THE FEDERAL CASE FOR COMPUTING

PETER HARSHA
CRA

LISPI 2015
APRIL 27-28, 2015

CRA
Computing Research Association

CRA GOVERNMENT AFFAIRS

Me

Brian Mosley
Policy Analyst

CRA
Computing Research Association

STRUCTURE OF THIS TALK

- A bit about CRA and where we fit
- The problems we face
- How we deal with them
- Congressional scrutiny

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Computing Research Association

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Computing Research Association

+ 200+ PhD-granting computing depts.
+ 21 industrial and federal research labs
+ Six affiliated professional societies

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Computing Research Association

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Computing Research Association

Mission: “to unite industry, government and academia to enhance innovation by strengthening research and advanced education in computing.”

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GOAL

Remain the “organization of record” for computing research policy issues

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WE'RE PART OF AN ACTIVE COMPUTING POLICY COMMUNITY

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- ACM Ed Policy/USACM

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- ACM Ed Policy/USACM
- IEEE-CS/IEEE-USA

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- ACM Ed Policy/USACM
- IEEE-CS/IEEE-USA
- SIAM

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- SIAM
- CASC

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- CASC
- EDUCAUSE

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- EDUCAUSE
- AAAI, USENIX

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- AAAI, USENIX
- NCWIT

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- AAAI, USENIX
- NCWIT
- Industry Groups

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- Industry Groups

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INNOVATION POLICY AND MAINTAINING THE HEALTH OF THE RESEARCH ECOSYSTEM

- Research funding and priorities
- Access to talent
- Impediments to research

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STAKES ARE HIGH

Abyssinian Development Corp
Ad Council
Adler Planetarium & Astronomy Museum
Afikim Foundation
Alaska Sealife Center
Alfalit International
Alliance of Nonprofit Mailers
Alliance to Protect Nantucket Sound
Allies for Cherry Point's Tomorrow
Alpha One Foundation
American Assn of Law Libraries
American Assn of Museums
American Commodity Distribution Assn
American Defense Council
American Friends of Hebrew University
American Hellenic Educ Progressive Assn
American Library Assn
American Museum of Natural History
American Society of Plant Biologists
American Tinnitus Assn
American Vets Disabled for Life Memorial
Americans for the Arts
Americans United/Separation Church/State
AmeriDream Inc
Amistad America
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Andre Agassi Charitable Foundation
Appalachia Service Project
Aquarium of the Pacific
Arison Family Trust
Arizona Science Center
Asphalt Green
Assn for Homeowners Across America
Assn of Critical Care Transport
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Attic Correctional Services
August Wilson Cntr/African Amer Culture
Austin Hill Country Conservancy
Benetech Initiative
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Boston Museum of Science
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Cleveland Museum of Art
Climate Protection Action Fund
Cmte Supporting Democ & Justice Pakistan
Coalition for Tax Fairness
Coalition for the Homeless
Common Cause
Communicating for Agriculture
Community Food Security Coalition
Connected Nation Development Corp
Connecticut Center/Science Exploration
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Corporation for Enterprise Development
Council for Citizens Against Govt Waste
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Crim Fitness Foundation
Cure Alzheimers Fund
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12,351

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Lobbying Expenditures

$3.23 billion

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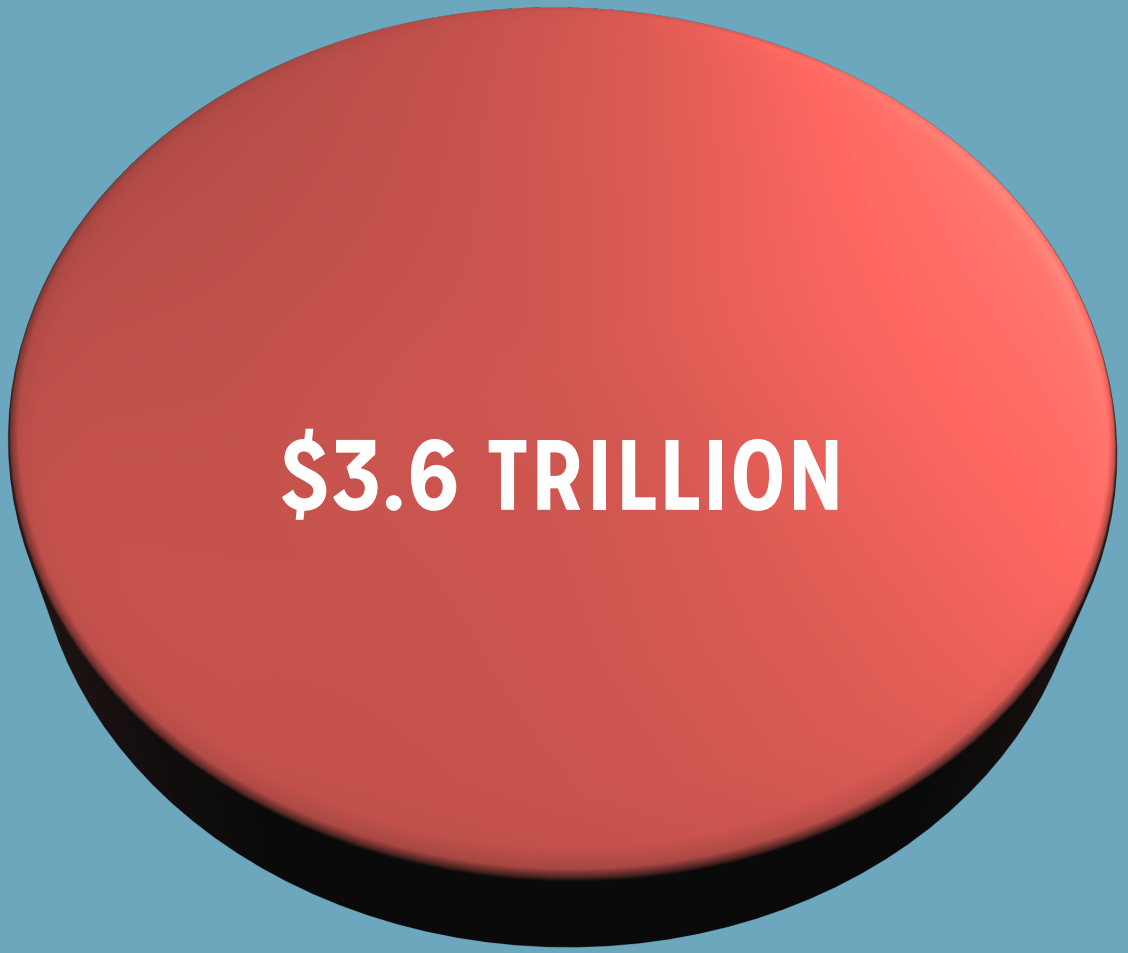
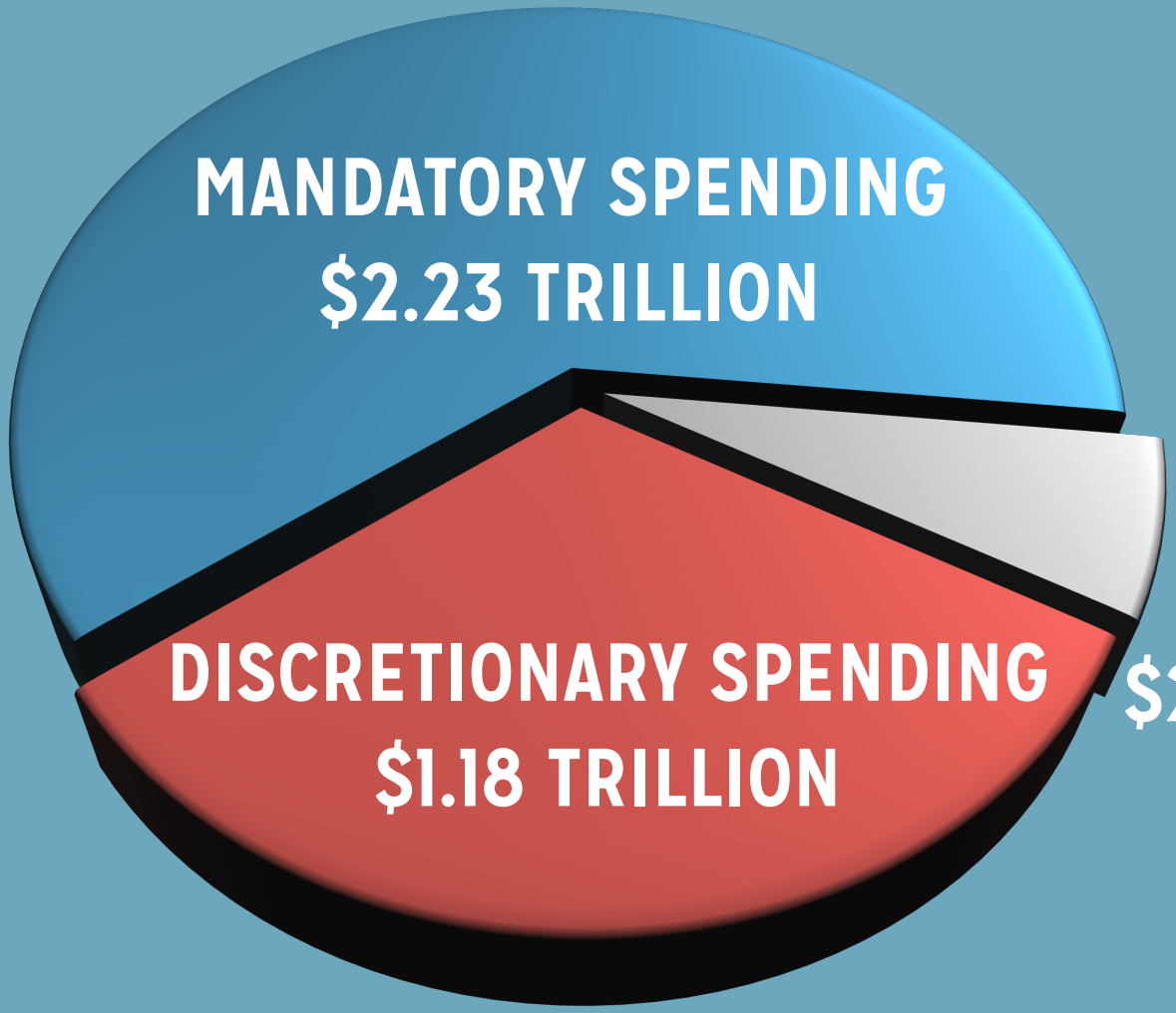
Big Brothers/Big Sisters of America
Bipartisan Advocacy Center
Bipartisan Policy Center
Bipartisan Policy Ctr Advocacy Network
Boston Museum of Fine Arts
Boston Museum of Science
Civil War Preservation Trust
Cleveland Museum of Art
Climate Protection Action Fund
Cmte Supporting Democ & Justice Pakistan
Coalition for Tax Fairness
Coalition for the Homeless
Committee for Agriculture
Community Food Security Coalition
Connected Nation Development Corp
Connecticut Center/Science Exploration
Corporation for Public Broadcasting
Council for Citizens Against Govt Waste
Council on Foundations
Crim Fitness Foundation
Cure Alzheimer's Fund
Dallas Boys & Girls Ranch
DC Central Kitchen
Democracy 21
Denver Museum of Nature & Science
Discovery Science Center
Duluth Children's Museum
EDMC Group
Envision
Families of Flight 93
Federation of State Humanities Council
Field Museum
Fight Crime: Invest in Kids
First Candle
Fort Wayne/Allen County Economic
Fraternal Order of Eagles
Friends of Charities Assn
Friends of the Griffith Observatory
Friends of the World Food Program
From the Top
Future of Music Coalition
John G Shedd Aquarium
Kansas Bioscience Authority
Kessler Foundation
Kulanu
Lance Armstrong Foundation
League of Women Voters of the US
Liberty Science Center
Library Copyright Alliance
Light House International
Lincoln Park Zoo
Local Initiatives Support Corp
Lymphoma Research Foundation
Make It Right Foundation
Maltz Museum of Jewish Heritage
Mansfield Foundation
MERS/Missouri Goodwill Industries
Metropolitan Museum of Art
Miami Museum of Science & Space Trans
Miami Project to Cure Paralysis
Michigan Research Institute
Midpeninsula Regional Open Space Dist
Military Child Education Coalition
Missouri Botanical Garden
Missouri Public Transit Assn
Monterey Bay Aquarium
Mote Marine Laboratory
Muscular Dystrophy Assn
Museum of Flight
Museum of Latin American Art
Museum of Science & Industry
Museum of the City of New York
My Turn Inc
Mystic Marine Life Aquarium
Mystic Seaport Museum
National Aquarium in Baltimore
National Aviary
National Building Museum
National Center for State Courts
National Center for Victims of Crime

