Capstone Report: EPSCoR Recipients Need Stronger Oversight and Controls





AT A GLANCE

Capstone Report: EPSCoR Recipients Need Stronger Oversight and Controls

Report No. 22-6-005 July 15, 2022

WHY WE ISSUED THIS REPORT

We completed extensive audit work on the Established Program to Stimulate Competitive Research (EPSCoR), which — through programs at five agencies, including NSF — seeks to enhance research competitiveness in jurisdictions that have historically received a small share of NSF grant dollars by strengthening science, technology, engineering, and math capability and capacity. NSF's investment in EPSCoR — currently \$200 million in fiscal year 2021 — is expected to grow. For FY 2022, Congress directed NSF to increase funding for its EPSCoR program by 8 percent — to at least \$215 million — and the Administration requested a further 15 percent increase for FY 2023.

We previously conducted audit work at 10 award recipients resulting in seven reports and a total of more than \$2.7 million in questioned costs at five recipients, the termination of a noncompliant subrecipient, and recipients addressing policy and accounting system issues. In response to our work, NSF agreed to focus on building the award management capacity and capability of less experienced institutions. We also reviewed external audits that included EPSCoR findings from the past 22 years to identify other systemic issues. We are issuing this report as a routine activity.

OVERALL OBSERVATIONS

This report summarizes three key issues we identified at multiple EPSCoR recipients and associated suggestions intended to help the EPSCoR recipient community address them. Specifically, we found a need for EPSCoR recipients to strengthen internal controls and oversight related to assessing and monitoring subrecipient risk, charging costs to support summer research programs, and implementing new accounting systems.

FOR FURTHER INFORMATION, CONTACT US AT <u>OIGPUBLICAFFAIRS@NSF.GOV</u>.



National Science Foundation • Office of Inspector General

2415 Eisenhower Avenue, Alexandria, Virginia 22314

MEMORANDUM

DATE: July 15, 2022

TO: Alicia Knoedler

Office Head

Office of Integrative Activities

Teresa Grancorvitz

Chief Financial Officer and Office Head

Office of Budget, Finance and Award Management

FROM: Mark Bell

Assistant Inspector General

Office of Audits

SUBJECT: Report No OIG 22-6-005, *Capstone Report: EPSCoR Recipients Need Stronger*

Oversight and Controls

Over the past 3 years, we conducted audit work at 10 NSF Established Program to Stimulate Competitive Research (EPSCoR) award recipients. Our body of work resulted in seven reports and a total of more than \$2.7 million in questioned costs at five award recipients. We also reviewed external audits that included EPSCoR findings from the past 22 years to identify systemic issues. This report summarizes three key issues identified at multiple EPSCoR recipients and is intended to help the EPSCoR recipient community strengthen award oversight for recipients and subrecipients. As a result of our audit work, NSF is strengthening its procedures and guidance to help ensure EPSCoR award recipients better comply with NSF and federal requirements.

We are issuing this report as a routine activity. This report does not contain recommendations We provided a draft of this report to NSF management for review on June 21, 2022. NSF provided us with comments on July 7, 2022, which we considered and incorporated into the memorandum. We thank your staff for the assistance that was extended to OIG. If you have any questions, please contact Elizabeth Kearns, Director, Audit Execution, at 703.292.7100.

Phil Emswiler Karen Marrongelle Christina Sarris Elizabeth Kearns cc: Stephen Willard John Veysey Ann Bushmiller Tim VanReken Dan Buchtel Allison Lerner Kelly Stefanko Sandra Richardson Dan Reed Karen Scott Lisa Vonder Haar Victor McCrary

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ABBREVIATIONS

EPSCoR Established Program to Stimulate Competitive Research

LBR Louisiana Board of Regents

STEM science, technology, engineering, and math

UW University of Wyoming

Background

The National Science Foundation is an independent federal agency created by Congress in 1950 "[t]o promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes" (Pub. L. No. 81-507). With an annual budget of \$8.8 billion (FY 2022), NSF funds approximately 25 percent of all federally supported basic research conducted by America's colleges and universities. In fields such as mathematics, computer science, and the social sciences, NSF is the major source of federal funding. In all its activities and programs, NSF is committed to expanding efforts to increase participation from underrepresented groups and diverse institutions throughout the United States.

