

Scientific Earthquake Studies Advisory Committee Mid-Year Report to the Director of the U.S. Geological Survey

May 4, 2026

We are writing to bring your attention to a severe consequence of the congressional budgeting process for the FY2026 USGS Earthquake Hazards Program (EHP). Together with long-standing concerns about gaps in recruitment and retention of key scientific and technical personnel, we believe that flaws in the budget process may **compromise the ability of the EHP to successfully perform its life-critical mission of ensuring security of the American public from threats associated with earthquakes and their secondary effects**. Because the FY2027 budget process has already begun, we write with particular urgency to raise these concerns and highlight the severe impact of these specific budget directives.

The Scientific Earthquake Studies Advisory Committee (SESAC) is charged with providing independent oversight and advice to the EHP. We typically submit a single annual report near the end of each fiscal year. This year, however, the SESAC committee has elected to provide this mid-year report focusing on a single issue that appears to be threatening a key component of the EHP's fundamental mission: **congressional budget directives that are leading to severe reduction or even elimination of key EHP activities**.

The FY2026 congressional Minibus appropriation provided a modest (\$2.25M) budget increase for the EHP relative to the previous year's budget. This welcome news appeared to offer a mechanism for positive growth in mission-critical EHP activities, or at least maintenance of the current program. However, the FY2026 appropriation process left the program with a number of unusually specific budget directives, notably a \$6.25M increase for continued development and expansion of the ShakeAlert earthquake early warning (EEW) system in the western U.S. and Alaska, and a \$0.75M commitment to Subduction Zone Science initiatives. These laudable programs address important EHP priorities (including those highlighted in previous SESAC reports); however, formal adoption of these two ~\$7M budget directives, supported with only \$2.25M in additional funding, carries the consequence of forcing an effective ~\$5M reduction in program funding. This funding reduction will likely **lead to elimination of critical EHP programs, most notably the EHP's highly successful external research funding program**.

The USGS NEHRP external funding program has been a critical and highly cost-effective component of the USGS contribution to the National Earthquake Hazards Reduction Program since its establishment nearly fifty years ago (following the enactment of the Earthquake Hazards Reduction Act of 1977). The program provides a critical link between the core research mission of the EHP and our nation's leading academic scientists and hazard consulting industry. The grant program carefully aligns university and private sector research initiatives and earthquake hazard infrastructure to EHP research priorities. Since 2006, the external funding program has provided nearly 1400 grants totaling \$81M (averaging \$4.5M each year) to approximately 50-80 research teams annually, as shown on the graphs below. **Their work has helped to advance the USGS earthquake hazard mission across ten major thematic areas and seismically hazardous regions of the country.**

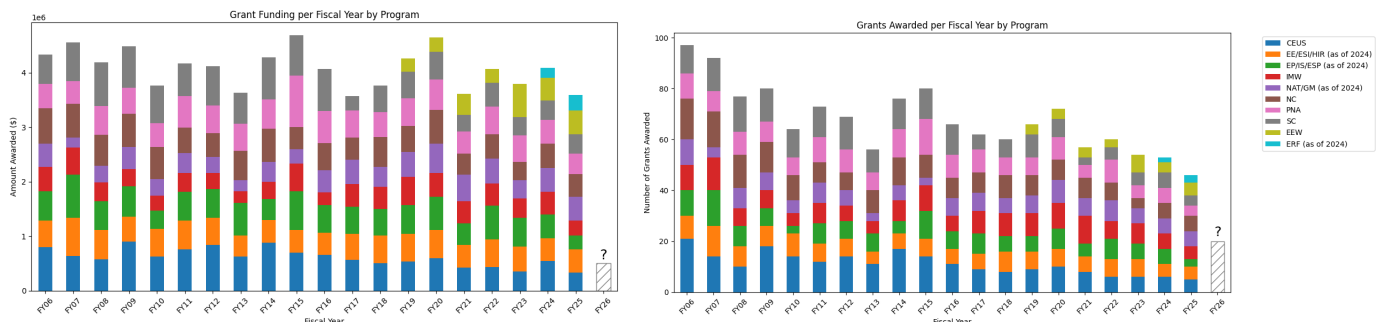
The external funding program allows the USGS to leverage the talents of America's academic and private sector research base at modest cost to the program, permitting performance of work that would not otherwise be possible. Prominent examples include (1) basic research that led to the creation and implementation of the ShakeAlert Early Warning System; (2) the creation of seismic ground motion models and site amplification factors on which the National Seismic Hazard Model (NSHM) depends; (3) incorporation of new geodetic and strong motion seismic

observations into the NSHM; (4) field-based research on the seismic hazard associated with active faults in U.S. Midcontinent, along with those in the western US and Alaska; (5) creation of ground failure models that assess in near-real time the likely distribution of secondary effects such as earthquake-triggered landslides and liquefaction; and (6) development of state-of-the-art earthquake simulation models that address the complex earthquake sources that may emerge from multi-fault ruptures (such as the devastating 2023 Türkiye earthquake).

This year, **the vast majority of the proposals submitted—including those with very strong reviews and close alliance to EHP mission—have been rejected**, with only 20 proposals set aside in a “pending” category for possible funding—if any USGS and DOI funding arrangements might allow. If no funding arrangements can be made in the next several months, the program may be forced to reduce this support to zero for the first time in its 48-year history.

Perhaps equally important to the research contributions themselves, the external funding program has also been **a key pathway for supporting students and post-doctoral researchers**, bringing the next generation of earth scientists and engineers into the constellation of USGS research—often leading to recruitment of many of the EHP’s most talented scientific and technical staff. We are past the date when these grants normally would have been awarded; thus, the funding uncertainty and delays hinder the progress of key research objectives, making it difficult to constructively plan for successful execution (e.g., recruiting new graduate students into their USGS-connected research projects for the coming year). Together with staff deficits in critical scientific, technical, and administrative positions within EHP, these funding cuts threaten both ongoing mission-critical research and monitoring projects (as detailed in our FY2025 report) and in turn the **pipeline of qualified scientific staff needed to ensure the long-term sustainability** of the EHP mission.

We invite your thoughts as to how best to address these unforeseen impacts of the FY2026 budgeting process—and to prevent the recurrence in the FY2027 budget process. In the short term, we encourage you to explore options for short-term funding to bridge this funding gap for the current year, which will maintain continuity in the external funding program. For the longer term, we strongly encourage DOI leadership to **communicate the essential role of the EHP in the hazard reduction mission of the USGS**, and in particular to **communicate the impact of unfunded budget directives** to our congressional supporters, in order to ensure that the critical mission of the EHP is not further compromised in the FY2027 appropriation process.



History of EHP External Funding Program grants in terms of funding amount (left) and number of grants (right). Grant categories include: CEUS = Central & Eastern U.S.; EE/ESI/HIR = Earthquake Early Warning/Early Stage Investigator/Hazards, Impacts, and Risk; EP/IS/ESP = Earthquake Physics/Induced Seismicity/Earthquake Source Processes; IMW = Intermontane West; NAT/GM = National Seismic Hazard Model/Ground Motion Models; NC = Northern California; PNA = Pacific Northwest and Alaska; SC = Southern California; EEW = Earthquake Early Warning; ERF = Earthquake Rupture Forecasting. Note that grant categories were modified in 2024.

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