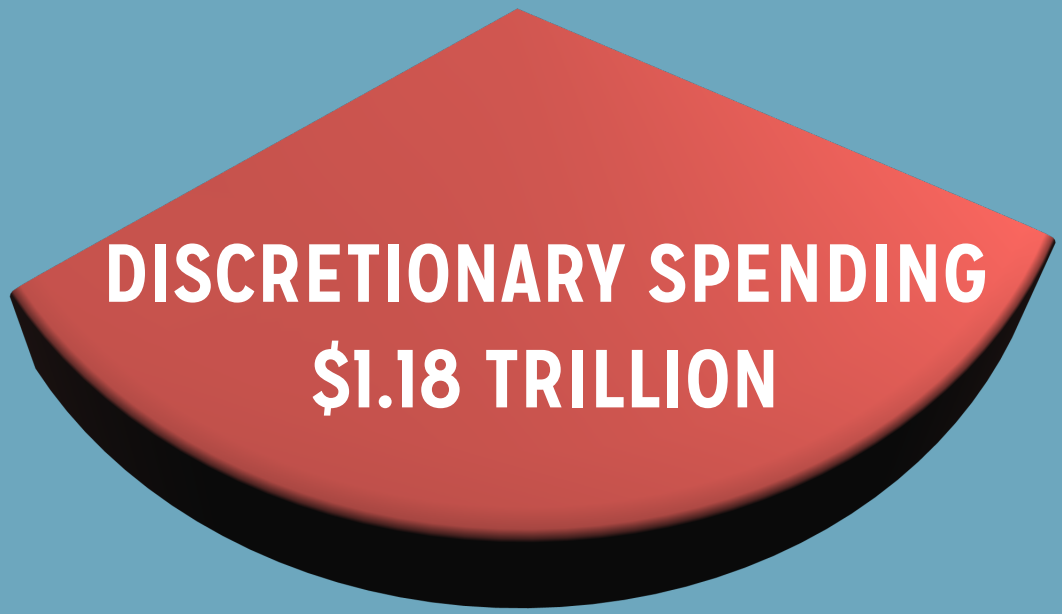
FY 2014 FEDERAL BUDGET



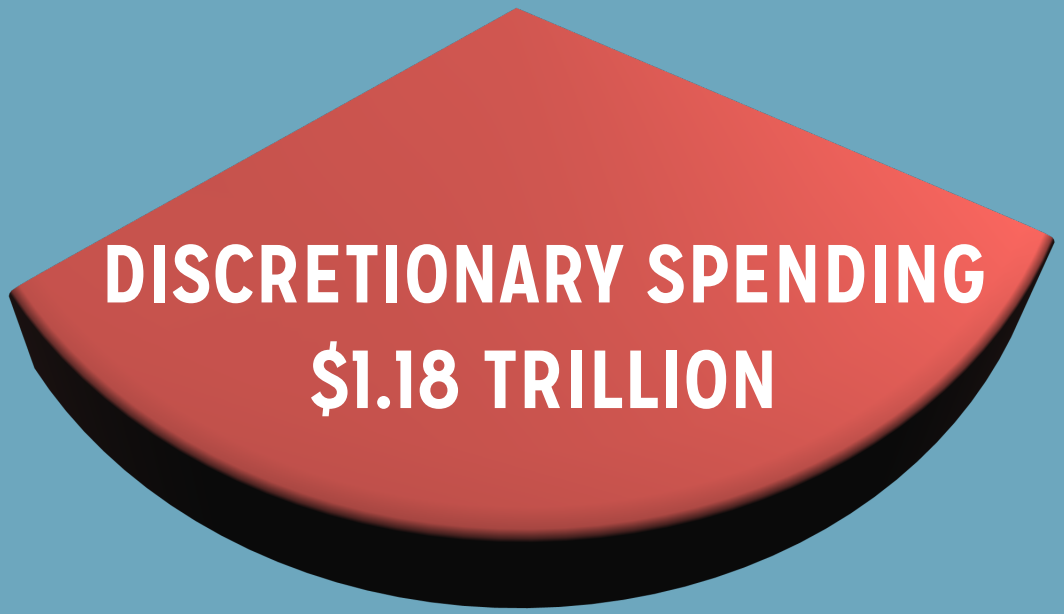
FY 2014 FEDERAL BUDGET



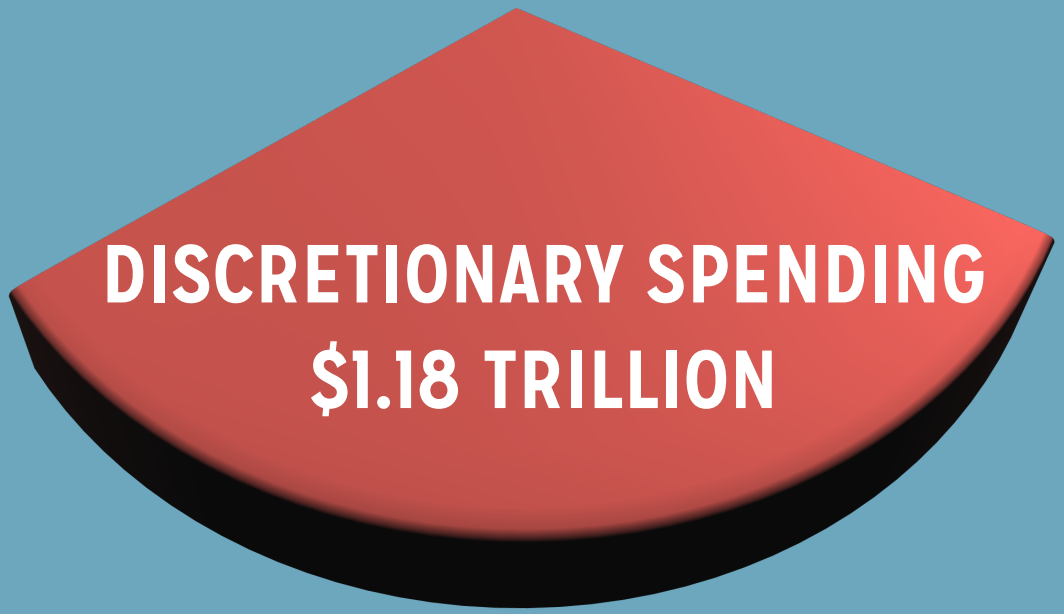
FY 2014 FEDERAL BUDGET



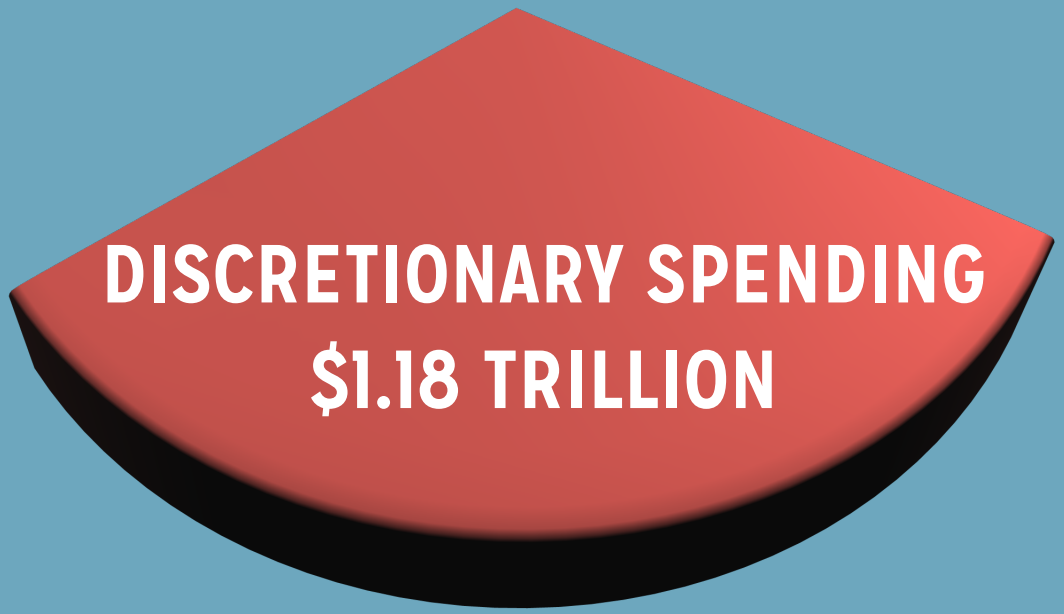
FY 2014 FEDERAL BUDGET



FY 2014 FEDERAL BUDGET



FY 2014 FEDERAL BUDGET



Agriculture
CJS
Defense
Energy and Water
Financial Services
Homeland Security
Interior and Environment
Labor/HHS/Education
Legislative Branch
Military/Veterans
State/Foreign Ops
Transportation/HUD

APPROPRIATIONS IS A ZERO-SUM GAME

Commerce, Justice, Science Bill

- National Science Foundation
- NIST
- NOAA
- NASA
- FBI / Dept. of Justice
- Census

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NSF, COPS OR SPACESHIPS?

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THE CHALLENGES WE FACE

FISCAL REALITIES…

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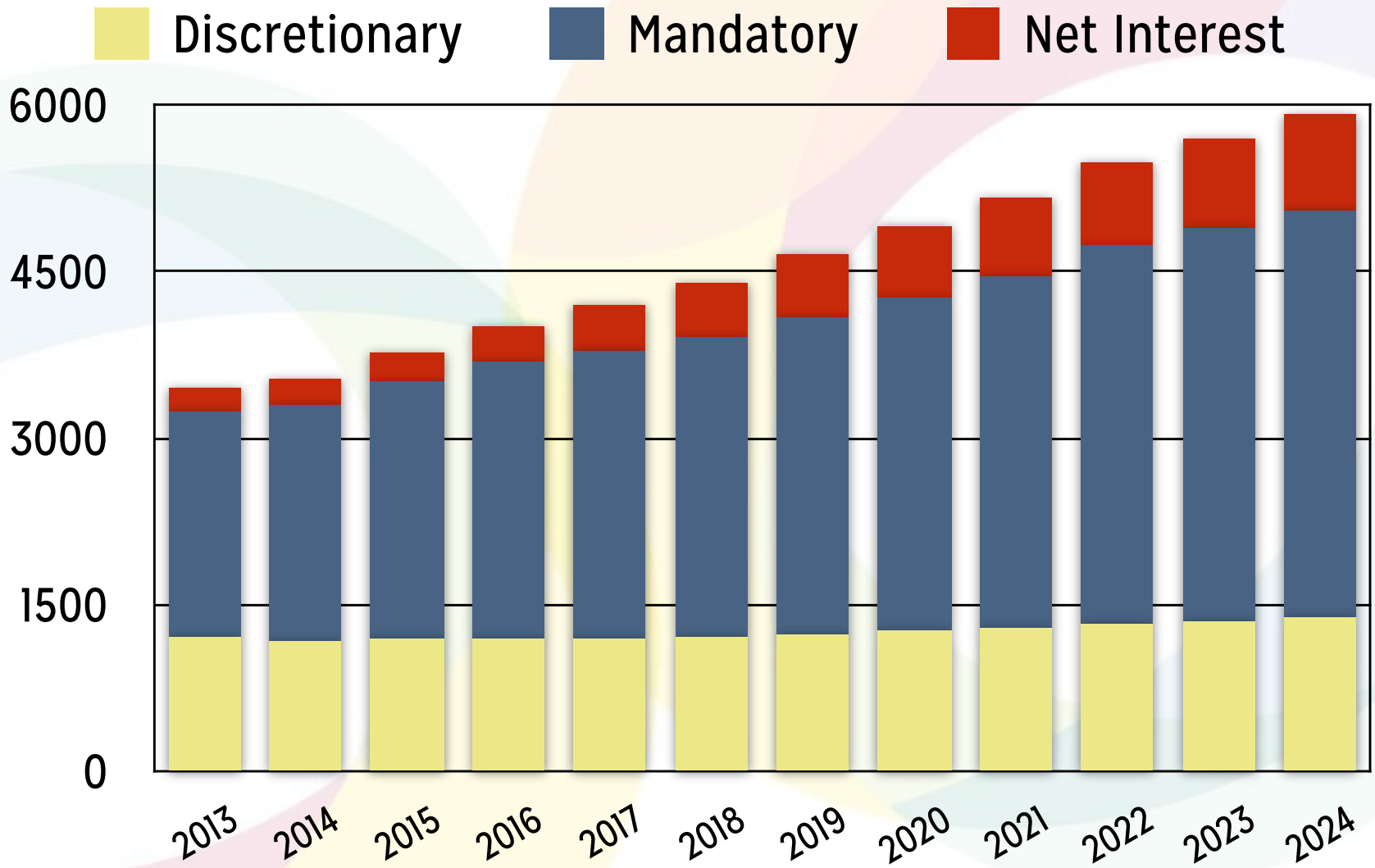
Growth in Mandatory Spending vs. Discretionary



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Running the government on 8¢

BY 2020, FOUR BIG ITEMS COULD SUCK UP 92% OF TAX DOLLARS

EVERYTHING ELSE Children's nutrition, Border security, Food safety and inspection, Disaster relief, Forest service, Drug Enforcement Administration, Public housing, IRS, Animal & plant health inspection, Federal courts, Bureau of Indian Affairs, NASA, Army, National Endowment for the Arts, Air Force, Federal student loans, Marines, Rural development, U.S. Coast Guard, Food stamps, National park service, Income assistance, Family services, Research and development, U.S. Geological Survey, Environmental Protection Agency, Centers for Disease Control, FEMA, Immigration and customs, Secret Service, FAA, Housing for the elderly, Federal Railroad Administration, Navy, Bureau of Land Management, Federal prison system, Peace Corps, FCC, State Department, National Science Foundation, Congress, Fish and Wildlife Service, White House, SEC, Smithsonian Institute, Small Business Administration, FBI, Federal Highway Admin ■ ■ ■

PHOTO: JOHN R. COUGHLIN/CNNMONEY. SOURCE: GOVERNMENT ACCOUNTABILITY OFFICE

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ATTITUDES HAVE CHANGED

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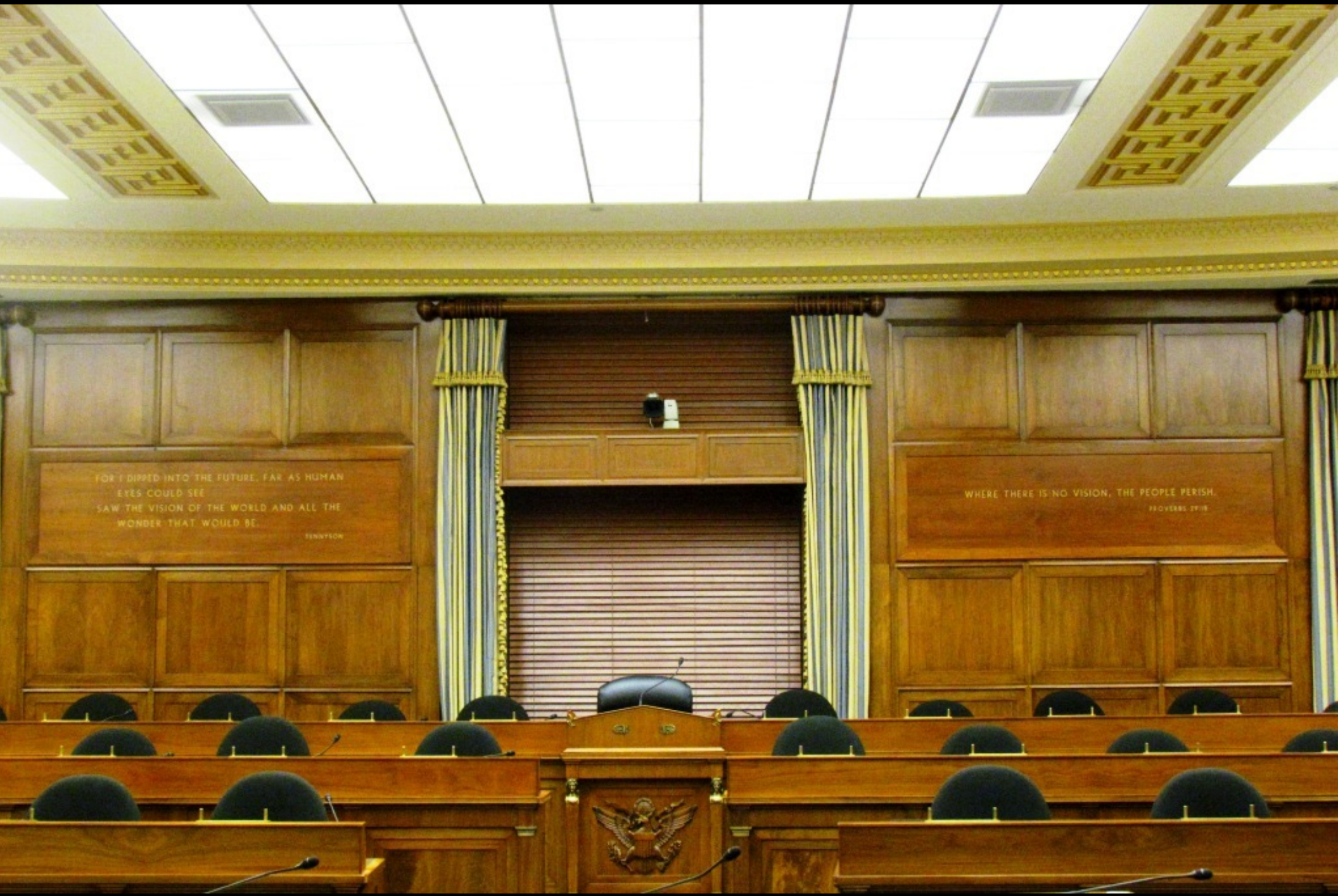
FOR I DIPPED INTO THE FUTURE, FAR AS HUMAN
EYES COULD SEE
SAW THE VISION OF THE WORLD AND ALL THE
WONDER THAT WOULD BE.
TENNYSON
WHERE THERE IS NO VISION, THE PEOPLE PERISH.
PROVERBS 29:18

- Comity and bipartisanship on the committee probably peaked in about 2007-8 with *Gathering Storm* and the America COMPETES Act
- Breakdown started in earnest in 2010, during reauthorization of COMPETES
- GOP tried to kill bill to deny Dems a win in an election year

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- In 2012, Sen. Tom Coburn attacked NSF as wasteful for “silly-sounding” research
- In 2013, Coburn/McCain and Cantor/L. Smith attacked NSF over political science and social science funding
- L. Smith attacks Dept. of Energy over Climate Change and Sustainability research
- L. Smith amends CJS to target SBE

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AMERICA COMPETES

- FIRST Act of 2014 -> America COMPETES Reauthorization Act of 2015
- NSF “Accountability”
- Modest increases for computing research and other “hard science” accounts
- Specific cuts to SBE, GEO
- Energy R&D Title similarly partisan

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AMERICA COMPETES

- Marked up and passed out of committee on April 22nd
- Straight party-line vote
- Uncertain future…
- CRA opposed

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- Exodus of experienced GOP staffers
- Things could get worse

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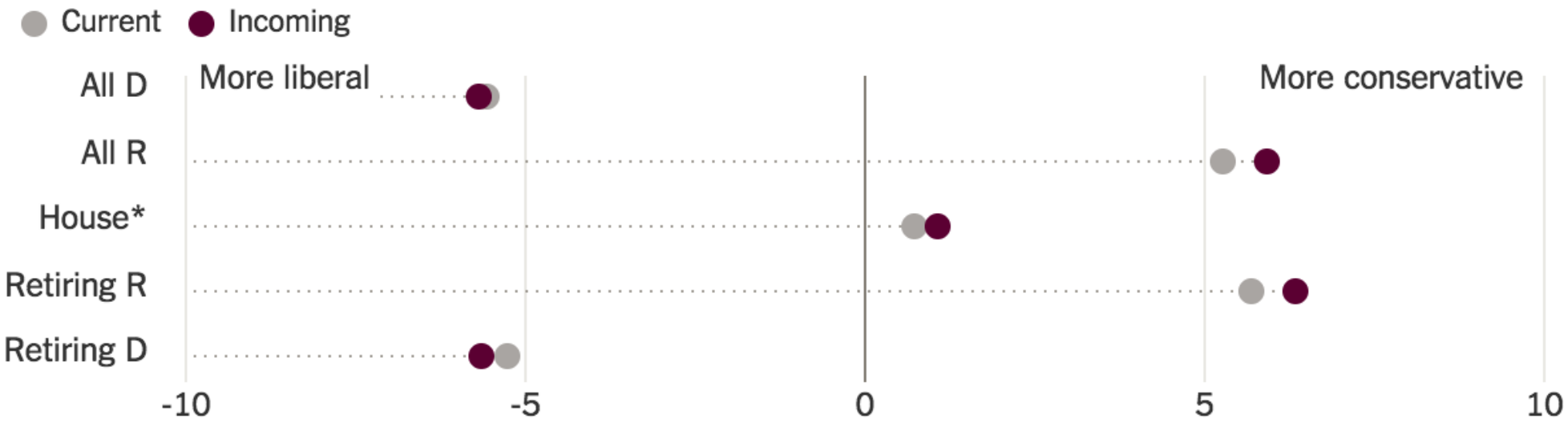
- Exodus of experienced GOP staffers
- Things could get worse



Fourteen seats remained uncalled. Scores for retiring lawmakers are for seats won by the same party.

