

Mathematicians on Capitol Hill: The Who, How, and Why

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[Outline]

- AMS/AAAS Congressional Fellowships
 - Who are the 2018-19 AAAS S&T Fellowships?
 - Why have fellows?
 - What do fellows do?
 - How does math fit in?
 - Why the Fellowship matters.
- The Legislative Process
 - How are decisions made?
 - What I have learned.
- Hill Visits
 - Why visit?
 - What makes a good meeting?
 - What to do afterwards.

The 2018-19 AAAS Science and Technology Fellows

271 AAAS
Science and
Technology
Policy Fellows

237 AAAS
Executive Branch
Fellows

Placed in a Federal
Agency

1 Judicial Branch
Fellow

Placed at the Federal
Judicial Center

33 Total
Congressional
Fellows

Placed in a Congressional
Office or Committee

124 First Year
Fellows

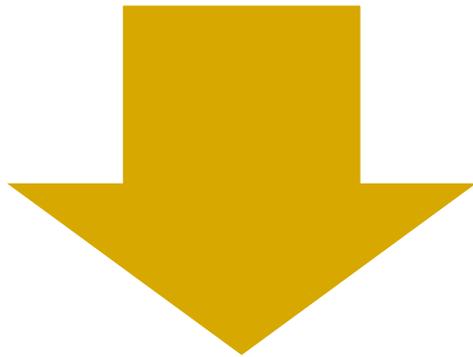
113 Second Year
Fellows

1 AMS
Congressional
Fellow

2018/19 AAAS Science and Technology Fellows



[Why Have Fellows?]



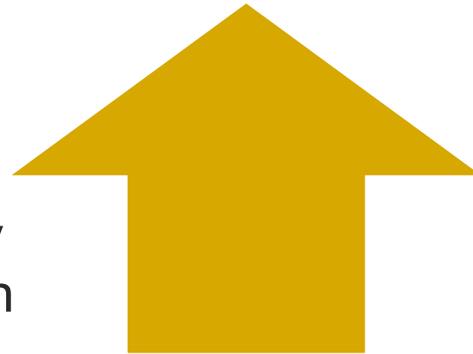
Science for Policy

Fellows bring technical expertise and external perspectives to the legislative process.



Policy for Science

Fellows can better advocate for scientific research and funding. They can then return to the community with first-hand policymaking knowledge.



What Do Fellows Do?

Provide Technical Expertise

- Write memos, backgrounds, and talking points,
- Research, analyze, and summarize legislation and oversight letters,
- Brainstorm, research, and draft new legislation ideas,
- Write comparisons of legislation,
- Edit speeches and remarks for accuracy,
- Prepare questions and background material for committee hearings,
- Aid in the appropriations process.

Watch and Learn

- Meet with constituents,
- Attend briefings and hearings,
- Keep up on current affairs and news stories,
- Watch the House and Senate floor,
- Read committee or budget reports,
- Get input from relevant stakeholders, federal agencies, or Congressional Research Services.

[How does math fit in?]

- ~~Use the arithmetic theory of quadratic forms to...~~

Transferable Skills:

- Problem solving,
- Analytical thinking,
- Data driven decision making,
- Persistence and creativity in tackling difficult problems,
- Synthesizing information,
- Reviewing technical details and accurately relaying them in an understandable way,
- Logical thought and scientific rigor,
- Public speaking or presentation skills,
- First hand experience in higher education, using research funding, or understanding the importance of foundational research.

