

# Audit of Industry-University Cooperative Research Center: Center for Advanced Forestry Systems — University of Georgia





## At a Glance

Audit of Industry-University Cooperative Research Center: Center for Advanced Forestry Systems — University of Georgia  
OIG 25-01-001 | November 19, 2024

### WHY WE DID THIS AUDIT

NSF created the Industry-University Cooperative Research Center (IUCRC) program in 1973 to foster long-term partnerships among academia, industry, and government. The IUCRC program provides a structure for academic researchers to conduct fundamental, pre-competitive research of shared interest to industry and government organizations. The Center for Advanced Forestry Systems (CAFS) is one of NSF's more than 80 active IUCRCs. CAFS addresses challenges facing the wood products industry, landowners, and managers of the nation's forestland.

We conducted an audit of NSF's CAFS awards to the University of Georgia (UGA) to determine if UGA properly managed and accounted for program income in conformity with NSF award terms and conditions and applicable federal requirements.

### WHAT WE FOUND

UGA did not fully comply with CAFS award terms and conditions. Specifically, UGA did not (1) execute membership agreements with its CAFS industry members; (2) properly track receipt of CAFS membership dues and expenditures; or (3) report its CAFS program income and expenditures to NSF, as required.

### WHAT WE RECOMMEND

We made two recommendations for NSF to direct UGA to strengthen controls to ensure compliance with IUCRC award requirements.

### AUDITEE RESPONSE

UGA agreed with the recommendations. We included UGA's response to this report, in its entirety, in Appendix B.

### CONTACT US

For congressional, media, and general inquiries, email [OIGPublicAffairs@nsf.gov](mailto:OIGPublicAffairs@nsf.gov).



**U.S. NATIONAL SCIENCE FOUNDATION**  
**Office of Inspector General**

**MEMORANDUM**

**DATE:** November 19, 2024

**TO:** Quadira Dantro  
Director  
Division of Institution and Award Support  
U.S. National Science Foundation

Jamie French  
Director  
Division of Grants and Agreements  
U.S. National Science Foundation

**FROM:** Theresa S. Hull [REDACTED]  
Assistant Inspector General  
Office of Audits, Inspections, and Evaluations

**SUBJECT:** Final Report No. 25-01-001, *Audit of Industry-University Cooperative Research Center: Center for Advanced Forestry Systems — University of Georgia*

Attached is the final report on the subject audit. We have included the University of Georgia's response to the draft report as an appendix.

Please coordinate with our office during the 6-month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. The recommendation should not be closed until NSF determines that the recommendation has been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

We appreciate the courtesies and assistance NSF staff provided during the audit. If you have any questions, please contact Jeremy Hall, Audit Manager, at 703-292-7100 or [OIGPublicAffairs@nsf.gov](mailto:OIGPublicAffairs@nsf.gov).

CC: Christina Sarris, Behrooz Shirazi, Prakash Balan, Rochelle Ray, Charlotte Grant-Cobb, Darío Gil, Victor McCrary, Wanda Ward, Scott Stanley, John Veysey, Ann Bushmiller, Micah Cheatham, Karen Marrongelle, Janis Coughlin-Piester, Judy Hayden, Alex Wynnyk, Angel Williams

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## Abbreviations

CAFS	Center for Advanced Forestry Systems
COI	Conflict of Interest
PMRC	Plantation Management Research Cooperative
IAB	Industry Advisory Board
IUCRC	Industry-University Cooperative Research Center
UGA	University of Georgia
RTC	Research Terms and Conditions

# 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 a budget of about \$9.06 billion (FY 2024), NSF is the funding source for about 25 percent of all federally supported basic research conducted at America’s colleges and universities. In FY 2023, NSF directly supported about 353,000 researchers, postdoctoral fellows, trainees, educators, and students.

## Industry-University Cooperative Research Center (IUCRC) Program

NSF created the Industry-University Cooperative Research Center (IUCRC) program in 1973 to foster long-term partnerships among industry, academia, and government. These partnerships support research programs of mutual interest, contribute to the nation’s research infrastructure base, promote workforce development, and facilitate technology transfer. In its fiscal year 2025 budget request to Congress, NSF proposed \$22.66 million to fund the IUCRC program.

The IUCRC program provides a structure for academic researchers to conduct fundamental, pre-competitive research of shared interest to industry and government organizations. Universities identify a research topic of interest to industry and apply for support from NSF. If approved, the university uses NSF funds to plan and operate the IUCRC, or Center, or to join an existing Center. Industry members, such as large and small businesses, startups, non-profit organizations, and government agencies, pay membership fees to support the Center’s research costs and activities. NSF provides funding for administrative costs and a governance framework to manage membership, operations, and evaluation.

New IUCRCs typically start with a planning award and proceed to a Phase I award that lasts 5 years. At the time of the awards under audit, IUCRC awardees could request support for two subsequent 5-year awards (Phase II and Phase III).<sup>1</sup> IUCRCs are expected to grow and be independently sustainable by the end of NSF support.

