

**AUDIT OF ACTIONS TO
PREVENT FRAUD ON
COOPERATIVE AGREEMENTS WITH
UNIVERSITIES**

Federal Highway Administration

*Report Number: FI-2005-080
Date Issued: September 30, 2005*




**U.S. Department of
Transportation**
Office of the Secretary
of Transportation
Office of Inspector General

Memorandum

Subject: ACTION: Report on Audit of Actions to
Prevent Fraud on Cooperative Agreements with
Universities
Report Number: FI-2005-080

Date: September 30, 2005

From: Theodore P. Alves 
Principal Assistant Inspector General
for Auditing and Evaluation

Reply to
Attn. of: JA-20

To: Acting Federal Highway Administrator

The Federal Highway Administration (FHWA) has awarded cooperative agreements to The George Washington University since 1992 to operate the National Crash Analysis Center located at its Loudoun County, Virginia, campus. The Center performs research on occupant crash protection, computer crash simulation, and driving safety. Since 1997, about \$13 million has been spent under three Center cooperative agreements.

In May 2004, the University notified FHWA of financial misconduct by the Center's principal investigator (PI) that resulted in overcharges and unsupported billings to the agreements. The University hired a private firm to audit the Center's expenditures related to the last two agreements. The audit questioned \$1.6 million, including \$1.2 million under the current agreement that began October 2002 (about 23 percent of the \$5.2 million incurred under the current agreement).

A multidisciplinary investigation team comprised of DOT-OIG criminal investigators, auditors, and attorneys took the case to the U.S. Attorney's Office, and issued subpoenas to the University and related financial institutions. The team uncovered evidence that the principal investigator defrauded the Government using schemes that included paying himself, his relatives, and his friends by submitting unsupported invoices containing fictitious and inflated expenses for labor, student support services, equipment, and consulting services under the cooperative agreements with the Center.

The principal investigator was arrested on October 12, 2004, and subsequently pled guilty on April 13, 2005, to theft from programs receiving Federal funds, 18 U. S. C. § 666. He was sentenced June 29, 2005, to over 3 years in prison and ordered to pay over \$872,000 in restitution. In a separate civil settlement on April 13, 2005, the University agreed to either pay or credit the Government \$1,825,000, with \$1,165,794 credited under the current cooperative agreement and the remaining \$659,206 paid directly to the United States Treasury.

FHWA suspended the current agreement on June 29, 2004. The Agency requested a University report explaining how the fraud occurred and what actions would be taken to prevent recurrence. The University submitted its first corrective action plan on August 30, 2004. We briefed University officials on the results of our review of the initial corrective action plan on January 25, 2005. Subsequently, the University submitted revised corrective action plans to further enhance its internal control system. We also advised FHWA officials on interim steps the University could take to avoid future improper payments. After the University agreed to implement those steps, FHWA officials partially reinstated the agreement, with intensified monitoring, on April 5, 2005. The partial reinstatement was to run through July 4, 2005; it was extended to October 31, 2005.

To provide information to support FHWA's decision on whether to fully reinstate the cooperative agreement, we reviewed the University's corrective action plan, as amended. The objective of the audit was to determine whether the University's corrective actions and revised financial policies would provide internal controls adequate to prevent improper payments on agreements administered by FHWA and other Federal agencies. We also reviewed FHWA's policies and oversight of the agreements with the University to determine whether Agency controls were adequate to avoid future improper payments. We performed this audit in accordance with Generally Accepted Government Auditing Standards and conducted such tests as we considered appropriate to detect fraud. Our scope and methodology are presented in Exhibit A.

RESULTS IN BRIEF

The University billed the Government about \$1.6 million for inflated or fictitious labor, equipment, and other charges submitted by its principal investigator for the National Crash Analysis Center. These fraudulent activities occurred and continued for a period of 5 years without being detected for two reasons. First, GWU lacked basic controls to prevent or detect fraud, and second, FHWA rubber stamped approvals on payment requests. The fraud was uncovered when a University official remembered that the investigator controlled a firm that the University planned to do business with. FHWA suspended the agreement after the

University disclosed the wrongdoing and the principal investigator was arrested and imprisoned.

During the last 15 months, the University overhauled its internal controls to prevent recurrences of similar financial misconduct. We reviewed GWU's corrective actions. Based on the progress made, FHWA is proposing to fully reinstate the University to the cooperative agreement. We agree with FHWA's decision, provided FHWA continues to intensively monitor GWU's billings and progress under the agreement, until all corrective actions are substantially implemented.

Inattention of FHWA officials responsible for the agreement also allowed the fraud to go undetected. FHWA officials did not review the University's procurement and property systems and approved GWU's payment requests without reviewing supporting documentation. This occurred, in part, because FHWA had limited procedures for overseeing cooperative agreements. FHWA is re-writing its procedures for administering grants awarded to Universities, requiring more comprehensive reviews of University systems, and FHWA officials are performing intensive reviews of supporting records and technical progress on GWU's billings. We believe FHWA's corrective actions should identify any future financial misconduct that might occur on cooperative agreements.

- **The principal investigator submitted fictitious charges for companies he owned or controlled.** The principal investigator used three businesses that he controlled to submit \$900,000 in spurious charges, then approved them for the University to pass on to FHWA. To conceal his involvement, he used an alias in e-mail, correspondence, and in signing the firms' contracts. He authorized \$68,000 in ineligible stipend payments to relatives and business associates; about \$499,000 in total was improperly billed for tuition assistance and stipends. The principal investigator also approved over \$9,000 of a business associate's personal charges with a University procurement card, and had them billed to FHWA.

The principal investigator's scheme also enriched his family and friends. For example, he and a close relative, also employed at the Crash Center, conspired to obtain over \$27,000 in stipend funds for the relative's spouse, although the spouse provided no services to the Center. A review of the principal investigator's e-mail revealed a joint scheme with the relative to fraudulently obtain the stipend funds and circumvent the normal check-distribution process.

