

# **Advising the Federal Government**

**Susan L. Graham  
University of California,  
Berkeley**

**LISPI**

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# How does the Government Learn about Science and Technology (Policy)?

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- Hires experts
- Workshops (e.g. CCC-sponsored) **Mark**
- Professional societies
- National Research Council
  - Computer Science and Telecommunications Board (1986) **Lyn**
  - Forum on Cyber Resilience (2015) **Fred**
- Federal Advisory Committees



# Science Advice to the President

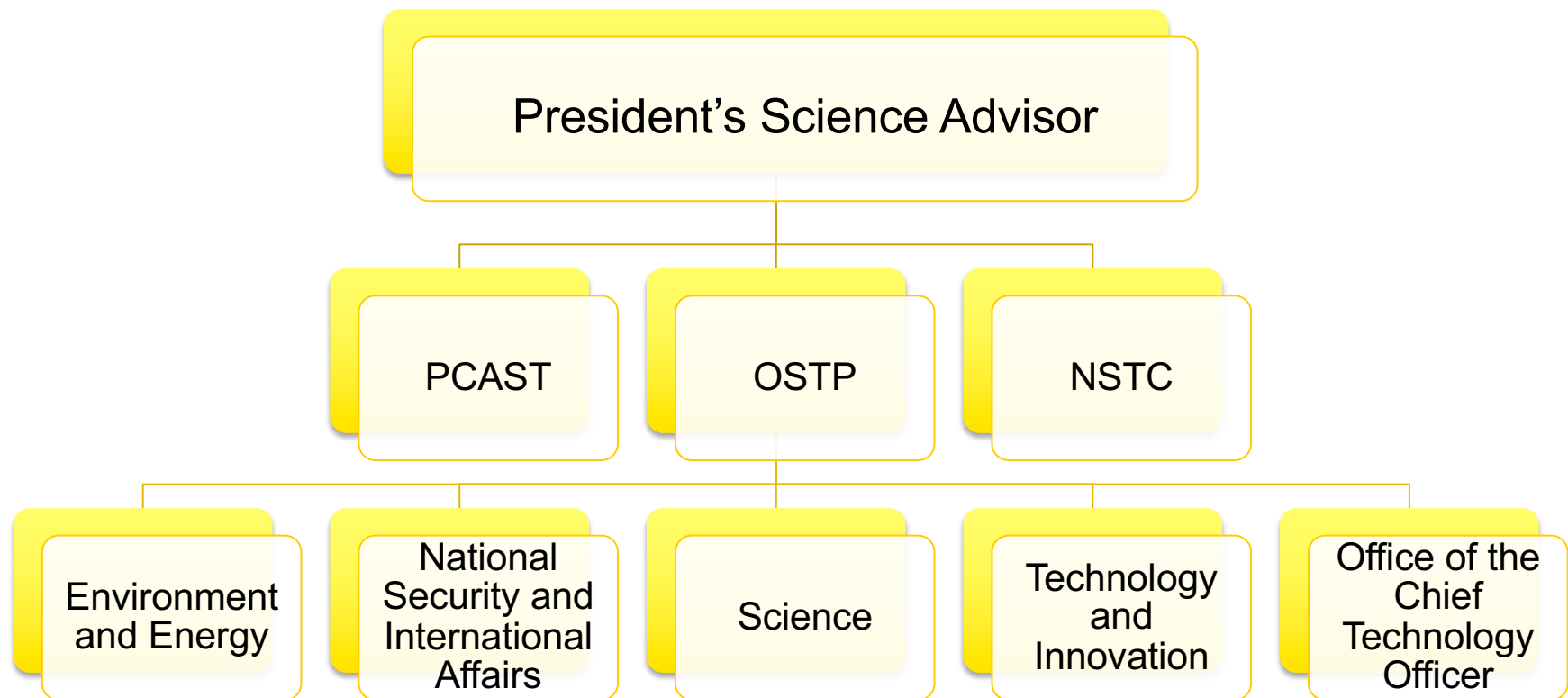
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- **1941-1947 – Office of Science and Technology Development**
  - Created during WWII
- **1951-1973 – President's Science Advisory Committee**
  - Part of office of defense mobilization
  - Moved to White House in 1957; abolished in 1973
- **1976-now – Office of Science and Technology Policy**
  - Established by Congress