Source: Crowdpac, Associated Press

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CONGRESS IS MORE POLARIZED THAN EVER

- Not a single Democratic Senator was more conservative than any GOPer. Not a single GOP Senator is more liberal than any Dem.
- The House is equally polarized, with only five GOPers ranking more liberal than the most conservative Dem, and only four Dems more conservative than the most liberal Republican.

From a 2011 National Journal Study of the 2010 election cycle.

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CONGRESS IS MORE POLARIZED THAN EVER

- Of the 98 Democrats who had the most middle-of-the-road voting records in the last Congress, 55 of their seats are now in GOP hands.

From a 2011 National Journal Study of the 2010 election cycle.

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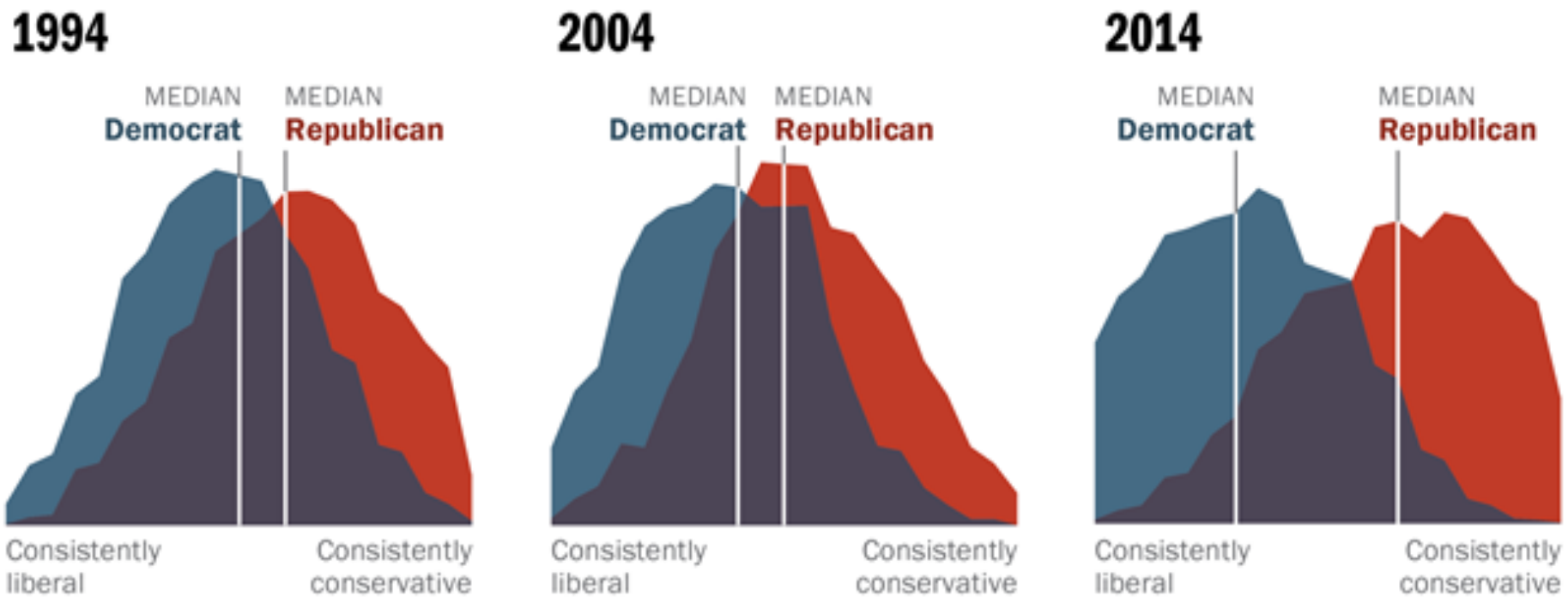
Democrats and Republicans More Ideologically Divided than in the Past

Distribution of Democrats and Republicans on a 10-item scale of political values



Source: 2014 Political Polarization in the American Public

Notes: Ideological consistency based on a scale of 10 political values questions (see Appendix A). The blue area in this chart represents the ideological distribution of Democrats; the red area of Republicans. The overlap of these two distributions is shaded purple. Republicans include Republican-leaning independents; Democrats include Democratic-leaning independents (see Appendix B).

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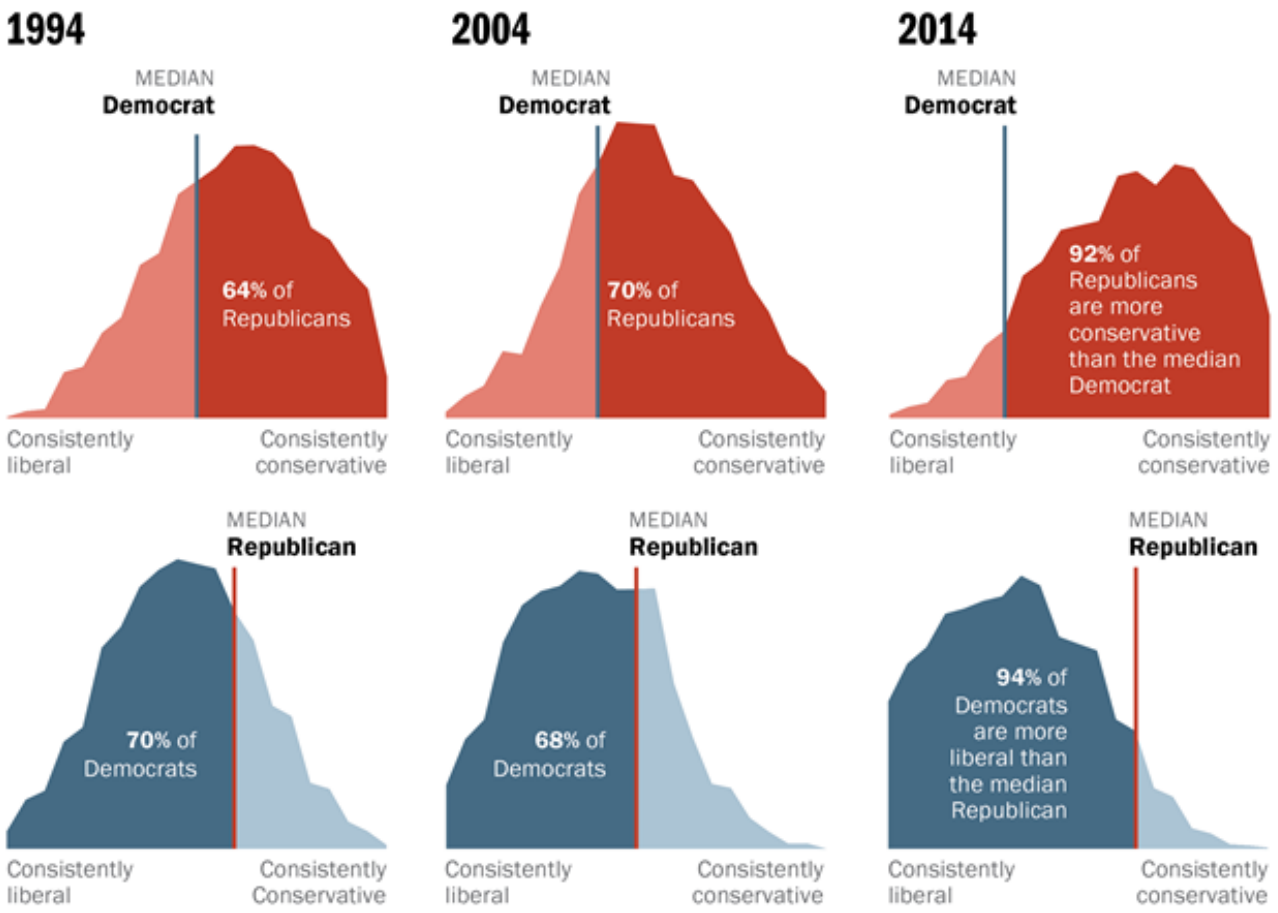
Republicans Shift to the Right, Democrats to the Left

Distribution of Republicans and Democrats on a 10-item scale of political values



Source: 2014 Political Polarization in the American Public
Notes: Ideological consistency based on a scale of 10 political values questions (see Appendix A). Republicans include Republican-leaning independents; Democrats include Democratic-leaning independents (see Appendix B).

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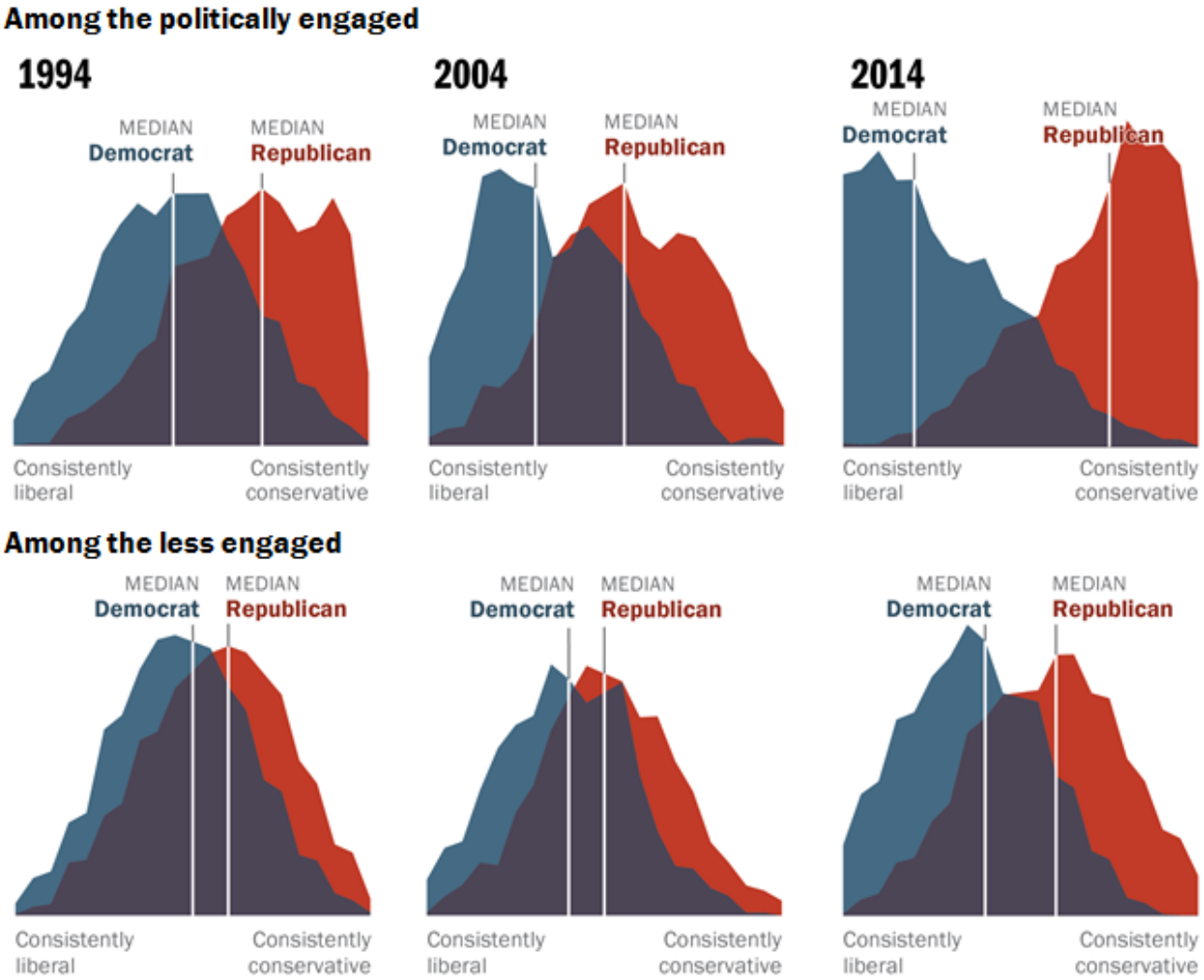
Polarization Surges Among the Politically Engaged

Distribution of Democrats and Republicans on a 10-item scale of political values, by level of political engagement



Source: 2014 Political Polarization in the American Public

Notes: Ideological consistency based on a scale of 10 political values questions (see Appendix A). Republicans include Republican-leaning independents; Democrats include Democratic-leaning independents (see Appendix B). Politically engaged are defined as those who are registered to vote, follow government and public affairs most of the time and say they vote always or nearly always.

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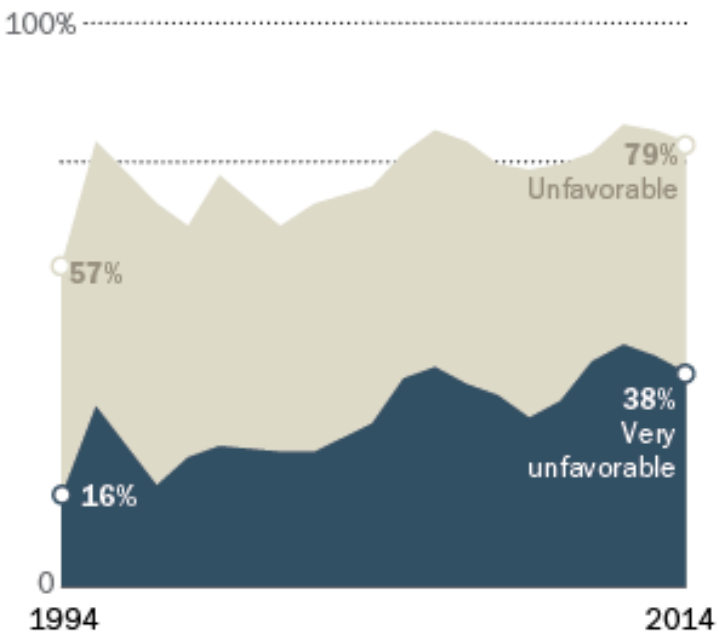
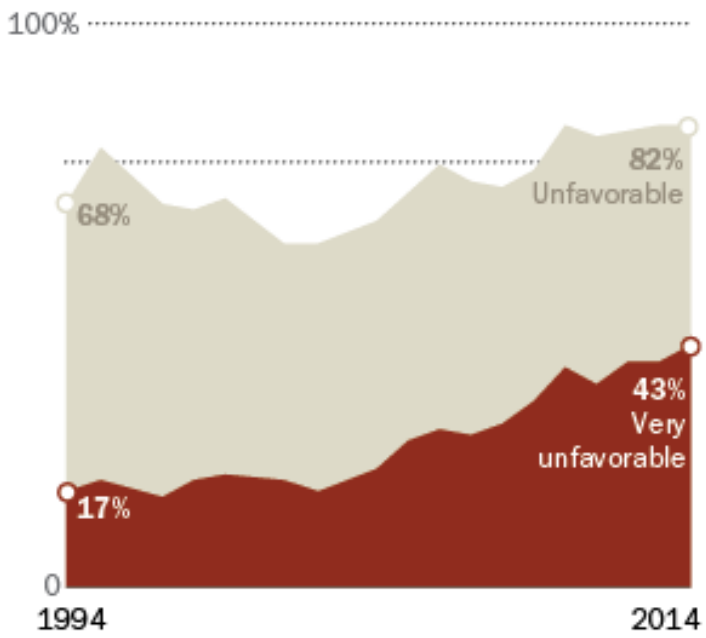
A Rising Tide of Mutual Antipathy

Democratic *attitudes about the* **Republican Party**



Republican *attitudes about the* **Democratic Party**



Source: 2014 Political Polarization in the American Public
Notes: Republicans include Republican-leaning independents; Democrats include Democratic-leaning independents.