EPSCoR Mission and Goals

The National Science Board founded NSF's EPSCoR¹ program by resolution in 1978 and Congress formally established the program by statute in 1988.² EPSCoR supports projects in states, commonwealths, and territories (jurisdictions) that have historically received a small share of NSF grant dollars and is NSF's largest program for broadening participation and expanding support for institutions to ensure geographic diversity. The program's mission is to enhance research competitiveness in targeted jurisdictions by strengthening science, technology, engineering, and math (STEM) capability and capacity.

Program goals include:

- catalyzing research capability across and among jurisdictions;
- establishing STEM professional development pathways;
- broadening participation of diverse groups and institutions in STEM;
- effecting engagement in STEM at national and global levels; and
- impacting jurisdictional economic development.

NSF currently uses three major investment strategies to achieve program goals: Research Infrastructure Improvement awards, co-funding, and workshops. While the investment strategies of NSF's EPSCoR program have evolved over time to address various factors relevant to research competitiveness in its jurisdictions, EPSCoR eligibility and research competitiveness have been based on the amount of NSF research funding the jurisdiction receives. Currently, a jurisdiction is eligible to participate in NSF's EPSCoR program if its most recent 5-year level of total NSF funding is less than or equal to 0.75 percent of the total NSF budget.

NSF's investment in EPSCoR—currently \$200 million in fiscal year 2021 — is expected to grow. For FY 2022, Congress directed NSF to increase funding for its EPSCoR program by 8 percent — to at least \$215 million — and the Administration requested a further 15 percent increase for FY 2023.

¹ It was originally named the *Experimental* Program to Stimulate Competitive Research

² Pub. L. 114-329, January 6, 2017, The American Innovations and Competitiveness Act §103 reaffirms EPSCoR.

About This Report

We previously conducted audit work at 10 award recipients resulting in seven reports and a total of more than \$2.7 million in questioned costs at five recipients, the termination of a noncompliant subrecipient, and recipients addressing policy and accounting system issues. In response to our work, NSF agreed to focus on building the award management capacity and capability of less experienced institutions. We also reviewed external audits that included EPSCoR findings from the past 22 years to identify systemic issues. We are issuing this report as a routine activity.

Results of Audits

This report summarizes three key issues identified at multiple EPSCoR recipients and is intended to help the EPSCoR recipient community strengthen award oversight for recipients and subrecipients.

Key Issue 1: Assessing and Monitoring Subrecipient Risk

Many prime recipients achieve EPSCoR-funded objectives through subawards with other organizations, or subrecipients, who perform a portion of the activity required under the prime award. The Uniform Guidance³ require prime recipients to identify subrecipients and evaluate each subrecipient's risk of noncompliance with laws and regulations, then to determine an appropriate level of monitoring. NSF encourages EPSCoR award recipients to broaden impacts by funding research at institutions that have historically received small amounts of federal research funding. As this is typically accomplished through subaward agreements, it is especially important that prime recipients conduct proper risk assessments of those institutions and subsequently provide an appropriate level of monitoring. As we found in recent and past audits, without the primes' oversight, subrecipients may not have sufficient procedures, accounting systems, documentation, or staff to administer federal funds.

What We Found

Prime recipients are responsible for maintaining, or ensuring subrecipients maintain, documentation to support federal expenditures. In multiple EPSCoR audits, we found subrecipients did not maintain documentation to support expenditures. As a result, we questioned costs charged to part of or entire subawards. One of the prime recipients we recently audited agreed to repay an entire subaward of \$117,599 when we identified that the subrecipient did not retain any documentation to support the costs it had incurred. The prime ultimately determined it would terminate the agreement and not provide the subrecipient any additional funding.

