UNAVCO

GEOScientists Informing Policy

Beth Bartel with slides from Linda Rowan
UNAVCO
OUTLINE

• The role of geoscience in public policy
• How geoscientists can get involved in informing policymaking
• Communicating with policymakers
Role of Geoscience in Policy

- Hazards
- Natural Resources (Soil, Mining, Water)
- Environment
- Energy
- Infrastructure
- Waste
- Terrestrial Reference Frame
- Research
COMMUNICATION NEEDED

• Ensure that sound geoscience informs policymaking
• Ensure that sound geoscience benefits society
• Ensure that sound geoscience informs daily life decisions
• Advance geoscience research and education

“DON'T TAKE FOR GRANTED THAT PEOPLE CARE.”
BEN KEESEY
CEO, INVISIBLE CHILDREN, INC.
WHAT YOU CAN DO

Steps you can take from small to large

1. Highlight geoscience to the public
2. Learn more about policy
3. Communicate about science policy to a broad audience
4. Participate in policy making
5. Engage policymakers
1. HIGHLIGHT GEOSCIENCE TO THE PUBLIC

- We’re doing it!
  - Events
  - Media
  - Social Media
  - Everyday life
2. LEARN MORE ABOUT POLICY

Congressional websites

Also:
- Congressional Research Service: loc.gov/crsinfo
- Federal Register: federalregister.gov
- Independent source: GovTrack.us
Agency websites

Office of Legislative & Public Affairs

The Office of Legislative and Public Affairs communicates to external audiences information about the activities, programs, research results and policies of the National Science Foundation. OLPA employs a wide variety of tools and techniques to engage the general public and selected audiences including Congress, the news media, state and local governments, other Federal agencies, and the research and education communities.

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Nsf.gov/od/lpa/
2. LEARN MORE ABOUT POLICY

DECADAL SURVEY FOR EARTH SCIENCE AND APPLICATIONS FROM SPACE

The 2017-2027 Decadal Survey for Earth Science and Applications from Space (ESAS 2017) will help shape science priorities and guide agency investments into the next decade. The survey, sponsored by NASA, NOAA, and the USGS, is driven by input from the scientific community and policy experts.

Read a letter from our co-chairs
Learn more about the survey
Read past newsletters

SIGN UP FOR OUR MAILING LIST

http://sites.nationalacademies.org/DEPS/esas2017/index.htm
2. LEARN MORE ABOUT POLICY

Think tanks

Also:
• Brookings Institution
LEARN MORE ABOUT POLICY

AGU POSITION STATEMENTS AND LETTERS

POSITION STATEMENTS

From time to time the AGU Council adopts position statements that relate the understanding and application of the geophysical sciences to relevant public policy. In making such statements, the Council limits itself to positions that are within the range of available geophysical data or norms of legitimate scientific debate. Each statement expires after four years unless reaffirmed. Learn more about AGU's Advocacy Policy.

CLIMATE ISSUES

- Human-Induced Climate Change Requires Urgent Action
- Geoengineering Solutions to Climate Change Require Enhanced Research, Consideration of Societal Impacts, and Policy Development

DATA MANAGEMENT AND RESEARCH POLICY

- Earth and Space Science Data Should Be Credited, Preserved, Open, and Accessible as an Integral Responsibility of Scientists, Data Stewards, and Sponsoring Institutions
- The U.S. Government Has a Critical Role in Supporting Basic Research in the Earth and Space Sciences
- AGU Supports Free and Open Communication of Scientific Findings
- The Capability to Monitor the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Should be Expanded, Completed, and Maintained
2. LEARN MORE ABOUT POLICY

Geoscience Policy Recommendations for the New Administration and the 115th Congress

This set of policy recommendations outlines ways to achieve our shared national interests where the geosciences play a significant role. The policy proposals build on the consensus document Geoscience for America’s Critical Needs: Invitation to a National Policy Dialogue, which was developed for the 2016 election.

Geoscientists gather and interpret data about the Earth and other planets, providing the data, tools, and expertise to help solve some of America’s greatest challenges. The policy proposals laid out in this document are centered around five high-level thematic areas:

- Enhancing national and homeland security
- Increasing economic prosperity
- Securing resources and strengthening national infrastructure
- Supporting strong and resilient communities, and
- Growing a dynamic workforce

This report highlights the shared priorities of nine professional geoscientific societies that represent some 250,000 members and are members of the Geoscience Policy Working Group. We in the geoscience community offer to share our scientific expertise and perspectives as you craft national policies to build a strong and competitive nation.