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SO THE CHALLENGES ARE DAUNTING

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AND WE HAVE A MUCH MORE LIMITED TOOL BOX…

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FORTUNATELY, WE'VE GOT A PRETTY GOOD STORY

TALKING POINTS

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INFORMATION TECHNOLOGY R&D AND U.S. INNOVATION

- **Advances in information technology are transforming all aspects of our lives**: commerce, education, employment, health care, manufacturing, government, national security, communications, entertainment, science, and engineering.

- **Advances in information technology also drive our economy** – both directly (the growth of the IT sector itself) and in productivity gains across the economy. Advances in computing are enabling innovation in all fields.

- **The history of innovation in computing is impressive, but the future opportunities are even more compelling**: the future of networking, revolutionizing transportation, personalized education, powering the smart grid, empowering the developing world, improving health care, enabling advanced manufacturing, driving advances in *all* fields of science and engineering.

It's impossible to imagine a field with greater opportunity to change the world.

- **The IT R&D ecosystem is crucial to continued innovation in IT, and federal support is at the heart of that ecosystem.** Essentially every aspect of IT upon which we rely today bears the stamp of federal support.

"In order to sustain and improve our quality of life, it is crucial that the United States continue to innovate more rapidly and more creatively than other countries in important areas of IT. Only by continuing to invest in core IT science and technology will we continue to reap such enormous societal benefits in the decades to come."

– President's Council of Advisors for Science and Technology
(in *Designing a Digital Future*, December 2010)

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Advances in IT are transforming all aspects of our lives

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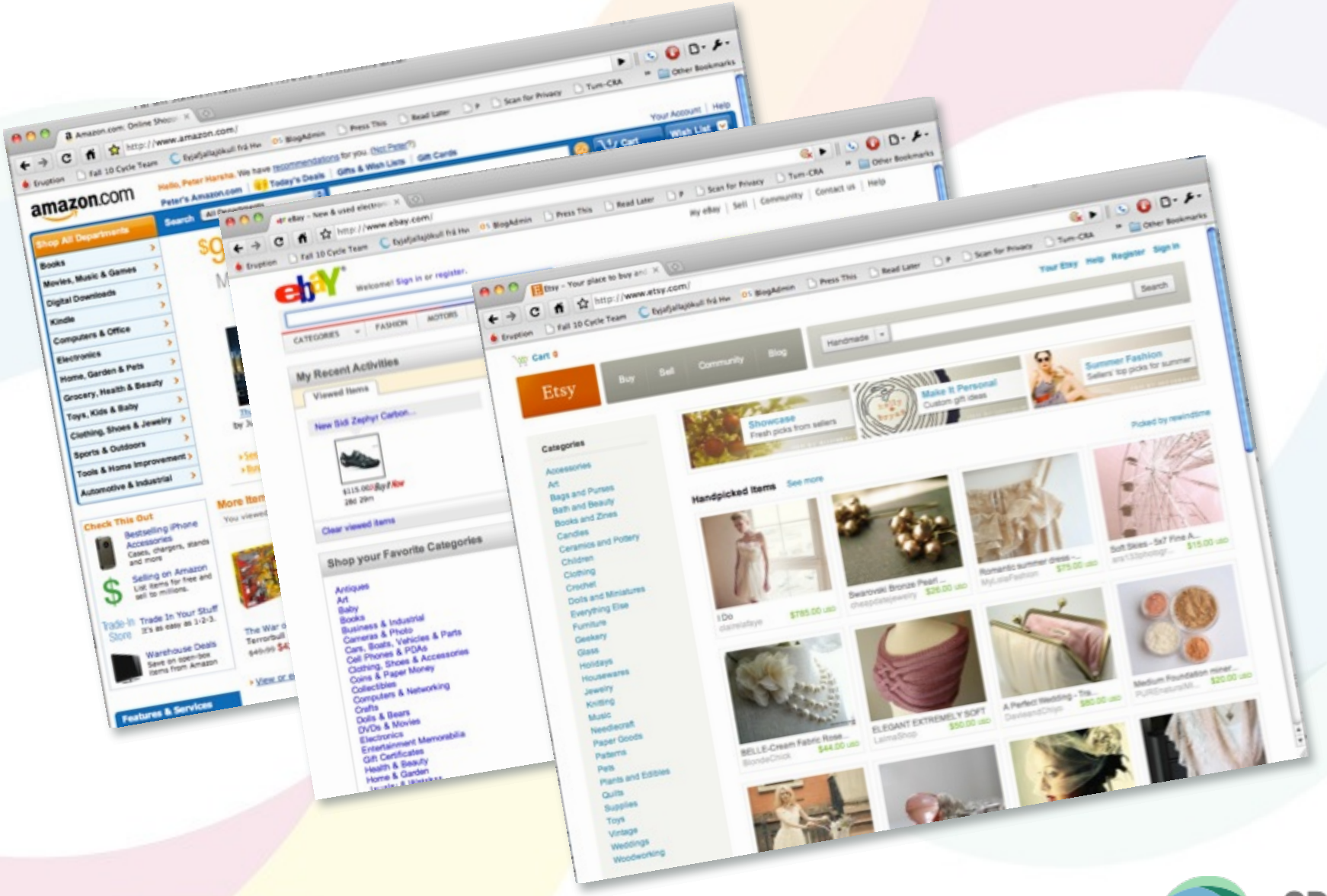

Conduct commerce…

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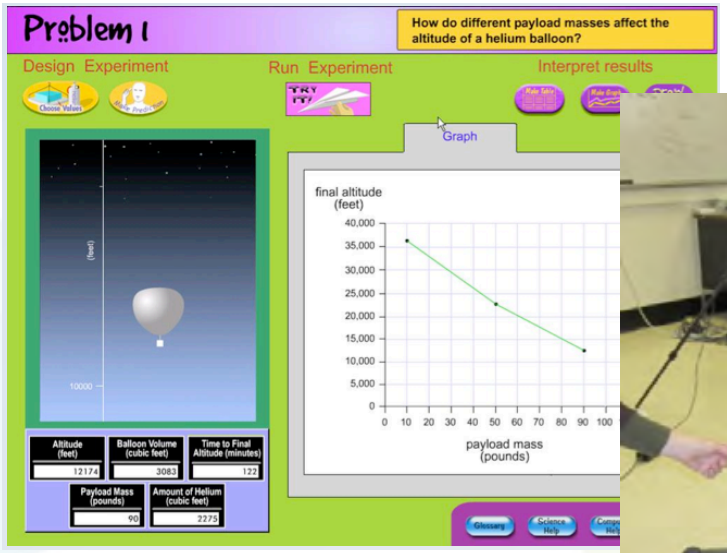

...how we learn...

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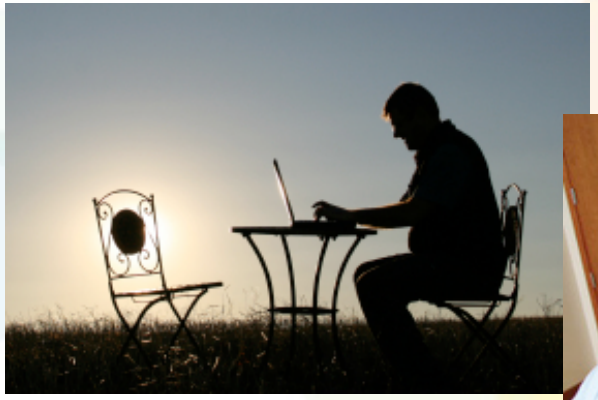

...our employment...

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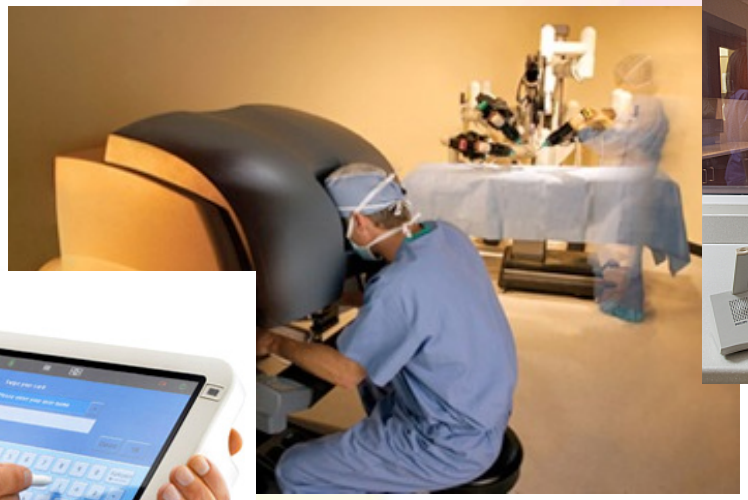
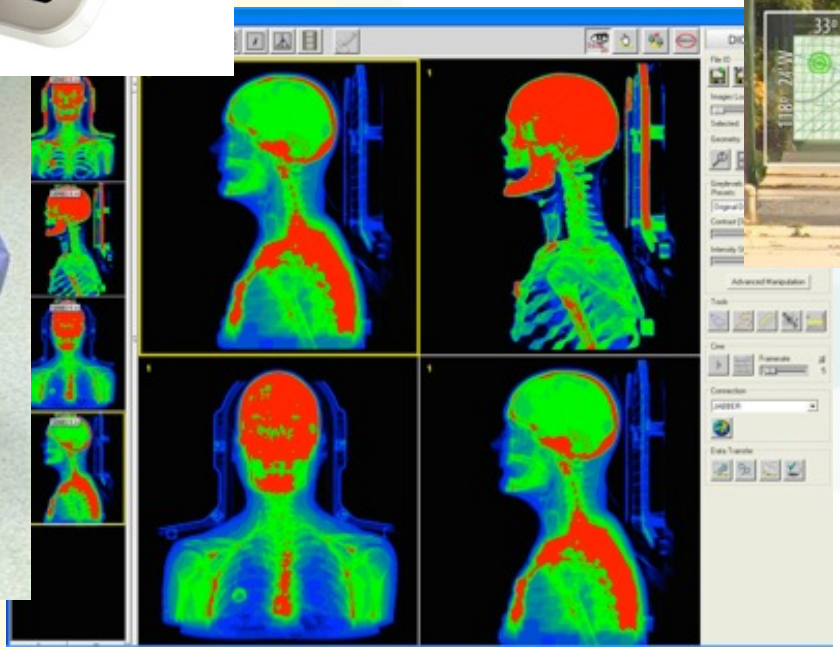
...our health care...





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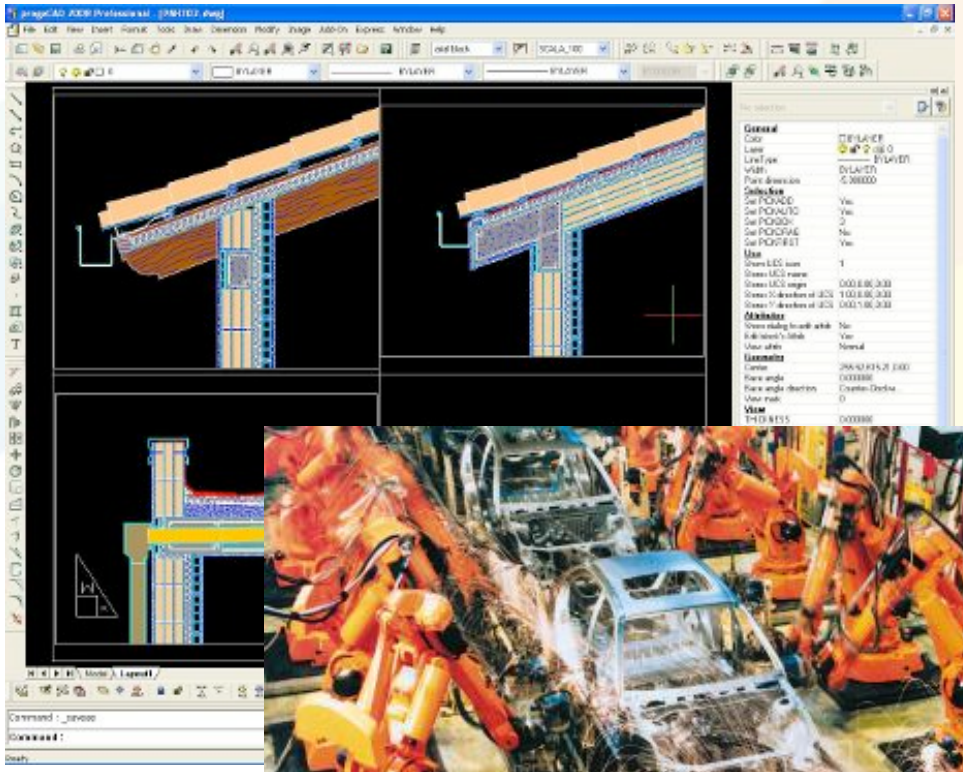
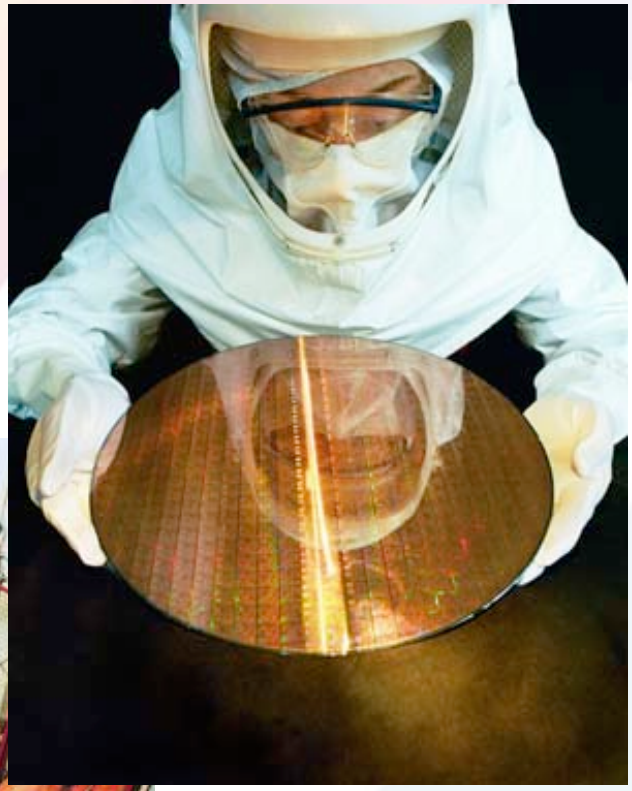
...how we manufacture...





