

**MEMORANDUM REPORT ON REVIEW OF
FROSTBURG STATE UNIVERSITY
FROSTBURG, MARYLAND**

**High Performance Computing Equipment
for Industry and Academia**

ARC Grant No: MD-11581-94-I-302-0429

April 1, 1994 through January 31, 1997

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Report Number: 98-8

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TO: Appalachian Regional Commission (ARC)
Office of Inspector General (OIG)

FROM: Tichenor & Associates
Woodbridge, Virginia

REPORT FOR: The Federal Co-Chairman
ARC Executive Director
OIG Report No. 98-8

SUBJECT: Memorandum Review Report on Frostburg State University, High Performance Computing Equipment for Industry and Academia, Frostburg, Maryland. Grant No: MD-11581-94-I-302-0429, ARC Contract No. 94-155.

PURPOSE: The purpose of our review was to determine if (a) the total funds claimed for reimbursement by Frostburg State University, for the High Performance Computing Equipment for Industry and Academia grant program, were expended in accordance with the ARC approved grant budget and did not violate any restrictions imposed by the terms and conditions of the grant; (b) the accounting, reporting and internal control systems provided for disclosure of pertinent financial and operating information; and, (c) the objectives of the grant had been met.

BACKGROUND: ARC awarded Grant Number MD-11581-94-I-302-0429 to Frostburg State University for the period April 1, 1994 through January 31, 1997. Total grant funding was for an amount not to exceed \$156,372, or 50 percent of actual, reasonable and eligible project cost, whichever was less. ARC required that the grant be matched with \$156,372, or 50 percent in cash, contributed services, or in-kind contributions, as approved by ARC. ARC made two progress payments to Frostburg State University totaling \$156,372.

The funds from this grant were to provide funding for the acquisition of high performance computing equipment for use by industry and academia at Frostburg State University. The objectives of the grant were to:

1. Establish collaborative usage arrangements with industry in need of high power computing capability;
2. Train academic and industry researchers and technicians in the use of high-end computer workstations;
3. Develop a consulting service on current uses of high-end computing in industry, municipal planning, and natural resource development and conservation;
4. Undertake joint research and development efforts involving both industry and academic researchers;
5. Provide campus-wide access to high-end computing capability; and,
6. Provide business and industry access to high-end computing capability.

SCOPE: We performed a program review of the grant as described in the Purpose, above. Our review was based on the terms of the grant agreement and on the application of certain agreed-upon procedures previously discussed with the ARC OIG. Specifically, we determined if the tasks listed above had been performed, if the accountability over ARC funds was sufficient as required by the applicable Office of Management and Budget (OMB) Circulars, and if Frostburg State University had complied with the requirements of the grant agreement. In addition, we discussed the program objectives and performance with Frostburg State University's personnel. Our results and recommendations are based on those procedures.

RESULTS: The following results were based on our review performed at Frostburg State University's campus in Frostburg, Maryland on November 17 through 20, 1997.

A. Incurred Costs

Frostburg State University incurred total program costs of \$385,953, of which they claimed direct reimbursable costs from April 1, 1994 through January 31, 1997 of \$156,372 and in-kind costs of \$229,581. We reviewed the direct and in-kind costs incurred and determined that, in general, the funds had been expended as reported. However, we determined that Frostburg State University was unable to support \$40,858 of indirect costs and \$44,049 of personnel costs claimed as in-kind, and that \$2,371 in travel costs were not necessary for the completion of the grant project and were therefore not in accordance with the terms of the grant and applicable OMB Circulars. These costs are discussed below.

1. Invoices Do Not Support Expenses Claimed

Frostburg State University submitted, with its Final Request for Advance or Reimbursement, a schedule of the project costs claimed as direct and in-kind. We selected purchase orders from the schedule and reviewed the associated invoices to determine if the costs were reasonable and allowable. While all of the invoices supported allocable types of costs, we determined that the invoiced amounts did not agree to the amounts claimed.

We reviewed the purchase orders and invoices for equipment, training and supplies and materials and compared them to the amount indicated on the support for the Reimbursement Request. We determined that of 41 invoices claimed, 10 were for different amounts in the Grantee's response than originally claimed in the Reimbursement Request, resulting in total differences of \$5,291.