Other areas of concern include:

³ Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 CFR Pt. 200



- Subrecipients sometimes did not sufficiently understand federal and NSF guidance. For example, one subrecipient did not maintain documentation because it misunderstood record retention requirements.
- Subrecipients were missing policies for administering federal awards. For example, one subrecipient responsible for administering a community mini-grant program appeared to have conflicts of interests when selecting recipients. Although the subrecipient claimed to have a conflict-of-interest policy during its subrecipient risk assessment, the prime recipient did not confirm one existed. Another subrecipient did not have policies related to charging salary to federal awards. Missing policies and procedures may result in the mishandling of federal funds and questioned costs.
- Both recent and past audits found subrecipients charged salary and fringe benefits based on budgeted rather than actual costs. Further, some individuals charged the EPSCoR awards for most of their salary even though they were working on other projects. We questioned these costs.
- One subrecipient did not have sufficient accounting systems or staff expertise to administer funds properly.
- Some prime recipients did not require less experienced subrecipients to provide support for invoices to ensure the subrecipients' charges were supported and allowable. In a recent audit, a subaward required a less experienced subrecipient to provide supporting documentation with its invoices, but the prime recipient did not enforce this requirement.
- One prime recipient did not request NSF's approval before making a subaward, as required by award terms and conditions.

As stated in the Uniform Guidance, a prime recipient is required to assess the risk of a subrecipient's noncompliance with laws and regulations and determine the appropriate level of subrecipient monitoring. The Uniform Guidance states risk factors for the prime recipients' consideration when assessing subrecipients' risk, including the subrecipients' previous experience with similar subawards, results of previous audits, and whether subrecipients have new personnel or accounting systems. Based on its subrecipient risk assessment, a prime recipient may need to implement additional monitoring tools. For example, prime recipients can provide training and technical assistance to subrecipients or conduct onsite reviews. We determined some prime recipients did not implement additional monitoring tools for less experienced subrecipients. See Table 1 for links to our reports highlighting findings related to subrecipient monitoring.

Table 1. NSF OIG Reports Citing EPSCoR Subrecipient Monitoring

Audit of NSF's Established Program to Stimulate Competitive Research Awards

Performance Audit of Incurred Costs on EPSCoR Awards - University of Kansas Center for Research, Inc.

Performance Audit of Incurred Costs on EPSCoR Awards - University of Wyoming

Performance Audit of Incurred Costs - University of Rhode Island EPSCoR Awards

Louisiana Board of Regents - Audit Report No. OIG-11-1-013*

September 2000 Semiannual - Audit of an EPSCoR award to a southern university for research*

Review of NSF's Experimental Program to Stimulate Competitive Research (EPSCoR) 2001*

Source: NSF OIG *Older work

NSF's Actions

As a result of our recent audits and the potential for significant funding increases, NSF is focused on enhancing the award management capacity and capability of less experienced institutions through outreach and self-assessment tools. NSF has agreed to provide outreach to EPSCoR award recipients on assessing subrecipient risk and to review the recipients' risk and oversight plans for high-risk subrecipients as necessary. NSF has already taken responsive actions, including discussing these findings at the 2021 and 2022 NSF EPSCoR Annual Principal Investigator Meetings.

Suggestions for the EPSCoR Recipient Community

When conducting subrecipient risk assessments, prime recipients could implement additional monitoring approaches for less experienced subrecipients. Additional approaches could include conducting site visits, providing training or technical assistance, reviewing subrecipients policies and procedures, attending walkthroughs of subrecipients' accounting systems, or requesting support for invoices. Providing proper oversight helps ensure strong stewardship of award funds while also helping the subrecipient build its capacity and capability to manage future federal funds, which furthers EPSCoR's mission. Finally, prime recipients must obtain approval from NSF prior to making a subaward.

Key Issue 2: Costs Charged to Support Summer Research Programs

To broaden participation of underrepresented groups in STEM, EPSCoR recipients host residential summer research programs for students. However, without controls and proper documentation, expenditures such as indirect costs and typically unallowable entertainment or promotional costs may be questioned.