According to the IUCRC Program Solicitation,<sup>2</sup> membership fees received by the center are considered program income. Awardees must use at least 90 percent of the IUCRC program income to support direct costs of the research and may use up to 10 percent to support

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<sup>1</sup> NSF 20-570, *Industry-University Cooperative Research Centers Program (IUCRC) Program Solicitation*, dated May 7, 2020, moved IUCRC to a two-phase model and replaced NSF 17-516, dated November 7, 2016.

<sup>2</sup> NSF 17-516, dated November 7, 2016. The program solicitation specifies additional award conditions and reporting requirements and is incorporated by reference into the award.

indirect costs.<sup>3</sup> Each center has an Industry Advisory Board (IAB), composed of representatives of the center's members, that reviews and decides research projects to fund using member fees.

IUCRC awardees must provide annual reports to NSF that include an annual certification of membership fees collected and their sources, which are credited to each awardee as evidence of meeting their awards terms and conditions. Additionally, all NSF awardees are required to annually submit a Program Income Reporting Worksheet to NSF that either reports program income earned and expended for the institution's grants or validates that the institution did not earn and expend program income during the year.

## **Center for Advanced Forestry Systems Awards to UGA**

The Center for Advanced Forestry Systems (CAFS) is one of NSF's more than 80 active IUCRCs. Launched in 2007, CAFS addresses challenges facing the wood products industry, landowners, and managers of the nation's forestland.

We reviewed UGA's Phase II CAFS award, which began in 2014 and ended in 2019, and its Phase III CAFS award, which began in 2020 and was active at the time of our audit. According to UGA's CAFS Phase III proposal, forest science research has taken place over the past 50 years in university-based, industry-supported cooperative research programs. UGA has a preexisting forestry cooperative, established in 1975, called the Plantation Management Research Cooperative (PMRC). CAFS provides the structure and resources for scientific collaboration among the regional forestry cooperatives.

UGA's Sponsored Projects Administration (SPA) department provides administrative oversight of UGA's sponsored research projects, including the CAFS awards. SPA is comprised of Pre- and Post-Award staff who work with research administrators and other administrative support personnel throughout UGA to address administrative, financial, and compliance responsibilities associated with sponsored activities.

## **Audit Objectives**

The objectives of this audit were to determine if UGA properly managed and accounted for program income in conformity with NSF award terms and conditions and applicable federal requirements. Please see Appendix A for more information about our objectives, scope, and methodology.

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<sup>3</sup> Per 2 CFR Pt. 200.1, "Indirect (facilities & administrative (F&A)) costs means those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved...."

# Results of Audit

## UGA Did Not Fully Comply with CAFS Award Terms and Conditions

UGA did not fully comply with CAFS award terms and conditions. Specifically, UGA did not (1) execute membership agreements with its CAFS industry members in Phase II of the Award, and only partially executed membership agreements in Phase III; (2) properly track receipt of CAFS membership dues and expenditures; or (3) report its CAFS program income and expenditures to NSF, as required.

### UGA Did Not Have Signed CAFS Membership Agreements

NSF IUCRC solicitations, which NSF incorporated by reference into the award terms and conditions, require universities to annually certify their IUCRC membership to NSF and affirm that they obtained signed membership agreements from each industry member. Each IUCRC site must submit a "Certification of Membership" form signed by an authorized university official, which attests that the IUCRC site met the minimum requirements for dues and members.<sup>4</sup> The Certification of Membership form also details the receipts of annual cash and in-kind membership fees or commitments from its industry members.

Although UGA submitted Certification of Membership forms to NSF, it did not obtain signed membership agreements between 2014 and 2022, as required. In Year 3 of the Phase III award, from 2023 - 2024, UGA obtained membership agreements from 11 of 29 members previously reported on the 2022 SRO certification. Membership agreements are important because they provide evidence of the member's commitment to join the IUCRC and support the center through membership dues in a specific dollar amount. The payment of dues also entitles members to voting rights in determining the projects the center will fund.

### UGA Did Not Properly Track CAFS Membership Dues

According to 2 CFR 200.302(b)(3), as implemented by the Research Terms and Conditions, the financial management system of a non-federal entity must provide for records that adequately identify the source (including income) and application of funds for federally funded activities.

We found that UGA's accounting system did not adequately account for CAFS membership dues and expenditures. UGA did not establish a separate account for CAFS membership dues and instead used existing accounts of the PMRC, which is a separate cooperative. The PMRC

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<sup>4</sup> The requirements were a minimum of \$175,000 total annual membership fees, including in-kind contributions if approved by the Industrial Advisory Board (IAB) and three full members in Phase II and \$250,000 in-cash total annual membership fees and five distinct full members in Phase III for UGA, respectively.

accounts did not contain specific accounting codes to allocate income and costs to specific CAFS projects or administration. Because IUCRC membership dues meet the definition of program income, UGA should have tracked them separately from PMRC dues. Without a separate account, UGA agreed it could not consistently distinguish which income and expenditures were for CAFS and which were for PMRC, as required. Additionally, UGA did not maintain support that the expenditures it paid from the PMRC account were for costs allocable to CAFS nor that it complied with IUCRC award terms and conditions to limit indirect costs to 10 percent of program income expenses.

