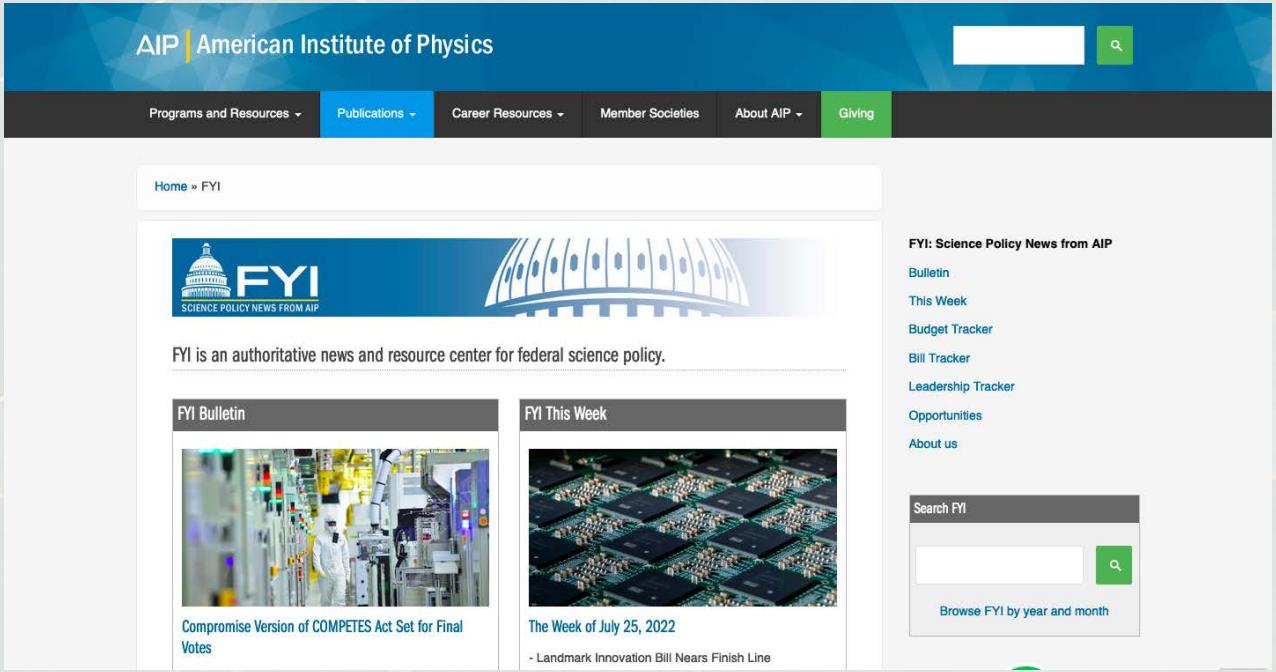
POLICY FOR SCIENTISTS

THE IMPORTANCE OF SCIENCE POLICY REPORTING TO A WIDESPREAD AUDIENCE

By Matangi Melpakkam

What is FYI?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SCIENCE POLICY NEWS FROM AIP
FYI is an authoritative news and resource center for federal science policy.
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Compromise Version of COMPETES Act Set for Final Votes
FYI This Week
The Week of July 25, 2022
- Landmark Innovation Bill Nears Finish Line
FYI: Science Policy News from AIP
Bulletin
This Week
Budget Tracker
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Leadership Tracker
Opportunities
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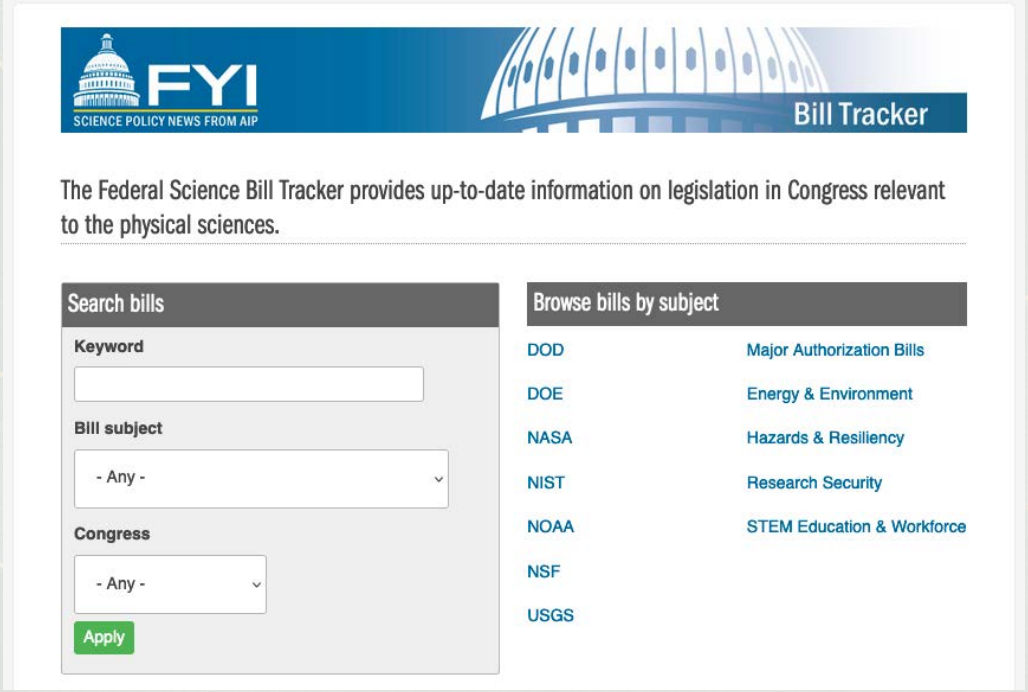
FYI is an editorially independent science policy news service from the American Institute of Physics. FYI also maintains webpages that consolidate information about federal science budgets, legislation, and leaders.

Intern Tasks

Bills, Blurbs, Bulletin, and Budgets

Bill Tracker



Federal Agency Climate PREP Act - H.R.5477 / S.3156

► OVERVIEW

▼ SUMMARY OF SELECTED PROVISIONS

- Establishes a Council on Federal Agency Climate Planning, Resilience, and Enhanced Preparedness (PREP) to which agencies would have to provide climate action plans
- Requires the White House to maintain an Office of Domestic Climate Policy

National Wildland Fire Risk Reduction Program Act - H.R.5781 / S.4274

► OVERVIEW

▼ SUMMARY OF SELECTED PROVISIONS

- Requires the president to establish an interagency National Wildland Fire Risk Reduction Program to coordinate wildfire preparedness research across federal science agencies
- Recommends budget allocations for agencies contributing to the program for the fiscal years 2022 to 2026

