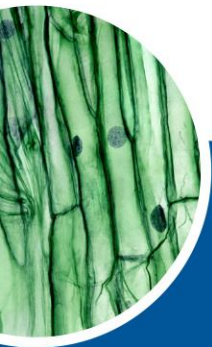




# The Future of U.S. Government Science Support and U.S. Scientific Leadership

April 2, 2025



# Who we are

Founded in 1848, the American Association for the Advancement of Science (AAAS) is the world's largest general multidisciplinary scientific society and a leading voice for science worldwide.

AAAS fulfills its mission to “advance science and innovation throughout the world for the benefit of all” through initiatives in science policy, career development, international programs, science education, and the *Science* family of journals.



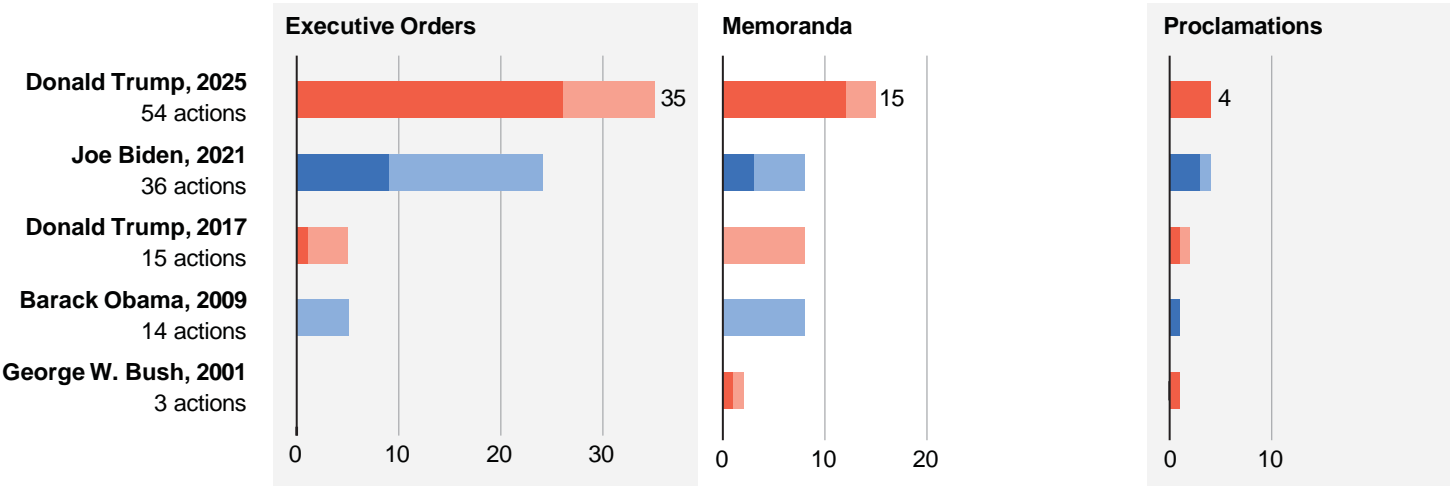
# Trump Broke a Record with Executive Orders

## Trump signed more executive orders on Day 1 than any president signed in the first week

Trump signed 26 executive orders on his first day in office, nearly triple the nine orders Biden signed on his first day in 2021. In his previous term, Trump signed only one executive order on his first day (and another four in the first week). Former Presidents Barack Obama and George W. Bush did not sign executive orders on their first day, instead releasing memoranda or proclamations only.