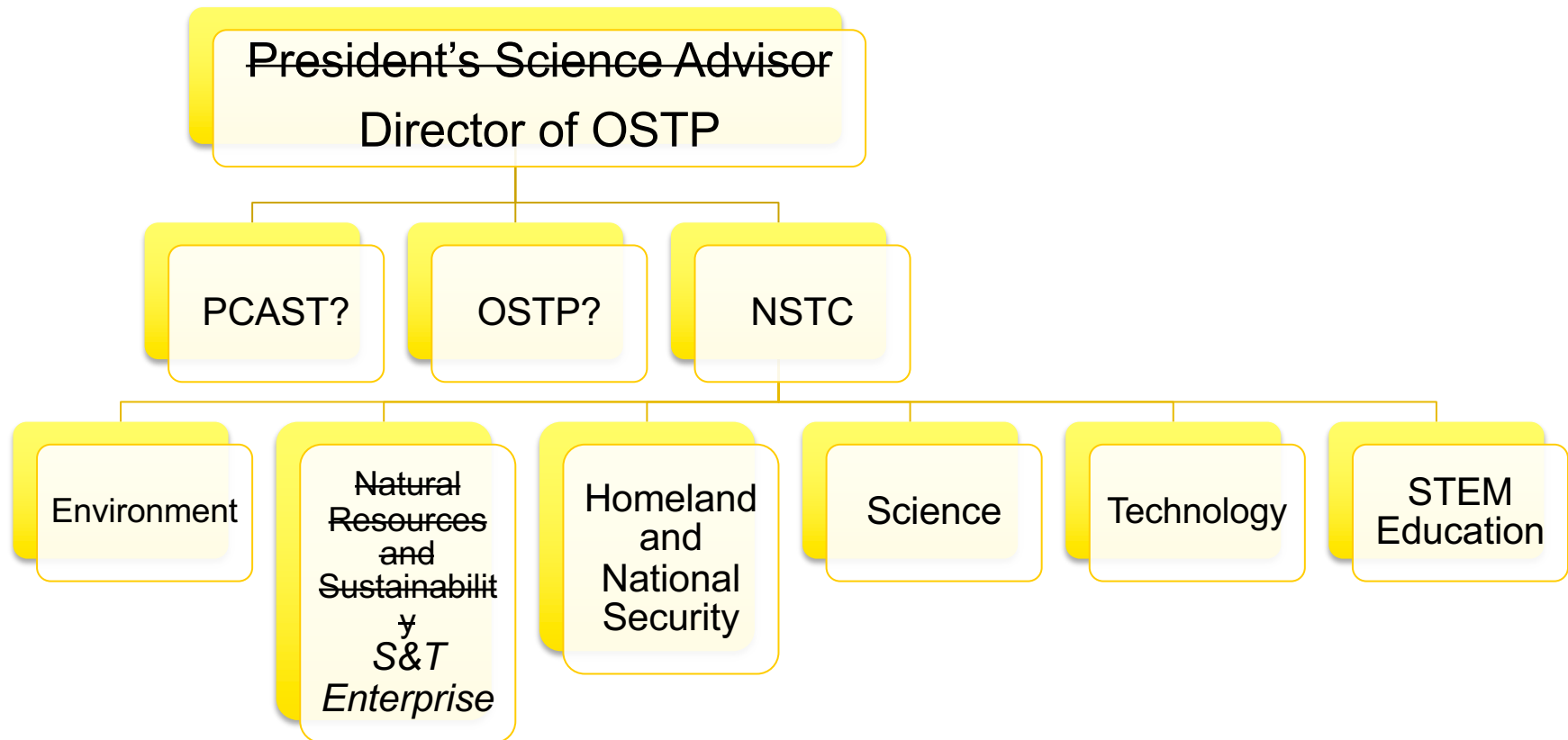
# POTUS 44 Advisory Structure

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# POTUS 45 Advisory Structure

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# My First Meeting – November 2013

