

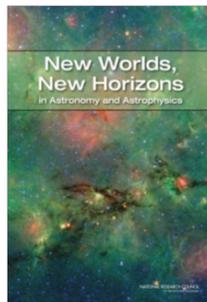


## Decadal Surveys

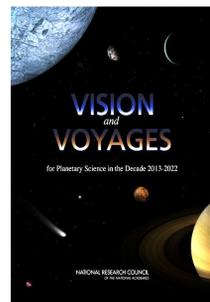
The National Academy of Sciences' decadal surveys are scientific community-based and recommend **ranked, consensus scientific priorities** for the coming decade.

The decadal surveys' overriding priority has been a **balanced program...**

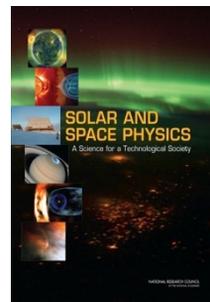
- across discipline and mission size
  - between competed and strategic programs
  - between facilities and grants
- ...to **optimize return on taxpayer investment.**



Astronomy and Astrophysics



Planetary Science



Solar and Space Physics

## Missions and Facilities

### Small and Mid-Scale

Competed | Focused Science | Investigator-Led



DOE/NSF DESI



### Strategic

Directed | Broad Science | Community Instruments



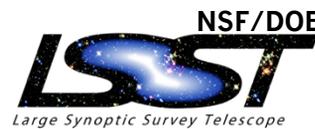
NASA



NSF DKIST



NASA Mars2020 Rover

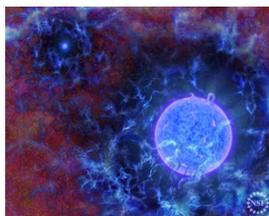


NSF/DOE Large Synoptic Survey Telescope

## Competed Grants

Awards are based on the **scientific merit** and **breadth of impact** of proposed research.

NASA, NSF, and DOE fund **students and researchers in all fifty states** across the **academic, industry, government, and nonprofit sectors.**



NSF-funded researchers detected the Universe's first stars, shown here in an artist's rendering, for the first time in 2018.

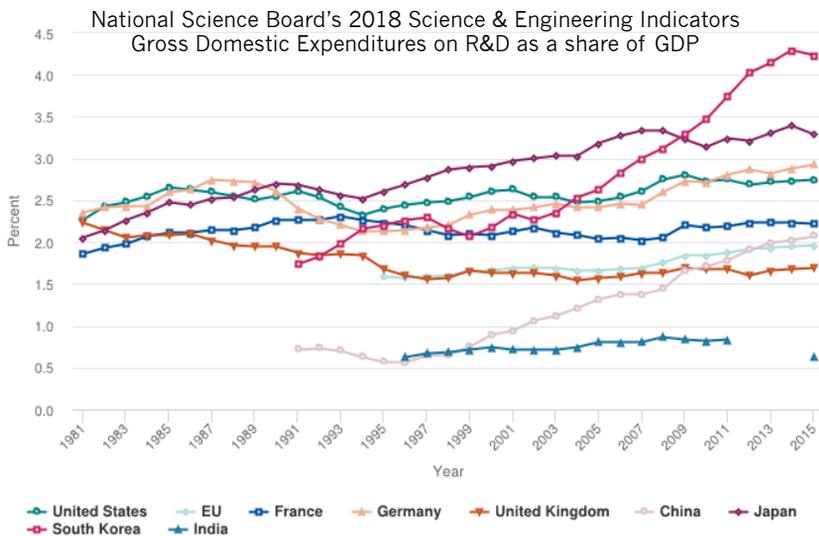




## Robust Investments Needed for Scientific Research

Curiosity-driven research is vital to innovation and economic growth in the U.S. Other countries have increased their relative investment in Research and Development (R&D) activities, while the U.S. has remained relatively flat, maintaining a 2.7% R&D expenditure relative to GDP.

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 the NASA Science Mission Directorate (SMD), NSF, and the DOE Office of Science (SC).



## 2019 Appropriations Request

The FY19 funding we are requesting will allow NASA, NSF, and DOE to support a **balanced, coordinated, and world-leading astronomical sciences program** that advances **top community priorities**.

Account	FY18 Omnibus	FY19 President's Request	FY19 Ask
<b>NASA</b>	\$20.7	\$19.9	<b>\$21.7</b>
SMD	\$5.76	\$5.72	<b>\$6.7</b>
Astrophysics	\$1.38	\$1.18	\$1.46
Heliophysics	\$0.69	\$0.69	\$0.72
Planetary	\$2.23	\$2.23	\$2.34
<b>NSF</b>	\$7.77	\$7.47	<b>\$8.45</b>
<b>DOE-SC</b>	\$6.26	\$5.39	<b>\$6.6</b>

All values are given in billions of USD.

In FY19, the AAS

- **Strongly opposes** administration's proposed **cut to astrophysics** and cancellation of the top astrophysics decadal priority: **WFIRST**
- Supports an appropriation that enables an FY22 launch of **Europa Clipper**
- Supports full funding for the Heliophysics **DRIVE** Initiative
- Seeks **historical increase to NSF overall** to jumpstart the U.S. scientific enterprise and long-term economic security
- Requests increased investment for mid-scale instrumentation at NSF