Why the Fellowship Matters

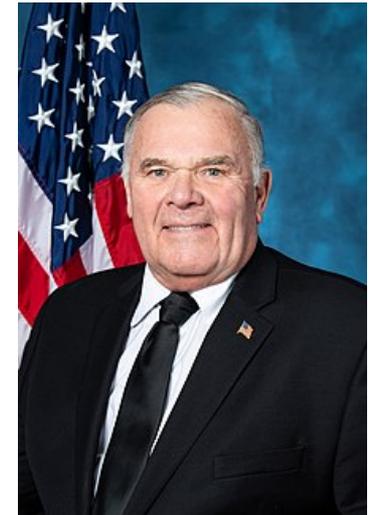
- The last election saw the largest increase in members elected with STEM backgrounds.
- Congress now has just under 4% of it's members in a Science, Engineering, or Math profession. (That is 21 out of 535)
- 58 members have an undergraduate degree in STEM. (4 in math!)
- There are 3 members of Congress with Ph.D.'s in STEM:



Jerry McNerney (D-CA)
Ph.D. - Mathematics



Bill Foster (D-IL)
Ph.D. - Physics



Jim Baird (R-IN)
Ph.D. - Animal Science

[Why the Fellowship Matters]

What I have gained:

- An understanding of the political process,
- A broad and diverse professional network,
- Experience in a non-academic setting,
- Improved communication skills,
- Writing experiences in a variety of new forms,
- The ability to multi-task in a fast-paced, demanding environment,
- The opportunity to engage more with the mathematics community,
- The opportunity to work on concrete meaningful projects that can have a lasting impact!

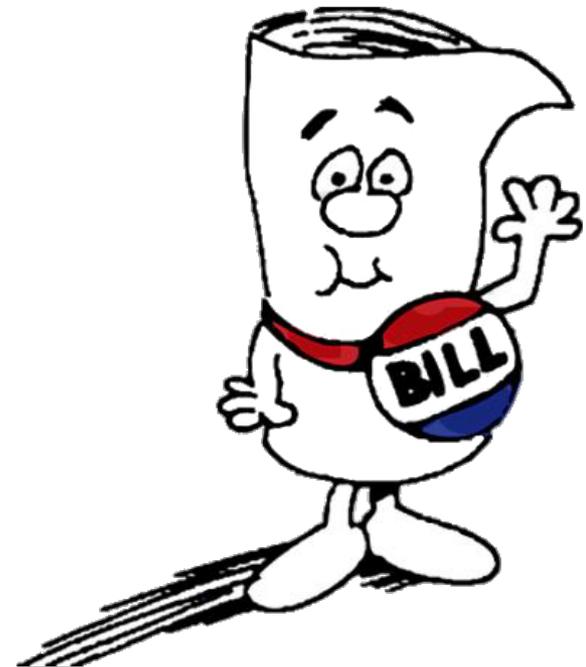
[The Legislative Process]

What I have learned:

1. Policy, Politics, and Procedure all matter, but are not equal.
2. There is a lot more bipartisan work going on than you think!
3. Science and data is often used to support a viewpoint or bill, but is not usually a driving force in forming viewpoints.
4. Committee assignments matter.
5. Constituents concerns and viewpoints definitely help drive decisions.