## **UGA Did Not Report CAFS Program Income to NSF as Required**

NSF's Research Terms & Conditions Agency Specific Requirements, which are incorporated in the award terms and conditions of both UGA's Phase II and Phase III CAFS awards, require grantees to submit annually a Program Income Reporting Worksheet to NSF's Division of Financial Management. The worksheet reports program income earned and expended for any of the institution's grants or certifies that the institution has no program income to report. (The worksheet is separate from the Membership Certification form, which is specific to the IUCRC award and part of the annual report that is sent to the NSF program officer.)

UGA annually submitted Program Income Reporting Worksheets to NSF during its CAFS Phase II and III awards. While those worksheets reflected program income from other UGA awards, they did not include any program income on their CAFS awards.

## **Recommendations**

We recommend that the NSF Director of the Division of Institution and Award Support:

1. Direct the University of Georgia to demonstrate to NSF that its policies, procedures, and systems applicable to Industry-University Cooperative Research Center awards ensure compliance with award requirements, including timely and accurate certification and tracking of program income receipts and expenditures.
2. Direct the University of Georgia to strengthen controls to ensure it spends Center for Advanced Forestry Systems membership dues only on Center for Advanced Forestry Systems Industry Advisory Board-approved projects or administration.

## **OIG Evaluation of Auditee Response**

UGA agreed with NSF OIG's recommendations. UGA stated it will 1) maintain membership agreements for CAFS, 2) keep CAFS-certified dues in its own account, and 3) spend CAFS membership dues only on CAFS IAB-approved projects or administration.



# Appendix A: Objectives, Scope, and Methodology

## Objectives

The objectives of this audit were to determine if UGA properly managed and accounted for program income in conformity with NSF award terms and conditions and applicable federal requirements.

## Scope and Methodology

We conducted this audit between October 2023 and August 2024, in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions, based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions.

To accomplish our objectives, we selected UGA's two most recent IUCRC CAFS awards for review. Specifically, we analyzed the requirements in NSF's IUCRC program solicitations, grant general conditions, research terms and conditions and 2 CFR § 200 applicable to the two awards. We tested compliance with these requirements. We interviewed the awards' principal investigator and SPA staff.

We obtained computer-processed data during our audit. UGA provided expense totals for the NSF awards, and we obtained NSF award data by directly accessing NSF's data systems. We assessed the reliability of the expense totals and data by (1) interviewing UGA staff, (2) reviewing information about the data and the system that produced them, and (3) performing reconciliations and testing of various data elements.

## Internal Control Assessment

In assessing the allowability of UGA's costs claimed, we gained an understanding of the internal control structure applicable to the scope of this audit through interviewing UGA staff, reviewing policies and procedures, and reviewing accounting system documentation. We assessed all five components of internal control: control environment, risk assessment, information and communication, monitoring activities, and existing control activities.

# Appendix B: Recipient Response



October 30, 2024

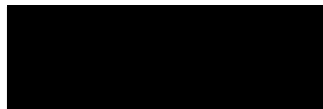
Theresa S. Hull  
Assistant Inspector General for Audits  
Inspections, and Evaluations  
National Science Foundation  
2415 Eisenhower Avenue  
Alexandria, VA 22314

Dear Ms. Hull,

The University of Georgia (UGA) has received the draft audit report titled *Audit of Industry-University Cooperative Research Center: Center for Advanced Forestry Systems (CAFS) – University of Georgia*. As per the recommendations, UGA will 1) maintain membership agreements for CAFS, 2) keep CAFS certified dues in its own account, and 3) spend CAFS membership dues only on CAFS IAB-approved projects or administration.

We thank the National Science Foundation for supporting CAFS.

Sincerely,



Jill Tincher, MBA, CRA  
Executive Director  
Sponsored Projects Administration

University of Georgia  
Sponsored Projects Administration  
409 Tucker Hall  
Athens, Georgia 30602

# National Defense Authorization Act

## General Notification

Pursuant to Pub. L. No. 117-263 § 5274, business entities and non-governmental organizations specifically identified in this report have 30 days from the date of report publication to review this report and submit a written response to NSF OIG that clarifies or provides additional context for each instance within the report in which the business entity or non-governmental organizations is specifically identified. Responses that conform to the requirements set forth in the statute will be attached to the final, published report.

If you find your business entity or non-governmental organization was specifically identified in this report and wish to submit comments under the above-referenced statute, please send your response within 30 days of the publication date of this report to [OIGPL117-263@nsf.gov](mailto:OIGPL117-263@nsf.gov), no later than December 22, 2024. We request that comments be in .pdf format, be free from any proprietary or otherwise sensitive information, and not exceed two pages. Please note, a response that does not satisfy the purpose set forth by the statute will not be attached to the final report.

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## Contact Us

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- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE

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