Executive actions signed in the first week of office, by president

■ First day actions ■ First week actions

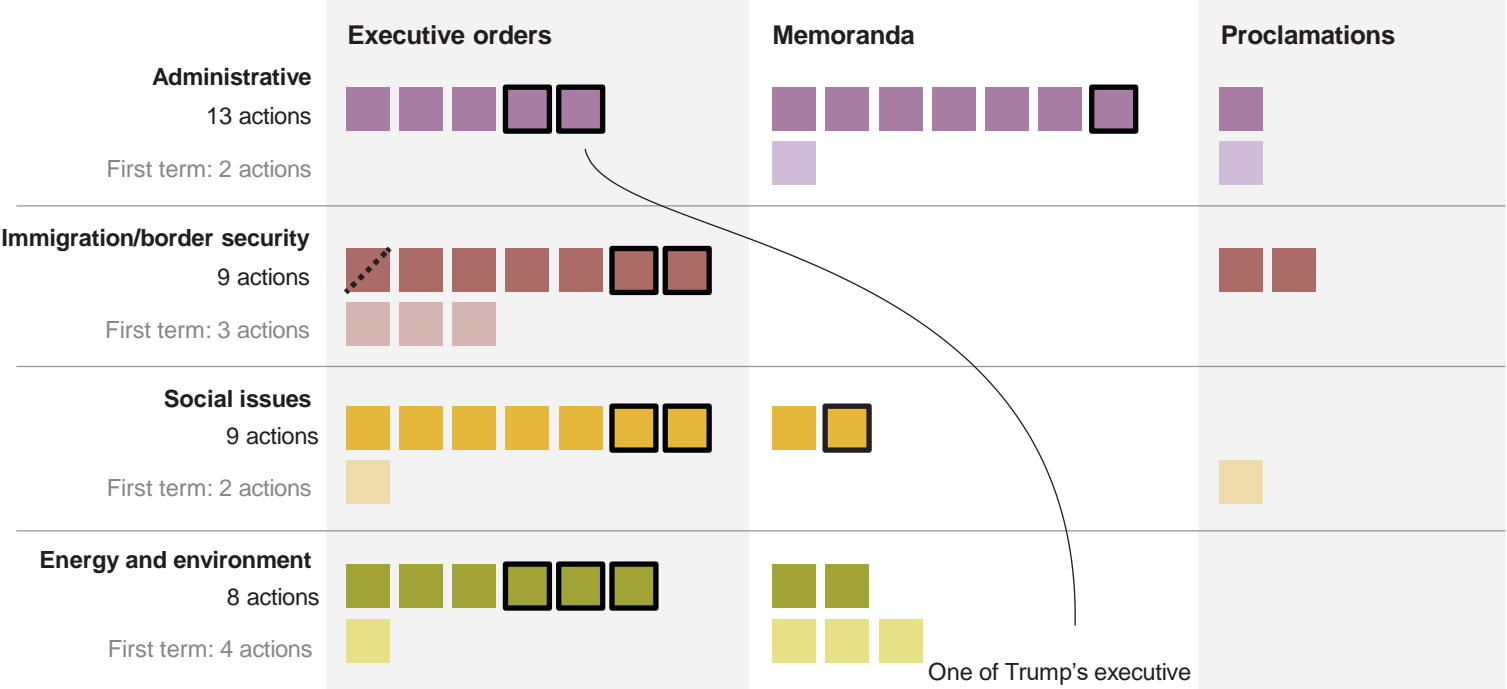


Deluge  
Causes  
Chaos and  
Confusion

The administrative changes included repealing former President Joe Biden’s policies, implementing a federal workforce hiring freeze and creating the so-called Department of Government Efficiency. Several other actions focused on immigration and border security, the most prominent of which sought to end birthright citizenship and is already facing legal challenges in court. Other social issues that Trump tackled included ending diversity, equity and inclusion initiatives in the federal government and legally recognizing only two genders.

Executive actions signed by Trump in the first week of office, by policy area

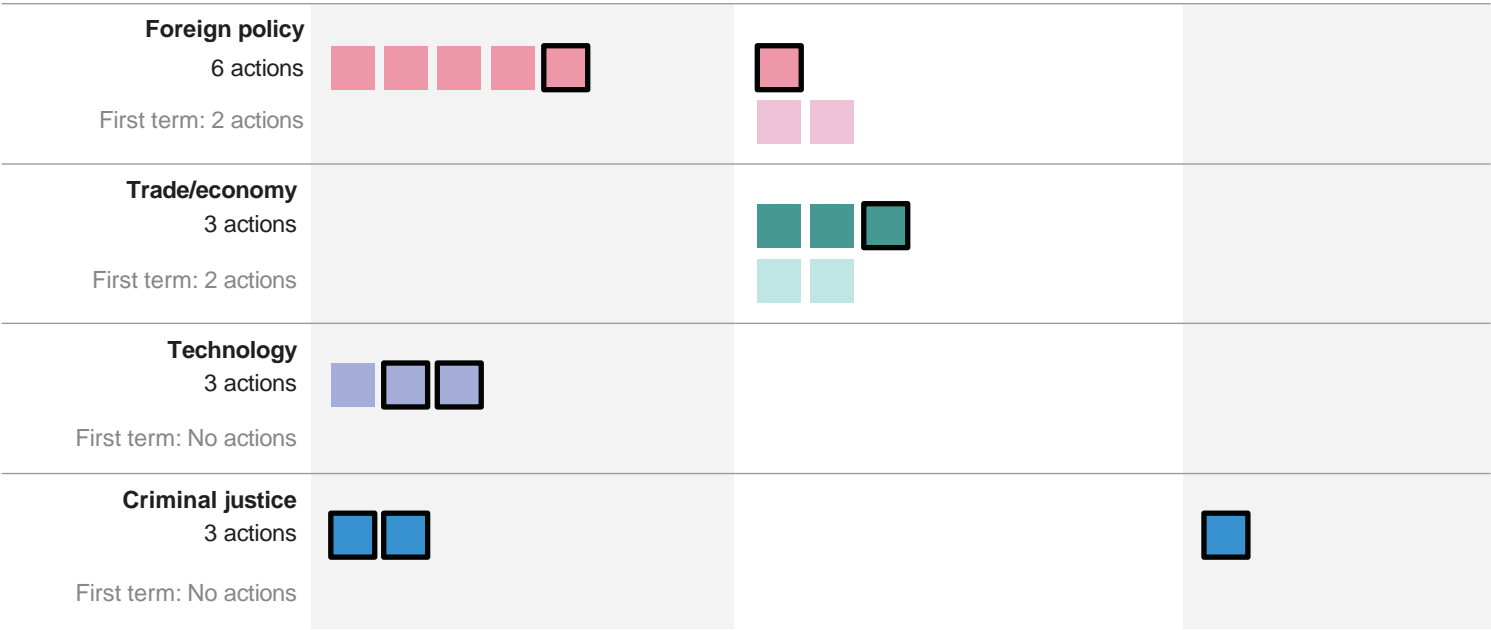
 Temporarily paused by a judge    Repealing/targeting Biden or his policies



