ASTRONAUTS FOR AMERICA

FEDERAL SCIENCE FUNDING: THE BAD, THE GOOD AND THE UGLY

Founding Values: Domestic Tranquility; Common Defense; General Welfare. Constitutional Principles: Separation of Powers; Rule of Law. Institutional Norms: Executive Constraint; Administrative Neutrality; Legislative Bipartisanship; Truth, Science and Evidence.

BOTTOM LINE

In 2025 federal agencies terminated or froze roughly 2,500 National Institutes of Health grants and 1,300 National Science Foundation grants already awarded through peer review. Nearly 118,000 government employees left federal science agencies between September 2024 and February 2026. In early 2026 Congress restored nearly all the money, with bipartisan support. Many government scientists and grant researchers, however, could not wait out an appropriations cycle and are gone for good. The administration should manage the workforce prudently, and Congress should fund research on multi-year authority and restore peer review as the basis for awards.

NARRATIVE

The Bad: The Preamble asks government to insure domestic tranquility, provide for the common defense and promote the general welfare. The United States has pursued all three through federally funded research. Beginning in February 2025, agencies terminated and froze research grants already awarded through peer review. By late 2025 about 2,500 NIH awards worth $2.3 billion in unspent funds had been cut, along with about 1,300 NSF awards worth some $700 million. Executive Order 14303, "Restoring Gold Standard Science" (May 2025), put agency scientific-integrity processes under "a senior appointee designated by the agency head." Executive Order 14332, "Improving Oversight of Federal Grantmaking" (August 2025), went further: it requires a senior political appointee to review discretionary awards and states that peer review recommendations "remain advisory" rather than binding. Merit review, the method that has allocated federal research money since 1945, becomes advice. Note: this is on hold until December. In September 2026 budget director Russell Vought pushed a further order: a commission of political appointees, himself among them, able to veto NIH awards that passed peer review. About 15,000 left the physical-science agencies during 2025, a third through deferred resignation; NSF lost more than 30 percent of its staff, and USGS, NOAA and NIH about 20 percent each. Across the whole federal science workforce, including health, land and food-safety agencies, the Partnership for Public Service puts the decline at nearly 118,000 between September 2024 and February 2026, more than 10,000 of them holding science doctorates. At fourteen research agencies departures outran new hires eleven to one. NASA closed its Office of the Chief Scientist in March 2025, and the administration dismissed nearly 400 authors of the National Climate Assessment, the report Congress mandated from the interagency U.S. Global Change Research Program. The Department of Government Efficiency (DOGE) claimed savings the Government Accountability Office could not verify. The Supreme Court let the NIH terminations proceed in August 2025, while the Ninth Circuit held that terminating grants over their subject matter likely violated the First Amendment.

The Good: Then Congress said no. The appropriations signed on January 23, 2026 rejected nearly every proposed cut. The administration asked for $3.9 billion for NSF; Congress appropriated $8.75 billion. It asked for $3.9 billion for NASA science; Congress appropriated $7.25 billion. At NASA the deepest proposed cuts fell on biological and physical sciences, down 71 percent, astrophysics, down 66 percent, and Earth science, down 52 percent. Congress rejected all three, funding the divisions at roughly their 2025 levels, with appropriators of both parties leading the way. In July 2025 Senator Katie Britt and thirteen Republican colleagues wrote that the slow release of NIH funds "risks undermining critical research." In September 2026 the Senate Appropriations Committee chair warned that the commission would undercut the peer review NIH law requires. The order was shelved.

The Ugly: Michael Kratsios, the White House science adviser, did not object to the cuts; his Office of Science and Technology Policy report of July 2026, "Science: A New Golden Age," calls for funding that moves "beyond slow consensus peer review." Four NIH officials resigned in protest, saying they could "no longer lend our credibility to an organization that has lost its integrity." The ugliest part is that scientists could not wait. Applications from United States scientists for jobs abroad rose 32 percent in early 2025, and Europe and the United Kingdom opened funds to recruit them. Of the first 694 NIH grant terminations, one in five were training, fellowship or career-development awards, including 59 predoctoral fellowships. Money restored in 2026 does not restore a career redirected a year earlier. Defense research was not spared. The Pentagon's own review found its Science and Technology Reinvention Laboratories had lost about 14 percent of their workforce and warned that the department's "innovation engine is at risk of stalling, with potentially grave consequences for the future of national defense and the Warfighter."

