

#### AMERICAN ASTRONOMICAL SOCIETY

Enhancing and sharing humanity's scientific understanding of the universe since 1899.

## **Decadal Surveys**

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

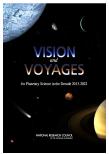
The decadal surveys' overriding priority has been a balanced program...

- across discipline and mission size
- between competed and strategic programs
- between facilities and grants

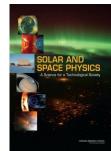
...to optimize return on taxpayer investment.



Astronomy and **Astrophysics** 



**Planetary** Science



Solar and Space **Physics** 

### Missions and Facilities

#### Small and Mid-Scale

Competed | Investigator-led | Focused Science









## **Strategic**

Directed | Broad Science | Community Instruments

NASA **Europa Clipper** 





NSF 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.



Left: NSF-funded researchers used the Gemini Observatory to characterize the first known interstellar object in our Solar System, 'Oumuamua



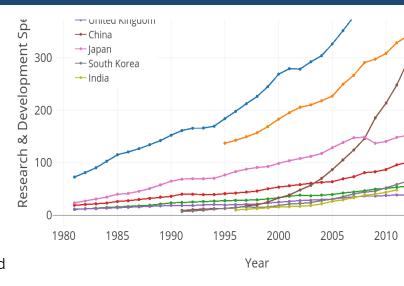
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## Robust Investments Needed for Scientific Research

Curiosity-driven research is vital to innovation and economic growth in the U.S. Other countries are accelerating their investments in Research and Development (R&D) activities; China is poised to overtake the U.S. investment in just a few years. The U.S. has maintained a generally flat R&D expenditure relative to our GDP (3%) 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 the NASA Science Mission Directorate (SMD), NSF, and the DOE Office of Science (SC).



### 2019 Appropriations Request

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

| <b>,</b> ,,     |   |  |
|-----------------|---|--|
| FY18<br>Omnibus | FY19<br>President's<br>Request                          | FY19<br>Ask  |
| \$20.7          | \$19.9  | \$21.7   |
| \$6.2           | \$5.72  | \$6.5  |
| \$1.38          | \$1.18  | \$1.46   |
| \$0.69          | \$0.69  | \$0.72   |
| \$2.23          | \$2.23  | \$2.34   |
| \$7.77          | \$7.47  | \$8.45   |
| \$6.26          | \$5.39  | \$6.6  |
|                 | \$20.7<br>\$6.2<br>\$1.38<br>\$0.69<br>\$2.23<br>\$7.77 | Omnibus President's Request   \$20.7 \$19.9   \$6.2 \$5.72   \$1.38 \$1.18   \$0.69 \$0.69   \$2.23 \$2.23   \$7.77 \$7.47 |

In FY19, the AAS

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

All values are given in billions of USD.