, Elizabeth Broun, Greil Marcus, and Brenda L. Hillman



2017 Induction Ceremony Class speakers: Jane Mayer, Ursula M. Burns, James P. Allison, Heather K. Gerken, and Gerald Chan

April 12, 2018  
House of the Academy

## ***Annual Awards Ceremony: A Celebration of the Arts and Sciences***

*Featured Speakers:* Martha C. Nussbaum (University of Chicago), Barbara J. Meyer (University of California, Berkeley)

April 19, 2018\*  
Fish Family Foundation

## ***Luncheon and Discussion: The Future of Higher Education***

*Featured Speakers:* David W. Oxtoby (Pomona College), Lawrence K. Fish (Fish Family Foundation)

May 3, 2018  
House of the Academy

## ***Member Luncheon***

May 3, 2018  
House of the Academy

## ***Songs of Love and Death: Sonnets by Petrarch and others set by Cipriano de Rore in "I madrigali a cinque voci" (Venice, 1542)***

*Featured Speaker:* Jessie Ann Owens (University of California, Davis). *Introduction:* Jane A. Bernstein (Tufts University).  
Performance by Blue Heron

May 11, 2018  
House of the Academy

## ***The City in Film: How Watching Movies Taught Me To Read Cities***

*Featured Speaker:* Ezra Haber Glenn (Massachusetts Institute of Technology)

June 13, 2018  
House of the Academy

## ***Why Are All the Black Kids Sitting Together in the Cafeteria? And Other Conversations About Race***

*Featured Speaker:* Beverly Daniel Tatum (Spelman College)

June 18, 2018  
Massachusetts Institute of Technology

## ***Roundtable Discussion: Challenges for International Science Partnerships***

## **MICHIGAN**

### **ANN ARBOR**

November 1, 2017  
University of Michigan

## ***Member Breakfast and Discussion: The Public Face of Science***

*Featured Speakers:* Arthur Lupia (University of Michigan); Mark Schlissel (University of Michigan)

## **MISSOURI**

### **ST. LOUIS**

April 16, 2018\*  
Washington University in St. Louis

## ***St. Louis Program Committee Meeting***

## **NEW JERSEY**

### **PRINCETON**

February 21, 2018\*  
Princeton University

## ***Research, Truth, and Academic Freedom***

*Featured Speakers:* Anne A. Cheng (Princeton University), Jill Dolan (Princeton University), Hendrik Hartog (Princeton University), Joan Wallach Scott (Institute for Advanced Study). *Moderator:* Peter Brooks (Princeton University)

May 10, 2018\*  
Princeton University

## ***Princeton Program Committee Meeting***



Kathryn S. Fuller and John Lithgow, reading from the letters of John and Abigail Adams



2017 David M. Rubenstein Lecture – Looking at Earth: An Astronaut's Journey, featuring David M. Rubenstein and Kathryn D. Sullivan



Jamal Greene, Moon Duchin, Gary King, and Patti B. Saris



Gigliola Staffilani, Tomasz Mrowka, and Irene Greif



Lee Rosenthal, Edward Djerejian, and Huda Zoghbi



Winter concert, featuring the Boston Symphony Orchestra Horn Quartet

## NEW MEXICO

### SANTA FE

March 21, 2018  
Santa Fe, NM

#### *Member Dinner*

## NEW YORK

### ITHACA

September 11, 2017\*  
Cornell University

#### *Roundtable Discussion: The Public Face of Science*

*Featured Speakers:* Diane Ackerman (Ithaca, NY);  
Nancy C. Andrews (Duke University)

### NEW YORK CITY

September 7, 2017\*  
New York, NY

#### *New York Program Committee Meeting*

November 28, 2017  
New York, NY

#### *Morton L. Mandel Public Lecture From Enrollment to Excellence: New Opportunities for American Undergraduate Education*

*Featured Speakers:* Vartan Gregorian (Carnegie Corporation of New York), Nicholas Lemann (Columbia University Graduate School of Journalism), Michael S. McPherson (formerly, Spencer Foundation), Gail O. Mellow (LaGuardia Community College)

June 4, 2018  
New York, NY

#### *Reception for New Members*

*Featured Speakers:* Jonathan F. Fanton (American Academy),  
Stephen Heintz (Rockefeller Brothers Fund)

## NORTH CAROLINA

### DURHAM

September 26, 2017  
Duke University

#### *Member Reception: The Future of Undergraduate Education*

*Featured Speakers:* Nancy C. Andrews (American Academy of Arts and Sciences), Michael McPherson (formerly, Spencer Foundation)

### RALEIGH

September 29, 2017  
Stough Elementary School

#### *America's Languages in North Carolina*

*Featured Speakers:* Nancy C. Andrews (American Academy of Arts and Sciences); Jeffrey Braden (North Carolina State University); Karl W. Eikenberry (Stanford University); David E. Price (U.S. House of Representatives, North Carolina's Fourth District); Frederick Rick Van Sant (Go Global NC); Randy Woodson (North Carolina State University)

## OHIO

### CLEVELAND

August 24, 2017  
Cleveland, OH

#### *Member Breakfast*

## TEXAS

### AUSTIN

February 14, 2018  
University of Texas at Austin

#### *Roundtable Discussion: Perceptions of Science in America*

*Featured Speaker:* Larry R. Faulkner (University of Texas at Austin)



Stephen Heintz, James Cuno, and Pauline Yu



Edward O. Wilson and Jonathan Fanton



Peter Onuf and Annette Gordon-Reed



Venkatesh Narayanamurti, Larry Shapiro, and Gordon Gill



Marcia Angell and Robert Rotberg



Lucia Rothman-Denes and Don Randel

## HOUSTON

September 26, 2017\*  
Rice University

### *Genomics in Medicine*

*Featured Speakers:* Huda Zoghbi (Baylor College of Medicine), Richard Gibbs (Baylor College of Medicine), Brendan Lee (Baylor College of Medicine), Andrew Futreal (The University of Texas MD Anderson Cancer Center). *Moderator:* John Mendelsohn (The University of Texas MD Anderson Cancer Center)

April 26, 2018  
Houston, TX

### *Roundtable Discussion: Challenges for International Scientific Partnerships*

## WASHINGTON

### SEATTLE

May 30, 2018  
University of Washington

### *Morton L. Mandel Public Lecture How to Make Citizens*

*Featured Speaker:* Eric Liu (Citizen University)

## WISCONSIN

### MADISON

May 31, 2018  
University of Wisconsin-Madison

### *A Dialogue on the Future of Higher Education in America*

*Featured Speakers:* Rebecca Blank (University of Wisconsin-Madison), Michael McPherson (formerly, Spencer Foundation)

## INTERNATIONAL MEETINGS

### CANADA

May 29, 2018  
Vancouver, British Columbia

### *Member Breakfast*

### UNITED KINGDOM

June 18, 2018  
The British Academy

### *Member Reception and Dinner*





Jonathan Fanton, Francis Amory Prize recipient Barbara Meyer, Nancy Andrews, and David Page



Martha Nussbaum accepting the Don M. Randel Award for Humanistic Studies



Thomas Bender



Members of Blue Heron



Vartan Gregorian, Ruth McLaughlin, David McLaughlin, and Jean Taylor



Jessie Ann Owens and Jane Bernstein

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