- **GWU did not identify these fraudulent charges because the University lacked basic controls to prevent or detect fraud.** The schemes were made possible and remained undetected because of gaps in the University's controls. We found significant internal control weaknesses, such as failure to separate duties. For example, the principal investigator responsible for the agreement was able to request and obtain a large subcontract for a firm he controlled because procurement officials had little involvement with the procurement. Additionally, the University did not independently check whether equipment billed was received, work invoiced was performed, or individuals who received scholarships were in fact students.
- **FHWA officials rubber stamped approvals on payment requests.** Although FHWA's technical representative had been responsible for all 12 years of the Center's work, his oversight amounted to little more than a rubber stamp. For example, he said he never questioned any costs the University billed, but that he did not review all bills because FHWA's contracts administrator did not always send them. He knew for 5 or 6 years that the principal investigator had a financial interest in one of the agreement's subcontractors, but did not report the potential conflict of interest. **Additionally**, FHWA officials did not verify receipt of equipment billed, compare costs claimed such as stipends with budgets and inquire about overruns, or evaluate amounts billed against the value of the work performed.
- **GWU has strengthened internal controls to help prevent recurrence of similar financial misconduct.** Since the June 2004 suspension, both the University and FHWA have performed detailed reviews of the control weaknesses that allowed the fraud to occur. The University is improving its controls based on a detailed review performed by Beers and Cutler, its internal auditors, and based on recommendations in our review of the University's practices. Additionally, FHWA has stepped up its monitoring of the agreement. For example, detailed support, such as records of actual labor hours and invoices associated with equipment charges are required and reviewed for all billings, and FHWA and GWU officials meet weekly to review progress under the agreement. We agree that the corrective actions being implemented should significantly reduce the possibility that financial misconduct would occur and go undetected.
- **FHWA is re-organizing and re-designing its procedures to improve oversight of research agreements.** FHWA is now taking significant action to improve administration and oversight of cooperative agreements awarded throughout the Agency. Most significantly, the Office of Acquisition Management, responsible for providing contracting and assistance on research grants throughout the Agency, has reorganized, creating a new division

devoted to the award and administration of cooperative agreements with all universities. FHWA officials agreed to implement recommendations that we are making to enhance oversight, which includes issuing a detailed manual with best practices used by other Federal agencies, to improve the way it administers and oversees grants awarded to universities. Additionally, FHWA has requested that the Office of Naval Research, the cognizant agency responsible for reviewing the University's systems, initiate a review of GWU's procurement and property systems, with special emphasis on reviewing procedures at the National Crash Analysis Center.

The DOT order issued June 7, 2005, requires that a suspended party demonstrate that it has taken protective action to eliminate or reduce to an acceptable level the Government's risk before DOT terminates or modifies a suspension. The order identifies 10 remedial actions and mitigating factors that the party should address to demonstrate that it is presently responsible. The University's latest corrective action plan meets the intent of all recommended remedial actions as described in the order.

The following summarizes what we have found.

The George Washington University's Revised Financial Policies for Grants and Cooperative Agreements Have Improved

Internal controls were weak for significant business cycles and processes, including procurement, monitoring of cooperative agreements, monitoring of subcontract awards and performance, stipends and tuition assistance, property management, billing and invoicing, and program income. We reviewed policies and procedures as part of our initial audit and, on January 25, 2005, briefed University officials on the results of our review. We have since reviewed successive corrective action plans (the most recent was dated July 26, 2005) and are now assured that the University has agreed to implement our recommendations on strengthening its internal controls.

- **Procurement.** The University's principal investigator, who managed the Center's cooperative agreements, was able to obtain subcontracts for private entities in which he had a significant financial interest. The University's internal investigation identified over \$654,000 in improper payments to subcontractors. In our initial review of the University's policies we determined that the Bids, Quotations, and Sole-Source Justification policy did not comply with Federal regulations for encouraging competition or for performing price analysis.

Based on our recommendations, the University has agreed to take the following specific actions to correct its procurement weaknesses, including:

- Maintaining a new electronic database of potential conflicts of interest and checking the database prior to approving subcontractors;
 - Obtaining audited financial statements and Dun & Bradstreet reports, and performing pre-award reviews of books and records prior to awarding new subcontracts;
 - Requiring that acquisition specialists participate in all key procurement decisions;
 - Providing guidelines for performing cost or price analysis;
 - Requiring that all procurements be conducted in a manner to provide for open and free competition, to the maximum extent practical;
 - Documenting examples of when sole-source procurements may be used, following Federal Acquisition Regulation guidance, and performing internal audit tests of sole-source decisions; and
 - Ensuring that procurement policies are compliant with regulations and incorporated into the Sponsored Research Handbook.
- **Monitoring Cooperative Agreements.** Universities are responsible for maintaining adequate systems and monitoring costs and performance on cooperative agreements. Adequate monitoring should have identified that stipend and tuition assistance significantly exceeded budgets and that significant unallowable stipend and tuition, purchase card, travel, and equipment costs were being billed under the agreements. About \$876,000 in unallowable amounts, excluding subcontract costs, was improperly billed to the agreements.

As we recommended, the University is taking important actions to improve its internal controls for monitoring agreements, including:

- Redesigning its organizational structure to appoint a Chief Research Officer and create an Executive Research Oversight Committee, Research Compliance Working Group, and Office of Research Training and Compliance to implement monitoring;
- Obtaining annual internal audits of business processes and individual cooperative agreements, with emphasis on high-risk agreements;

- Comparing expenditures periodically with budgets and award limitations; and
 - Retaining Beers & Cutler, CPA, as internal auditors, to perform walkthroughs and transaction testing for compliance with agreements and regulations.
- **Monitoring Subcontractors.** Universities that award subcontracts and agreements under Federal awards are also responsible for monitoring the performance and costs of their subcontractors. Adequate monitoring by the University should have identified unreasonable costs billed against the agreement. About \$290,000 in labor charges billed by one of the firms controlled by the principal investigator was found to be unsupported. These erroneous labor charges should have been detected by monitoring the subcontractor progress and reviewing invoices.

The University has agreed to implement these major improvements, including

- Obtaining annual incurred-cost audits of subcontractors' costs and other reviews of subcontracts and transactions using the internal auditors;
 - Testing subcontractors' invoices, including tracing hours and expenditures billed to supporting books and records;
 - Requiring that the Center Director and principal investigator each review and approve subcontractor invoices for Center agreements, to ensure that amounts billed correspond to work performed; and
 - Requiring quarterly or at least annual technical reports for Center agreements, as required by regulations,¹ and written approval from both the Director and the principal investigator indicating whether the work described in the reports is acceptable.
- **Stipends and Tuition.** Stipends and tuition are the largest costs charged to the current agreement, even more than direct labor costs. The University's review identified about \$372,000 in questionable stipends and about \$127,000 in questionable tuition payments in the Center agreements. These questionable payments included \$93,000 that went to spouses of relatives and associates of the principal investigator, none of whom were students, which contravenes regulations. Another \$219,000 in stipends was paid to 29 individuals outside the period of their graduate studies.

¹ Title 49 Code of Federal Regulations and Office of Management and Budget Circular A-110 require progress reviews as frequently as quarterly but not less than annually.

The University has made adequate improvements for stipends and has agreed to take additional corrective actions for tuition assistance, including:

- Accessing the student database at the time that a stipend or tuition assistance is awarded or paid to verify the student's enrollment in a degree program related to the cooperative agreement, and
 - Verifying the student's employment with the University to determine the student's eligibility for tuition assistance.
- **Property Management.** The diverse, technical nature of the Center calls for specialized equipment; the University's review questioned about \$139,000 in equipment purchases. In many instances, companies in which the principal investigator had a financial interest billed the agreement for goods that were never delivered or for amounts that exceeded the fair market value of the equipment. For example, one company billed the University \$50,000 for vehicles that were never purchased. University officials did not detect that the equipment was not received due to faulty controls (e.g., equipment was not verified or tagged).

