Issues

• Budget
• Communicating with APS Members
• Public Perception of Science
• Communicating with the Public
• Lobbying
**Trends in R&D and Discretionary Spending**

Trends in R&D and Discretionary Spending (dollars in billions of constant FY 2010 dollars)

- Nondefense R&D (left scale)
- Defense R&D (left scale)
- Total Discretionary (right scale)

R&D levels do not include construction of facilities and equipment.
FY 2010-2011 data are budget projections.
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**Composition of the Proposed FY 2010 Budget**

Composition of the Proposed FY 2010 Budget
Total Outlays = $3.6 trillion
outlays in billions of dollars

- Net Interest $135
- Defense Discretionary $623
- [Defense R&D] $84
- Nondefense Discretionary $640
- Social Security $696
- Medicare $452
- Medicaid $290
- Other Mandatory $596

Source: Budget of the United States Government, FY 2010
Projected unified deficit is $1.3 trillion.
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**Federal Spending and Revenues**

Federal Spending and Revenues (percent of GDP)

- Federal Spending
- Federal Revenues

FY 2009 data are estimates. FY 2010-2014 data are budget projections.
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**Total Spending**

- Total Spending 1970: $900 Billion
- Total Spending 2010: $3.5 Trillion (est.)

**APS Physics**
## Recent Budget History Through April 15, 2011

<table>
<thead>
<tr>
<th>Science Account</th>
<th>FY 05 ($B)</th>
<th>FY 06 ($B)</th>
<th>FY 07 ($B)</th>
<th>FY 08 ($B)</th>
<th>FY 08S ($B)</th>
<th>ARRA ($B)</th>
<th>FY 09 ($B)</th>
<th>FY 10 ($B)</th>
<th>FY 11CR ($B)</th>
<th>Δ (%)</th>
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</thead>
<tbody>
<tr>
<td>DOE SC</td>
<td>3.57</td>
<td>3.47</td>
<td>3.81</td>
<td>3.85</td>
<td>0.0625</td>
<td>1.60</td>
<td>4.60</td>
<td>4.83</td>
<td>4.89</td>
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<td>DOE EERE</td>
<td>1.16</td>
<td>1.16</td>
<td>1.46</td>
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<td>DOE ARPA-E</td>
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<td>0.180</td>
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<td>NSF</td>
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<td>5.59</td>
<td>5.84</td>
<td>6.07</td>
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<td>3.00</td>
<td>6.49</td>
<td>6.87</td>
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<td>R&amp;RA</td>
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<td>MIREFC</td>
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<td>EHR</td>
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<td>STRS</td>
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<td>0.383</td>
<td>0.434</td>
<td>0.440</td>
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<td>0.505</td>
<td>0.508</td>
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<td>1.63</td>
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<td>DOD 6.2</td>
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<td>4.16</td>
<td>5.08</td>
<td>5.06</td>
<td>?</td>
<td>?</td>
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<tr>
<td>NASA Sci</td>
<td>[5.50]</td>
<td>[5.25]</td>
<td>[5.25]</td>
<td>4.71</td>
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<td>0.400</td>
<td>4.50</td>
<td>4.49</td>
<td>4.49</td>
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</tr>
</tbody>
</table>

*Red italics: Earmarks removed; NASA accounts redefined in FY 2008*
Issues

✓ Budget
  • Communicating with APS Members
Communicating with APS Members

- APS News
- Unit Newsletters
- Alerts
- APS Website
- Blogs
- ???
Issues

✓ Budget
✓ Communicating with APS Members
  • Public Perception of Science
Summary of Findings - Language & Messaging - on Federal Funding for Scientific Research

March 2011
What We Did:

- January/February 2011 Focus Groups:
  - Tea Party Supporters (Columbus, OH)
  - Democrat Primary Voters (Columbus, OH)
  - Republican Primary Voters (Charlotte, NC)
  - Swing Voters (Charlotte, NC)

- February 2011 National Internet Survey:
  - 600 Registered Voters
  - 201 Tea Party Supporters
  - 220 Republican Primary Voters
  - 215 Swing Voters
  - 219 Democrat Primary Voters
The mood of the electorate is still very pessimistic.

- Things in the country have gotten off on the wrong track: 55%
- The quality of jobs available in America will get worse: 66%
- The United States’ position as the world’s economic leader will get worse: 70%
The climate for increasing government spending is more difficult than any time in the past generation.

