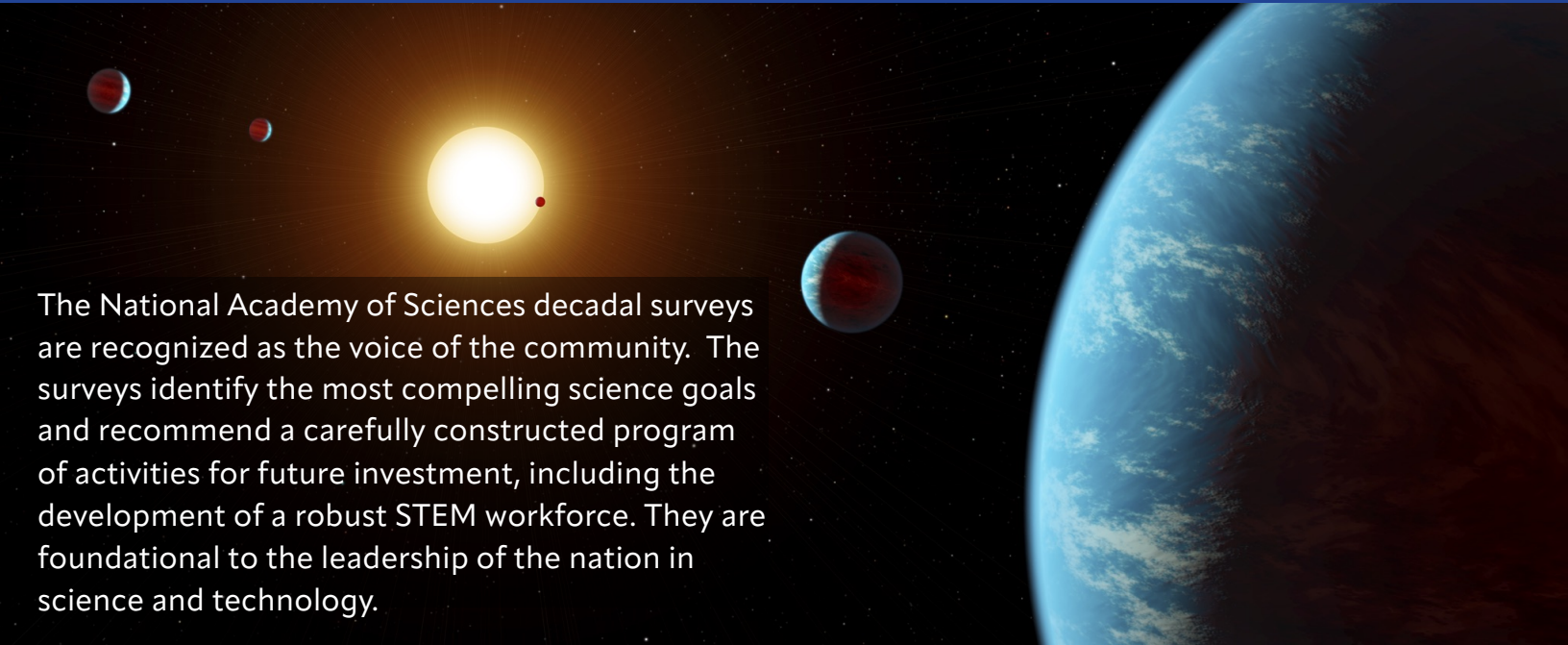


# SUPPORT FUNDING FOR THE ASTRONOMICAL SCIENCES



The National Academy of Sciences decadal surveys are recognized as the voice of the community. The surveys identify the most compelling science goals and recommend a carefully constructed program of activities for future investment, including the development of a robust STEM workforce. They are foundational to the leadership of the nation in science and technology.

The **2021 Pathways to Discovery in Astronomy and Astrophysics** decadal survey identifies three important science themes for the next decade aimed at investigating Earth-like planets outside of our solar system, observing the most energetic processes in the universe like black hole collisions, and better understanding the formation and evolution of galaxies.