Climate Adaptation Science Centers Act - H.R.6654 / S.3621

► OVERVIEW

▼ SUMMARY OF SELECTED PROVISIONS

- Provides statutory backing for the National and Regional Climate Adaptation Science Centers program at the U.S. Geological Survey
- Requires USGS to maintain at least nine regional centers and collaborate with Native American groups
- Recommends the annual budget for the centers increase from the fiscal year 2022 level of $52 million to $145 million by fiscal year 2027

FYI This Week: Blurbs

FYI
SCIENCE POLICY NEWS FROM AIP

This Week

Issued each Monday, FYI This Week highlights upcoming science policy events and summarizes news from the past week.

The Week of July 25, 2022

- Landmark Innovation Bill Nears Finish Line
- White House Updates R&D Priorities
- PCAST Discussing DOE Research
- Plus: Events / Opportunities / Around the Web

The Week of July 18, 2022

- Particle Physicists Chart New Frontiers
- OSTP Nominee Prabhakar to Testify
- Path Clears for Semiconductor Subsidy Bill
- Plus: Events / Opportunities / Around the Web

The Week of July 11, 2022

Kenneth Graham Named National Weather Service Director

Radiation Exposure Compensation Extended Two Years

Panel Pitches Low-Dose Research Campaign Exceeding $1 Billion

NIST Hosts Satellite Brightness Mitigation Conference

House Passes Bill to Prescribe ARPA-H Structure

'Science of Science' Researchers Seek Greater Practical Impact

Climate Modeler Sarah Kapnick Picked as NOAA Chief Scientist

Goddard Science Director Picked to Lead NASA Astrophysics

Jeff Marootian Nominated to Lead DOE Renewables Office

House to Vote on ARPA-H Act

Bulletin

FYI
SCIENCE POLICY NEWS FROM AIP
Bulletin

The FYI Bulletin is a news service covering federal science policy developments.