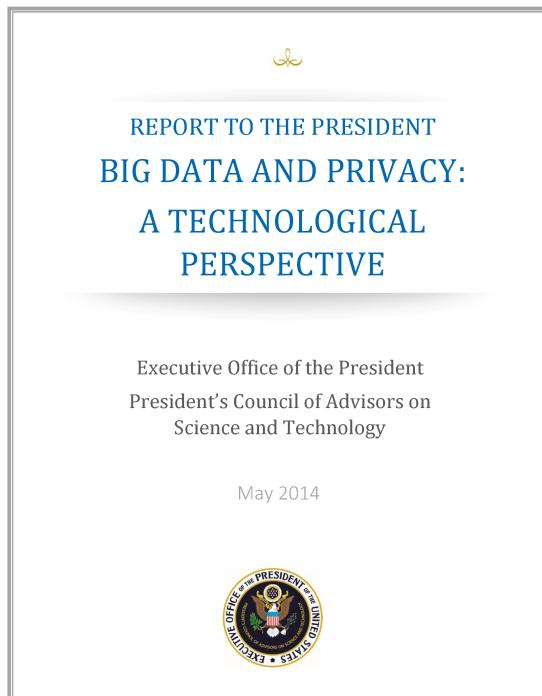
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# Big Data and Privacy

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- May 2013 – Snowden released classified documents
- Jan 2014 – POTUS requested 2 reports
  - Podesta – policy study
  - PCAST – technology study
- I chaired the PCAST study with Bill Press
- POTUS wanted reports in 90 days





# April 2014

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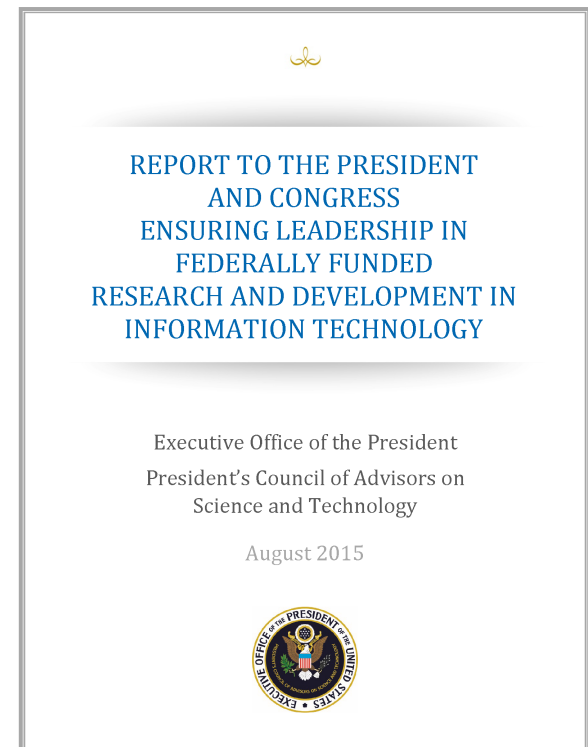
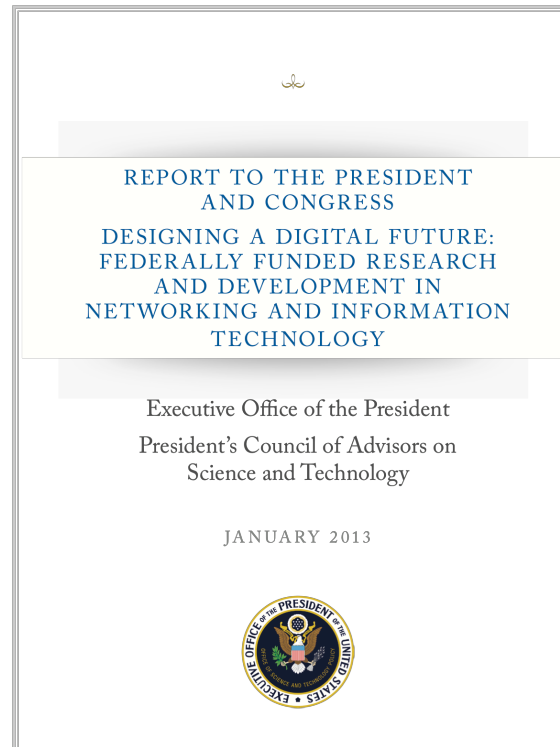
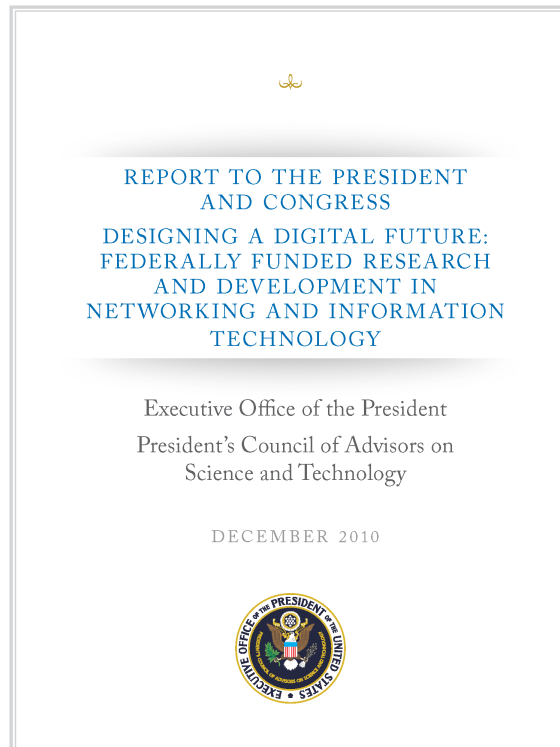