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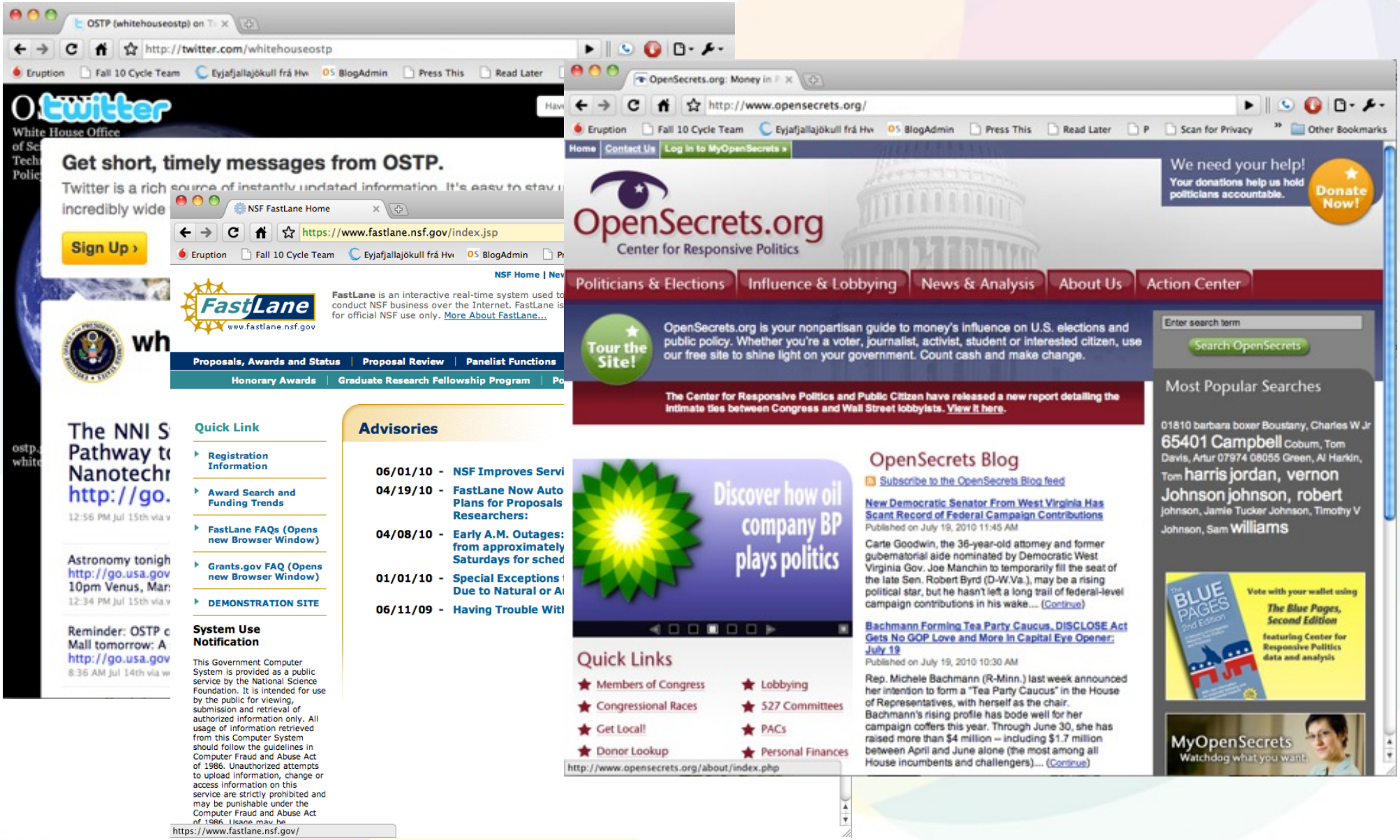

...how government functions...

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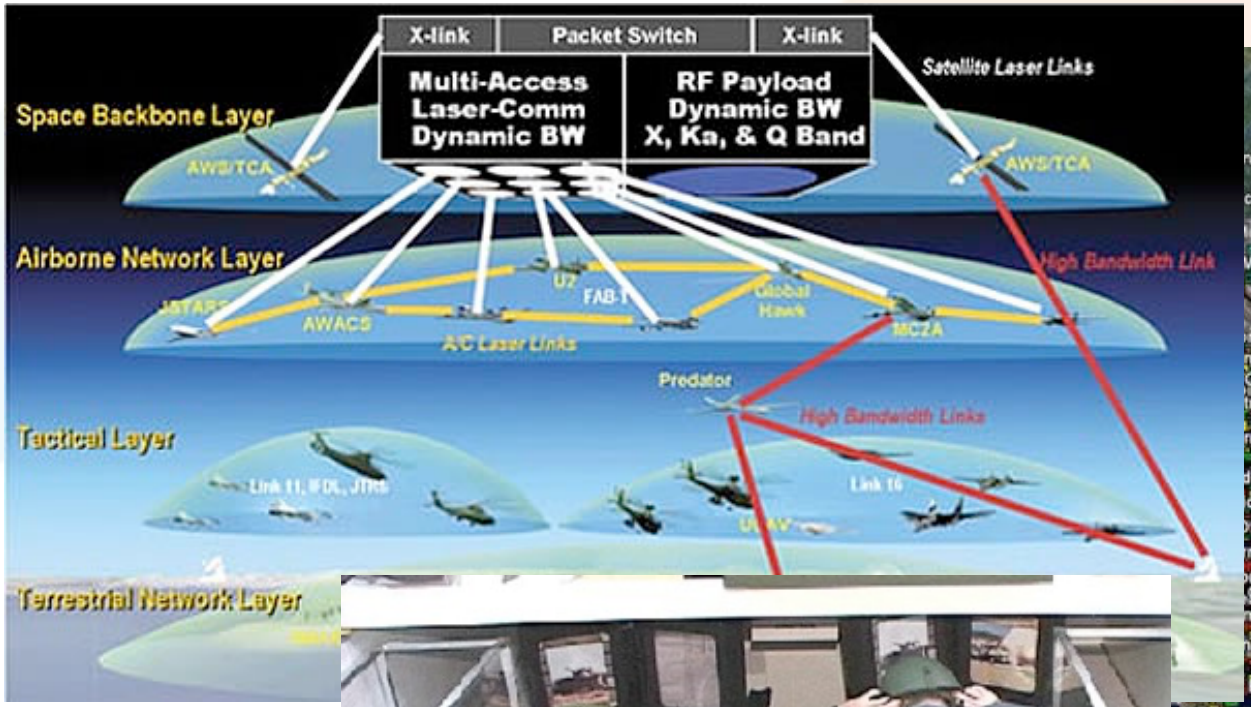
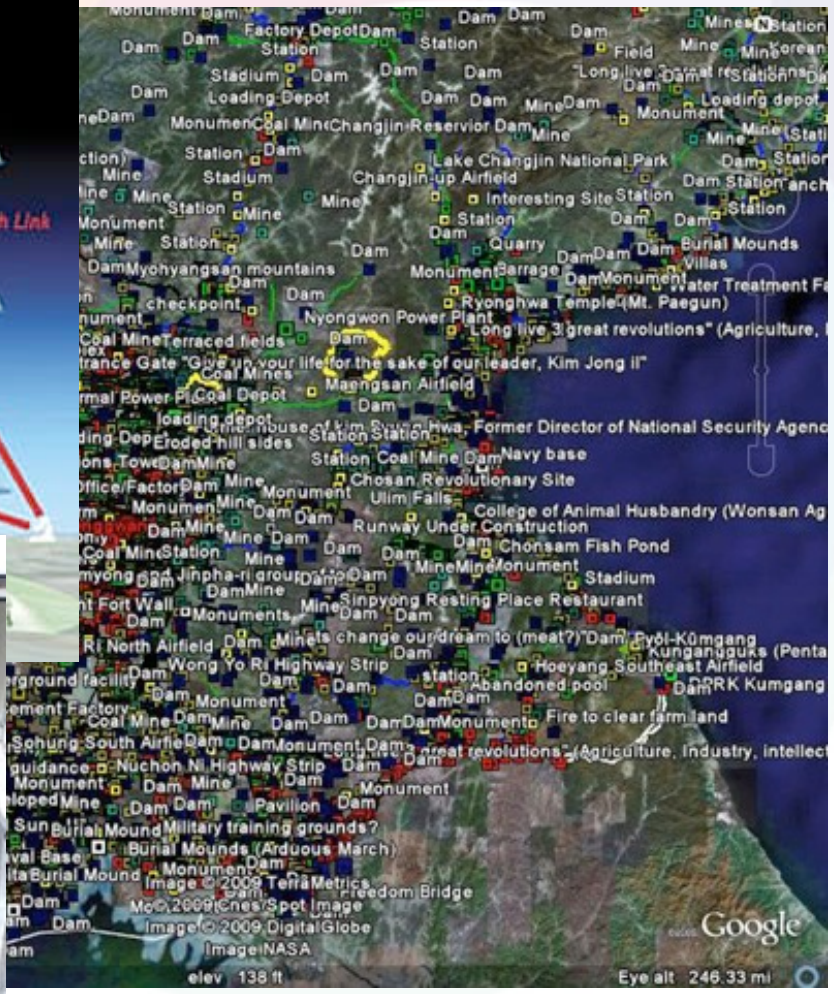
…how we preserve our national security…





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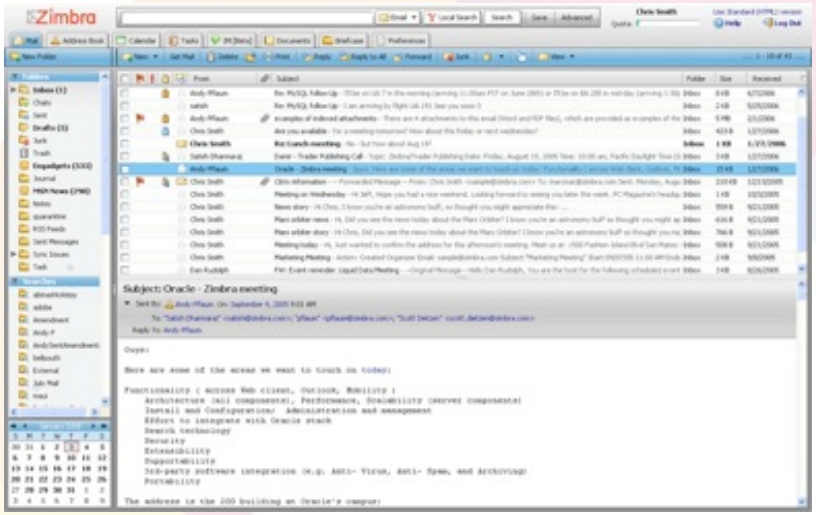

...how we communicate...

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...and how we're entertained.

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Advances in IT also drive our economy

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- Computing drives our economy, not just through the growth of the IT industry, but also through productivity gains across the entire economy
- Remarkable economic growth between ’95 and ’02 was spurred by productivity growth enabled almost completely by factors related to IT[1]
- IT enables productivity growth, enables the economy to run at full capacity, enables goods to be allocated more efficiently and the production of higher quality goods and services[2]

1. Jorgenson, Dale W., Mus S. Ho, and Kevin J. Stiroh. Productivity, Volume 3: Information Technology and the American Growth Resurgence. MIT Press. 2005.
2. Atkinson, Robert D., Andrew S. McKay. Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution. Information Technology and Innovation Foundation. 2007.

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Advances in computing are enabling innovation in all other fields…

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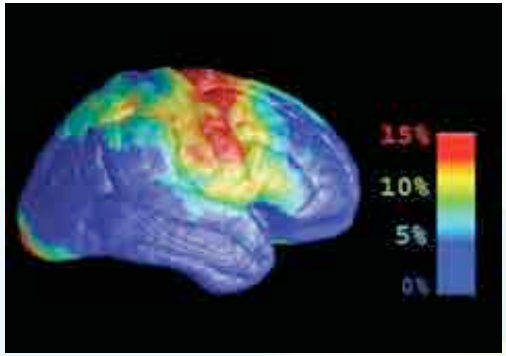
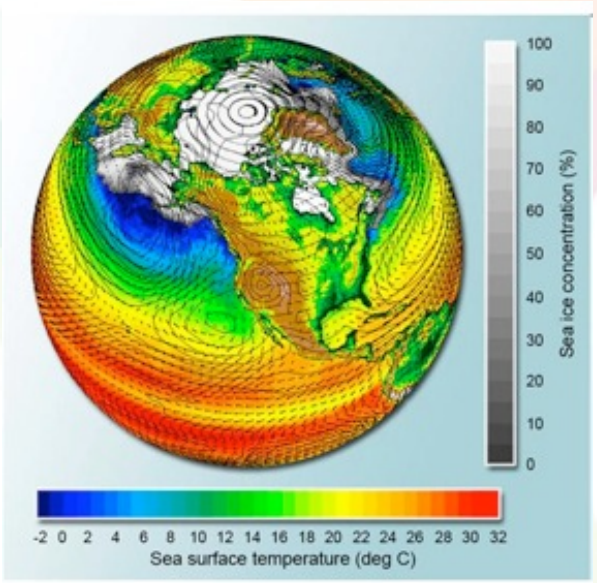
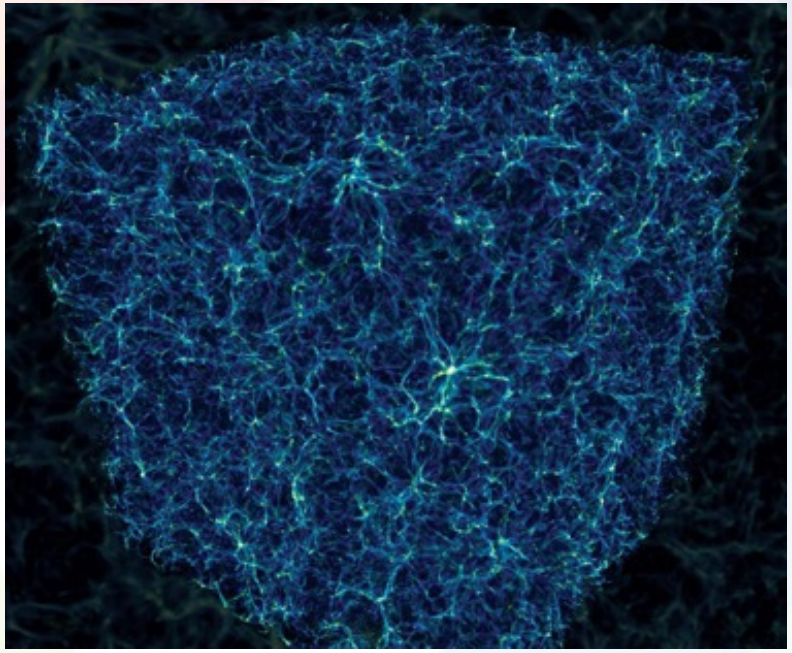
In Science and Engineering…







Created by Matthew Hall of NCSA's Advanced Visualization Laboratory

Computer modeling, visualization and data analysis have joined observation, theory, and experiment as the drivers of scientific discovery.

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The history is impressive, but the future is even more compelling

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- The future of networking
- Revolutionizing transportation
- Delivering personalized education
- Enabling the smart grid
- Empowering the developing world
- Improving health care
- Driving advances in *all* fields of S&E

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It’s impossible to imagine a field with greater opportunity to change the world

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The IT R&D ecosystem is crucial to innovation in IT, and federal support is at the heart of that ecosystem

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“ [An] extraordinarily productive interplay of federally funded university research, federally and privately funded industrial research, and entrepreneurial companies founded and staffed by people who moved back and forth between universities and industry.”

