

Federal R&D Investment and Its Economic Impact

Insights from the 2026 Economic Impacts Literature Review

The **U.S. National Science Foundation (NSF)’s Economic Impacts Literature Review** highlights the federal government’s investment in research and development (R&D) and the economic returns generated by those investments. Figure A and Table A show the government’s role in national R&D systems and the measurable impacts of federal research funding.

Figure A shows how government financing fits within the broader R&D landscape across countries in the Organisation for Economic Cooperation and Development (OECD). The figure categorizes OECD R&D spending into government, business, and higher education and nonprofit sectors. In 2021, 23% (\$436 billion) of global R&D investment in OECD countries came from government sources.

U.S. data on the types of R&D supported—basic, applied, and experimental development—and the organizations that perform the research, including business, higher education, federal entities, and nonprofits, show the following (in 2022):

- The U.S. federal government financed \$159.8 billion (18%) of the \$885.6 billion in total U.S. gross expenditures on R&D.
- Federal funding supported 52% of higher-education R&D and 5% of business R&D.

Table A summarizes estimates from eight studies that assess the economic impacts of federal R&D funding. For every \$1 investment in R&D, the typical (i.e., median) impact to GDP is \$2.64 and to wages is \$0.96. These findings demonstrate that federal research funding generates economic growth and improves wages.

To learn more about the findings, review the Evaluation and Assessment Capability (EAC) Unit report, [NSF Economic Impacts: Literature Review](#), published in March 2026.

The **Evaluation and Assessment Capability (EAC) Unit** supports NSF’s efforts to make informed decisions and promote a strong culture of evidence. Located within the Office of Award Management, EAC provides centralized technical support, tools, and resources to support evidence-building activities and to strengthen evidence generation and use across the agency. To learn more about EAC, visit <https://new.nsf.gov/od/oia/eac>. To be notified when EAC publishes new findings, subscribe at <https://public.govdelivery.com/accounts/USNSF/signup/39856>.

Scale and Economic Value of Federal R&D Funding

Figure A: OECD gross expenditures on R&D by source of funds (current USD PPP, billions), 2011–2021

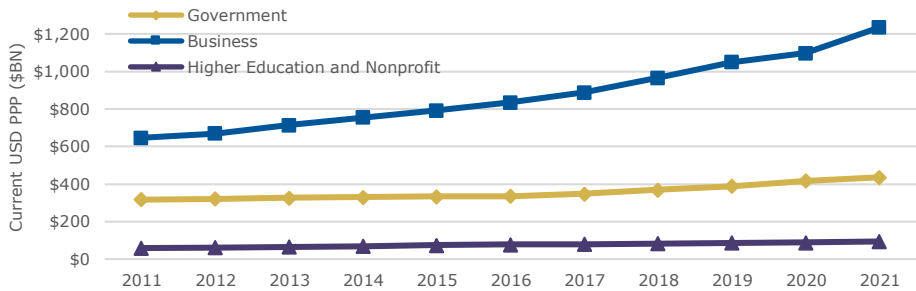


Table A: Summary of Input-Output Studies of Research Economic Activity Associated with Federal Research Funding

Estimate	Minimum	Median	Maximum	# of studies reviewed
Total output per \$1 in funding	\$2.31	\$2.64	\$2.86	8
Value added per \$1 in funding	\$1.46	\$1.52	\$2.00	5
Employee compensation per \$1 in funding	\$0.94	\$0.96	\$1.23	7
Tax revenue per \$1 in funding	\$0.33	NA	\$0.36	2
Cost per job supported	\$58,000	\$72,000	\$92,000	8

Note: “Output per \$1” reflects GDP supported by federal research funding; “value added per \$1” measures net production after input costs; “employee compensation per \$1” captures supported wages and benefits; and “Cost per job supported” is total funding divided by estimated jobs.

Source: Schnell, Joshua, Aviva Litovitz, Jeffrey Alexander, Adams Bailey, Carly Dotson, Joshua Fletcher, Lena Leonchuk, Jonathan Merker, Meaghan McGrath, Patrick McHugh, Jennifer Ozawa, Marwa Salem, and Amanda Walsh. 2026. *NSF Economic Impacts: Literature Review*. Alexandria, VA: U.S. National Science Foundation.