The University is taking steps to significantly improve its initial controls over property. These steps include:

- Completing a wall-to-wall physical inventory at the Center and requiring future biannual physical inventories of equipment;
 - Instructing Capital Investment and Reporting staff to bring concerns to the Executive Vice-President of Academic Affairs if they encounter problems gaining access to equipment;
 - Requiring that new equipment be tagged within 30 days of payment, and that untagged equipment be identified in a report;
 - Requiring that equipment be visually verified and recorded before billing cooperative agreements; and
 - Obtaining approval from the Government's agreement officer before purchasing equipment in excess of \$5,000.
- **Billing/Invoicing.** To comply with requirements that allowed for the partial reinstatement of the agreement, the University has been providing hours and costs on invoices by individual task. However, University officials said that this detailed level of reporting has been difficult and cannot be sustained

should the University be fully reinstated. The officials indicated that this method is too labor-intensive, mostly because the University lacks a labor distribution reporting system for sponsored agreements.

Previously, the University did not identify hours and costs for individual tasks. This limited FHWA's ability to perform oversight. For example, the agreement officer's technical representative indicated that he was unable to determine whether the University's billed hours and costs were reasonable. The University billed only cumulative amounts for the agreement, and did not provide additional support for specific tasks that were reviewed.

The University should look into implementing a labor-distribution system that can support multiple tasks as part of a long-term solution. Otherwise, the University should work closely with FHWA officials to ensure that minimum requirements for identifying hours and support by task are achieved using alternative methods, including reasonable estimating procedures.

- **Program Income.** The University raises funds for the agreement by selling copies of FHWA and National Highway Traffic Safety Administration (NHTSA) crash test films and documentation to interested parties through the Center's library.² We found that internal control weaknesses existed in the library's procedures. Librarians who processed payments also took orders for sales and had access to the films. In addition, librarians were not complying with University policy that required checks to be forwarded to the Treasurer's Office in a timely manner. Based on our preliminary discussions regarding these weaknesses, the University has implemented procedures to correct them. For example, checks are now sent directly to the financial manager.

Federal Highway Administration Monitoring of Cooperative Agreements Was Ineffective

FHWA's management oversight and monitoring of its cooperative agreements with the University were insufficient to detect the improper payments. The Agency has a Contracting Officer's Technical Representative's Reference Guide and an agreement officer's technical representative's appointment letter to guide its staff oversight of grants and cooperative agreements. However, this guidance lacks detailed implementing procedures for oversight and monitoring; it mostly addresses contract management. Additionally, while some detailed steps for monitoring agreements were documented in the technical representative's appointment letter, key provisions were not implemented. As a result, responsible officials' oversight of the cooperative agreement was limited and ineffective.

² 49 CFR 19.24 calls these funds "Program Income."

Federal regulations establish uniform administrative requirements for Federal oversight of agreements awarded to universities and other nonprofit organizations. The guidance is separated into areas of responsibility that occur during phases of an agreement: pre-award, post-award, and after-the-award (after completion). FHWA has an order³ addressing grant and cooperative agreement procedures; however, it addresses the award process, not procedures for administering and monitoring grants and cooperative agreements. Large executive agencies with significant grants and cooperative agreements typically have manuals with detailed procedures for administering these agreements. We found weaknesses in FHWA procedures for administering both the pre-award and post-award phases of the agreement. For example:

- FHWA's contracting specialists did not determine whether a subcontractor for a proposed award of about \$2.8 million had an adequate accounting system, nor did they review the subcontractor's financial capability and ownership. FHWA officials relied on the Office of Naval Research's (ONR) determination that the University had an approved purchasing system to limit their review of the large subcontract. However, the ONR review was more than 10 years old and only approved the procurement system through June 1993. Had the contracting specialists required that the University perform a sufficient pre-award review of the subcontractor's financial interests, the principal investigator's control should have been identified. Over \$650,000 in unsupported subcontract charges could have been avoided.
- We found no Agency documentation showing that contract specialists reviewed financial status reports or annual budget reports; addressed internal control weaknesses reported in the Office of Management and Budget Circular A-133 Single Audit Reports; assessed the University's financial management system; or conducted site visits to assess financial, procurement, or property management systems or technical progress.

FHWA is taking the following key actions to address these issues:

- Creating a new division devoted to the award and administration of grants and cooperative agreements, simplified acquisitions, and interagency agreements;
- Finalizing a review of administrative procedures for grants and cooperative agreements performed by other Federal agencies to help design a reference guide for administering such agreements;

³ FHWA Order No. 4410.1, Grant and Cooperative Agreement Policies and Procedures, February 28, 1994.

- Obtaining an ONR review of the University's procurement and property management systems;
- Revising FHWA's order for administering grants and cooperative agreements;
- Improving training for agreement officers' technical representatives and other agreement officials and specialists;
- Developing a uniform format for FHWA requests for applications and assistance agreement awards; and
- Intensifying oversight by requiring that the University submit monthly (instead of quarterly) technical reports and invoices detailing invoice support and breakdown by task and that the FHWA technical representative submit weekly activity and planning reports.

SUMMARY OF RECOMMENDATIONS AND MANAGEMENT COMMENTS

We are recommending that the FHWA Acting Administrator require that the Associate Administrator for Research, Development, and Technology and the Associate Administrator for Administration work together to:

- Continue their intensive monitoring procedures of the University's performance and invoices for cooperative agreements and continue monitoring the University's progress in completing corrective actions until these actions are substantially implemented; and
- Implement several corrective actions to improve FHWA's oversight and monitoring procedures for cooperative agreements, including developing detailed procedures for administering them.

A complete list of our recommendations can be found on pages 10, 11, 16, and 17 of this report.

A draft of this report was provided to FHWA on September 1, 2005. The Acting Administrator provided a written response on September 23, 2005, agreeing with our recommendations. The Acting Administrator noted that after learning of improper activities and fraudulent charges by a University official at the Center, FHWA suspended the agreement and formed an interdisciplinary process action team to review the agency's agreement administration. The team reviewed the University agreement and overall policies and procedures for the award and

monitoring of Federal assistance agreements. The Acting Administrator said that many of the recommendations made by the OIG are congruent with the recommendations from FHWA's internal review and that FHWA has already taken steps to implement process improvements along these lines. A copy of FHWA's reply is contained as Appendix I.

We appreciate the cooperation and assistance of Federal Highway Administration representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-1992 or Terrence Letko, Program Director, at (202) 366-9917.