What We Found

Summer research programs, particularly summer residential programs for high school students, may involve activities that would otherwise be considered entertainment for program participants. One EPSCoR recipient charged expenses to the award for activities such as yoga, movies, and zoo field trips. The Uniform Guidance allows recipients to charge costs that might otherwise be considered entertainment to federal awards only if the costs have a programmatic purpose and are approved by the federal agency. In addition, per NSF terms and conditions, costs outside of the Uniform Guidance definition of participant support (stipends, subsistence, travel, and fees paid on behalf of participants) require prior NSF approval. The recipient did not provide NSF with documentation of the entertainment costs' programmatic purpose or request approval from NSF. As a result, we questioned the charged costs.

According to NSF, it considers summer residential program expenditures such as meals and lodging as participant support costs⁴ unless a recipient's federally negotiated, approved indirect cost rate agreement states otherwise. NSF award terms and conditions do not allow recipients to allocate indirect costs⁵ to participant support costs. In two recent EPSCoR audits, we found recipients charged indirect costs to participant support costs such as meals, lodging, entertainment, and students' supplies, including backpacks and school supplies.

Finally, we identified EPSCoR recipients that purchased items for promotional giveaways. Two EPSCoR recipients bought promotional items such as reusable tote bags, engraved pens, and embroidered briefcases. The Uniform Guidance states advertising, promotional, and public relations costs such as memorabilia, models, gifts, and souvenirs are unallowable. However, NSF explained that typically unallowable promotional items may be allowable under NSF awards when the costs are necessary to accomplish programmatic goals and objectives or ensure the safety of participants. For example, NSF stated in certain circumstances it would allow the purchase of some promotional items, such as t-shirts with EPSCoR program logos for K-12 participants, because the shirts serve a programmatic purpose by helping to ensure the safety of the children in a crowd. See Table 2 for links to our reports highlighting findings of unallowable expenses charged to EPSCoR awards.

Table 2. NSF OIG Reports Citing Unallowable Expenses Charged to EPSCoR Awards

Audit of NSF's Established Program to Stimulate Competitive Research Awards

Performance Audit of Incurred Costs on EPSCoR Awards - University of Kansas Center for Research, Inc.

Performance Audit of Incurred Costs on EPSCoR Awards - University of Wyoming

Performance Audit of Incurred Costs - University of Rhode Island EPSCoR Awards

Louisiana Board of Regents - Audit Report No. OIG-11-1-013*

September 2000 Semiannual - Audit of an EPSCoR award to a southern university for research*

Source: NSF OIG
*Older work

NSF Actions

As a result of our audits, NSF is clarifying its guidance on entertainment costs, participant support costs, and promotional items for EPSCoR-funded programs.

Suggestions for the EPSCoR Recipient Community

Stay alert for additional guidance on these issues from NSF. Further, always get approval for entertainment costs, and when in doubt about a federal rule, ask NSF.

⁴ Participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with participation in the activity.

⁵ Indirect costs are the expenses of doing business that are not readily identified with a particular award but are necessary for the general operation of the organization and the conduct of activities it performs.

Key Issue 3: Errors Associated with Accounting Systems Changes

NSF recipients update or change accounting systems as they deem necessary. However, if not done properly, changing or upgrading accounting systems can result in questioned costs. An accounting system error can have wide-ranging impacts, potentially affecting every federal award processed through the system.

What We Found

Errors attributed to accounting system updates resulted in approximately \$634,000 in questioned costs or funds returned to NSF by four EPSCoR award recipients. As previously mentioned, accounting system errors can affect multiple federal awards. For example, although indirect costs are generally not allowed to be applied to participant support costs, one institution, in setting up its new accounting system, mistakenly coded indirect costs to be allocated against participant support expenses. As mentioned earlier, NSF award terms and conditions do not allow recipients to charge indirect costs to participant support costs.

Although at one institution we questioned \$166,336 overcharged on the EPSCoR awards, the institution identified an additional \$334,631 it owed the agency for other NSF awards affected by the accounting system error. In another instance, an investigation of a different EPSCoR recipient noted, "We determined that most of the problems with grant accounting, and most of the questionable transactions identified during the investigation, were related to a change of accounting systems by the university during the time the grants were in effect." In that case, the recipient agreed to return \$338,910 to NSF. See Table 3 for links to our reports highlighting findings related to EPSCoR award recipients' accounting system errors.