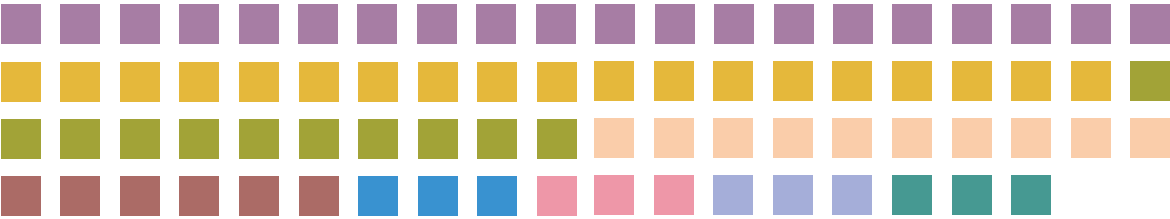
One of Trump’s executive orders rescinded 78 of Biden’s orders that mainly covered health care access, social justice and climate legislation.

Executive actions signed by Trump in the first week of office, by policy area

 Temporarily paused by a judge    Repealing/targeting Biden or his policies



Biden's executive actions revoked by Trump



Most of Biden's orders under **social issues** included promoting education and protecting diversity and equity initiatives, whereas Trump's orders focused on repealing such policies.

Of the 10 repealed orders involving expanding **health care** access, safety and affordability, five of them related to the Covid-19 pandemic.

**POLITICO**PRO

# Impacts

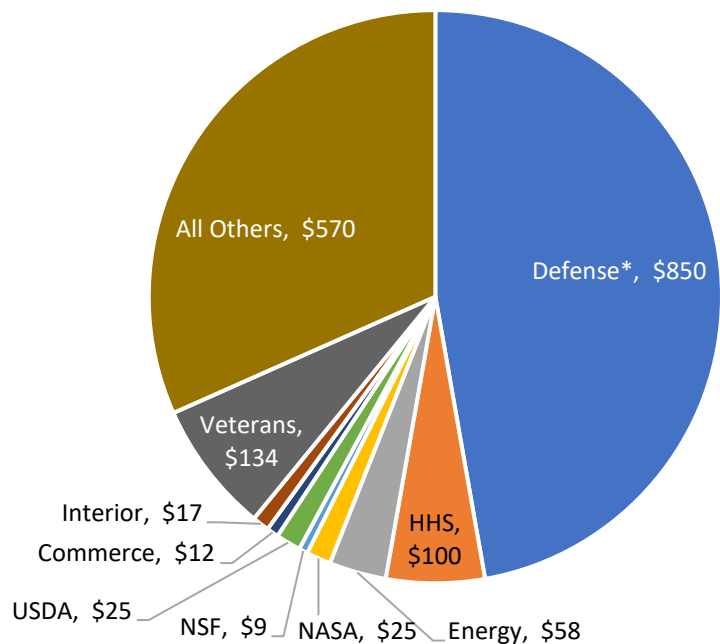
- People
- R&D
- Science and tech community