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FINDINGS

THE GEORGE WASHINGTON UNIVERSITY'S POLICIES FOR COOPERATIVE AGREEMENTS LACKED INTERNAL CONTROLS

In a letter dated May 7, 2004, The George Washington University (GWU) notified the Federal Highway Administration (FHWA) of serious financial misconduct and conflicts of interest by the National Crash Analysis Center's (NCAC) principal investigator (PI) that resulted in overcharges and unsupported billings on the current cooperative agreement, DTFH61-02-X-00076. As a result of disclosures in the letter and subsequent meetings, FHWA suspended the agreement on June 29, 2004. FHWA requested a corrective action plan, including a report outlining the apparent failure of the University's internal controls in areas of subcontract management, purchasing, property management, procurement, and conflicts of interest, plus measures taken to ensure that such failures do not recur.

On August 30, 2004, the University submitted its first corrective action plan. Through July 26, 2005, GWU submitted six revised plans proposing a combination of new and revised policies that addressed internal control functions in the areas where financial misconduct had occurred. The University's planned corrective actions and revised financial policies provide a design for adequate internal controls to prevent or detect improper payments through the course of normal operations. However, the University has not yet implemented some of these key corrective actions. To reduce the risk of financial misconduct, FHWA officials should continue to apply to the agreement the same intensive monitoring procedures initiated when the University was partially reinstated, until the corrective actions are substantially implemented.

University-wide actions include creating electronic databases to help identify conflicts of interest, initiating mandatory fiscal responsibility training, and establishing an independent financial manager to handle financial transactions. Center procedures include verifying eligibility for students receiving stipends, completing a wall-to-wall inventory, verifying equipment receipt, separating duties over handling program income, and requiring that the Director of the NCAC review subcontractors' progress and billings. The University is also in the process of creating oversight groups to monitor agreements, consolidating procedures in a handbook for sponsored agreements, and developing plans for internal audits and desk reviews.

The control weaknesses were attributable to a lack of recognition by University managers of the importance of internal control. We found that certain policies

were not designed to require that duties be properly segregated among individuals, and significant duties for procurement were not assigned to acquisition specialists. Further, some documented policies and procedures did not comply with Federal regulations regarding minimal steps for evaluating price reasonableness, promoting competition, and monitoring subcontracts. Until planned corrective actions are completed, the Government will continue to be exposed to unacceptable risks of paying unsupported charges for conflict-of-interest schemes and increased costs for goods and services.

Policies and Procedures Need Additional Improvement for Key Business Functions

Our findings of weaknesses in the areas of procurement internal controls, subrecipient (subcontract) monitoring, stipend and tuition awards, equipment, and billing are detailed below.

Procurement Practices Did Not Meet Minimal Federal Regulations

The principal investigator responsible for the Center's cooperative agreements requested and obtained a subcontract for \$2.8 million for the International Transportation Safety Corporation (ITSC), a private entity in which he had a financial interest. He performed many of the duties that should have been the responsibility of procurement experts. We found no documented evaluation of the subcontractor's past performance, financial management system, principal ownership, or financial capability. Such an evaluation would have identified the conflict of interest. Overall, no separation of duties existed to prevent the principal investigator from manipulating the procurement to obtain the award.

The University's internal review also identified instances in which the principal investigator procured equipment for the cooperative agreement from New Generation Motors Corporation, another firm in which the principal investigator had financial interests. It is questionable whether a fair price was paid for the used equipment. The University's internal auditors questioned \$654,000 in subcontracts and about \$127,000 in equipment related to businesses in which the principal investigator had a financial interest.

As recommended, the University is taking the following steps to correct these problems:

- Creating an electronic listing of potential conflicts of interest and matching them to subcontractor awards and initiating a supplier code of conduct,

- Obtaining copies of audits or reviews of financial statements and a Dun & Bradstreet number for new subcontractors,
- Requiring that acquisition specialists participate in all key procurement decisions, and
- Performing reviews of potential subcontractors' financial management systems and management and ownership interests before making awards to new subcontractors.

Additionally, some of the University's procurement policies did not comply with Federal requirements for performing cost or price analysis, justifying use of sole-source procurements, and promoting use of competition. For example:

- 49 CFR 19.45, "Cost and Price Analysis," states that some form of cost or price analysis shall be made and documented for every procurement action. However, the University's policies do not require written or oral quotations for purchases under \$2,500, and written or oral quotations are only "encouraged" for procurements between \$2,500 and \$25,000.
- 49 CFR 19.43, "Competition," requires that all procurement transactions be conducted in a manner to provide, to the maximum extent practical, open and free competition. The University's policies do not comply because they do not ensure that procurements are sufficiently advertised and solicited to bidders in order to encourage competition. For example, GWU's Bids, Quotations, and Sole-Source Justification Policy only *recommends*, not *requires*, the use of formal bids (requests for quotations or requests for proposals). Even procedures for acquisitions with estimated values of over \$100,000 do not require formal bids.

The University is in the process of implementing our recommendations to correct its noncompliant policies by:

- Amending its Bids, Quotations and Sole-Source Justification and other policies to provide guidelines for performing cost or price analysis;;
- Creating a new Bids and Quotations Policy for the Center that requires at least three bids for large purchases;
- Requiring that all procurements be conducted in a manner to provide for open and free competition, to the maximum extent practical;
- Documenting examples of when sole-source procurements may be used, following Federal Acquisition Regulation guidance and including internal audit tests of sole-source decisions;

- Annually reviewing procurement policies to assess consistency and compliance with regulations; and
- Ensuring that procurement policies are compliant with regulations and incorporated into the Sponsored Research Handbook.

The University Was Not Monitoring Work on Cooperative Agreements

The University did not adequately monitor direct costs that the PI claimed for the cooperative agreements, including stipends and tuition assistance, equipment purchases, purchase card transactions, and travel charges, all of which resulted in about \$876,000 in unallowable charges.

The American Institute of Certified Public Accountants (AICPA) and the Government Accountability Office (GAO) include monitoring as one of the five essential components of internal control. Ongoing monitoring should occur in the course of normal operations and include regular management and supervisory activities, comparisons, and reconciliations. Separate evaluations, such as those performed by internal auditors, also contribute to sound monitoring of an entity's activities.

The University is planning significant improvements for oversight; however, it must quicken its pace for implementing them. With the help of a private consultant, the University is redesigning its organizational structure to improve monitoring and is planning to create an Executive Research Oversight Committee, a Research Compliance Working Group, a Chief Research Officer, and an Office of Research Training and Compliance to implement monitoring. The University still needs to clarify the roles and responsibilities of key personnel and design monitoring procedures for the contemplated oversight groups and officers. The University has also entered into an agreement for internal audits with Beers & Cutler, CPA. These audits will include random walkthroughs and desk reviews of transactions associated with key business processes.