Table 3. NSF OIG Reports Citing Accounting System Errors on EPSCoR Awards

Audit of NSF's Established Program to Stimulate Competitive Research Awards

Alert Memo Regarding University of South Carolina at Columbia

Performance Audit of Incurred Costs on EPSCoR Awards - University of Kansas Center for Research, Inc

Management Notification Memo Regarding University of Wyoming Charging Indirect Costs to Participant Support

Alert Memo Regarding University of Delaware's NSF EPSCoR Award

2015 OIG Office of Investigations Closeout Memo*

Source: NSF OIG
*Older work

NSF Actions

As a result of our audit work, NSF agreed that Office of Budget, Finance and Award Management staff will join NSF program staff on EPSCoR site visits and reverse site visits. As part of these visits, NSF will identify whether EPSCoR recipients implemented significant accounting system changes and request additional information as needed to ensure system changes are working as intended.

Suggestions for the EPSCoR Recipient Community

When implementing accounting system upgrades or updates, take the time to ensure the system is working as intended. Pay close attention to indirect cost setup. Finally, expect changes to NSF site visits and reverse site visits, as Office of Budget, Finance and Award Management staff will be joining EPSCoR program staff.

Agency Response

Alicia J. Knoedler, Ph.D., Head, Office of Integrative Activities and Teresa Grancorvitz, Chief Financial Officer and Head, Office of Budget, Finance and Award Management, responded as follows:

"NSF would like to thank the OIG for its interest in the EPSCoR program and for the observations shared through its report related to EPSCoR award recipients. We extend our appreciation to the OIG for sharing specific observations around post-award activities and institutional capacity when monitoring subrecipients and the implementation of new accounting systems within institutions. We have made similar observations and have been proactive in our outreach to institutions and have incorporated knowledge of institutional challenges into our practices, and clarified terms and conditions.

We have also recognized the significant need to build sustainable research support and services at under-resourced institutions, including emerging research institutions and minority serving institutions. To this end, we have proposed a new funding program in FY23, Growing Research Access for Nationally Transformative Equity and Diversity (GRANTED) to provide resources to enable institutions to build stronger research administrative infrastructure. If you have any questions, please contact Dr. Knoedler at aknoedle@nsf.gov (703-292-8040) or Teresa Grancorvitz at tgrancor@nsf.gov (703-292-8200)."

Appendix A: Recent Audit Work Related to EPSCoR Awards

Audit of NSF's Established Program to Stimulate Competitive Research Awards

OIG Report No. 21-2-004, August 13, 2021

NSF did not provide specific guidance and outreach to prime recipients about assessing and monitoring risk for less experienced subrecipients. NSF also did not have sufficient guidance on participant support, promotional expenses, and entertainment costs typically associated with EPSCoR-funded education, outreach, and diversity programs. Additionally, NSF could improve its monitoring of EPSCoR award recipients when the recipients update their accounting systems. NSF agreed with all six recommendations.

Alert Memo Regarding University of South Carolina at Columbia

OIG Report No. 19-6-001, June 10, 2019

University of South Carolina at Columbia did not maintain accounting records to support \$83,388 of costs charged to an NSF EPSCoR award and agreed to refund this amount to NSF.

Alert Memo Regarding University of Delaware's NSF EPSCoR Award

OIG Project No. 19-6-002, July 16, 2019

University of Delaware's accounting records did not support \$166,336 of costs charged to the NSF EPSCoR award. The university has since repaid the \$166,336. Additionally, it identified and corrected other misapplied indirect expenses, totaling \$334,631, on other NSF awards.