# The Federal Discretionary Budget versus R&D Budget

**Total Discretionary Funding in FY 2024 Appropriations by Agency**

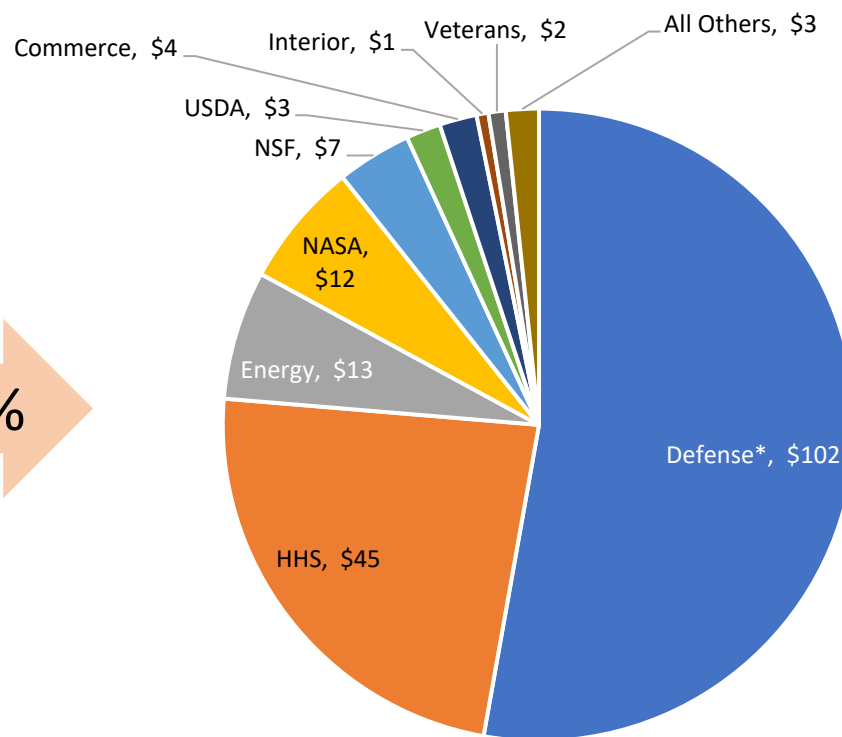
in billions of dollars



10%

**R&D Discretionary in FY 2025 Appropriations by Agency**

in billions of dollars



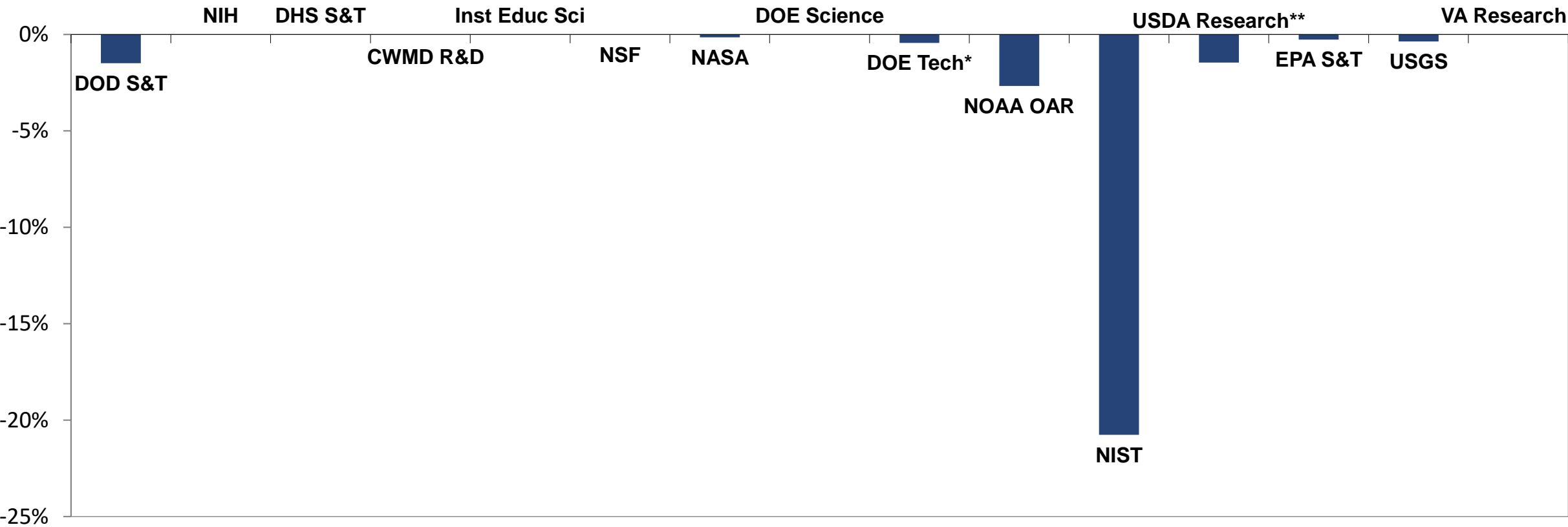
AAAS R&D Resources: <https://www.aaas.org/programs/r-d-budget-and-policy>