July 29, 2022

Long-Awaited 'CHIPS and Science Act' Headed to Biden Following Congressional Drama

Congress passed landmark innovation legislation yesterday and it is now headed to President Biden, just weeks after negotiations over it fell apart. Called the CHIPS and Science Act, the bill provides tax credits and $52 billion in subsidies to bolster the U.S. semiconductor industry, and it outlines an ambitious vision for expanded federal support for science and technology more broadly.

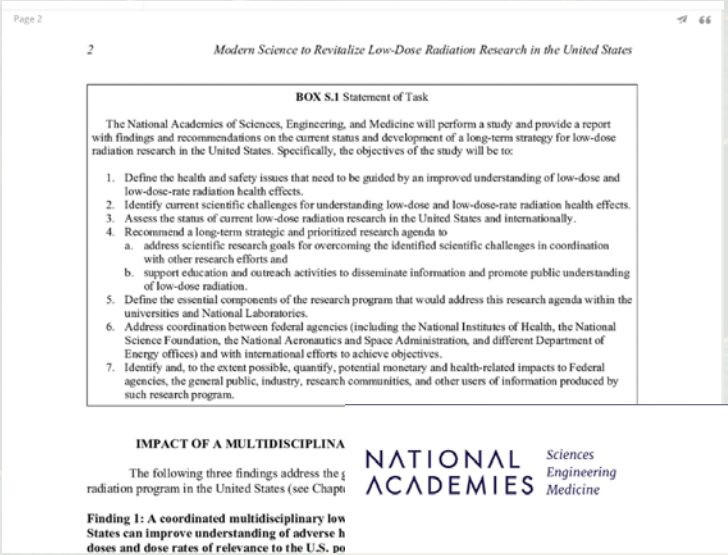
Events leading to the bill's passage began June 30, when Senate Minority Leader Mitch McConnell (R-KY) took it hostage to dissuade Democrats from using Congress' budget reconciliation process to pass a partisan package of tax reforms and climate change mitigation and healthcare spending. Days after Republicans followed through on the threat, the key Democratic negotiator on the reconciliation package, Sen. Joe Manchin (D-WV), declared he would only support a narrow healthcare-focused reconciliation bill. The move outraged other Democrats but cleared the way for CHIPS and Science to proceed with enough Republican support in the Senate to prevent a filibuster.

But then, only hours after the Senate passed the CHIPS and Science Act, Manchin and Senate Majority Leader Chuck Schumer (D-NY) announced they had agreed on a reconciliation package that includes tax provisions and $369 billion in climate-related spending. If enacted, that bill will provide a one-time boost to the science budgets of the Department of Energy and National Oceanic and Atmospheric Administration in addition to its more expansive funding for resilience measures and clean energy incentives.

CHIPS funding follows two years of effort

Congress has been working toward subsidizing the semiconductor industry for about two years, beginning with the June 2020 introduction of the bipartisan "CHIPS for America" legislation by Sens. John Cornyn (R-TX) and Mark Warner (D-VA) and Reps. Doris Matsui (D-CA) and Michael McCaul (R-TX). A version of that legislation swiftly became law as part of that year's National Defense Authorization Act.

