ADVANCED MANUFACTURING

Advanced Manufacturing Funding[1]
(Dollars in Millions)

	FY 2024 Current Plan	FY 2025 (TBD)	FY 2026 Request
BIO	$6.16		$6.15
CISE	41.62		14.57
EDU	6.00		-
ENG	101.66		57.00
GEO Programs	-		2.00
MPS	115.70		-
SBE	-		0.52
TIP	38.48		29.86
OISE	0.50		-
IA	0.50		-
Total	**$310.62**	**-**	**$110.10**

[1] Funding displayed may have overlap with other topics and programs.

Manufacturing is essential to almost every sector of the U.S. economy, spurring growth by increasing productivity, making new products available to the marketplace, and opening new industries. Advanced manufacturing uses innovative technologies to create safe and secure products and processes with higher performance, fewer resources, and/or new capabilities. NSF's investments in Advanced Manufacturing research and education lead to useful methods and products that can increase U.S. prosperity, competitiveness, security, and quality of life.

NSF aims to transform U.S. manufacturing capabilities, methods, and practices through the development of new materials, technologies and systems. Our approach builds upon and contributes to related investments in biotechnology, microelectronics and semiconductors, quantum technologies, artificial intelligence, robotics, communications and sensing, and other key technologies.

NSF has three goals in Advanced Manufacturing:

- *Advanced manufacturing research*: Support groundbreaking discoveries in advanced manufacturing that lead to products and processes with higher performance, new capabilities, better safety, heightened security and privacy, and the use of fewer and more sustainable resources.
- *Workforce development*: Attract, educate, train, and reskill/upskill diverse workers, from K-12 to college and industry, across the Nation, for the manufacturing workforce of the future.
- *Translation to practice*: Leverage partnerships with other sectors to enable the translation of research results to the market and society.

In FY 2026, NSF's Advanced Manufacturing investment will support:

- *Advanced manufacturing research*. NSF investments will speed the discovery of new methods, processes, analyses, tools, or equipment for new or existing manufacturing products, supply-

chain components, or chemicals and materials, including replacements for environmentally harmful mainstay materials. NSF will also support research on manufacturing of novel materials, AI-enabled digital twins for manufacturing, and resilient and distributed manufacturing infrastructure to make any product anywhere, anytime, in any quantity.

- *Workforce development*. To prepare a competitive advanced manufacturing workforce across the U.S., NSF will invest in STEM education at all levels and across settings. These investments include curriculum development and faculty training, internships and hands-on student research experiences, access to fabrication and manufacturing facilities, recruitment and retention efforts, and coordination and facilitation of partnerships.
- *Translation to practice*. NSF speeds translation of fundamental discoveries in advanced manufacturing into products and processes in collaboration with the private sector. In addition, NSF coordinates with other agencies and connects them to universities and community colleges.