\*Includes DOD, NNSA, FBI and DHS CISA

# A Look at FY 2025

## Select Science & Technology Programs in FY 2025 Appropriations

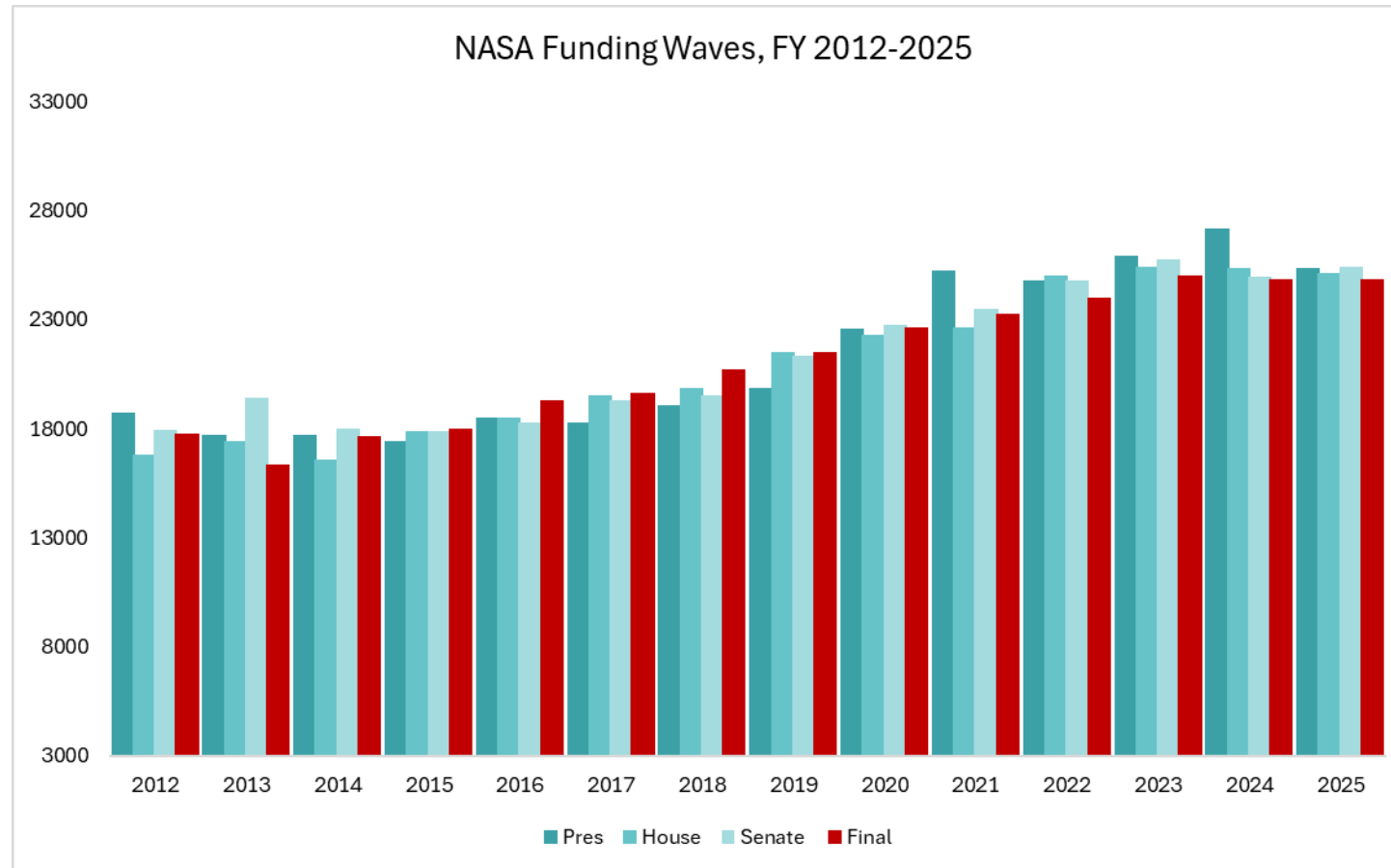