FINDINGS

PROXIMATE CAUSE(S)	CONTRIBUTING CAUSE(S)	ROOT CAUSE(S)
• Agencies terminated or froze about 2,500 NIH awards and 1,300 NSF awards that already	• Separation of Powers strained: money Congress appropriated was cancelled by	• Overreaction: some argue federal research had drifted into low-value or ideological work and needed

passed peer review, cutting roughly $3 billion.
- Executive Order 14332 (August 2025) requires a political appointee to review discretionary grants and declares peer review recommendations advisory rather than binding (on hold til Dec.).
- Executive Order 14303 (May 2025) placed agency scientific-integrity processes under a political appointee designated by the agency head.
- Nearly 118,000 employees left federal science agencies between September 2024 and February 2026, more than 10,000 of them holding doctorates in science.

executive action, and release of the funds Congress restored has been delayed.
- Rule of Law sidestepped: the workforce was reduced through terminations and deferred resignations rather than the Reduction in Force procedures civil service law requires.
- Administrative Neutrality set aside: final say over discretionary awards moved from career merit reviewers to political appointees who may end grants that no longer match administration priorities.
- Truth, Science and Evidence abandoned: DOGE asserted massive savings without publishing an accounting, and a federal appeals court found the stated grounds for termination were likely viewpoint discrimination. The President's science adviser did not publicly object.

pruning. To the extent that was true, it did not call for widespread arbitrary cancellation of awards already reviewed and underway.
- Treating scientific merit review as an obstacle rather than a quality control. Peer review is the check that keeps funding decisions defensible on evidence rather than politics; made advisory, it stops being a check.
- The remedy runs slower than the harm. A postdoctoral researcher whose grant is cancelled in April must find work in May. Congress can restore a budget line; it cannot restore a scientist who has taken a job in Munich.

Norm Erosion: *Executive Constraint: cancelling peer-reviewed awards that Congress had funded, and delaying release of the funds Congress later restored, treats an appropriation as a suggestion. Administrative Neutrality: Executive Order 14332 moves final say over discretionary awards from career merit reviewers to political appointees and makes peer review advisory. Truth, Science and Evidence: savings were asserted without a public accounting. Legislative Bipartisanship: Appropriators restored nearly every proposed cut, and Republican senators led. A norm that holds is worth naming as clearly as one that fails.*

*Levitsky and Ziblatt, in **How Democracies Die** (2018), identify executive constraint and administrative neutrality as the two most critical norms sustaining democratic governance, and warn that courts cannot enforce norms because they are norms, not laws. Here the legislators did their part. The remedy arrives on the appropriations calendar; the damage does not.*

RECOMMENDATIONS

LEGISLATORS

- Fund research on multi-year authority so a single budget cycle cannot strand work already underway.
- Restore in permanent statute what Executive Order 14332 made optional: peer review as the basis for research awards, with any political override documented in writing.
- Require agencies to report every grant termination to the appropriating committees with rationale.
- Keep doing what worked. The bipartisan appropriations that restored these budgets are the model; now press the executive branch to do their part.

GOVERNMENT EXECUTIVES

- Publish the accounting behind claimed efficiency savings.
- Use lawful Reduction in Force procedures for any workforce reduction and protect critical mission technical capability.
- State in writing the reason for any grant termination and give the grantee a route to appeal.
- Agency scientists retain a duty to report findings accurately. Their oath is to the Constitution, not to political appointees.
- NIH reforms should be submitted to Congress for legislation rather than pursued by executive order.

CITIZENS

- Ask your representatives whether the 2026 science appropriations have actually reached the labs, and what they are doing to make sure they do.
- Visit AstronautsForAmerica.org for The Candidate Integrity Pledge.
- Use social media, and challenge local news outlets, to publicize the Congressional science budget restoration as an example of good government.
- Challenge your local school board to improve civics and science education at all levels.
- Vote!

Key Sources: *Executive Orders 14303 and 14332 (2025), Federal Register; Science News on NIH and NSF grant terminations (Nov 2025); Liu et al., NIH grant terminations, JAMA (2025); NIH v. American Public Health Association (U.S. 2025); Thakur v. Trump (9th Cir. 2026); Partnership for Public Service, federal science workforce (2026); Science, federal STEM doctorate departures (Feb 2026); American Institute of Physics, workforce decline (Feb 2026); GAO-26-108615, DOGE Wall of Receipts (Aug 2026); Review of the Defense Research Enterprise (June 2026); American Astronomical Society, FY2026 NASA appropriations; Association of American Universities, FY2026 science funding; Sen. Katie Britt et al., NIH funding letter (July 2025); OSTP, "Science: A New Golden Age" (July 2026); STAT, NIH officials resign (Jan 2026); Senate Appropriations Committee chair, NIH order letter (Sep 2026); NPR on researchers moving abroad (June 2026)*

Appeal to Our Crewmates: This "Failure Is Not an Option" briefing is one of a series by Astronauts For America, distilling our "America, We Have a Problem" series briefings into cause factors and actionable recommendations. We are not constitutional scholars; we defer to experts and use primary sources: court decisions, congressional records, peer-reviewed scholarship and news reporting rather than commentary or opinion. Please use the "Contact Us" feature on our website to tell us what we can do to help our democracy keep faith with our American ideals.