July 28,



Page 2

2 *Modern Science to Revitalize Low-Dose Radiation Research in the United States*

BOX S.1 Statement of Task

The National Academies of Sciences, Engineering, and Medicine will perform a study and provide a report with findings and recommendations on the current status and development of a long-term strategy for low-dose radiation research in the United States. Specifically, the objectives of the study will be to:

1. Define the health and safety issues that need to be guided by an improved understanding of low-dose and low-dose-rate radiation health effects.
2. Identify current scientific challenges for understanding low-dose and low-dose-rate radiation health effects.
3. Assess the status of current low-dose radiation research in the United States and internationally.
4. Recommend a long-term strategic and prioritized research agenda to
   a. address scientific research goals for overcoming the identified scientific challenges in coordination with other research efforts and
   b. support education and outreach activities to disseminate information and promote public understanding of low-dose radiation.
5. Define the essential components of the research program that would address this research agenda within the universities and National Laboratories.
6. Address coordination between federal agencies (including the National Institutes of Health, the National Science Foundation, the National Aeronautics and Space Administration, and different Department of Energy offices) and with international efforts to achieve objectives.
7. Identify and, to the extent possible, quantify, potential monetary and health-related impacts to Federal agencies, the general public, industry, research communities, and other users of information produced by such research program.

IMPACT OF A MULTIDISCIPLINA

The following three findings address the g
radiation program in the United States (see Chapt

Finding 1: A coordinated multidisciplinary low
States can improve understanding of adverse h
doses and dose rates of relevance to the U.S. po

NATIONAL ACADEMIES Sciences Engineering Medicine

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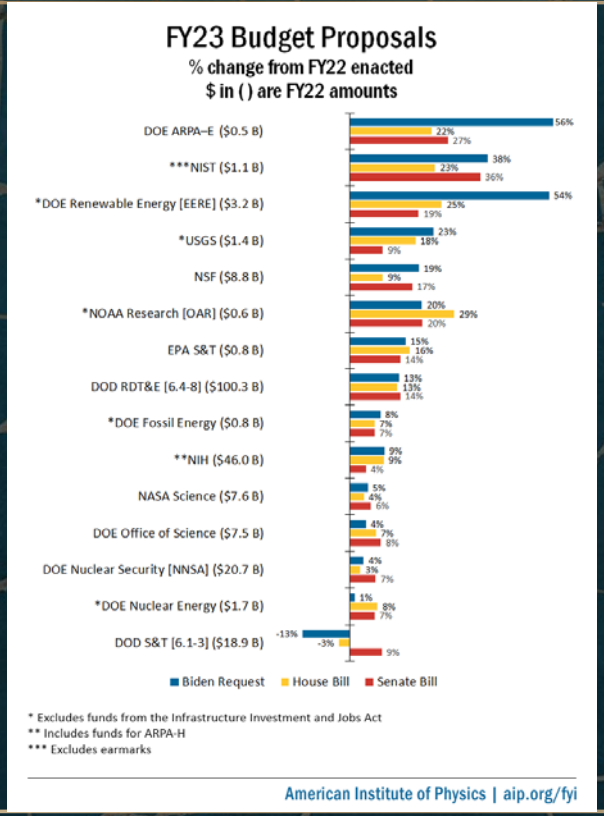
Developing a Long-Term Strategy for Low-Dose Radiation Research in the United States

