Are Democrats or Republicans Better for Science?
High Level View of R&D Trends
Growth in Mandatory Spending
Non-Defense R&D Trends By Discipline
Deeper Dive Questions

• What are the relative roles of the President, House of Representatives, Senate?
• How strongly are these roles tied to general public opinion on scientific research?
• Within non-defense R&D, who are the winners and losers?
• Does politics make a difference?
• Are popular views about the influence of politics on R&D accurate? (i.e. Democrats=good, Republicans=bad)
Relevant Pew Findings

Qualitative Indicators

• In general, one of the key trends in public opinion over the past few decades has been a growing divide among Republicans and Democrats into ideologically uniform “silos”.

• A larger share of the American public expresses issue positions that are either consistently liberal or conservative today than did so two decades ago, and there is more alignment between ideological orientation and party leanings.

• Regarding science, Americans’ political leanings are a strong factor for issues such as climate change and energy policy, but much less of a factor when it comes to issues such as food safety, space travel and biomedicine.
Study by S. Kushi

Breaking Science Stereotypes: Examining the Effects of Party Politics on Federal R&D Funding

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Keywords: research and development (R&D); science policy; republican; democrat; party politics.
Study by S. Kushi

• Tests the null hypothesis that a change in executive administrative affiliation and congressional party dominance does not prompt a significant change in federal R&D funding amounts and/or funding allocations within and across agencies.

• Alternative—a Democrat-led government is associated with increased federal R&D funding in all agencies and functions, while a Republican-led government may only induce increases in defense R&D funding.
Gross R&D Correlations
(+/- correlation coefficient; p significance)

<table>
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<th>Democratic Control of:</th>
<th>R&amp;D as % of GDP</th>
<th>Total R&amp;D</th>
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<tr>
<td>Senate Majority</td>
<td>+</td>
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<tr>
<td>House Majority</td>
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<tr>
<td>Presidential Administration</td>
<td>− p&lt;0.01</td>
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Summary of Overall Predictors of R&D Funding

• A significant predictor variable is Presidential Administration
  – Presidential Administration holds negative correlation to R&D funding
  – A new Democrat president in office is more likely to prompt decreased funding for R&D rather than increased funding.

• When holding all other variables constant, R&D funding is also significantly related to House Democratic Party Majority, but in the positive direction. A new House Dem Majority has been positive.

• Senate Party Majority holds no significant predictive relationship to total R&D funding.
## Specific Agency Trends
(+/- correlation coefficient; p significance)

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<th>DOD</th>
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<th>DOE</th>
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Opportunities
A Replay of 2009?

• In 2009, DOE provided $1.2 billion for the National Labs. It went towards building upgrades, and new facilities such as the Synchrotron Light Source II at BNL, NOvA at Fermilab, etc.

• The President’s $1 T infrastructure proposal has “nominal” bipartisan support, but also much skepticism.
  – Reliance on the private: firms would bid on a project, build and maintain it for a set amount of time and recover costs through tolls or set state payments.
  – Some Republicans and most Democrats envision direct spending as at least a component of any plausible compromise.

• President’s “skinny budget” seems contradictory to an infrastructure investment
Are Democrats or Republicans Better for Science?

Yes!! ...and no.
Should Scientists March?

• Personal opinion—yes
• Scientists should be non-partisan, but not silent
• Risk is having a march co-opted by other groups, motives, issues, etc.
• Science societies can and should help
• Demonstrating for science, not...
  – For funding per se
  – Against President Trump
Should Scientists March?

Tracking Trump’s Approval Rating

- APPROVE
- DISAPPROVE

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For funding per se

Against President Trump