



# THE ACADEMIES READING LIST

For the new Congress and Administration in 2017

## TRANSPORTATION RESEARCH BOARD (TRB)

Application of Remote Real-Time Monitoring to Offshore Oil and Gas Operations (2016)

Interregional Travel: A New Perspective for Policy Making (2016)

Between Public and Private Mobility: Examining the Rise of Technology-Enabled Transportation Services (2016)

Strengthening the Safety Culture of the Offshore Oil and Gas Industry (2016)

Modernizing Freight Rail Regulation (2015)

Funding and Managing the U.S. Inland Waterways System: What Policy Makers Need to Know (2015)

The Federal Aviation Administration's Approach for Determining Future Air Traffic Controller Staffing Needs (2014)

The Safety Promise and Challenge of Automotive Electronics: Insights from Unintended Acceleration (2012)

Transportation Investments in Response to Economic Downturns (2014)

Policy Options for Reducing Energy Use and Greenhouse Gas Emissions from U.S. Transportation (2011)

Equity of Evolving Transportation Finance Mechanisms (2011)

## POLICY AND GLOBAL AFFAIRS (PGA)

Optimizing the Nation's Investment in Academic Research: A New Regulatory Framework for the 21st Century (2016)

Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation's Prosperity and Security (2012)

Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads (2011)

Strengthening Forensic Science in the United States: A Path Forward (2009)

Diplomacy for the 21st Century, Embedding a Culture of Science and Technology throughout the Department of State (2015)

The Comprehensive Nuclear Test Ban Treaty: Technical Issues for the United States (2012)

Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future (2007)

Building America's Skilled Technical Workforce *[Forthcoming December 2016]*

The Power of Change: Innovation for Development and Deployment of Increasingly Clean Electric Power Technologies (2016)

Disaster Resilience: A National Imperative (2012)

## **NATIONAL ACADEMY OF SCIENCES/NATIONAL ACADEMY OF MEDICINE (NAS/NAM)**

International Summit on Human Gene Editing: A Global Discussion. Proceedings of a Workshop—in Brief (2016)

## **NATIONAL ACADEMY OF ENGINEERING (NAE)**

Grand Challenges for Engineering: Imperatives, Prospects, and Priorities. Summary of a Forum (2016)

Building a Better Delivery System: A New Engineering/Health Care Partnership (2005)

Making Value for America: Embracing the Future of Manufacturing, Technology, and Work (2015)

Technically Speaking: Why All Americans Need to Know More About Technology (2002)

Engineering in K-12 Education: Understanding the Status and Improving the Prospects (2009)

STEM Integration in K-12 Education: Status, Prospects, and an Agenda for Research (2014)

The Engineer of 2020: Visions of Engineering in the New Century (2004)

Educating the Engineer of 2020: Adapting Engineering Education to the New Century (2005)

Engineering Technology Education in the United States *[Forthcoming December 2016]*

## **HEALTH AND MEDICINE DIVISION (HMD)**

Families Caring for an Aging America (2016)

Improving Diagnosis in Health Care (2015)

Biomarker Tests for Molecularly Targeted Therapies: Key to Unlocking Precision Medicine (2016)

Health IT and Patient Safety: Building Safer Systems for Better Care (2012)

Eliminating the Public Health Problem of Hepatitis B and C in the United States: Phase One Report (2016)

Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products (2015)

Hearing Health Care for Adults: Priorities for Improving Access and Affordability (2016)

A National Trauma Care System: Integrating Military and Civilian Trauma Systems to Achieve Zero Preventable Deaths After Injury (2016)

A Framework for Assessing Effects of the Food System (2015)

Sodium Intake in Populations: Assessment of Evidence (2013)

## **DIVISION OF PHYSICAL AND ENGINEERING SCIENCES (DEPS)**

New Frontiers in Solar System Exploration [*Forthcoming 2016*]

Analytic Research Foundations for the Next-Generation Electric Grid (2016)

The Resilience of the Electric Power Delivery System in Response to Terrorism and Natural Disasters: Summary of a Workshop (2013) [*Final report Forthcoming December 2016*]

Exploring Encryption and Potential Mechanisms for Authorized Government Access to Plaintext: Proceedings of a Workshop (2016)

National Security Space Defense and Protection: Public Report (2016) [Classified report issued January 2016]

Autonomy Research for Civil Aviation: Toward a New Era of Flight (2014)

The Potential for Light-duty Vehicle Technologies, 2010-2050: Costs, Impacts, Barriers and Timing [*Forthcoming December 2016*]

Bulk Collection of Signals Intelligence: Technical Options (2015)

Commercial Aircraft Propulsion and Energy Systems Research: Reducing Global Carbon Emissions (2016)

U.S. Air Force Strategic Deterrence Analytic Capabilities: An Assessment of Tools, Methods, and Approaches for the 21st Century Security Environment (2014)

Pathways to Exploration: Rationales and Approaches for a U.S. Program of Human Space Exploration (2014)

Future Directions for NSF Advanced Computing Infrastructure to Support U.S. Science and Engineering in 2017-2020 (2016)

## **DIVISION OF EARTH AND LIFE STUDIES (DELS)**

Attribution of Extreme Weather Events in the Context of Climate Change (2016)

Using Graywater and Stormwater to Enhance Local Water Supplies: An Assessment of Risks, Costs, and Benefits (2016)

Gene Drives on the Horizon: Advancing Science, Navigating Uncertainty, and Aligning Research with Public Values (2016)

Genetically Engineered Crops: Experiences and Prospects (2016)

Industrialization of Biology: A Roadmap to Accelerate the Advanced Manufacturing of Chemicals (2015)

Sea Change: 2015-2025 Decadal Survey of Ocean Sciences (2015)

Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and Security of U.S. Nuclear Plants: Phase 2 (2016)

Lessons Learned from the Fukushima Nuclear Accident for Improving Safety of U.S. Nuclear Plants (2014)

Responding to Oil Spills in the U.S. Arctic Marine Environment (2014)

Assessing Risks to Endangered and Threatened Species from Pesticides (2013)

Induced Seismicity Potential in Energy Technologies (2013)

## DIVISION OF BEHAVIORAL AND SOCIAL SCIENCES AND EDUCATION (DBASSE)

Evaluation of the Achievement Levels for Mathematics and Reading on the National Assessment of Educational Progress *[Forthcoming November 2016]*

Assessment of Approaches to Updating the Social Cost of Carbon: Phase 1 Report on a Near-Term Update (2016) *[Final Report Forthcoming January 2017]*

The Economic and Fiscal Consequences of Immigration (2016)

The Integration of Immigrants into American Society (2015)

The Growing Gap in Life Expectancy by Income: Implications for Federal Programs and Policy Responses (2015)

Understanding the U.S. Illicit Tobacco Market: Characteristics, Policy Context, and Lessons from International Experiences (2015)

Guide to Implementing the Next Generation Science Standards (2015)

The Growth of Incarceration in the United States: Exploring Causes and Consequences (2014)

Sports-Related Concussions in Youth: Improving the Science, Changing the Culture (2014)

Reforming Juvenile Justice: A Developmental Approach (2013)

U.S. Health in International Perspective: Shorter Lives, Poorer Health (2013)

The list is available online at [www.nationalacademies.org/pga](http://www.nationalacademies.org/pga).

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