The University also agreed with our recommendations to strengthen its oversight of agreements by:

- Obtaining annual internal audits of business processes and individual cooperative agreements, with emphasis on high-risk agreements;
- Periodically comparing expenditures against budgets and award limitations; and
- Requiring that Beers & Cutler, CPA, perform transaction testing considering compliance with contracts and regulations.

Subcontractors' Work Was Not Effectively Reviewed

The Center awarded subcontracts to firms in which the principal investigator had financial interests. This includes a \$2.8 million subcontract awarded to ITSC in December 2002. The Center did not adequately monitor the subcontractors' technical progress and financial management practices, which contributed to allowing unsupported billings of over \$654,000 to go undetected.

To improve its program for monitoring subrecipients, the University amended its Subrecipient Compliance Policy to make principal investigators and departmental administrators responsible for monitoring subrecipients to ensure that performance goals are achieved. A new policy was established in April 2005, entitled "NCAC Financial Manager Desk Procedures—Subcontracts," mandating technical reports (also required by regulations) and written approval from both the Director and the principal investigator indicating whether the work described in the reports is acceptable. Additionally, the financial manager must now obtain the principal investigator's and the Director's approvals to process invoices for payment. The University also agreed to periodically obtain timesheets for subcontractors' employees who work on the project and to reconcile them to hours billed.

Stipends and Tuition Payments Were Neither Verified Nor Monitored

The University's review of two agreements identified almost \$500,000 of questionable stipend and tuition payments. Of these questionable payments, \$36,000 was paid to the spouse of a close relative of the principal investigator, and another \$57,000 was paid to spouses of a Center employee and a business associate of the principal investigator, none of whom were students. About \$58,000 of questioned tuition was charged for children of employees from firms with conflicts of interest with the University. Also questioned was \$219,000 of stipends paid to 29 individuals when they were not graduate students and were therefore ineligible.

Based on our interim recommendations, the University amended its procedures in April 2005 to provide that an executive aide at the Center will access the University's student enrolment database system at the time a stipend or other form of tuition assistance is awarded or paid to verify the student's enrollment in a degree program related to the cooperative agreement. Procedures were implemented to ensure that bills include only charges for students who actually receive financial assistance. Additionally, the University has agreed to amend its policies for tuition assistance by verifying the employment status of students to further ensure their eligibility.

Equipment Procedures Lacked Accountability

The University's internal auditors questioned about \$139,000 in equipment costs— \$127,000 was related to a business in which the principal investigator had a financial interest. Some of the items New Generation Motors (NGM) sold to the University were for used furniture and equipment it no longer had a use for. NGM sold the goods at inflated prices and billed the agreement for three pickup trucks that were never delivered. Further, University officials did not adequately account for property at the Center. Officials indicated that property managers did not tag and verify some equipment because a facility manager misled them that there were security clearance limitations on access to the equipment. University policies did not provide for alternate verification procedures and the property managers did not sufficiently elevate the issue.

The University has significantly improved its prior controls over property by:

- Completing a wall-to-wall physical inventory at the Center and requiring future biannual physical inventories of equipment,
- Instructing Capital Investment and Reporting staff to alert the Executive Vice President of Academic Affairs if they encounter problems in gaining access to equipment,
- Requiring that new equipment be tagged within 30 days of receipt and a report be created that identifies untagged equipment,
- Requiring that receipt of equipment be visually verified and recorded before billing cooperative agreements, and
- Obtaining approval from the Government's agreement officer before purchasing equipment in excess of \$5,000.

Invoices Lacked Details for Tasks Performed

The University lacked accounting capabilities needed to routinely identify hours and costs for individual tasks. As a result, the FHWA agreement officer's technical representative indicated that he was unable to determine whether amounts billed correlated to progress on tasks reviewed.

To comply with the terms for partial reinstatement to the agreement, the University supported hours and costs on invoices by individual task. However, University officials said that this detailed level of reporting has been difficult and cannot be sustained should the University be fully reinstated because supporting

hours and costs by task is too labor-intensive. This effort is required because the university lacks a labor distribution reporting system for sponsored agreements.

The University should look into implementing a labor distribution system capable of supporting multiple tasks as part of a long-term solution. If labor distribution is not implemented, the University should work closely with FHWA officials to ensure that minimum requirements for identifying hours and support by task are achieved using alternative methods, including estimating procedures.

Library Income-Handling Procedures Have Improved

Operation of the Center library is the agreement's first task. The library houses FHWA and National Highway Traffic Safety Administration crash test films and documentation, makes them available to Department users, and sells them to the public. The University's corrective action plan did not address income from the library because the University's internal review found no problem with accounting for library funds. However, the review did not include a risk assessment that specifically searched for unrecorded payments.

We found that internal control weaknesses existed in the library's procedures. Librarians who processed payments also took orders for sales and had access to the films. In addition, librarians were not complying with the University policy that required checks to be forwarded to the Treasurer's Office in a timely manner. After discussing these issues with the University, officials took sufficient action to correct the problem. For example, checks are now sent directly to the financial managers.

Reasons for Inadequate Policies

The initial policies reviewed lacked strong internal controls because senior University administrators and executives did not create an environment that clearly established the importance of maintaining adequate internal controls and reducing improper payments. One significant lapse involved separation of duties. Among other internal control weaknesses, the cooperative agreements and a large subcontract were not adequately monitored. Additionally, some of the University's policies and procedures did not comply with Federal regulations regarding minimal steps for evaluating price reasonableness and promoting competition.

GAO's "Standards for Internal Control in the Federal Government" includes five specific standards;⁴ these have also been adopted by AICPA for private entities. These components include control environment, risk assessment, control activities, information and communication, and monitoring. We found significant deficiencies in all of these internal control components; however, the University has adopted our recommendations and is in the process of amending policies and implementing procedures that should prevent or detect similar misconduct in the future.

A Positive Control Environment Was Not Established

University officials did not emphasize the significance of the improprieties identified and the importance of strong internal controls. Initial corrective actions were often limited to obtaining certifications that potential conflicts of interest did not exist. University management met with us on several occasions in an effort to understand the changes we recommended, and referred us to managers to help get the corrective actions implemented.

As the steward of taxpayer dollars, the Federal Government is accountable for how grantees spend their funds. Ensuring that grantees maintain strong internal controls plays a key role in protecting awarded funds. It is essential, therefore, that the University instills a culture of accountability to ensure a clear understanding that improper payments are unacceptable. The University needs to:

- Provide leadership in setting and maintaining the organization's ethical code of conduct and in ensuring proper behavior under the code,
- Provide a cultural framework for managing the risk of improper payments by engaging everyone in the organization in the risk management process, and
- Increase accountability by establishing goals for reducing improper payments for major programs.