The societies listed below do not necessarily endorse or have expertise on every recommendation in this report.


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Policy Proposals

ENHANCE NATIONAL SECURITY
1. Support and enhance the nation’s strategic Earth observational infrastructure and invest in the interpretation and preservation of this data.
2. Prioritize natural hazards research and monitoring to minimize risk to people and infrastructure.
3. Invest in America’s icebreakers to maintain our military and economic capabilities in the Polar regions.
4. Invest in research to promote the development of innovative technologies for water reuse, water recycling, and managed aquifer recharge.

INCREASE ECONOMIC PROSPERITY
1. Support robust energy research and develop solutions to reduce potential environmental impacts of energy extraction and generation.
2. Support and invest in regional ocean planning initiatives to protect and encourage responsible production of our ocean’s natural resources.
3. Support agricultural and aquacultural data collection, analysis, and application for efficient and sustainable food production.
4. Gain a better understanding of soil properties and their relation to valuable ecosystem services.
5. Identify alternative uses, or storage options, for produced waters, carbon dioxide, and other energy waste streams.
6. Define the composition, structure, and geologic processes of the Earth’s crust.

SUPPORT STRONG COMMUNITIES
1. Improve communication to mitigate the impact of natural hazards on people, buildings, and infrastructure.
2. Invest in soil microbiome research as a new frontier connecting biology, medicine, and agriculture.
3. Assess and improve the operation of deep injection wells to ensure community safety.

SECURE RESOURCES AND STRENGTHEN OUR NATIONAL INFRASTRUCTURE
1. Examine mineral commodities from discovery to disposal to ensure stable supply chains for our infrastructure and economy.
2. Mitigate the high risk associated with nuclear waste.
3. Invest in water infrastructure to ensure access to safe and cost-effective drinking water for all.
4. Support collection and dissemination of water monitoring data.

GROW A DYNAMIC WORKFORCE
1. Support strong federal investments in basic geoscience research to train and develop future geoscientists.
2. Invest in a vibrant and dynamic STEM-focused workforce to increase our global competitiveness.
3. Establish infrastructure to support robust aquaculture systems to create new jobs and business opportunities.
3. SCIENCE POLICY COMMUNICATION

- Policy Forums in Science Journals
- Editorials/News
- Policy Reports
- Factsheets/One Pagers
- Social Media
4. PARTICIPATE IN POLICYMAKING

a. Volunteer
b. Fellowships
c. Internships
d. Professional Staff

- AAAS
- AGU
- GSA
- SSA
- AGI
- AMS
5. ENGAGE POLICYMAKERS

a. Comments, Phone Calls, and Letters
b. Congressional Visits
c. Townhalls and Institution Visits
d. Exhibitions and Briefings
e. Hearings and Testimony
f. Legislation
A DAY IN THE LIFE OF A POLICYMAKER

KISS. KEEP IT SHORT & SIMPLE

Bearing the Information Load

- 200 email messages
- 25 sabbaticals
- 150 new policies
- 15 birthdays
- 5 weddings
- 4 new laws
- 3 new regulations
- 8 hours
- 3 hours
- 5 old laws
- 5 Chinese
- 2 hours
- 300 new policies
- 75-old
- 25 new regulations
- 20 birthdays
- 15 sabbaticals
- 4 lobbyist meetings
• Have an “ask”
• Frame your ask
• Support your argument
  • Three main points
  • Personal story

"The beauty of this is that it is only of theoretical importance, and there is no way it can be of any practical use whatsoever."
• Identify your representative (http://www.house.gov/representatives/find/)

• Think of an “ask” related to your research; more funding? Alternatively, find a bill that you would like them to take a stand on (https://www.congress.gov/)

• Look at your representative’s website to find points of connection between their interests and your work

• Develop messaging about your research in the framework of their interests: What are you asking for, and why? (Three main points)

• Think: are there any supporting visuals you would bring?
• Find a new partner

• Choose A and B

• A: You are a staffer with no scientific background

• B: Introduce yourself (name, position [e.g., PhD student], institution, city of residence)

• B: Deliver your ask; be succinct and get to your point quickly
  What are you asking for?
  Why are you asking for this?
  A personal story or connection, if you have one

• Switch