GRANTEE'S RESPONSE:

The Grantee prepared a revised spreadsheet correcting the reported amounts and included supporting documentation as scheduled above. The revised schedule totaled \$257,675 in total equipment costs.

AUDITOR'S ADDITIONAL STATEMENT:

While the Grantee was able to provide supporting documentation to support the revised schedule, the amounts originally reported to ARC contained the differences noted above. Therefore, without audit the claimed costs would not have represented the actual, allowable project costs.

2. In-Kind Costs Claimed are Not Supportable

Frostburg State University was required to match ARC program funding with an equal amount of in-kind or matching costs in the form of cash, contributed services, or in-kind contributions. Frostburg State University reported total in-kind or matching costs of \$229,581, or 59 percent of the total project costs. However, Frostburg State University was unable to provide supporting accounting documentation for \$40,858 of indirect costs and \$44,049 of personnel costs claimed as part of the in-kind expenses. As a result, Frostburg State University had support for only \$144,674 in matching expenses.

Frostburg State University proposed, in its Application for Federal Assistance, indirect costs at a rate of 12 percent of direct costs. In the detail attachment to its Final Financial Status Report, dated March 5, 1997, Frostburg State University claimed indirect costs, as matching

costs, of \$40,858 (\$340,483 of direct costs x 12%). However, Frostburg State University has no negotiated or approved indirect cost rate agreement and could not provide any support for the expenses being allocated as part of the 12 percent or the allocation base. Therefore, we could not determine whether the expenses were incurred, allowable and allocable or whether the basis for the allocation was reasonable. The \$40,858 claimed as in-kind is therefore considered unsupported.

ARC Grant Administration Provisions, Article A10, Records Requirements, paragraph (1), states:

"Contractor shall establish procedures to ensure that all records pertaining to costs, expenses, and funds related to the contract shall be kept in a manner which is consistent with generally accepted accounting procedures. The documentation in support of each action in the accounting records shall be filed in such a manner that it can be readily located."

Frostburg State University also proposed matching expenses of \$32,500 for salaries and fringe benefits for faculty and researchers to oversee the project. Frostburg State University does not require detailed timesheets to be prepared by employees. Frostburg State claimed \$44,049 of salaries and fringe benefits for faculty and researchers, but was unable to provide accounting documentation to support the calculation and allocation of these salaries to this project.

OMB Circular A-21, Section J, General provisions for selected items of cost, 8. Compensation for personal services, b. Payroll distribution, paragraph (b), states:

"The apportionment of employees' salaries and wages which are chargeable to more than one sponsored agreement or other cost objective will be accomplished by methods which will (1) be in accordance with Sections A.2 and C, (2) produce an equitable distribution of charges for employee's activities, and (3) distinguish the employees' direct activities from their G&A activities."

ARC Grant Administration Provisions, Article A10, Records Requirements, paragraph (4), states:

"Contractor shall maintain custody of time records, payrolls, and other data, as appropriate, to substantiate all services reported to the Commission as Contributed Services, under this contract."

GRANTEE'S RESPONSE:

Frostburg State University representatives responded by providing a spreadsheet to document the cost attributed to indirect cost. The spreadsheet included facilities (\$30,231), two percent of the total salary costs for a grant accountant (\$1,424), 2.5 and 1.5 percent of the total salary cost for the Director of Grants and Contracts (\$2,829) as well as the Grants Secretary (\$208), respectively, and costs associated with purchase orders (40 p.o. @ \$40.62). Total indirect costs attributed to this project were \$36,316.

AUDITOR'S ADDITIONAL STATEMENT:

The spreadsheet provided by Frostburg State University was supported by internal memorandums listing square footage for selected room, facilities and maintenance information, payroll summary data for the personnel, and purchase order information. These memorandums were dated subsequent to the audit fieldwork and appear to have been prepared in order to identify some types of indirect costs, which should be chargeable to the grant project. The memorandums, however, do not support the amount claimed for reimbursement in the Federal Request for Advance or Reimbursement which was \$40,858. In addition, the memorandums must be supported by accounting documentation to support the actual number of hours worked and the actual costs for facilities, etc., the payment of the amount, and the allocation of these same costs to other grant, contracts or projects using the same cost and basis of allocation as required by the ARC Grant Administration Provisions as well as the OMB Circulars. Therefore, we continue to classify these costs as unsupported.