<u>Performance Audit of Incurred Costs on EPSCoR Awards – University of Kansas Center for Research, Inc.</u>

OIG Report No. 21-1-001, January 7, 2021

We questioned \$1,550,054 in direct and indirect costs claimed by University of Kansas Center for Research, including:

- \$625,532 in inappropriately retained indirect costs;
- \$15,854 in inappropriately charged indirect costs;
- \$569,477 in unsupported charges;
- \$328,494 in unsupported cost share; and
- \$10,697 in unallowable charges.

<u>Management Notification Memo Regarding University of Wyoming Charging Indirect Costs to Participant Support</u>

OIG Report No. 20-6-002, September 10, 2020

University of Wyoming (UW) incorrectly allocated \$34,195 of indirect costs to participant support expenditures on three NSF awards (one EPSCoR and two non-EPSCoR). When we shared this information with UW, it told us it was already aware of the issue, that it should not have charged the costs to the NSF awards, and had already initiated corrective action in 2019 to remove the improper charges. However, due to an oversight, \$20,776 of the incorrectly allocated costs remained charged to the NSF awards. UW agreed to correct this oversight.

Performance Audit of Incurred Costs on EPSCoR Awards - University of Wyoming

OIG Report No. 21-1-003, January 13, 2021

We questioned \$256,351 in direct and indirect costs claimed by UW, including:

- \$90,000 in an unsupported cost transfer;
- \$7,908 in unsupported and unallowable promotional expenses;
- \$15,207 in unallowable activity expenses;
- \$24,773 in unallowable indirect cost charges;
- \$864 for unallowable meal expenses; and
- \$117,599 in unsupported subrecipient expenses.

<u>Performance Audit of Incurred Costs – University of Rhode Island EPSCoR Awards</u>

OIG Report No. OIG 22-1-001, October 15, 2021

Auditors questioned \$627,748 of direct and indirect costs claimed by University of Rhode Island or reported as cost sharing on four EPSCoR awards including:

- \$268,340 of inadequately monitored and inappropriately reported cost sharing;
- \$206,643 in unallowable expenses;
- \$121,719 of inappropriately applied indirect costs;
- \$24,683 of inadequately supported expenses; and
- \$6,363 of inappropriately allocated expenses.

The auditors also identified two compliance-related findings for which there were no questioned costs: non-compliance with University of Rhode Island policies and insufficient controls for the application of indirect cost rates.

Appendix B: Older Audit Work Related to EPSCoR Awards

2015 OIG Office of Investigations Closeout Memo

In response to allegations of mismanagement and misuse of funds at a state EPSCOR program, the Office of Investigations requested financial and supporting documentation for five NSF grants from the university responsible for its administration. They determined that most of the problems with grant accounting, and most of the questionable transactions identified during the investigation, were related to a change of accounting systems by the university during the time grants were in effect.

Louisiana Board of Regents - Audit Report No. OIG-11-1-013, March 31, 2011

Salaries and related fringe benefits claimed under NSF EPSCoR awards did not reflect the actual work performed on these awards. There was no assurance that the Louisiana Board of Regents' (LBR's) effort reporting system reliably reported actual effort expended on the NSF awards. Therefore, the auditors questioned \$1,305,283 of inequitably allocated or unsupported salaries and fringe benefits charged to two awards. Improvements were also needed to LBR's subaward monitoring program. One subrecipient could not support a material amount of costs claimed, resulting in \$547,741 of direct and indirect costs and \$152,182 of cost sharing questioned.

Review of NSF's Experimental Program to Stimulate Competitive Research (EPSCoR) - Audit Report No OIG-01-2002, March 12, 2001

Both awardees that site reviews were conducted on could improve their oversight of sub-recipients' expenditure claims by maintaining better source documentation to support expenditures. Neither awardee collected complete and timely source documentation about all of its significant EPSCoR expenditures, because neither has policies specifying what information it should collect or how it should monitor its sub-recipients' claims for reimbursement.

September 2000 Semiannual – Audit of an EPSCoR award to a southern university for research

As part of an audit of an EPSCoR award to a southern university, we questioned \$34,015, in unallowable travel and sub-awardee costs. We also found that the university needs to improve its monitoring over cost sharing, costs claimed by sub-awardees, and costs used to support individuals who participated in program activities.

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