Budget Tracker


FY23 Budget Proposals
% change from FY22 enacted
$ in ( ) are FY22 amounts
DOE ARPA–E ($0.5 B)
***NIST ($1.1 B)
*DOE Renewable Energy [EERE] ($3.2 B)
*USGS ($1.4 B)
NSF ($8.8 B)
*NOAA Research [OAR] ($0.6 B)
EPA S&T ($0.8 B)
DOD RDT&E [6.4-8] ($100.3 B)
*DOE Fossil Energy ($0.8 B)
**NIH ($46.0 B)
NASA Science ($7.6 B)
DOE Office of Science ($7.5 B)
DOE Nuclear Security [NNSA] ($20.7 B)
*DOE Nuclear Energy ($1.7 B)
DOD S&T [6.1-3] ($18.9 B)
56%
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27%
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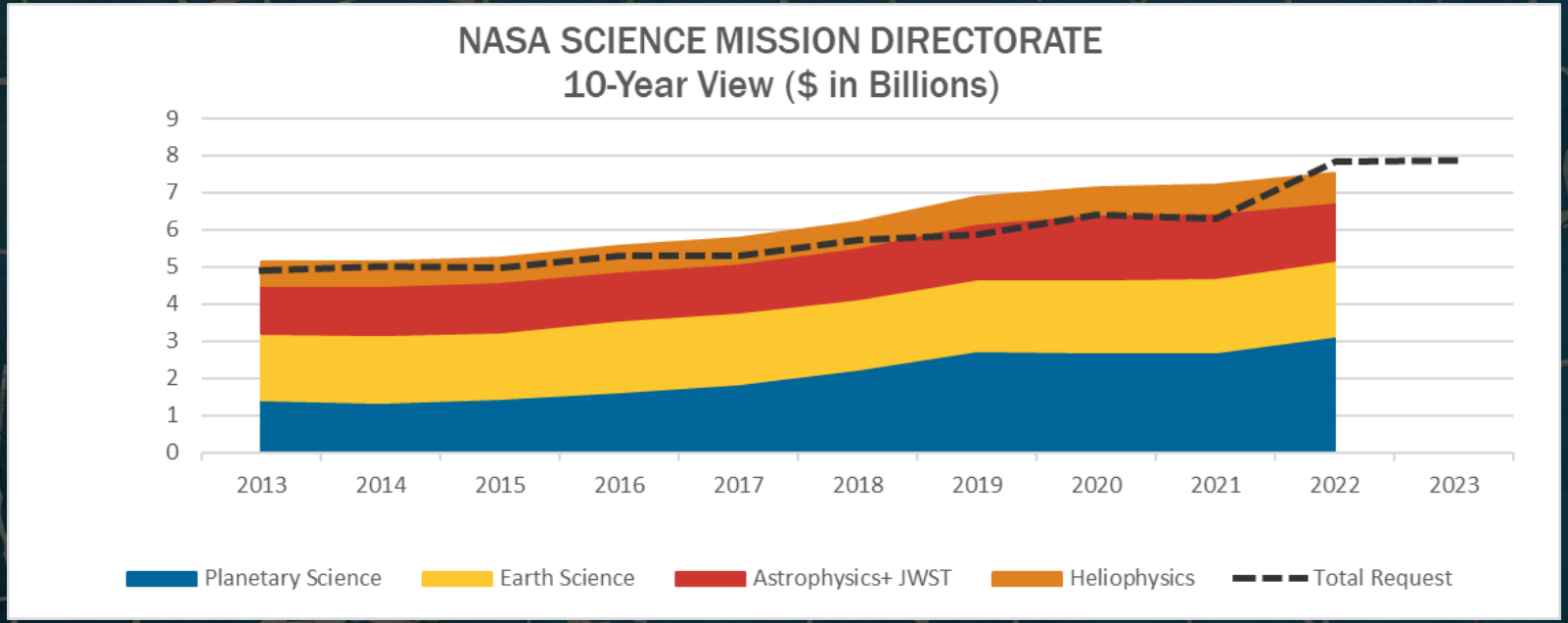
Biden Request
House Bill
Senate Bill
* Excludes funds from the Infrastructure Investment and Jobs Act
** Includes funds for ARPA-H
*** Excludes earmarks
American Institute of Physics | aip.org/fyi

2014 Sample Budget

Science
Funding by Congressional Control ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs. FY 2014 Enacted
Advanced Scientific Computing Research	**405,000**	**478,093**	**0**	**478,093**	**541,000**	**+62,907**
Basic Energy Sciences						
Research	1,504,053	1,609,929	0	1,609,929	1,667,800	+57,871
Construction						
13-SC-10 Linac Coherent Light Source-II, SLAC	0[a]	75,700	0	75,700	138,700	+63,000
07-SC-06 National Synchrotron Light Source (NSLS) II, BNL	47,203	26,300	0	26,300	0	-26,300
Total, Construction	47,203	102,000	0	102,000	138,700	+36,700
Total, Basic Energy Sciences	**1,551,256**	**1,711,929**	**0**	**1,711,929**	**1,806,500**	**+94,571**
Biological and Environmental Research	**560,657**	**609,696**	**0**	**609,696**	**628,000**	**+18,304**
Fusion Energy Sciences						
Research	377,776[b]	305,177	0	305,177	266,000	-39,177
Construction						
14-SC-60 ITER	0[b]	199,500	0	199,500	150,000	-49,500
Total, Fusion Energy Sciences	**377,776**	**504,677**	**0**	**504,677**	**416,000**	**-88,677**
High Energy Physics						
Research	715,742	745,521	0	745,521	719,000	-26,521
Construction						
11-SC-40 Long Baseline Neutrino Experiment, FNAL	3,781	16,000	0	16,000	0	-16,000


