



Funding Opportunity: NSF Launches the AI-Enabled Scientific Discovery Program to Advance AI-Ready Datasets

Lewis-Burke Associates LLC – July 24, 2026

The National Science Foundation (NSF) has released a new funding program, the [Unlocking Dataset Value for AI-Enabled Scientific Discovery program](#) (AI Datasets), to advance scientific community datasets using artificial intelligence (AI). The program, announced as part of NSF's activities to advance the Administration's AI priorities through the Genesis Mission, addresses the challenge of dataset accessibility and interoperability through AI-driven methods such as feature extraction, metadata generation, the development of data pipelines for automated analysis, and the harmonization of existing datasets.

Proposals are encouraged to use existing NSF datasets, including [NSF data platforms](#), [NSF Integrated Data Systems and Services program](#), [NSF-led National AI Research Resource \(NAIRR\)](#), and the [Genesis Mission platform](#). Proposals should also focus on advancing one or more of the following measures of success:

- **Discovery and Innovation:** Expanding datasets or developing new AI-driven technologies and techniques.
- **STEM Workforce and Education:** Training undergraduates and graduate students on the use of AI scientific datasets.
- **Research Infrastructure:** Creating new built infrastructure or research facilities that leverage existing datasets.

AI Datasets involves the Directorates for Computer Science and Information Science and Engineering (CISE), Biological Sciences (BIO), Engineering (ENG), Geosciences (GEO), Mathematical and Physical Sciences (MPS), and Technology, Innovation, and Partnerships (TIP). The program is aligned with [America's AI Act Plan](#), which calls for the U.S. to lead on the "creation of the world's largest and highest quality AI-ready scientific datasets." The AI Datasets program will also support the Administration's Genesis Mission's work to build an integrated platform that uses scientific datasets to train AI models. NSF is also open to exploring partnerships with philanthropy, private, or nonprofit organizations to expand support for this program.

Due Dates: Proposals are due on **November 4, 2026**.

Award Size and Duration: NSF anticipates making three types of awards: 10 to 20 Impact awards of up to \$2 million, 5 to 10 Flagship awards of up to \$5 million, and 10 to 20 planning grants of up to \$200,000.

- **Impact awards:** Up to 3 years, maximum of \$2 million per award, and approximately 10 to 20 awards. While the solicitation does not provide specific guidance on Impact awards, it does state that Flagship award proposals (below) will "require more substantial resources than an Impact AI Dataset proposal. Example justifications for more substantial resources may include a more ambitious research scope or support a significantly large research community."

- **Planning grants:** Maximum of \$200,000 per award and approximately 10 to 20 awards. These awards are for early-stage ideas that could lead to stronger proposals (i.e., community meetings and exploration of key challenges).
- **Flagship awards:** Up to 3 years, maximum of \$5 million per award, and approximately 5 to 10 awards. These awards are for complex challenges that need more funding (i.e., ambitious research scope or support for a significantly large research community). Proposers to the category are encouraged to contact aidatasets@nsf.gov to discuss their scope and concept with a program officer before submitting.

All proposals must include four sections: community benefit, research plan, dataset governance, and dataset availability, with Flagship proposals requiring a fifth section justifying their higher funding request. All awardees are expected to participate in biannual virtual meetings, with occasional in-person meetings (i.e., an annual PI meeting or the NSF NAIRR community meeting).

Eligibility: Eligibility is open to two and four-year Institutions of Higher Education (IHEs), nonprofit and for-profit organizations, Tribal Nations, state and local governments, and FFRDCs. There are no **limits on the number of proposals per organization** or the number of proposals per PI or co-PI.

Sources and Additional Information:

- The AI Datasets program page is available at <https://www.nsf.gov/funding/opportunities/ai-datasets-unlocking-dataset-value-ai-enabled-scientific-discovery>.
- The full solicitation can be found here: <https://www.nsf.gov/funding/opportunities/ai-datasets-unlocking-dataset-value-ai-enabled-scientific-discovery/nsf26-512/solicitation>
- The press release can be found here: <https://www.nsf.gov/news/new-nsf-initiative-aims-unlock-dataset-value-ai-enabled>