-NRC on the federal IT R&D Program

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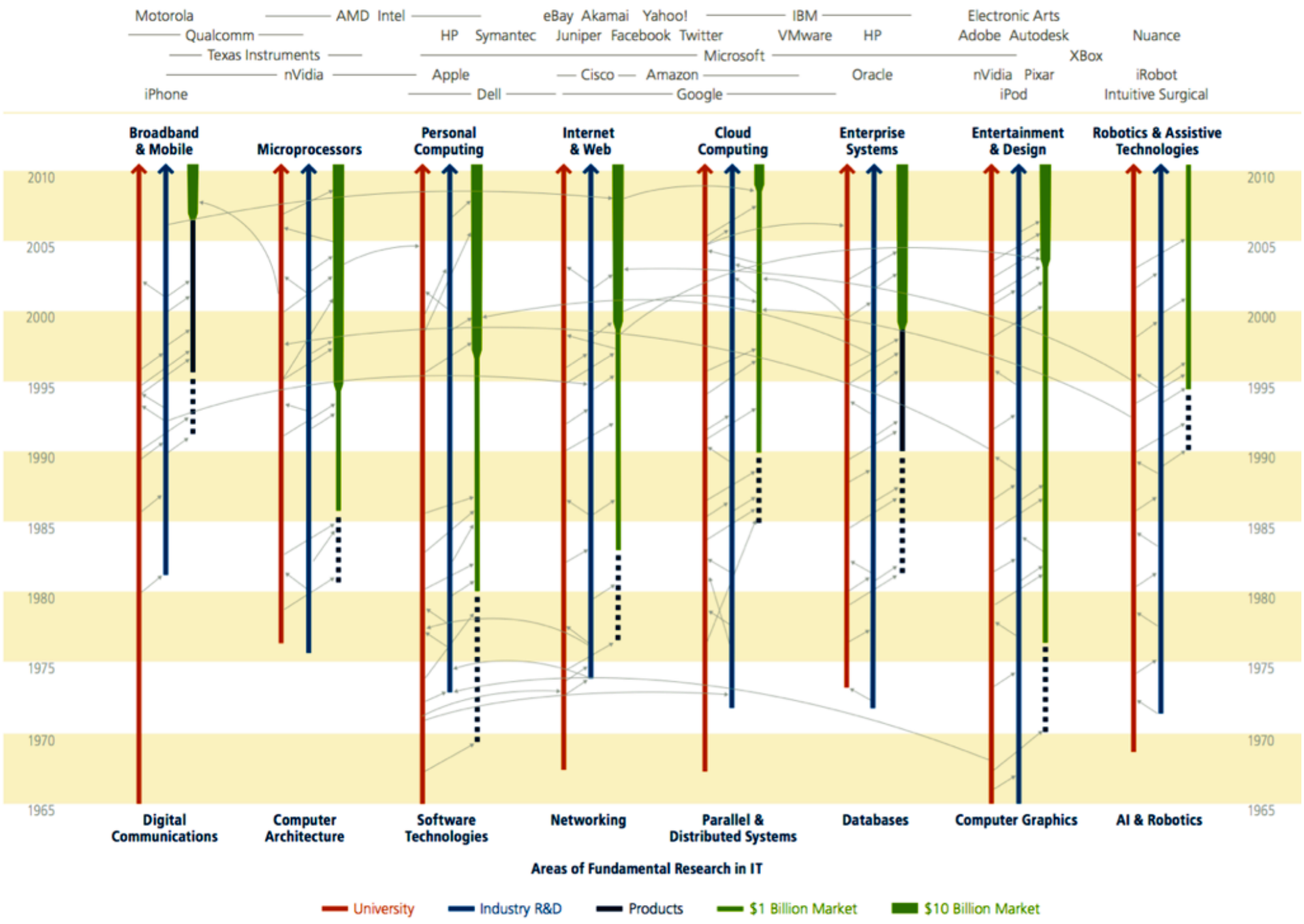
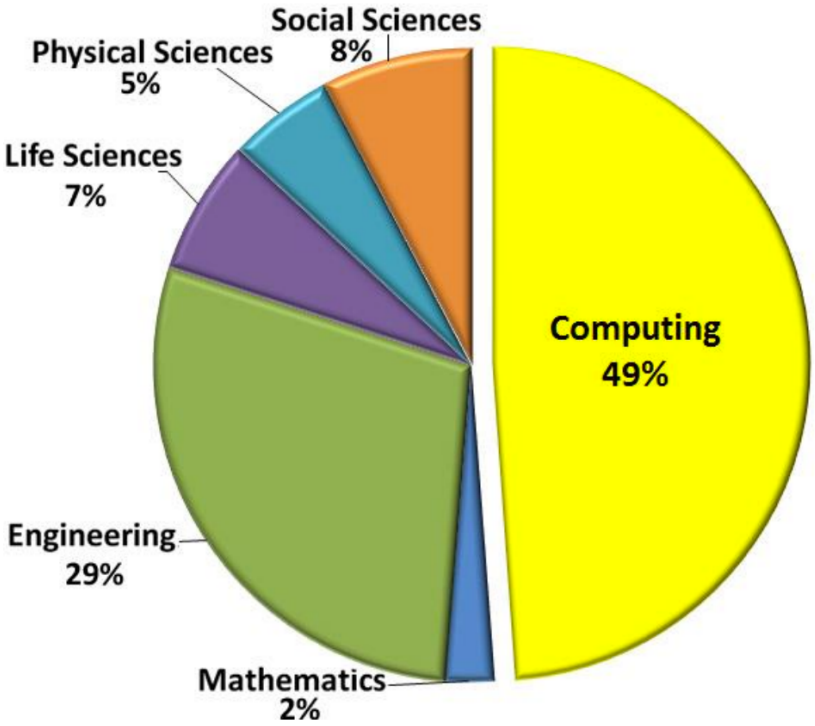
IT Sectors With Large Economic Impact



ESSENTIALLY EVERY ASPECT OF INFORMATION TECHNOLOGY ON WHICH WE RELY TODAY BEARS THE STAMP OF FEDERAL SUPPORT.

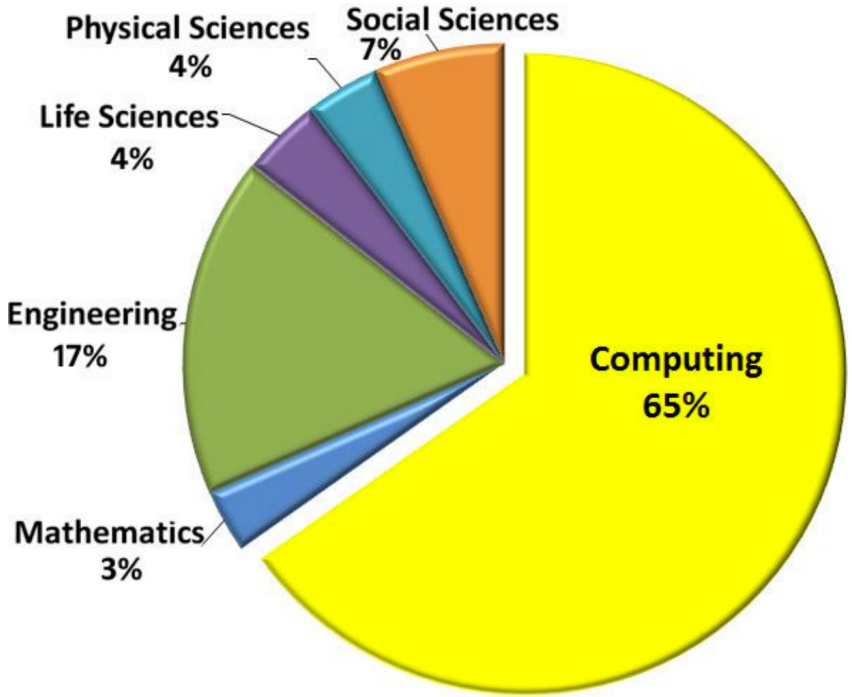
Where the STEM Jobs Will Be

Projected Annual Growth of Total STEM Job Openings 2012-202



Where the STEM Jobs Will Be

Projected Annual Growth of NEWLY CREATED STEM Job Openings 2012-2022



Source: Jobs data are calculated from the Bureau of Labor Statistics (BLS), Employment Projections 2012-2022, available at http://www.bls.gov/emp/.
Courtesy of Association for Computing Machinery (acm.org).

WE'RE OPPORTUNISTIC…

- Congressional testimony

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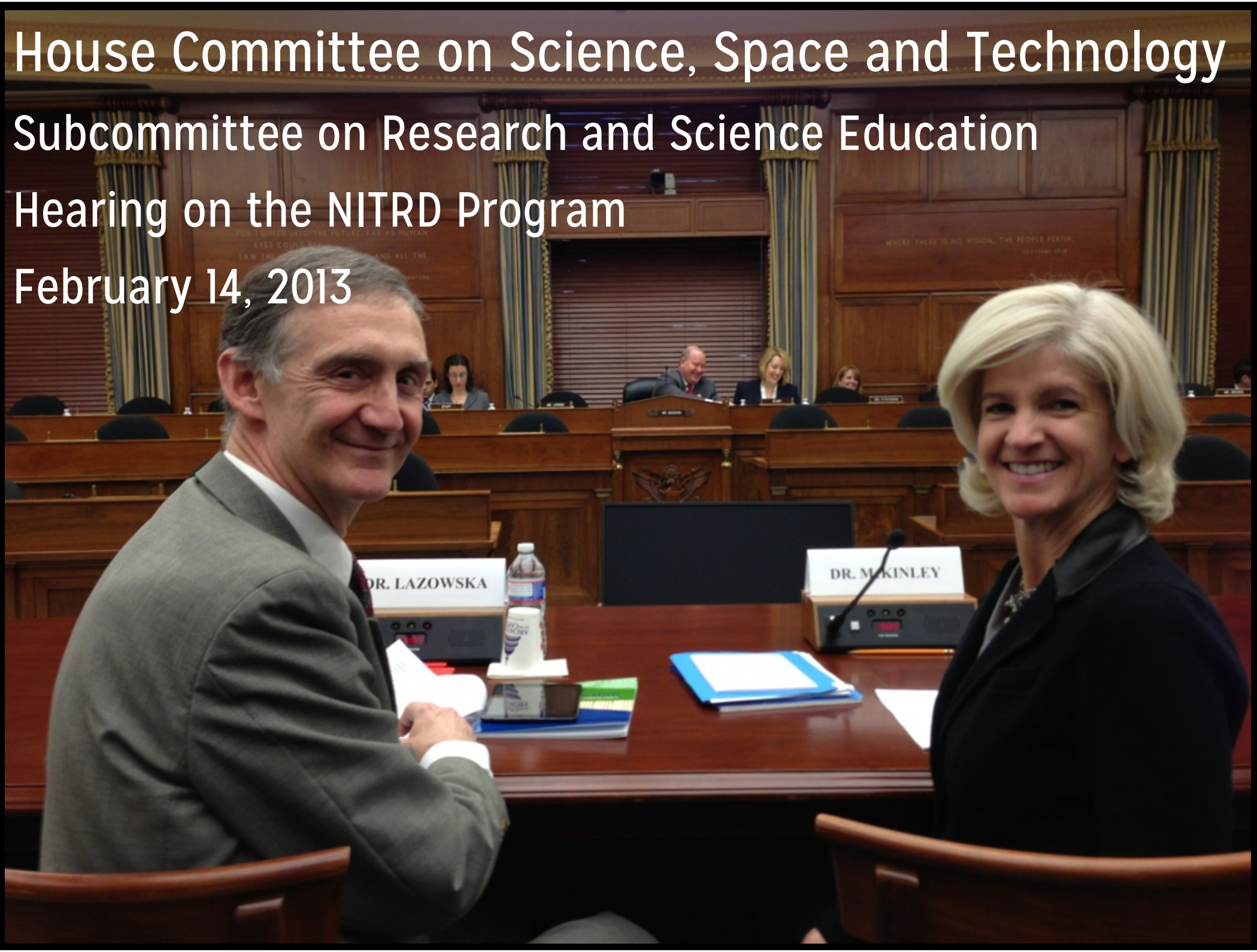
House Committee on Science, Space and Technology

Subcommittee on Research and Science Education

Hearing on the NITRD Program

February 14, 2013



WE'RE OPPORTUNISTIC…

- Congressional testimony
- We host our own events and partner with others

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CRA's Congressional Fall Fly-In

September 2013

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LiSPI 2015

CRA/CCC Leadership in Science Policy Institute

April 27-28, 2015

Washington, DC

Nominations

December 2014!

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Task Force on American Innovation

Deconstructing The iPad

How Federally Supported Research Leads to Game-Changing Innovation

Deconstructing
Precision Agriculture

Think Moon landing.

Think Internet.

Think iPhone and Google.

This is bigger.

This is about
feeding the world.

Come hear from U.S. farmers, leading agriculture technology companies, and scientists on how they work together to solve this global challenge.

Save the Date

3/4/2015

Reception | 4:30 to 6:30 pm
House Agriculture Committee Room,
1300 Longworth House Office Building
Washington, DC

Invitation to follow

In partnership with

The Task Force on American Innovation

Soil Science Society of America

American Society of Agronomy

Crop Science Society of America

American Physical Society

Computing Research Association

Texas A&M

Coalition for the Advancement of Precision Agriculture (CAPA)

Association of Equipment Manufacturers (AEM)

WinField Solutions, LLC

Trimble

WE'RE OPPORTUNISTIC…

- Congressional testimony
- We host our own events and partner with others
- We've developed a good "brand"
- We strive to engage the community in policymaking – LiSPI

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WE'RE OPPORTUNISTIC…

- Part of a broader science advocacy community that's looking for good stories to tell
- Join coalitions around our interests
  - CNSF, CNSR, TFAI, ESC, CinC
- We leverage our interactions with the press

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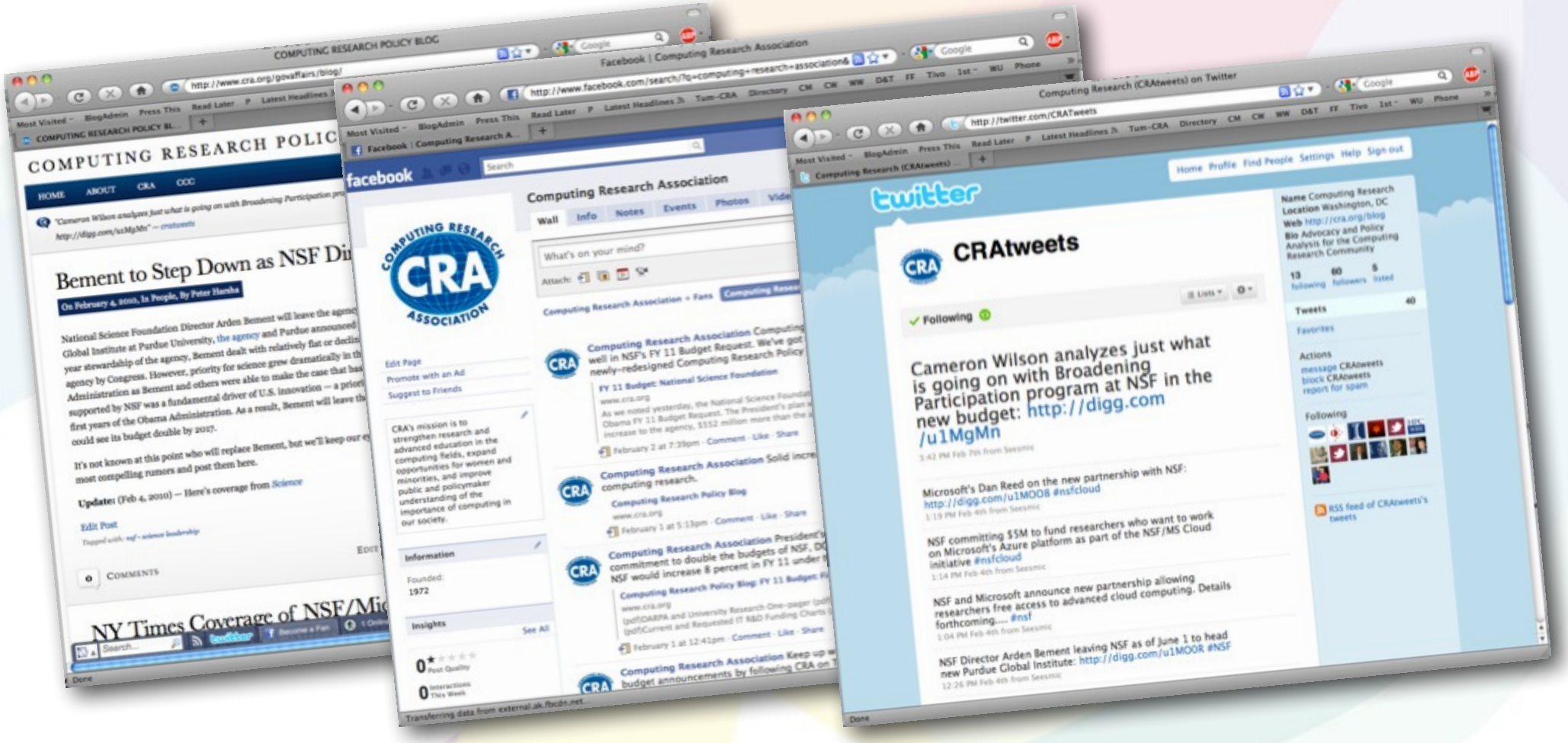
We leverage social media (or try to…)



http://cra.org/blog On Facebook @CRATweets

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AND WE'VE HAD SOME SUCCESS...

"This is our generation's Sputnik moment. Two years ago, I said that we needed to reach a level of research and development we haven't seen since the height of the Space Race. In a few weeks, I will be sending a budget to Congress that helps us meet that goal. We'll invest in biomedical research, information technology, and especially clean energy technology – an investment that will strengthen our security, protect our planet, and create countless new jobs for our people."