NASA SCIENCE MISSION DIRECTORATE
10-Year View ($ in Billions)
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2013
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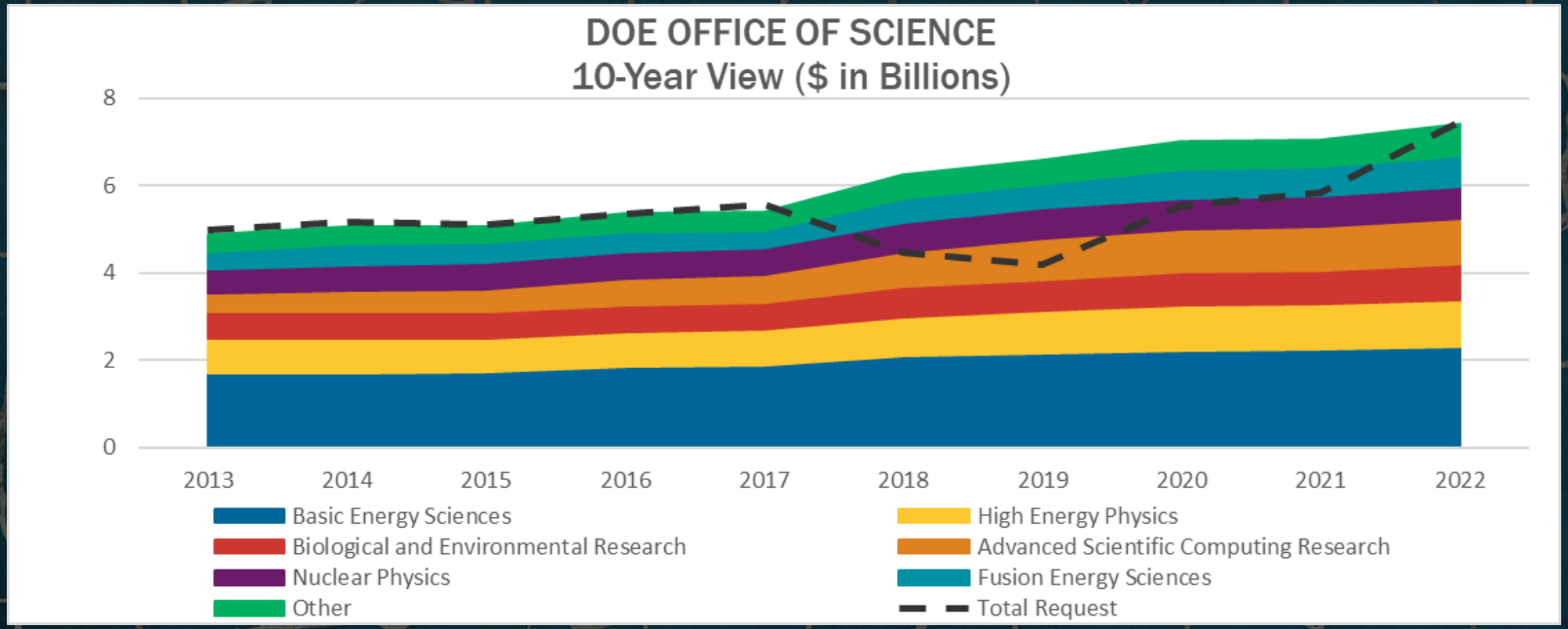
2022
2023
Planetary Science
Earth Science
Astrophysics+ JWST
Heliophysics
Total Request