Nominal percentage change from FY 2024



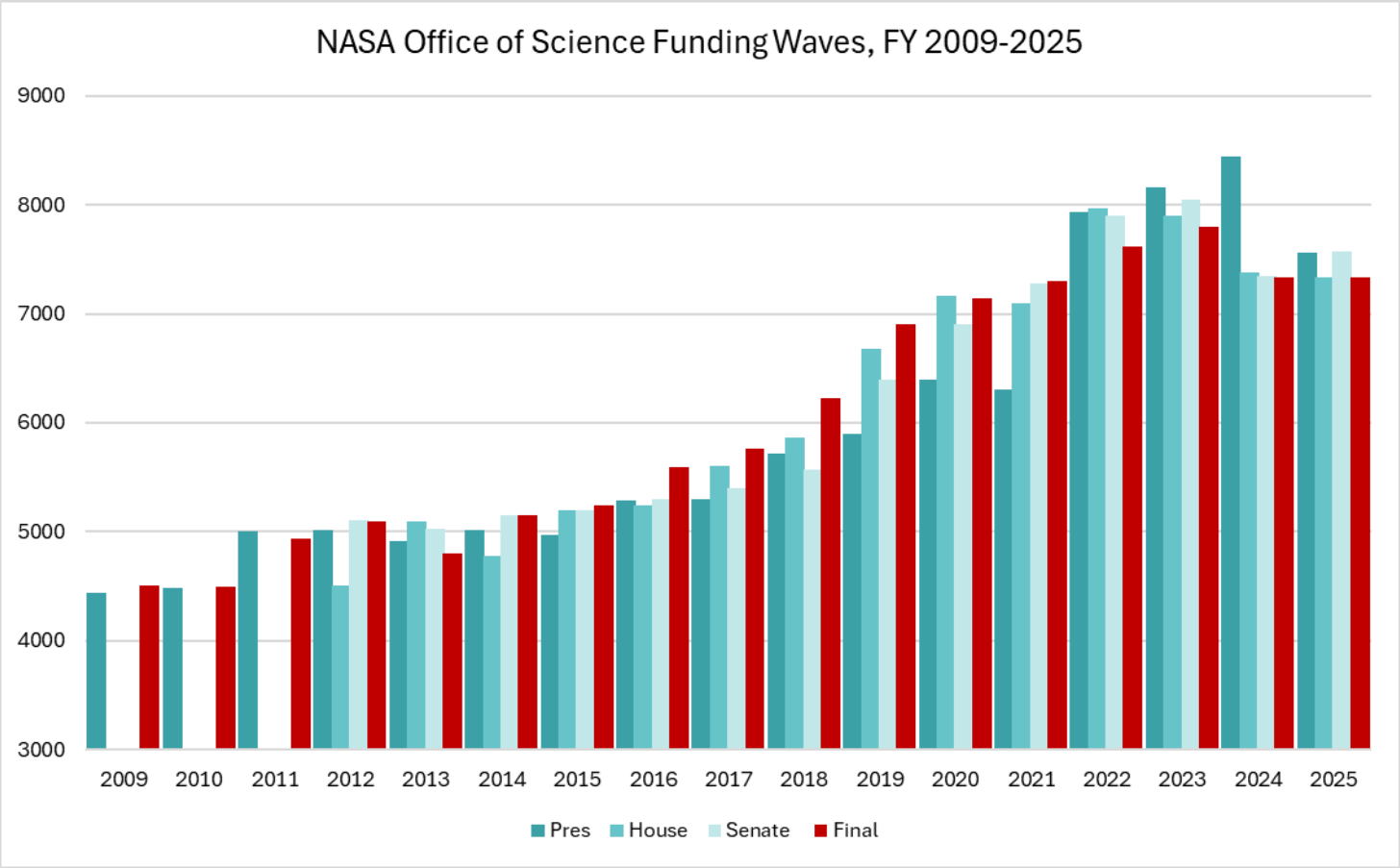
\*Includes renewables and efficiency, nuclear, fossil, grid, cybersecurity, ARPA-E, demonstration.