Duties Were Not Segregated for Activities Related to Improprieties

A significant internal control measure incorporated in both GAO's and AICPA's auditing standards addresses control activities. These include policies, procedures, techniques, and mechanisms that help ensure that management directives to mitigate risks are carried out. GAO's guidance identifies segregation of duties as

⁴ GAO's five standards of internal control incorporate the same five interrelated components as defined in the Statement of Auditing Standards (AU) Section 319.07, American Institute of Certified Public Accountants, Codification of Statements on Auditing Standards.

a control activity that should be common to all entities. Key duties and responsibilities need to be divided or segregated among different employees to reduce the risk of error or fraud. The University has implemented significant control activities and has segregated duties over student financial assistance, equipment, and program income and has proposed procedures to segregate duties between requesting and procuring subcontracts.

Independent Monitoring Needs To Be Strengthened

Another vital component of internal control is monitoring. Monitoring is critical for the Center because it has many high dollar cooperative agreements and it is located far from University financial, technical, contracting, and procurement managers in Washington, D.C. However, we found major weaknesses in monitoring of the agreements.

The University's financial managers did not adequately monitor direct costs billed by the principal investigator through recurring reviews. For example, amounts billed under the agreements were not compared with budgeted amounts; as a result student assistance costs significantly in excess of budgets were not identified.

Good internal control procedures would establish an oversight practice performed by a technical specialist to ensure that subcontracts receive adequate progress reviews. A technical manager independent of those directly working on the cooperative agreement should periodically review technical progress for the agreement and large subcontracts. Such procedures were lacking. Additionally, GWU's policies do not indicate that reviews of major subcontractors be performed quarterly or at least annually, as required by regulations.

The University has agreed with our recommendations for corrective action. Officials have pledged, for example, that internal audits of key business processes will be performed, the Office of Research Services Director will review subcontract packages in addition to the formal subcontract agreement, and both the Center's financial manager and the principal investigator will be required to document their reviews of subcontractor progress reports and invoices.

Risk Assessments Need To Be Enhanced

A detailed risk assessment is a key step in ensuring that programs are operating as intended. The risk assessment should involve a comprehensive review and analysis of program operations to determine where risk exists and to measure the impact of that risk. This information forms the basis upon which management can determine the nature and type of corrective actions needed. A thorough risk assessment also allows entities to target high-risk areas and focus resources where

the greatest exposure exists. The University had not performed a comprehensive risk assessment, which should have identified procedures for procurement and monitoring, as well as financial management practices, as high risk areas.

For example, we reviewed the University's "Evaluation of Internal Controls over the Accounting and Administration of Federal Funds," which was prepared for its Fiscal Years 2003 and 2004 OMB Circular A-133 Single Audit. We found an incomplete assessment of risk for procurement and monitoring of the cooperative agreements. We also found that subrecipient monitoring and the eligibility of students for stipends and tuition assistance were not sufficiently addressed.

The University is taking steps to improve its risk-assessment procedures, primarily through plans for a series of internal audits, transaction tests, walkthrough reviews of key business processes, as well as tests of compliance with regulations, sole-source justifications, and subcontract monitoring.

University Policies Inconsistent and Sometimes Noncompliant with Federal Regulations

Internal control standards require that an organization have relevant information with which to run its operations. This includes policy and procedures manuals, management directives, and other information needed to overcome risks, perform key functions, and maintain accountability for related assets. Policies should describe roles and responsibilities and comply with Federal regulations. However, the University did not maintain adequate policies for procurement and monitoring. We found inconsistent policies that permitted principal investigators to perform duties that should have been performed by procurement specialists. We also found a lack of sufficiently detailed procedures for monitoring a subcontractor's progress, and were advised that University officials relied on FHWA officials to perform monitoring. Additionally, GWU policies did not require price analysis for some procurement or sufficiently encourage competition, as required by regulations. The University has agreed to correct these deficiencies by amending policies to clearly define roles and responsibilities, consolidate policies, eliminate inconsistencies and ensure compliance with regulations.

RECOMMENDATIONS

1. We recommend that the Acting Administrator, Federal Highway Administration, require that the Associate Administrator for Research, Development, and Technology and the Associate Administrator for Administration work together to:

- A. Continue their program of intensive monitoring of the University's performance and invoices associated with cooperative agreements at the Center.
- B. Continue monitoring the University's progress in implementing planned corrective actions until they have verified that the University has significantly implemented the planned actions.
- C. Require that the University's officials establish firm completion dates with milestones and benchmarks for completing planned corrective actions that have not yet been implemented.

MANAGEMENT COMMENTS AND OIG RESPONSE

A draft of this report was provided to the FHWA September 1, 2005. The Acting Administrator provided a written response on September 23, 2005, agreeing with our recommendations and providing the following comments.

Recommendation 1(A): FHWA concurred. FHWA said enhanced monthly financial and technical progress reporting was a condition of FHWA's partial reinstatement of the agreement. Additionally, FHWA appointed a new Agreement Officer's Technical Representative (AOTR) and a new technical manager to oversee activities at the Federal Outdoor Impact Laboratory (FOIL). In June 2005, FHWA also created a new division within its Office of Acquisition Management with specific emphasis on assistance agreements and transferred administrative oversight for the agreement to a new agreement officer.

The new agreement officer, FOIL manager, AOTR, and other FHWA representatives meet with the University's principal investigator and financial staff each month to discuss the contents of GWU's technical and financial progress reports. FHWA intends to continue this aggressive oversight under a full reinstatement of the agreement until such time that all corrective actions from GWU's corrective action plan have been implemented and its purchasing, property management, and accounting systems have been recertified by GWU's cognizant audit agencies. Even after recertification, FHWA intends to continue with the appointment of the two technical representatives for monitoring overall technical performance (the AOTR and FOIL manager) as well as regular progress report meetings.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation.

Recommendation 1(B): FHWA concurred. FHWA said it requires the University to provide corrective action progress updates and will continue to do so as part of its monthly technical and financial progress reporting. The University provided firm completion dates for the implementation of all corrective actions as part of its proposal for full reinstatement of the agreement. Cognizant audit agencies, the Office of Naval Research (ONR) and Department of Health and Human Services, have been requested to participate in the review and approval of implemented actions.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation.

Recommendation 1(C): FHWA concurred. FHWA said the University provided firm completion dates and milestones for implementing all corrective actions as a condition for full reinstatement of the cooperative agreement. FHWA is monitoring GWU's progress on a monthly basis and has engaged cognizant audit agencies to assist in reviewing and approving the actions.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation.

ACTION REQUIRED

Actions taken and planned for Recommendations 1(A), 1(B) and 1(C) are reasonable and no further response to those recommendations is necessary, subject to follow-up.