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If we want America to stay on the cutting edge, we need young Americans to master the tools and technology that will change the way we do just about everything.

- President Obama in a video on behalf of the Hour of Code

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NSF's entire increase is provided to core research and education activities, which are critical to innovation and U.S. economic competitiveness, including funding for an advanced manufacturing science initiative and for research in cyber-security and cyber-infrastructure.

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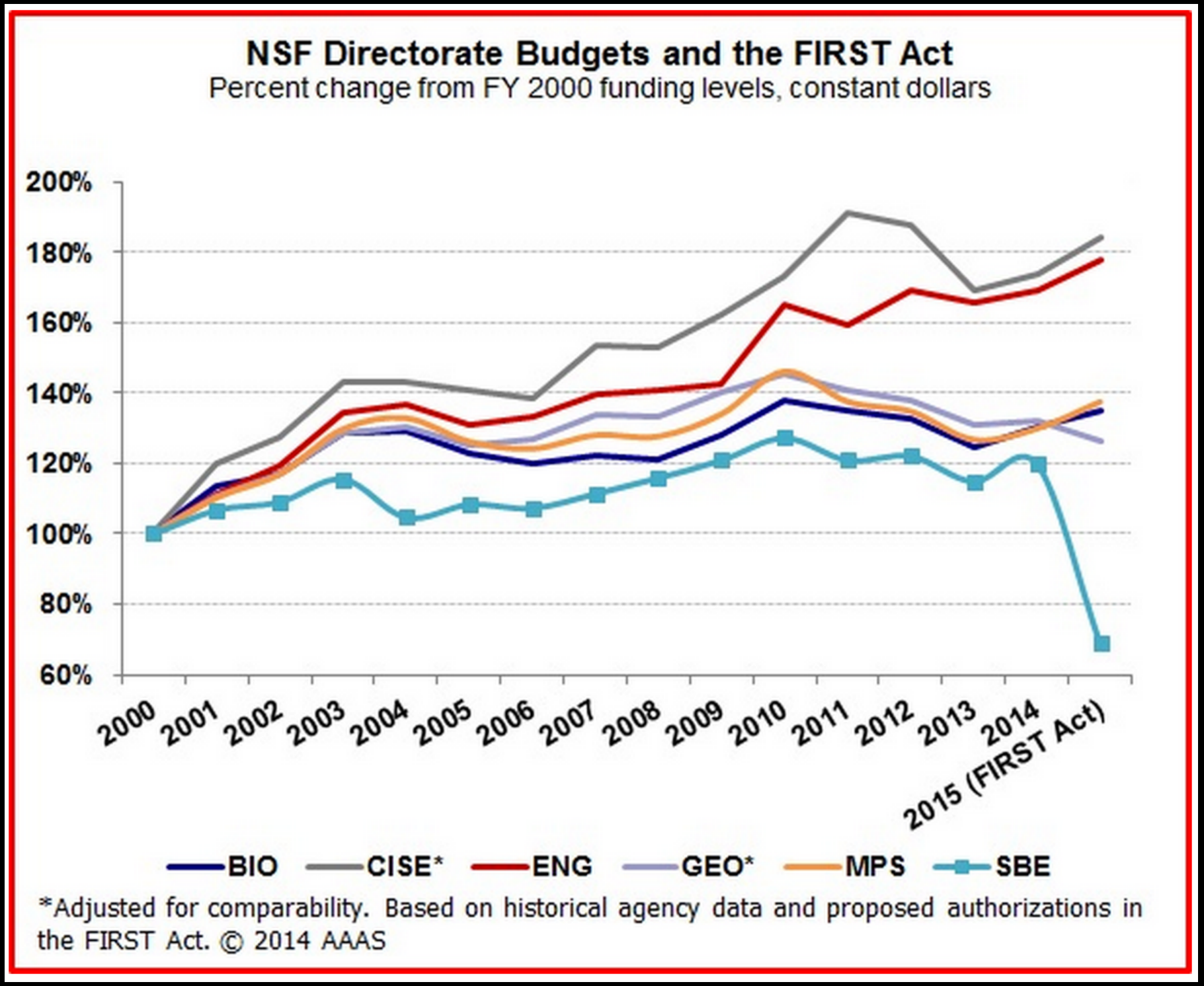
NSF Directorate Budgets and the FIRST Act
Percent change from FY 2000 funding levels, constant dollars
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160%
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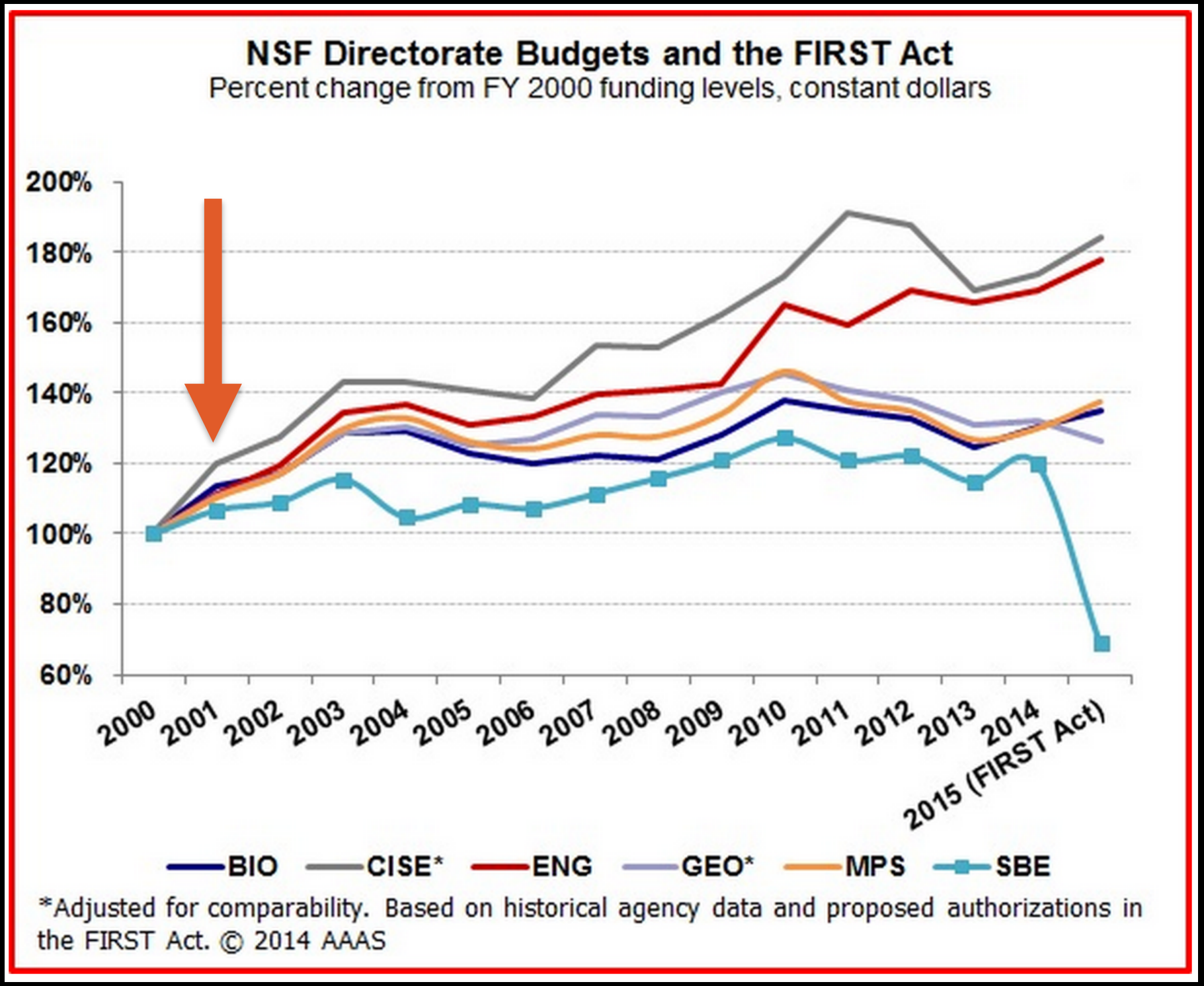
*Adjusted for comparability. Based on historical agency data and proposed authorizations in the FIRST Act. © 2014 AAAS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ENG
GEO*
MPS
SBE
*Adjusted for comparability. Based on historical agency data and proposed authorizations in the FIRST Act. © 2014 AAAS

MORE RECENT "SUCCESSES"

- FY15 CJS bill includes 2.4 percent bump for NSF in a bill that's otherwise flat
- FY15 Energy and Water approps includes a 13 percent bump for ASCR, despite holding Office of Science flat
- FIRST Act chicanery
- STEM Ed Act, Senate COMPETES

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CS UNDER CONGRESSIONAL SCRUTINY

PART OF A PATTERN OF ATTACKS ON SCIENCE

- House Science, Space and Technology Committee requesting info on 60+ grants
- Attacks on wasteful spending at NIH/CDC in light of the Ebola crisis
- Former Sen. Tom Coburn (R-OK) *Wastebook* reports (2014 version targeted 5 NIH grants, 10 NSF grants and 6 NASA grants).

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Truthy

Information diffusion research at Indiana University

Truthy is a research project to study how memes spread on social media. A meme is a transmissible unit of information, such as a hashtag, phrase, or link.

This website highlights some of the research coming from this effort and showcases publications, visualizations, tools, and data resources from the project.

Recent Papers

Truthy @truthyatindiana 4 Feb
The Rise of Social Bots - Recent advances in detecting bots mimicking human behavior on #Twitter buff.ly/1DqECWq #truthypaper

Truthy @truthyatindiana 20 Jan
Dissemination of scholarly literature in social media dx.doi.org/10.6084/m9.fig… #WebSci14 #altmetrics14 #truthypaper

Recent Talks

Truthy @truthyatindiana 4 Feb
#truthytalk on "the spread of misinformation in social media" at AAAI Spring Symp. on Socio-technical Behavior Mining ualr.edu/nxagarwal/AAAI…
Expand

Truthy @truthyatindiana 19 Jan
Evolution of online user behavior during a social upheaval (#WebSci14 Best Paper) dx.doi.org/10.1145/261556… #truthytalk

TRUTHY – WHAT HAPPENED?

- Studied the political domain in the run-up to the 2010 election
- Looked at a range of hashtags and memes across the political spectrum
- Noted that the GOP appeared to use astroturfing
- Published work in 2012 describing their findings, Twitter shuts down ‘bot accounts
- Since then, they’ve studied OWS, societal unrest in Turkey, polarization of online political discourse, stock market movements, and geo trends of trending topics

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Feds Creating Database to Track 'Hate Speech' on Twitter

$1 Million study focuses on internet memes, 'misinformation' in political campaigns

SHARE TWEET EMAIL

BY: Elizabeth Harrington

Follow @LizWFB

August 25, 2014 3:30 pm

The federal government is spending nearly $1 million to create an online database that will track "misinformation" and hate speech on Twitter.

The National Science Foundation is financing the creation of a web service that will monitor "suspicious memes" and what it considers "false and misleading ideas," with a major focus on political activity online.

The "Truthy" database, created by researchers at Indiana University, is designed to "detect political smears, astroturfing, misinformation, and other social pollution."

The university has received $919,917 so far for the project.

"The project stands to benefit both the research community and the public significantly," the grant states. "Our data will be made available via [application programming interfaces] APIs and include information on meme propagation networks, statistical data, and relevant user and content features."

Washington Free Beacon
August 25, 2014

National Science Foundation
WHERE DISCOVERIES BEGIN

Award Abstract #1101743

ICES: Large: Meme Diffusion Through Mass Social Media

ABSTRACT

The project is aimed at modeling the diffusion of information online and empirically discriminating among models of mechanisms driving the spread of memes. We explore why some ideas cause viral explosions while others are quickly forgotten. Our analysis goes beyond the traditional approach of applied epidemic diffusion processes and focuses on cascade size distributions and popularity time series in order to model the agents and processes driving the online diffusion of information, including: users and their topical interests, competition for user attention, and the chronological age of information. Completion of our project will result in a better understanding of information flow and could assist in elucidating the complex mechanisms that underlie a variety of human dynamics and organizations. The analysis will involve studying meme diffusion in large-scale social media by collecting and analyzing massive streams of public micro-blogging data.

The project stands to benefit both the research community and the public significantly. Our data will be made available via APIs and include information on meme propagation networks, statistical data, and relevant user and content features. The open-source platform we develop will be made publicly available and will be extensible to ever more research areas as a greater preponderance of human activities are replicated online. Additionally, we will create a web service open to the public for monitoring trends, bursts, and suspicious memes. This service could mitigate the diffusion of false and misleading ideas, detect hate speech and subversive propaganda, and assist in the preservation of open debate.

The Washington Post

Opinions

The government wants to study ‘social pollution’ on Twitter

By Ajit Pai October 17, 2014

Ajit Pai is a member of the Federal Communications Commission.

If you take to Twitter to express your views on a hot-button issue, does the government have an interest in deciding whether you are spreading “misinformation”? If you tweet your support for a candidate in the November elections, should taxpayer money be used to monitor your speech and evaluate your “partisanship”?

My guess is that most Americans would answer those questions with a resounding no. But the federal government seems to disagree. The National Science Foundation , a federal agency whose mission is to “promote the progress of science; to advance the national health, prosperity and welfare; and to secure the national defense,” is funding a project to collect and analyze your Twitter data.

The project is being developed by researchers at Indiana University, and its purported aim is to detect what they deem “social pollution” and to study what they call “social epidemics,” including how memes — ideas that spread throughout pop culture — propagate. What types of social pollution are they targeting? “Political smears,” so-called “astroturfing” and other forms of “misinformation.”

Named “Truthy,” after a term coined by TV host Stephen Colbert, the project claims to use a “sophisticated combination of text and data mining, social network analysis, and

Ajit Pai OpEd
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"The concept seems to have come straight out of a George Orwell novel."

Ajit Pai OpEd
Washington Post
Oct 17, 2014

The Washington Post

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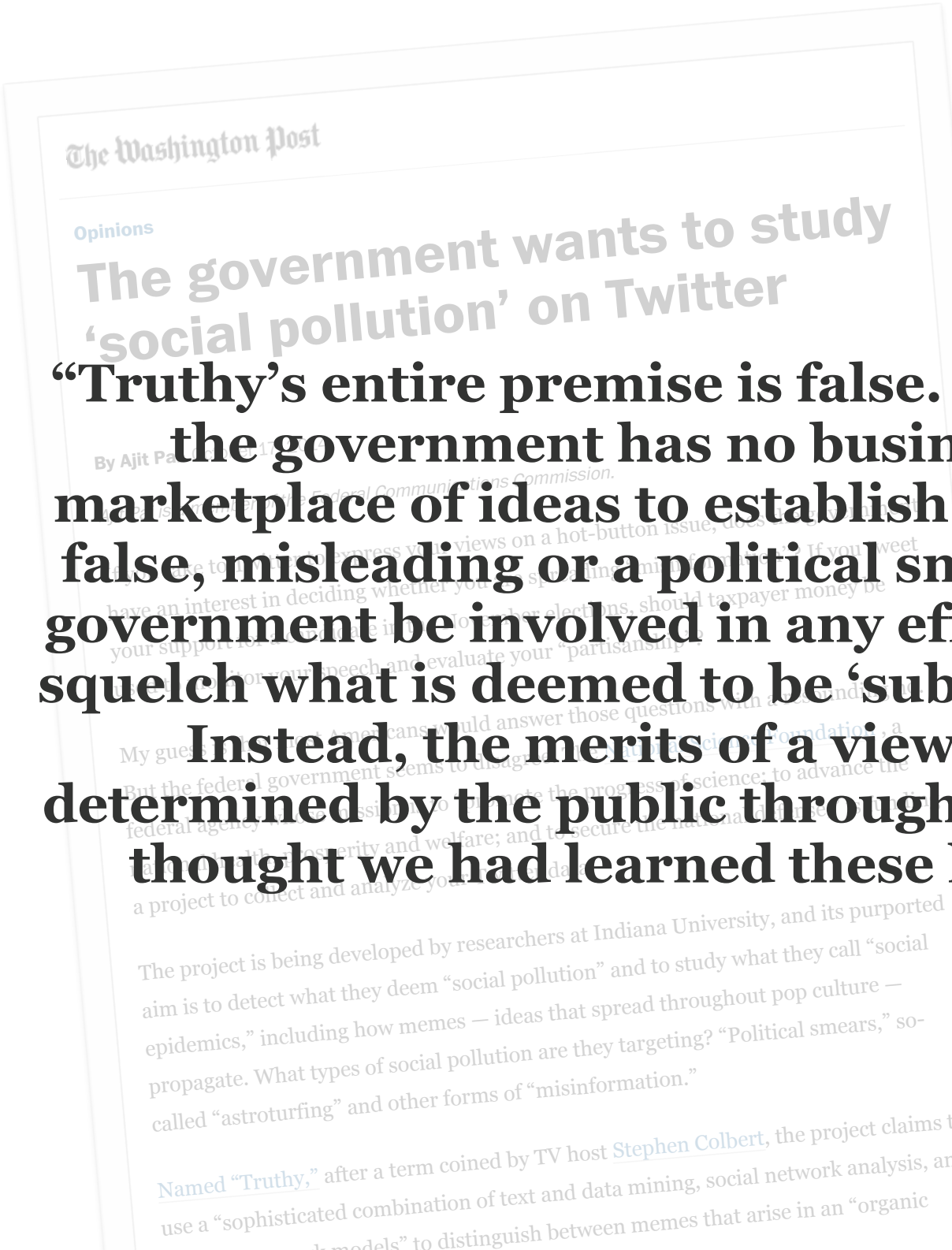
The Washington Post

Opinions

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By Ajit Pai

Commissioner, Federal Communications Commission.