<https://www.aaas.org/news/final-fy-2025-rd-appropriations>

# Historical Perspective of NASA Budget



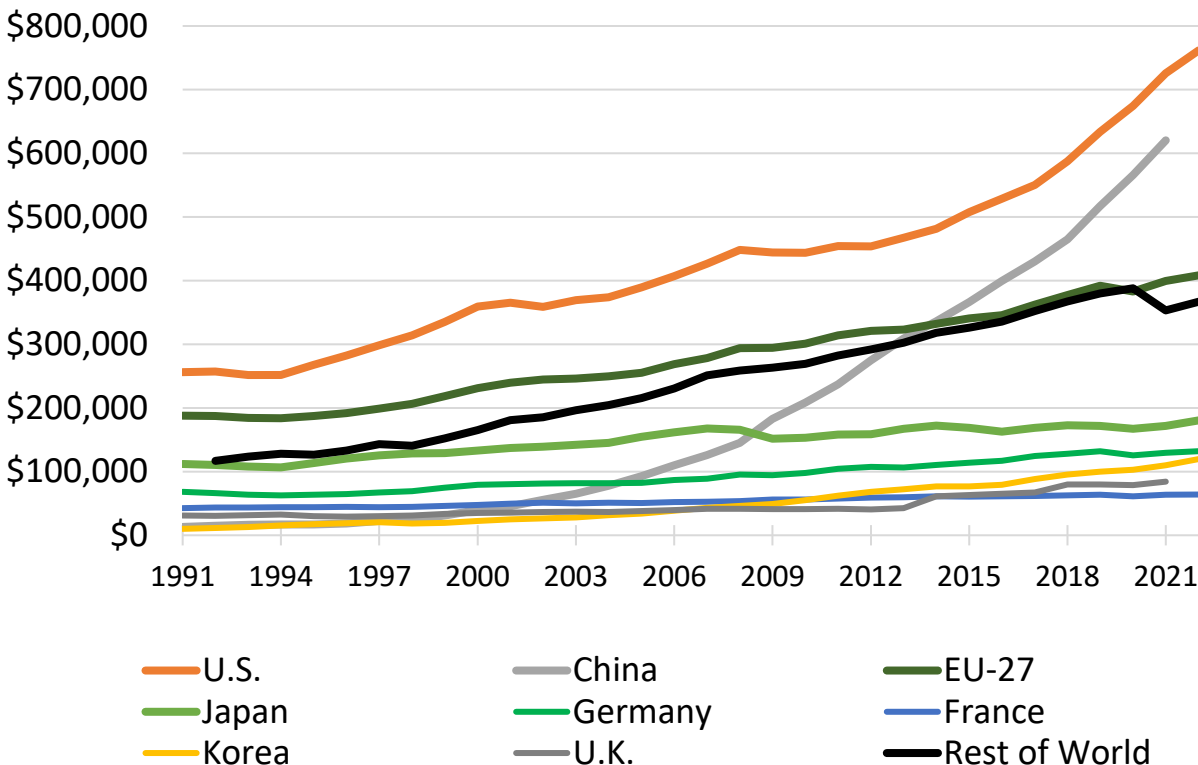
# Science Directorate Trending Down



# Global Competition in S&T a Priority

## Total R&D by Country / Region

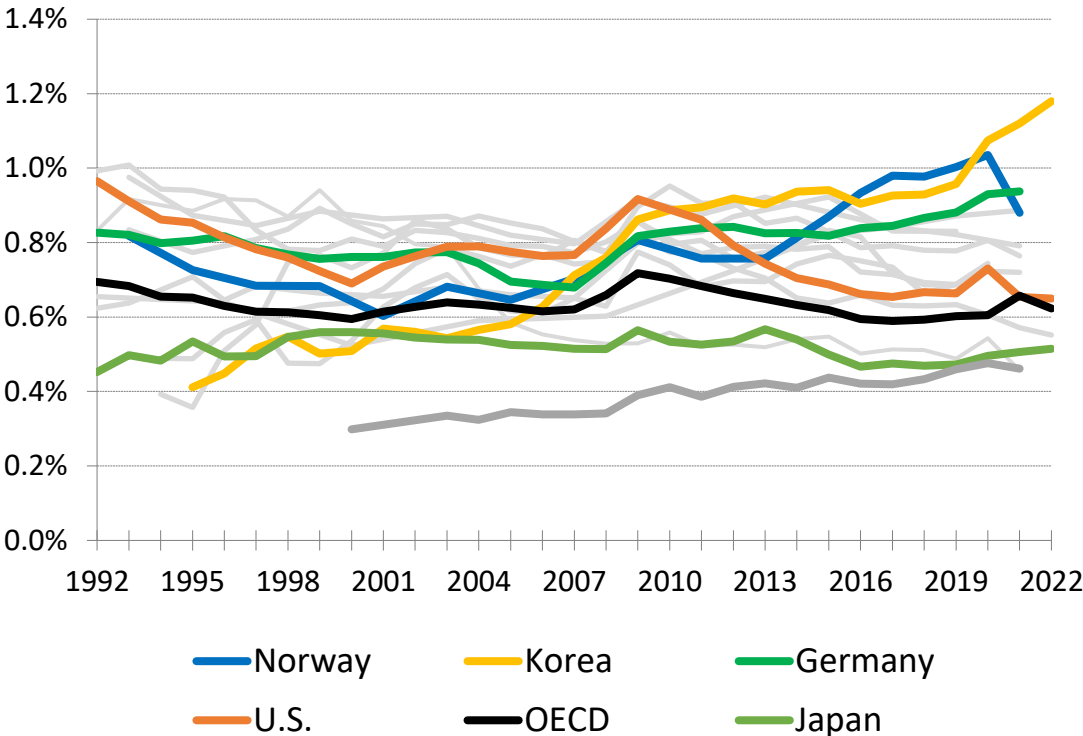
(millions of constant dollars adjusted for purchasing power parity)