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# NITRD Reviews

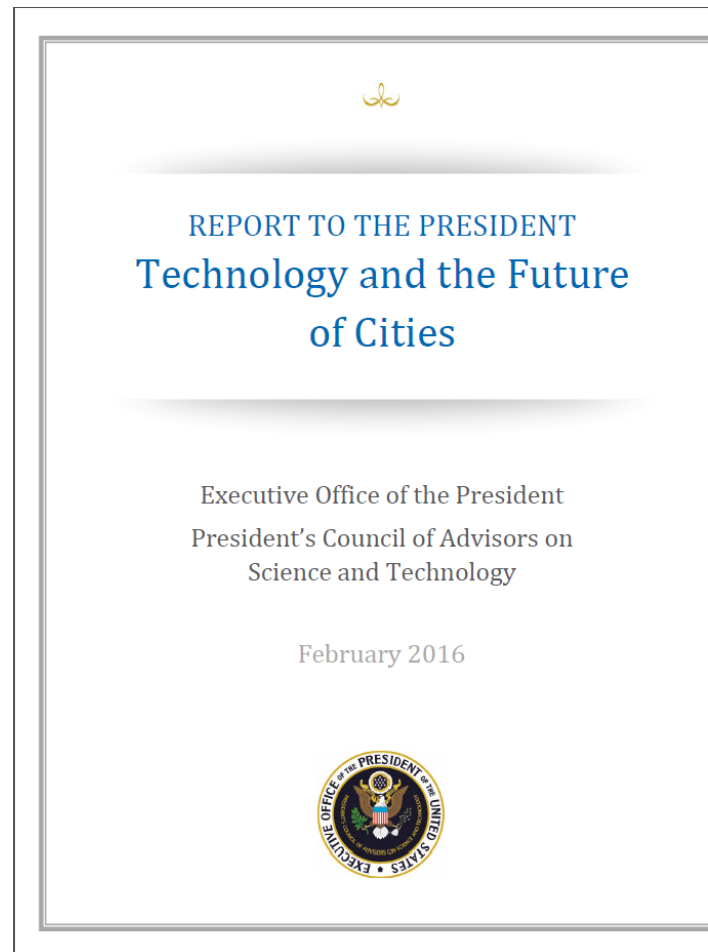
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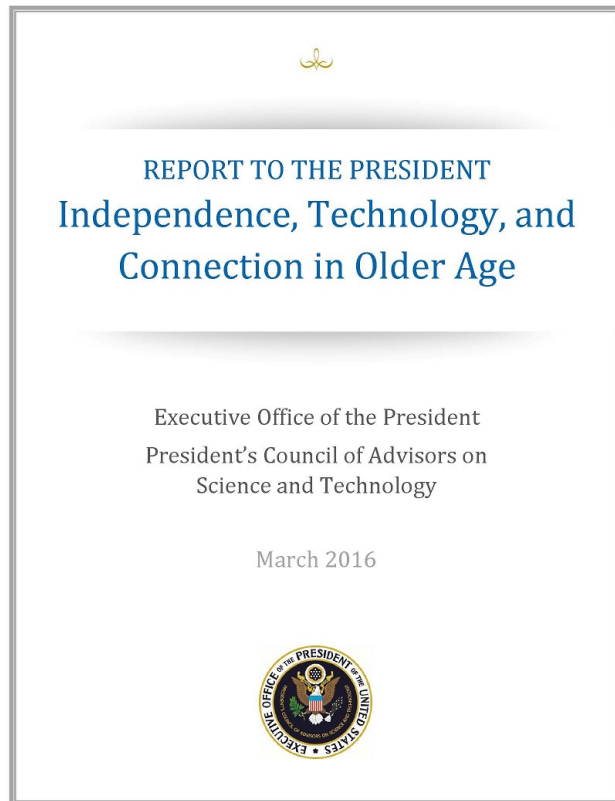
# Technology and the Future of Cities