3. Travel Costs Not Related to Grant Project

Travel costs totaling \$2,371 were charged to the grant but were not related to implementing the ARC project. Travel costs of \$2,071 were claimed for the Director of Academic Computing to attend the EDUCOM 95 Conference in Portland, OR, and \$300 was claimed for registration fees for a faculty member to attend a conference in College Park, MD. The training and the attendees were not included in the grant proposal or agreement. In addition, related salary expenses for the attendees do not appear to have been charged to the project.

OMB Circular A-21, Section C, Basic considerations, 4. Allocable costs, a., states:

“A cost is allocable to a particular cost objective if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship. Subject to the foregoing, a cost is allocable to a sponsored agreement if (1) it is incurred solely to advance the work under the sponsored agreement; (2) it benefits both the sponsored agreement and other work of the institution in proportions that can be

approximated through use of reasonable methods, or (3) it is necessary to the overall operation of the institution and, in light of the principles provided in this Circular, is deemed to be assignable in part to sponsored projects.”

GRANTEE'S RESPONSE:

Frostburg State University stated that travel costs were never charged to the grant, but to the FSU Academic Computing accounts and listed as a cash match. However, these costs have been removed. Even with the omission of these charges, FSU states that they have exceeded the required match.

AUDITOR'S ADDITIONAL STATEMENT:

In order to be allowable as reimbursable costs or as in-kind match, costs must be allowable and allocable to the grant project. The posting of costs to different accounts does not affect the allowability. We concur that the costs should be removed from allowable costs.

RECOMMENDATIONS:

We recommend that Frostburg State University recalculate the total supportable project costs and the portion to be reimbursed by ARC which should not exceed 50 percent of the total allowable project costs. Unless Frostburg State University can provide ARC with accounting documentation that the indirect costs and the faculty and researchers labor costs claimed were incurred and were allowable, we recommend that the total allowable project costs be reduced by this amount. In addition, we recommend that Frostburg State University provide invoices which support the amounts claimed or likewise reduce the total allowable project cost by any unsupported amounts prior to calculating the amount to be reimbursed by ARC. In the event that ARC funding exceeds 50 percent of the total project cost, we recommend that Frostburg State University refund excess payments to ARC.

B. Internal Controls

We determined that Frostburg State University had the following internal control weaknesses which affected the accountability of costs or compliance with terms of the grant. These weaknesses could result in unallowable costs being charged to the grant.

1. Source of Funds For Matching Expenses Not Identified

Matching expenses totaling \$156,372 were claimed for salaries and fringe benefits, equipment, training, supplies and materials, and indirect costs. The expenses were recorded in several accounts, but the source of funds used to pay the expenses were not identified. As a result of the lack of an adequate audit trail, we were unable to determine if the in-kind contributions were from other federal funding sources or if the funds were being used as match for other federal grants.

OMB Circular A-110, Subpart C, Post Award Requirements, .23 Cost sharing or matching, states:

“(a) All contributions, including cash and third party in-kind, shall be accepted as part of the recipient’s cost sharing or matching when such contributions meet all of the following criteria:

- (1) Are verifiable from the recipient’s records; and
- (2) Are not included as contributions for any other federally-assisted project or program.”

2. Claimed Project Costs Not Properly Recorded or Adequately Supported

Frostburg State University does not maintain accounting records which are adequately supported by source documentation which is properly recorded, accumulated, and reported. The amounts claimed as project costs were not supported by a general ledger which identified the source and application of the funds. Invoices provided by Frostburg State University did not support the amounts claimed and no documentation was available to support personnel and indirect costs. In addition, Frostburg State University does not maintain a timekeeping system necessary to properly track costs under a cost reimbursable type of agreement. No timesheets or other records are maintained to support that time was allocable to the project and that salary and fringe benefit costs were properly calculated based on payroll data.