FEDERAL HIGHWAY ADMINISTRATION MONITORING OF COOPERATIVE AGREEMENTS WAS NOT EFFECTIVE

FHWA oversight of its cooperative agreements with the University was not sufficient to detect improper payments. FHWA has an order addressing cooperative agreement procedures; however, it emphasizes the award process, not procedures for administering and monitoring cooperative agreements. The agency also has a technical representative's appointment letter that it uses to guide its staffs' oversight of grants and cooperative agreements. However, unlike other Federal agencies with significant agreements, FHWA does not have a grants administration manual with detailed procedures, checklists, and standard forms for managing agreements with universities and other nonprofit organizations. Administrative oversight and monitoring procedures were not adequately documented and supported in the agreement files. As a result, FHWA officials did not detect the improper payment of about \$1.6 million to the University.

To illustrate, although FHWA's technical representative had been responsible for all 12 years of the Center's work, his oversight amounted to little more than a rubber stamp. For example, he said he never questioned any costs the University billed, but that he did not review all bills because FHWA's contracts administrator did not always send them. He knew for 5 or 6 years that the principal investigator had a financial interest in one of the agreement's subcontractors, but did not report the potential conflict of interest. **Additionally**, FHWA officials did not verify receipt of equipment billed, compare costs claimed such as stipends with budgets and inquire about overruns, or evaluate amounts billed against the value of the work performed.

Title 49 CFR 19⁵ establishes uniform administrative requirements for Federal grants and agreements awarded by the Department of Transportation to universities and other nonprofit organizations. The guidance is separated into areas of responsibility that occur during the unique phases of an agreement: pre-award, post-award, and after-the-award. FHWA's Agreement Officer's Technical Representative's appointment letter indicated that the technical representative and agreement officer were responsible for monitoring technical progress and reviewing management control systems. The letter provided some useful procedures for reviewing technical progress, but lacked procedures for reviewing management control, financial, property management and procurement systems. Guidance is needed to detail responsibilities for agreement personnel, including agreement specialists, and provide best practices for administering cooperative

⁵ Title 49 Code of Federal Regulations, Part 19—Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations.

agreements, delineated by each major administration phase. We found weaknesses in the pre-award and post-award phases of the agreement. The duties and weaknesses identified for each of these phases are summarized below.

- **Pre-award.** This phase encompasses guidance for applicants and reviews by agreement specialists, including reviews of the allowability of proposed costs. It also involves determining that the University's and subrecipient's financial, procurement, and property management systems are adequate.

FHWA performed an adequate desk review of the cost and pricing data that the recipient submitted for the most recent agreement and subcontract; however, the agreement specialists did not determine whether the major subcontractor, associated with a proposed award of \$2.8 million, had an adequate accounting system or whether the subcontractor's financial capability and ownership were reviewed. FHWA's agreement specialists indicated that the University's procurement system had been approved by the Office of Naval Research (ONR). As a result, the FHWA officials relied on the University to perform the pre-award reviews of the subcontractor's accounting system and ownership without following-up to ensure that the reviews were completed. However, the ONR letter approving GWU's procurement system was dated June 19, 1992 and only approved the system for twelve months. It is unclear whether the ONR review addressed procurements at the Center, since the NCAC was only chartered in 1992. Had FHWA officials required the University to perform a pre-award review of the subcontractor's financial system, capability, and ownership, the principal investigator's significant financial interest in the subcontractor would likely have been identified.

For most recent cooperative agreements, reviewing the subcontractor's accounting system and ownership interests was critical because the FHWA technical representative was aware that the principal investigator was forming a new company. Ensuring that routine pre-award reviews were performed for the large subcontract might have avoided hundreds of thousands of dollars in improper payments to the subcontractor.

- **Post-award.** This involves all activities that occur after the cooperative agreement is signed and until closeout activities begin. Post-award duties include reviewing payment requests, obtaining reports, assessing project status, and ensuring compliance with terms and conditions. Also required is maintaining the official grants management award file, providing guidance to the recipient, and ensuring compliance with Federal and agency regulations, including those dealing with procurement. Other post-award duties include monitoring (including on-site reviews of the recipient's financial, procurement, and property management systems), and meeting with the recipient's project officers.

FHWA's management and oversight responsibilities continue after the application is processed and the agreement is awarded. These duties are important—yet we found no significant evidence in the agreement files that FHWA contracting specialists or the technical representative had adequately performed them. Additionally, during the investigation we determined that the former FHWA technical representative did not maintain an agreement file in accordance with the FHWA technical representative's appointment letter.

More involvement and monitoring were clearly needed. For example, there was little correspondence with the University regarding project performance, site visits, progress reports, and interim financial reports. The findings associated with these reviews of the University's financial management reports, budgets and progress reports, and site visits were not sufficiently documented. According to the former FHWA agreement officer, regulations prevented them from performing desk reviews or site visits to test the status of the financial management systems and procedures; however, this kind of transaction testing and review are included in the administrative procedures for other agencies that we reviewed.

FHWA's technical representative indicated that he was unable to adequately evaluate the University's invoices to determine whether billed amounts correlated with the work that was performed. Although the agreement called for over 20 tasks and subtasks, hours billed were consolidated and not shown by task. In these circumstances, agreement specialists should work closely with the technical representative and University officials to ensure that the technical representative is provided with sufficient information to assess the reasonableness of the labor hours and other costs billed.

- **After-the-award.** Procedures for this phase consist of ensuring accountability of property; obtaining, reviewing, and distributing final reports and financial status reports; processing closeout documents; and reviewing final payments. Since we concentrated most of our review on the current active agreement that the Agency suspended, we did not review significant after-the-award activities.

Strengthening Internal Controls. Internal controls over documenting evidence of management and monitoring activities need to be strengthened. For example, to properly review the University's financial status reports, contracting specialists would need to prepare a worksheet comparing the information in these reports against other financial and budgetary records. Workpapers documenting the dates and results of these reviews should have been present. Documentation should also be available to show evidence of (1) conducting site visits that assess technical progress and adequacy of financial management systems, (2) performing desk audit reviews of procurement policies and expenditures, (3) verifying receipt of

equipment, and (4) ensuring compliance with the terms and conditions of the agreements. FHWA's files lacked much of this analysis.

FHWA Is Taking Significant Corrective Action

FHWA officials are taking steps to improve their administration of cooperative agreements by:

- Reorganizing the Office of Acquisition Management by creating a new division devoted to the award and administration of grants and cooperative agreements, simplified acquisitions, and interagency/reimbursable agreements;
- Finalizing a review of administrative procedures for grants and cooperative agreements performed by other Federal agencies to help design a reference guide for administering grants and cooperative agreements;
- Obtaining an ONR review of the University's procurement and property management systems;
- Revising FHWA's order for administering grants and cooperative agreements;
- Improving training for agreement officers' technical representatives and agreement officials and specialists;
- Developing a uniform format for FHWA requests for applications and assistance agreement awards;
- Intensifying oversight by requiring that GWU submit (1) technical reports and invoices monthly (instead of quarterly) and (2) detailed invoice support and breakdown by task; and
- Requiring that the FHWA technical representative submit weekly activity and planning reports.