“Truthy’s entire premise is false. In the United States, the government has no business entering the marketplace of ideas to establish an arbiter of what is false, misleading or a political smear. Nor should the government be involved in any effort to squint for and squelch what is deemed to be ‘subversive propaganda.’ Instead, the merits of a viewpoint should be determined by the public through robust debate. I had thought we had learned these lessons long ago.”

Ajit Pai OpEd
Washington Post
Oct 17, 2014

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Smith: NSF Has No Business Using Taxpayer Dollars to Study Political Messages on Twitter

OCT 21, 2014

Washington, D.C. – Science, Space, and Technology Committee Chairman Lamar Smith (R-Texas) today released the following statement after media reports highlighted a one million dollar research project funded by the National Science Foundation (NSF) in 2011 to analyze political messages and discussion on Twitter. The goal of the project is to analyze and detect 'subversive propaganda' in order to mitigate 'misleading ideas' on social media.

Chairman Smith: "The government has no business using taxpayer dollars to support limiting free speech on Twitter and other social media. While the Science Committee has recently looked into a number of other questionable NSF grants, this one appears to be worse than a simple misuse of public funds. The NSF is out of touch and out of control. The Science Committee is investigating how this grant came to be awarded taxpayer dollars. The NSF must be held accountable for its funding decisions."

News

- Press Releases
- In The News
- Photos
- Letters

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KEVIN McCARTHY
MAJORITY LEADER

PRESS RELEASES | BLOG | HOUSE SCHEDULE

OCT 23, 2014

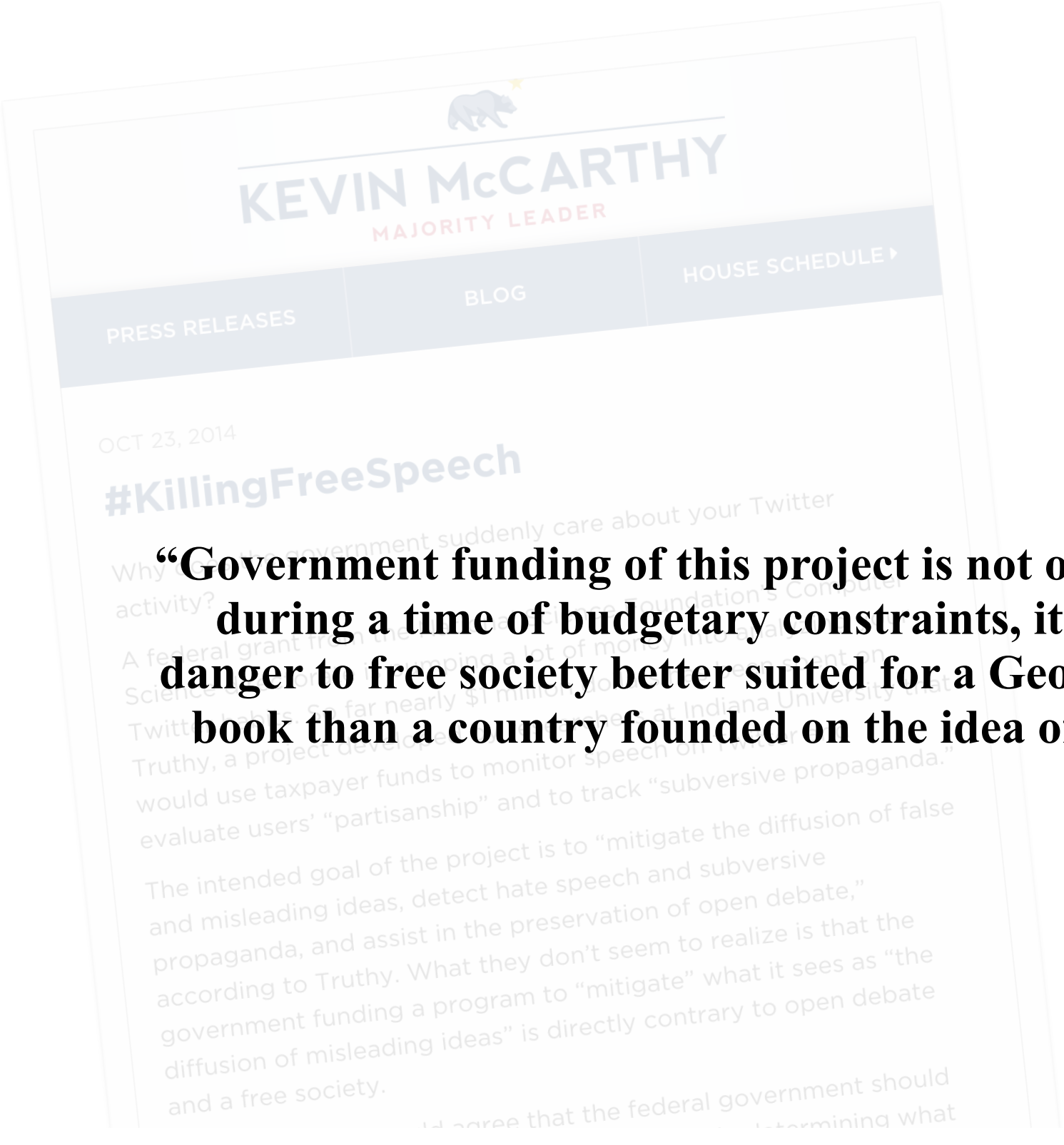
#KillingFreeSpeech

Why does the government suddenly care about your Twitter activity?

A federal grant from the National Science Foundation's Computer Science directorate is pumping a lot of money into analyzing your Twitter habits. So far nearly $1 million dollars has been spent on Truthy, a project developed by researchers at Indiana University that would use taxpayer funds to monitor speech on Twitter and evaluate users' "partisanship" and to track "subversive propaganda."

The intended goal of the project is to "mitigate the diffusion of false and misleading ideas, detect hate speech and subversive propaganda, and assist in the preservation of open debate," according to Truthy. What they don't seem to realize is that the government funding a program to "mitigate" what it sees as "the diffusion of misleading ideas" is directly contrary to open debate and a free society.

agree that the federal government should determining what



“Government funding of this project is not only a waste during a time of budgetary constraints, it is also a danger to free society better suited for a George Orwell book than a country founded on the idea of liberty.”

COMPUTING COMMUNITY WEIGHS IN....

November 4, 2014

The Honorable Lamar Smith
Chairman
House Committee on Science, Space and Technology
2321 Rayburn House Office Building
Washington, DC 20515

The Honorable Eddie Bernice Johnson
Ranking Member
House Committee on Science, Space and Technology
394 Ford House Office Building
Washington, DC 20515

Dear Chairman Smith and Ranking Member Johnson,

As representatives of the computing community, we are dismayed by recent mischaracterizations and misplaced criticisms of research on information diffusion in online social networks at the Center for Complex Networks and Systems Research at Indiana University. This work is focused on significant research problems in computer science, and in no way represents "a Federally-funded assault on free speech."

The research project is a scientific study of how information spreads in social networks - a communication landscape that is fundamentally different than anything that has come before. It uses automated sentiment analysis algorithms and other network analysis tools to study real-time Twitter streams of millions of publicly available tweets to attempt to understand how information is spread across the network.

The work can help internet users discover where information they glean from the web or social networks has come from - did it arise organically, did it originate from authoritative sources, or has it been spread by bots designed to "game" social networks and spread misinformation? The work can provide great value to internet users in the U.S. by helping them understand the source of the messages they receive, allowing them to potentially avoid malware or phishing attacks.

The work can also have great value to other researchers studying the flow of information across the

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"We do not believe this work represents a threat to free speech or a suppression of any type of speech over the internet. The tools developed in the course of this research are capable of making no political judgements, no prognostications, and no editorial comments, nor do they provide any capability for exerting any control over the Twitter stream they analyze. The work is not a database tracking hate speech, or even defining it. It simply visualizes the patterns of flow of publicly available information in the Twitter stream.

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COMPUTING COMMUNITY WEIGHS IN….

"We ask that as you exercise your oversight responsibilities over the National Science Foundation, which funded much of this research, you call on subject-matter experts to help guide your investigation and not let media mischaracterizations of the work color your effort."

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REACTION

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REACTION

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Computer scientists say meme research doesn't threaten free speech

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Credit: iStockphoto

U.S. House lawmakers go viral over information diffusion study funded by the feds

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REACTION

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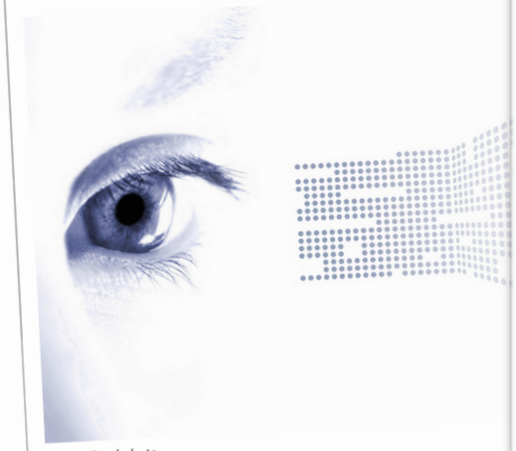
NEWS

Computer scientists say m threaten free speech



Credit: iStockphoto

U.S. House lawmakers go viral over inform study funded by the feds

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Giuliani says he's received death threats...
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CONGRESS BLOG
Why an official language is needed now...
04:00pm

CONTRIBUTORS
Did an Okla. Republican congressman urge...
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TWITT
Congressw perm-filled
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Congress should defer to experts on 'Truthy,' computer scientists say

2 4

By Mario Trujillo - 11/05/14 06:01 PM EST

Five leading groups in the computer science industry are urging Congress to consult experts when investigating the funding of a university project that studies Twitter trends.

They said the **"Truthy"** project at Indiana University does not represent a threat to free speech on the Internet.

Members of Congress should "call on subject-matter experts to help guide your investigation and not let media mischaracterizations of the work color your effort," the groups write in **a letter** sent Tuesday to House Science Committee Chairman Lamar Smith (R-Texas) and ranking member Eddie Bernice Johnson (D-Texas).

The project dates back to 2011 and is funded by the federal National Science Foundation. It came under recent criticism by Republicans who claimed it appeared to come straight out of a George Orwell novel.

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REACTION

TRENDING: Samsung looks to LoopPay for mobile pay foothold · Spy agenci

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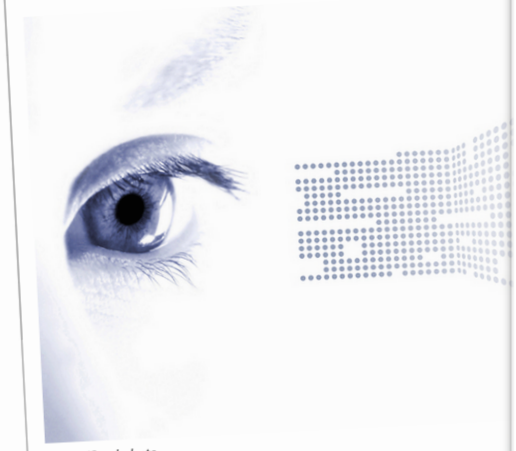

Credit: iStockphoto

U.S. House lawmakers go viral over inform study funded by the feds

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Why an needed
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HOME | BUSINESS & LOBBYING

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Science

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Updated: What does it take to get your grant targeted by Congress?

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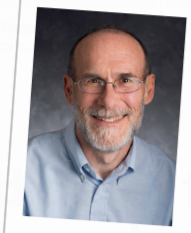

Jeff tries to explain how government works to readers of *Science*.

Email Jeffrey

By Jeffrey Mervis | 10 November 2014 2:15 pm | 9 Comments

When it comes to assessing the value of federally funded social science research, one congressman's meat is apparently another's poison.

In March 2013, social psychologist Brad Bushman of Ohio State University, Columbus, testified before the U.S. House of Representatives' panel that funds the National Science Foundation (NSF). Bushman had co-chaired an NSF workshop on the causes of youth violence convened in the wake of the deadly school shootings in Newtown, Connecticut. And Representative Frank Wolf (R–VA), who leads the spending panel and who asked NSF to hold the workshop, was eager to hear Bushman summarize its findings and discuss this pressing social problem.

Last week, a second congressional panel also singled out Bushman's work. But instead of making Bushman the star witness at a hearing, Representative Lamar Smith (R–TX), the chair of the House science committee, subjected him to ridicule. To be precise, Smith put a 2010 NSF grant to Bushman for research on self-control of aggression on a list of 11 NSF awards that Smith regards as a waste of taxpayer dollars. The new cohort of grants, going back as far as 5 years, join 47 others that the science committee has flagged in a running dispute with NSF over how it manages its $7-billion-a-year budget.

The fight has rekindled the age-old question of how to assess the value of basic research. Most scientists say that peer review—using experts in a particular field—offers the best way to judge both the scientific merit and the societal value of a piece of fundamental research. And they object when politicians substitute their own judgment. But Smith says he's simply doing his job,

REACTION

While some have argued that Truthy could be used to better understand things like disaster communication or to assist law enforcement, instead it appears Truthy focused on examples of 'false and misleading ideas, hate speech, and subversive propaganda' communicated by conservative groups.

Letter to NSF Director France Cordova -November 10, 2014
Rep. Lamar Smith (R-TX), Chairman
House Committee on Science, Space and Technology

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SO, WE'RE WAITING FOR THE OTHER SHOE TO DROP

- No hearings or further requests for info
- No requests for subject-matter expertise

- Smith has requested info on 13 additional grants (up to ~70 now), including 1 CISE funded grant on malware detection

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THINGS TO KEEP IN MIND WHEN COMMUNICATING ABOUT RESEARCH

- Congress has a legitimate oversight responsibility and Members take seriously their stewardship of tax dollars spent on research.
- Attention is heightened because the pressure to cut discretionary spending is so high.
- Members of Congress are acutely aware of zero-sum nature of Federal appropriations.
- There is a serious lack of subject-matter expertise on some key committees.

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THINGS TO KEEP IN MIND WHEN COMMUNICATING ABOUT RESEARCH

- Smith and his staff believe, generally, in the value of the Federal investment in research, though some areas, while interesting, don't represent a compelling National interest.
- Some topics raise red flags: non-US topics, games or popular culture, social media, politics, climate change…

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SO WHAT DO YOU DO IF YOU HAVE RESEARCH IN THOSE AREAS?

- Don't be cute. Try not to trivialize your work. Emphasize the problem you're investigating and the new knowledge to be gained.
- Explain why the topic area you're exploring is the most appropriate one for the problem you're trying to solve.
- Remember, you're not spending Federal money – you're spending taxpayer money. You need to be able to explain your work to your neighbors as if you just took 30 percent of their paychecks to pay for it.

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THANKS!

Peter Harsha
harsha@cra.org
cra.org/blog
@CRATweets

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