ARC Grant Administration Provisions, Article A10, Records Requirements, paragraph (1) requires the Grantee to maintain these records. The lack of an adequate accounting system to identify, record, accumulate and report project costs resulted in unsupported costs claimed for this project.

GRANTEE'S RESPONSE:

The Grantee stated that documentation was available to support the accounts charged for in-kind expenses and that the associated departments were not supported by Federal funds. The Grantee also stated that invoices were not split individually as specified in the budget, but that they were split in aggregate. They indicated that they would split the individual invoices in the future.

AUDITOR'S ADDITIONAL STATEMENT:

We reviewed the documentation supporting the questioned in-kind costs. We determined that the costs were traceable to the accounting records to support the department charged and that the departments were not Federally funded according to the accounting system documentation. With respect to the Grantee's statement that invoices will be split individually in the future, we do not recommend that this be implemented. Accumulating all costs for the project and then allocating those costs, in aggregate, between ARC and the other non-Federal funding sources is sufficient as long as ARC does not fund more than the amount agreed to in the grant agreement.

3. Quarterly Progress Reports Were Not Prepared and Submitted to ARC

Frostburg State University did not prepare and submit the required progress reports during the grant period. Only the final progress report, dated May 28, 1996, was prepared by the Project Director and submitted to ARC for approval.

The Grant Agreement, Section 2-8.1, Progress Reports, states:

“Grantee shall prepare and submit to the ARC Project Coordinator, in three copies, quarterly progress reports indicating the work accomplished under the agreement to date, any problems encountered and ameliorative actions taken, and a forecast of work for the next report period”

GRANTEE'S RESPONSE:

The Grantee included copies of the quarterly progress reports and stated that in the future progress reports will be prepared and submitted as stipulated in the grant.

AUDITOR'S ADDITIONAL STATEMENT:

We concur with the Grantee's plans to submit all future reports as stipulated by the grant.

RECOMMENDATIONS:

We recommend that Frostburg State University, perform a complete reconciliation of the total project costs claimed as direct and in-kind to the supporting records available and recalculate the total allowable project costs. Also, quarterly progress reports should be prepared and submitted as required for all future grants.

C. Program Results

Our review of Frostburg State University's High Performance Computing Equipment for Industry and Academia project indicated all of the objectives identified in the grant, and summarized below, had not been achieved. We discussed the objectives with the Professor and Chair, Geography Department and he indicated that the following objectives may not have been achieved:

1. Establish collaborative usage arrangements with industry in need of high power computing capability;
2. Train academic and industry researchers and technicians in the use of high-end computer workstations;
3. Develop a consulting service on current uses of high-end computing in industry, municipal planning, and natural resource development and conservation;
4. Undertake joint research and development efforts involving both industry and academic researchers; and
5. Provide business and industry access to high-end computing capability.

Although the grant was amended to allow additional time to complete the program objectives, we were unable to obtain any documentation to support that the objectives listed above had been achieved. We noted that Frostburg State University had submitted a Final Progress Report in which they stated that the objectives had been met. However, they listed the objectives as:

1. Establishment of state-of-the-art workstation lab,
2. Direct access to the Information Highway,
3. Camera attachment for electron microscope,

4. Latest software in geographic information, and,
5. Student training.

These objectives imply that the grant was to be used to purchase equipment and create a lab with certain equipment, rather than the actual objectives which were to assure that the equipment in the lab was utilized by both academia and industry.

GRANTEE'S RESPONSE:

The Grantee prepared and supplied an additional quarterly report that addresses the objectives and states specifically what objectives were complete.

RECOMMENDATION:

We recommend that ARC review the additional report and determine if all objectives are satisfactorily addressed.

DISCUSSION:

We discussed these issues with Frostburg State University's management during the exit conference held on November 20, 1997. Management stated that the proposed indirect costs were prepared by the former director of grants and contracts. They stated that they did not know the basis for calculating the rate, but that substantial indirect costs had been incurred as a result of the implementation of this project. Also, they agreed that it was difficult to track the matching costs since they were charged to various other accounts, but the charges were not to other federal programs. In addition, they stated that no prior reviews had been performed other than the annual A-133 audit and this had not been an issue in that audit.

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