DOE OFFICE OF SCIENCE
10-Year View ($ in Billions)
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2013
2014
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2016
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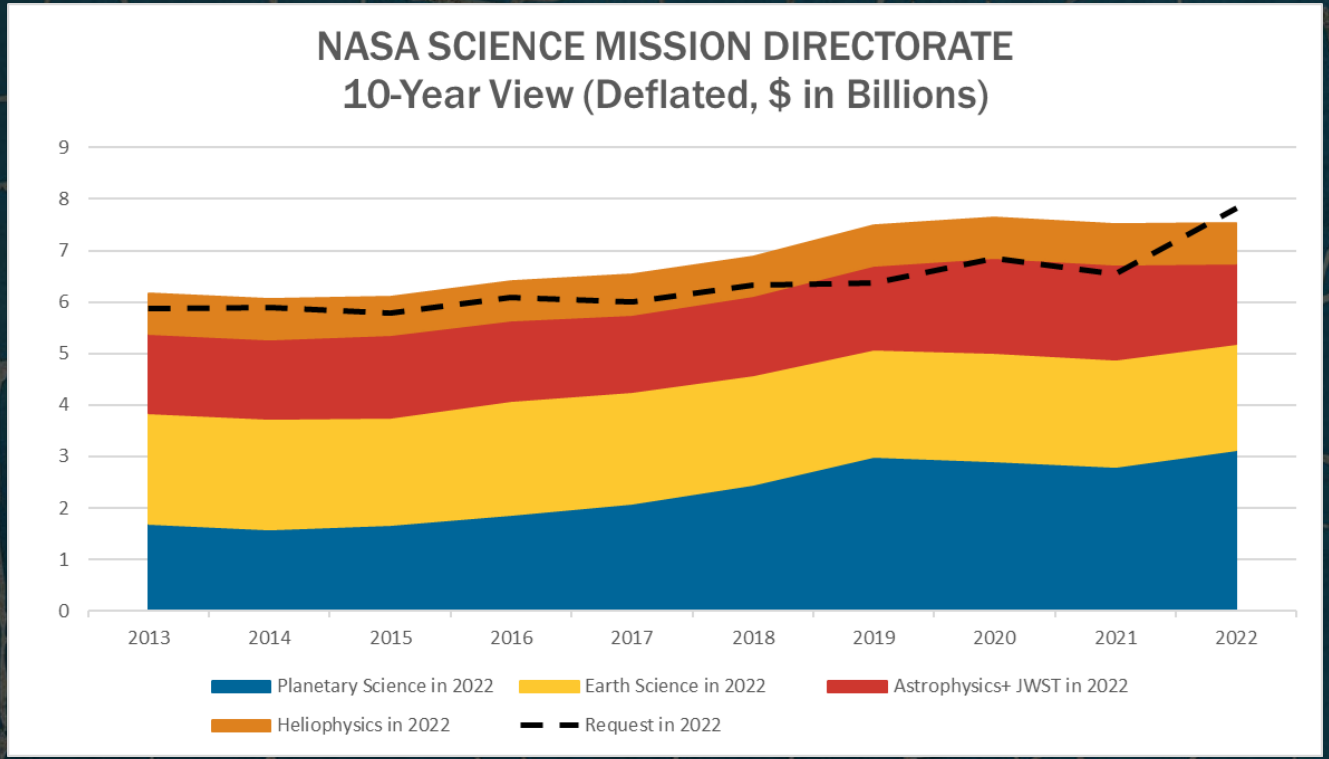
2021
2022
Basic Energy Sciences
High Energy Physics
Biological and Environmental Research
Advanced Scientific Computing Research
Nuclear Physics
Fusion Energy Sciences
Other
Total Request