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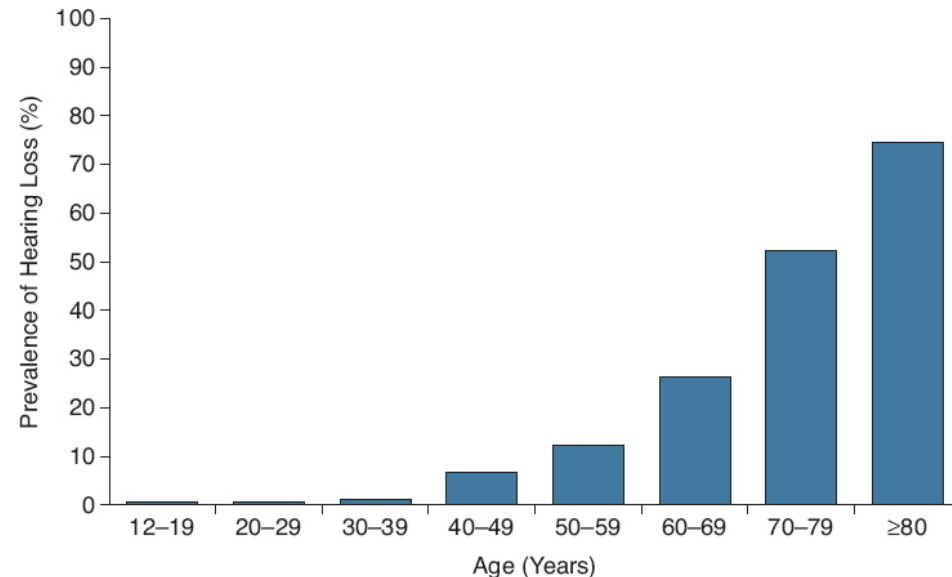


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# Technology and Aging



## Letter report on hearing



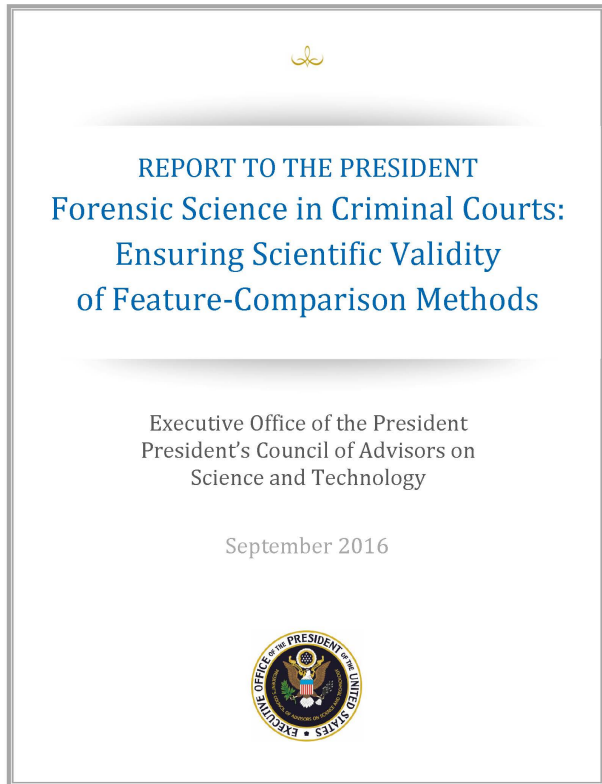
Prevalence of hearing loss in the U. S. 2001–2008.

- Social connectivity and emotional health
- Changes in cognitive ability
-  Changes in physical ability

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# The Science in Forensic Science

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- DNA analysis – single source and simple mixtures
- DNA analysis – complex mixtures
- Bitemark analysis
- Latent fingerprint analysis
- Firearms analysis
- Footwear analysis
- Hair analysis
- Foundational validity
- Validity as applied

**What about digital forensics?**



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# Lessons Learned

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Computing is ubiquitous – it's always relevant.

We are the experts – it's important that we participate.

Showing up isn't enough – have to do the work before and after the meetings

Policy must be resilient in the face of change.

Advising informs our own research - the opportunities to learn are enormous.

A good advisor understands what's needed and how to provide it. If you do a good job, you'll be asked again.



# Questions?

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