Source: OECD Main S&T Indicators, April 2024 |

## Public R&D Intensity

Government R&D as a percent of GDP



Source: OECD Main S&T Indicators, April 2024 | AAAS

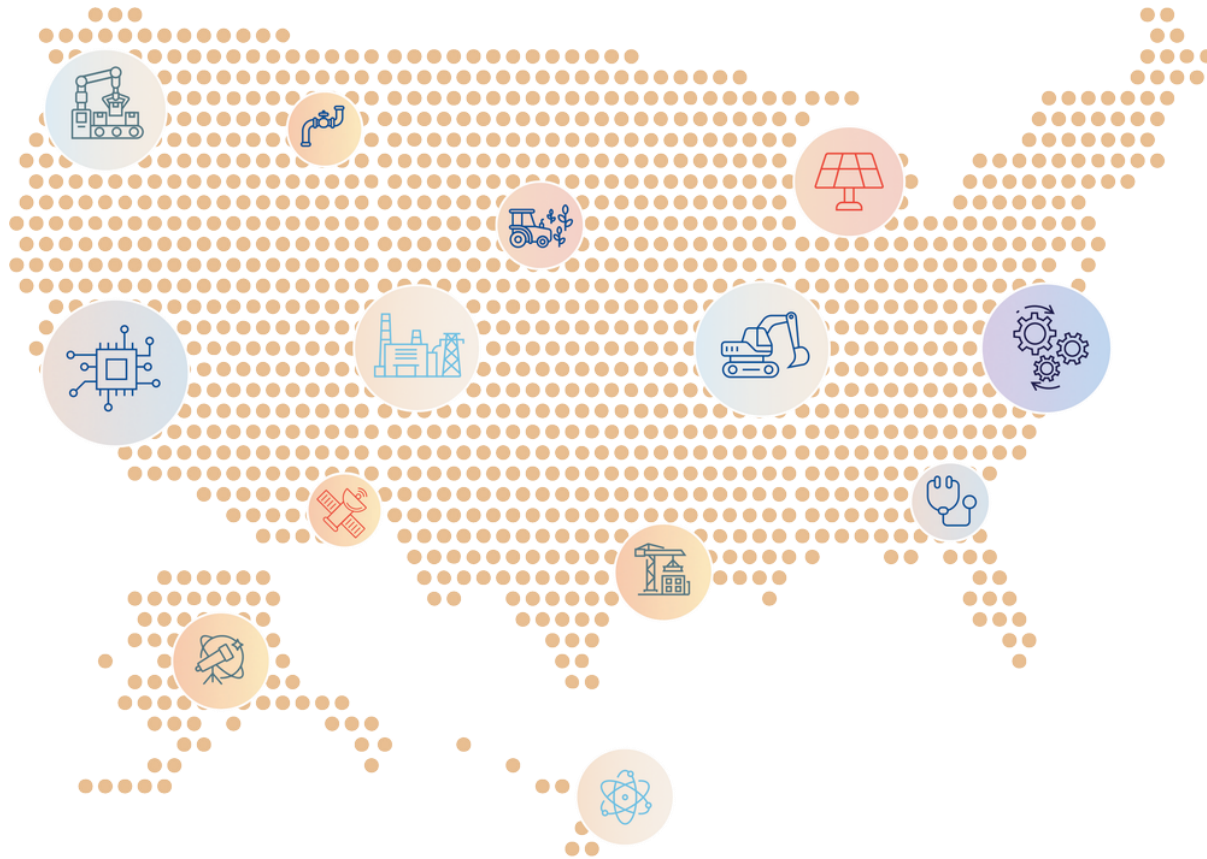
<https://www.aaas.org/news/us-rd-and-innovation-global-context-2024-data-update>

# Impact on International Relations

- House Passed DETTERENT Act
- Research Security & University Scrutiny
- Access to User Facilities
- Change Visa Process (+/-)?



# PATH TO THE FUTURE:



[vastfuture.org](http://vastfuture.org)

Areas of focus:

- People
- Infrastructure
- Investment

# Questions?



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