NASA SCIENCE MISSION DIRECTORATE
10-Year View (Deflated, $ in Billions)
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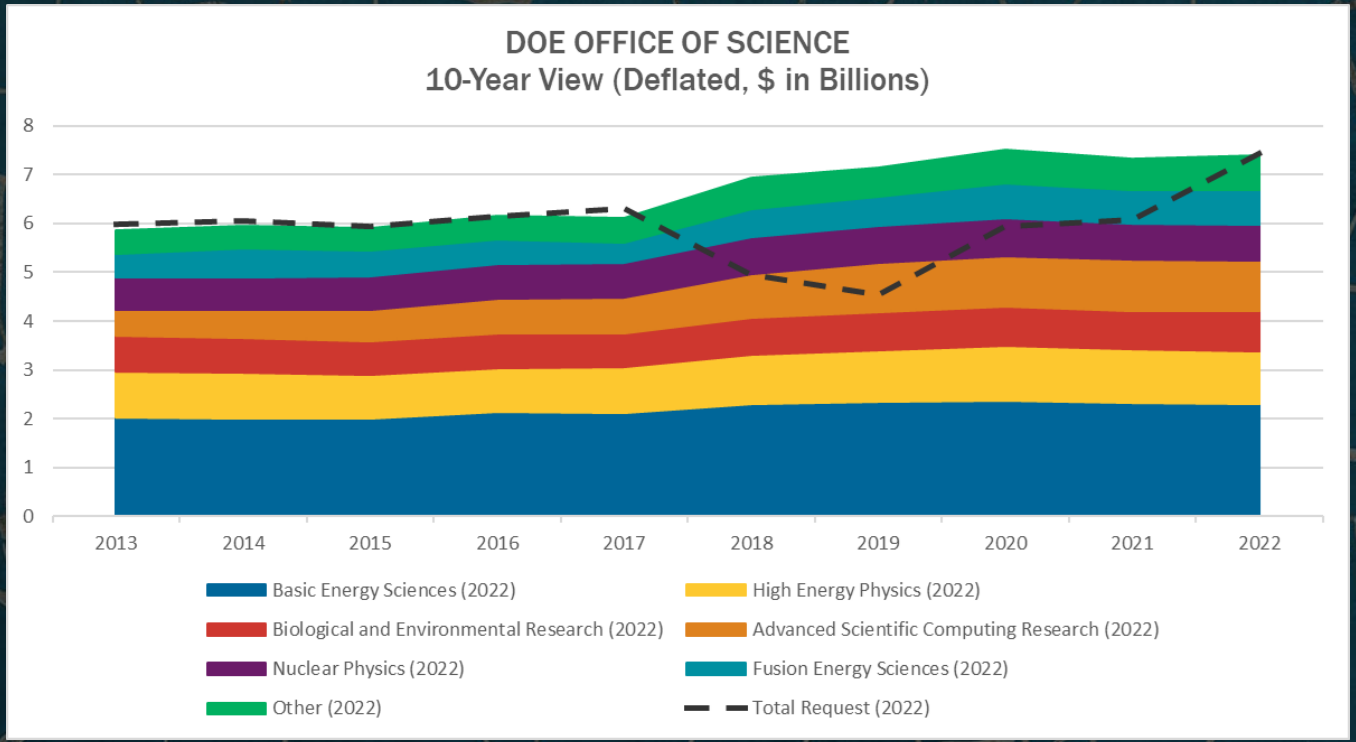
Planetary Science in 2022
Earth Science in 2022
Astrophysics+ JWST in 2022
Heliophysics in 2022
Request in 2022


DOE OFFICE OF SCIENCE
10-Year View (Deflated, $ in Billions)
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2022
Basic Energy Sciences (2022)
High Energy Physics (2022)
Biological and Environmental Research (2022)
Advanced Scientific Computing Research (2022)
Nuclear Physics (2022)
Fusion Energy Sciences (2022)
Other (2022)
Total Request (2022)

Skills

I brought to the table:

- Attention to detail
- A different perspective
- Knowledge of the federal government
- Fast-paced learning

I gained:

- Access and Excel Data Skills
- Record-taking
- Neutral writing
- Analyzing government documents

SPECIAL THANKS TO:

Mitch, Andrea, and Will

Brad, Kayla, and Mikayla

All the other Interns!

My Parents :)

Questions?

Comments are welcome too :)