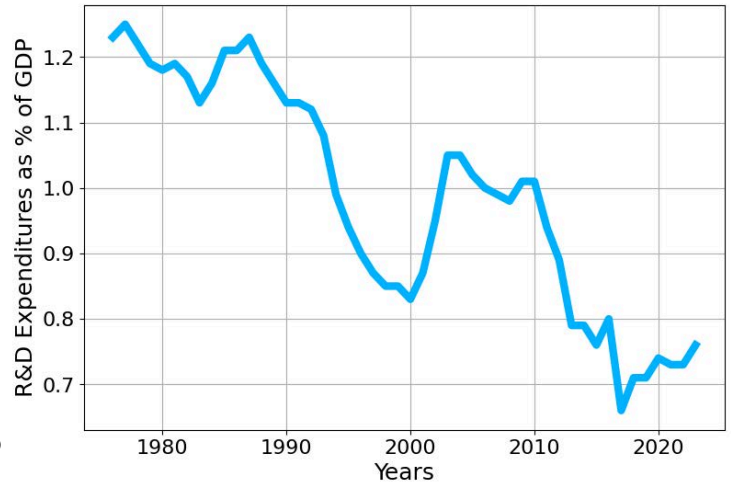
The **2022 Origins, Worlds, and Life: A Decadal Strategy for Planetary Science and Astrobiology** emphasizes the value of sample return, the need to understand how diverse planets, moons, and asteroids formed and evolved, the appeal of exploring the ice-giant planets Uranus and Neptune, the urgency of addressing how life on Earth emerged and evolved, and the compelling rationale to study habitable environments at Mars and icy ocean worlds.

The **2024 Next Decade of Discovery in Solar and Space Physics: Exploring and Safeguarding Humanity's Home in Space** stresses the importance of better understanding the dynamic interactions between the Sun and Earth to safeguard critical communications networks and space-based assets against space weather events, as well as the similarities and differences between our solar system and other planetary systems.

**Support a balanced portfolio to ensure a steady cadence of discoveries and provide a wide range of opportunities for future STEM professionals.**

Curiosity-driven research is vital to innovation and economic growth in the U.S. For example, in FY23, NASA efforts generated more than \$75 billion in economic output in all 50 states from a budget of \$27.6 billion. However, **the U.S. has seen a 35% decrease in R&D expenditure relative to our GDP over the last three decades.**

To ensure that the U.S. remains a global leader in innovation, **we ask that Congress fund sustained, robust growth for the science agencies**, including top line increases for the NASA Science Mission Directorate, NSF, and the DOE Office of Science to maintain a balanced mission portfolio.



Data retrieved from the AAAS R&D budget and policy tracker at: <https://www.aaas.org/programs/r-d-budget-and-policy/historical-trends-federal-rd>

**FY 2026 Appropriations Request**

Account	FY 2025 (Enacted)	FY 2026 (AAS Ask)
NASA SMD	\$7.3	\$9.0
NSF	\$9.1	\$9.9
DOE SC	\$8.2	\$9.5

This level of funding for FY26 will allow the NASA Science Mission Directorate, NSF, and DOE Office of Science to **support a balanced, coordinated, and world-leading astronomical sciences program** that advances top community priorities.

all values are given in billions of USD.

- An increased SMD budget would enable upcoming flagship missions, like the Habitable Worlds Observatory, the Uranus Orbiter and Probe, and the Geospace Dynamics Constellation to move forward without delay. It will also support a balanced portfolio of smaller missions alongside research and analysis to unlock the mysteries of the universe, enable **planetary defense**, and **protect our communications networks from space weather events**.
- An increased NSF budget would continue to **support and train our scientific workforce** through competitive grants, and allow ground-based astronomy programs, like the world-leading US Extremely Large Telescope Program, to proceed as planned.
- An increased DOE SC budget would **enable world-leading facilities**, like the Vera C. Rubin Observatory to study dark energy and dark matter, and help develop ultra-sensitive detector technology.

Cover image: Artist's concept depicts an exoplanet system (K2-138) which contains five "mini-Neptunes" closely orbiting their star. Credit: R. Hurt IPAC/NASA/JPL-Caltech.