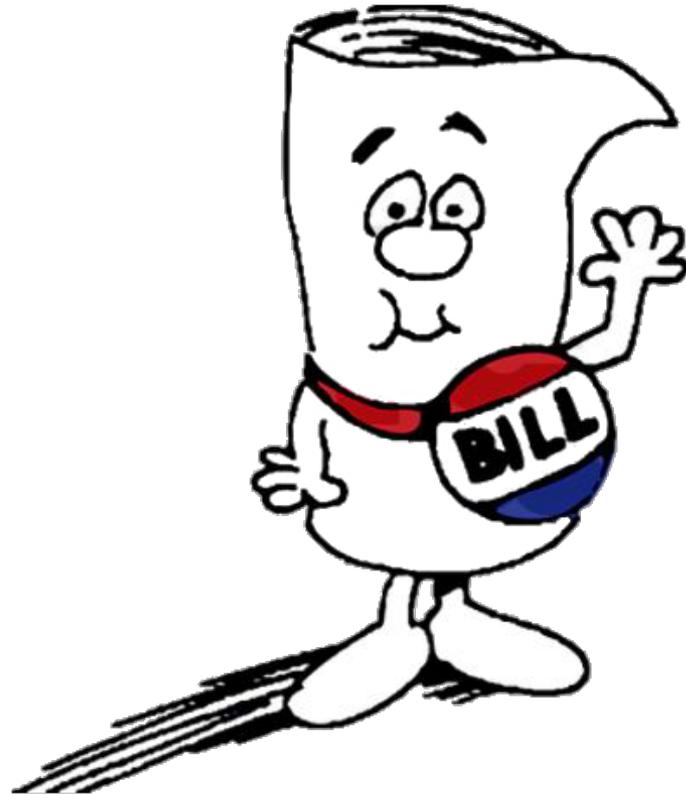
Introducing a New Bill

- Legislative History
 - Has a similar bill been introduced in the past?
 - Is this a reintroduction?
 - Has anyone taken claim of the space?
 - Was there press or stakeholder feedback from last time?
- What is the goal?
 - Is this a state/district or a national issue?
 - Is this a “messaging bill”: meant to claim leadership or bring attention to a topic. Isn’t expected to move at all.
 - Would other legislative actions suffice? Oversight letter, member phone call, floor speech, etc.



Introducing a new bill

- What kind of support is needed?
 - Stakeholder input,
 - Committee support,
 - Cosponsors (intraparty and bipartisan),
 - House companion.
- How much additional strategic support is wanted?
 - Briefings, Floor Speeches, Op-eds, Stakeholder Initiatives, Press, Social Media Pushes
- This is just the beginning if you want it passed...
 - Committee Mark Up
 - Floor vote
 - Amendments
 - Conference Committee



[Cosponsoring a Bill]

Aspects that are frequently considered when a member looks to cosponsor a bill:

- Who is the lead? Who else is cosponsoring?
- Are there supporting groups?
- Has the member supported similar things in the past?
- What connections to the state/district are there?
- What would it cost?
- Are there any controversial issues or other considerations?

[Visiting Capitol Hill]

- Reasons to visit a member's office:
 - Sign on to a specific bill,
 - Appropriations request,
 - Concerns as a constituent,
 - Discuss programs, proposals, or legislative ideas,
 - To just establish a relationship with the member or staff.



[Visiting Capitol Hill]

You can always request to meet with the member, but you will most likely meet with a member of the legislative staff.



[What makes a good visit?]

- Schedule a meeting and be on time!
- Be prepared:
 - Research what the member has done in the area before.
 - If you have specific requests, put together a one-page document with the requests clearly marked.
- Know why you are there.
 - Be specific, to the point, clear, and do not assume knowledge from the staffer.
- Emphasize your connection to the state and how your request will impact the members constituents if possible.
 - Tell relatable stories,
 - Bring summarizing statistics or data (but do not overwhelm them),
 - Make sure you have at least one constituent in your group.

[Tips for a successful visit]

- Research your area:
 - If you are advocating for specific legislation, make sure you know the bills number, status, who introduced it, who is cosponsoring it, etc. (You can look this up on congress.gov)
 - If you are asking for appropriations, know the current funding level, whether there is a Dear Colleague letter, who sends it, if the member signed on last year, etc.
- Be aware of timing and context:
 - Does this fit in with the members policy?
 - Is this related to anything in the news or has it been talked about by the member or in committee recently?
- Coordinate with other societies (SIAM, AWM, MAA) and institutions in your state.
 - Repeatedly hearing about issues makes a difference!

[Tips from Senior Staffers]

- Use small and relatable numbers:
 - Instead of 80%, say 4 out of 5.
- Pair data with stories.
- Build relationships with the staffers. You can be a resource for them!
- Acknowledge that now might not be the right strategic time, but provide resources and contact information for later on. You never know when things can be useful.

[After your visit]

- Follow up with the staffer(s)
 - Provide any resources you might have talked about and offer to serve as a resource yourself.
 - Multiple visits and polite persistence can be good, just don't make it too frequently.
- Talk with other people about your experience
 - Spread the word and advocate for more advocates!
 - Help with participating in Hill Days
 - AAAS has lots of resources and events:
 - AAAS Catalyzing Advocacy for Science and Engineering (CASE) Workshop is a great opportunity for graduate students
 - AAAS Science and Technology Fellowships are a great opportunity at any point in a career!

[

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Thank you!