*Increase/Decrease Budget Spending*

*Difference Score (Increase Spending-Decrease Spending)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Scientific Research</th>
<th>Military Defense</th>
<th>Health Care</th>
<th>Government Assistance for the Unemployed</th>
<th>Environmental Protection</th>
<th>Average D/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>+36%</td>
<td>-5%</td>
<td>+69%</td>
<td>+26%</td>
<td>+55%</td>
<td>+36%</td>
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<tr>
<td>1994</td>
<td>+22%</td>
<td>+8%</td>
<td>+41%</td>
<td>+2%</td>
<td>+23%</td>
<td>+19%</td>
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<tr>
<td>2002</td>
<td>N/ A</td>
<td>+55%</td>
<td>+65%</td>
<td>+26%</td>
<td>+34%</td>
<td>+45%</td>
</tr>
<tr>
<td>2009</td>
<td>+25%</td>
<td>+22%</td>
<td>+51%</td>
<td>+29%</td>
<td>+27%</td>
<td>+31%</td>
</tr>
<tr>
<td>2011</td>
<td>+13%</td>
<td>+1%</td>
<td>+17%</td>
<td>-1%</td>
<td>+10%</td>
<td>+8%</td>
</tr>
</tbody>
</table>

*If you were making up the budget for the federal government this year, would you increase spending, decrease spending, or keep spending the same for __________?*
Voters believe it is important for the United States to be the global leader in scientific research and technology. But they also believe we are not living up to this goal. Compared to other countries, only 11% grade the United States an ‘A’ on technological innovation.

<table>
<thead>
<tr>
<th>Importance of the U.S. Being the Global Leader in Scientific Research</th>
<th>Grade for the U.S. for Technological Innovation Compared to Other Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>A or B</td>
</tr>
<tr>
<td>54%</td>
<td>56%</td>
</tr>
<tr>
<td>Total Important</td>
<td>C, D or F</td>
</tr>
<tr>
<td>93%</td>
<td>46%</td>
</tr>
<tr>
<td>Not Important</td>
<td></td>
</tr>
<tr>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

And how important do you believe it is for the United States to be the global leader in scientific research and technology? Using a grade of A, B, C, D, and F, where A is excellent and F is very poor and using any of the grades in between. How would you grade the United States when it comes to technological innovation compared with other countries?
Messaging and Language
Quick Summary:

1. Acknowledge the need for the nation to spend our funding dollars more wisely and then identify scientific research as a way to improve our economic situation.

2. Provide examples of past successes that made a difference in people’s lives and look to scientific research as a way to empower America’s spirit of innovation.

3. People value medical research. Talk about how scientific research has made important contributions to medical research through discovery of cures and saving lives.

4. People also see scientific research as important to help the U.S. develop new energy technologies to make America more energy independent.
Quick Summary:

5. It helps to talk about specific impacts and how Americans will be affected negatively by cuts to scientific research funding. Talk about actual dollars cut and what this means in terms of studies, jobs lost and other quantifiable impacts on the United States.

6. Talk about how scientific research is helping to build a better America both economically and for future generations.

7. It is about ‘Scientific Research.’ It matters how you refer to this type of research and what you call it. Most people don’t understand what basic or fundamental research is.
What do voters see as the most important contributions of science to society?

Top Two Choices

QuickTime™ and a decompressor are needed to see this picture.
Top Messages That Work

It is important we as a country start learning to live within our means and work to cut the federal deficit. But we need to do this in a smart way and not just with across the board cuts without an understanding of what this means to America's future. We should be allocating money where we have the best chance of earning a good return and improving our future. The innovations and discoveries that come out of scientific research have the potential to help boost our economy and make our lives better.

More than half of U.S. economic growth since World War II can be traced to science-driven technological innovation. The source of much of this innovation was scientific research supported by the federal government, which helped lead to vaccines, the MRI, modern communications devices, and the Internet. If we want our children and grandchildren to have good opportunities in the future, then, as a country, we need to do what we did half a century ago and make funding scientific research a national priority. We should not cut funding to scientific research because we need to empower America’s spirit of innovation not suppress it.
Phrases that work when talking about the positive contributions of scientific research:

- Building a Better America
- Investment in America’s Success
- American Spirit of Innovation
- An American Economic Renewal
- Empowering America’s Potential
- Today’s Investment, Tomorrow’s Discovery
What Doesn’t Work:

- The Race For Innovation
- Winning The Future
- American Competitiveness
- Unleashing America’s Potential
- Releasing America’s Spirit of Innovation
Issues

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✓ Public Perception of Science
  • Communicating with the Public
Communicating with the Public

- Public Lectures
- Chambers of Commerce
- Rotary Clubs
- PTA Meetings
- Political Town Hall Meetings
- ???
Issues

✓ Budget
✓ Communicating with APS Members
✓ Public Perception of Science
✓ Communicating with the Public
• Lobbying
Lobbying

- CVD
- District Meetings
- Responses to APS Alerts
- APS Contact Congress Petitions: APS Meetings
- Phone Calls, E-Mails, Faxes and Letters (District Offices Only)
- Political Town Hall Meetings
- Campaign Volunteering
- Running for Office
Issues

✓ Budget
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