Prior Review. FHWA had procurement problems in 1999 when a contract official at the Turner-Fairbanks Highway Research Center pled guilty to conspiracy, bribery, and money laundering associated with soliciting and receiving cash and money orders from Government contractors. In response, we reviewed⁶ the Turner-Fairbanks Highway Research Center's⁷ policies, procedures, and practices for awarding contracts and interagency agreements. That review

⁶ OIG report number MA-1999-095, "Audit of the Turner-Fairbanks Highway Research Center Acquisition Process," May 5, 1999. OIG reports can be found on our website www.oig.dot.gov.

⁷ The Turner-Fairbanks Highway Research Center is the FHWA unit responsible for administering the Center cooperative agreement with the University.

identified problems similar to those discussed here: invoices not sufficiently detailed to permit adequate review and lack of review of the property system.

RECOMMENDATIONS

2. We recommend that the Administrator, FHWA, require that the Associate Administrator for Research, Development, and Technology and Associate Administrator for Administration work together to accomplish the following:
 - A. Develop a grants-administration manual or detailed procedures for administering grants and cooperative agreements.
 - B. Develop best practices that agreement officers, contracting specialists, and technical representatives should consider using during each phase of the agreement delineated in 49 CFR 19 (e.g., pre-award, post-award, and after-the-award.)
 - C. Include steps in best practices for (a) performing site visits and desk reviews of financial, purchasing, and property systems; (b) using standard forms to document site visit findings when assessing financial, purchasing, and technical progress; and (c) reviewing invoices, such as comparing costs against assessed progress and budgeted amounts for individual cost elements.
 - D. Develop guidance for reviewing billings for cooperative agreements, including coordinating with University officials to ensure that invoices include supporting details that allow for adequate evaluation, including hours and costs associated with individual tasks.

MANAGEMENT COMMENTS AND OIG RESPONSE

A draft of this report was provided to the FHWA September 1, 2005. The Acting Administrator provided a written response on September 23, 2005, agreeing with our recommendations and providing the following comments.

Recommendation 2(A): FHWA concurred. FHWA said that shortly after learning of the improper billing under the agreement, an internal process action team was convened to conduct a comprehensive review of FHWA's practices for the award and administration of assistance agreements. Among the action team's recommendations is to update FHWA's grant and cooperative agreement policy guidance and to develop better written procedures for both acquisition and

technical personnel. The policy update is presently underway and all activities under this area are planned for completion during fiscal year 2006. FHWA intends to incorporate best practices studied at other Federal agencies into this policy guidance.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation. We request the FHWA provide a more specific timeframe for completing the corrective action.

Recommendation 2(B): FHWA concurred. FHWA said the cooperative agreement process action team recommended developing best practices and this work is proceeding. In response to another team recommendation, FHWA is developing a quick reference guide of best practices for AOTRs. FHWA intends to complete development and distribution of this guide as well as the updated policy guidance during fiscal year 2006.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation. We request the FHWA provide a more specific timeframe for completing the corrective action.

Recommendation 2(C): FHWA concurred. FHWA said the best practices will be developed for the areas the OIG recommended and will be included in FHWA's quick reference guide and the updated policy guidance.

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation. We request the FHWA provide a more specific timeframe for completing the corrective action.

Recommendation 2(D): FHWA concurred. FHWA said the updated policy guidance, the proposed AOTR quick reference guide, and a new AOTR training module, will all discuss practices for reviewing assistance agreement billings and financial reports. FHWA is also updating and standardizing the format for assistance agreement Requests for Applications and adding more detailed information on recipient requirements for requests for advances or reimbursements

OIG Response: FHWA's planned actions are responsive to the intent of our recommendation. We request the FHWA provide a more specific timeframe for completing the corrective action. Action Required.

ACTION REQUIRED

In accordance with DOT Order 8000.1C, we request completion target dates for Recommendations 2(A), 2(B), 2(C) and 2(D) within 30 days.

EXHIBIT A. SCOPE AND METHODOLOGY

This audit was conducted from November 2004 through July 2005 at facilities of The George Washington University, including the National Crash Analysis Center, Ashburn, Virginia; FHWA's Washington, D.C., Headquarters; and its Turner-Fairbanks Highway Research Center, McLean, Virginia. We performed this attestation review in accordance with Generally Accepted Government Auditing Standards for audit reviews as prescribed by the Comptroller General of the United States, and included such tests as we considered necessary to provide reasonable assurance of detecting abuse or illegal acts. We coordinated our review procedures with investigators to ensure that we did not interfere with an ongoing criminal investigation associated with the principal investigator's actions.

We interviewed appropriate officials of the University responsible for procurement, contracting, and financial management practices associated with the Center and cooperative agreements issued by FHWA. We also reviewed the University's corrective action plan and approved and planned policies. We compared the corrective actions with regulations and tested compliance. We also compared existing and planned University procedures for administering the agreement; procuring goods and services; and performing financial management against various generally accepted control standards, including those of American Institute of Certified Public Accountants ("Codification of Statements on Auditing Standards") and Government Accountability Office ("Standards for Internal Control in the Federal Government").

To better understand the improper payments, questioned costs, and the University's internal control practices, we reviewed the summary workpapers of Beers & Cutler, CPA regarding its review of the costs incurred on the agreements, and the workpapers of PricewaterhouseCoopers, which performed the annual OMB Circular A-133 Single Audit and wrote the reports for the University.

Finally, we reviewed the agreement officer's technical representative's and contract specialists' files to identify the oversight and monitoring procedures FHWA officials used for the agreements. We interviewed the agreement officer, her technical representative, contract specialists, and other FHWA officials to understand the administrative procedures used. We compared the identified procedures with FHWA's policies and guidance and with those of other executive agencies with considerable grants and cooperative agreements, including the Department of Health and Human Services, Environmental Protection Agency, and the Federal Transit Administration.

EXHIBIT B. MAJOR CONTRIBUTORS TO THIS REPORT

<u>Name</u>	<u>Title</u>
Terrence Letko	Program Director
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Jill Cottonaro	Analyst
Allison Horkan	Auditor
Son Tran	Auditor Intern
Keith Bonanno	Special Agent

APPENDIX. MANAGEMENT COMMENTS



Memorandum

Subject: **INFORMATION:** Federal Highway Administration (FHWA)
Response to OIG Draft Report, "Audit of Financial Policies
and Procedures at the National Crash Analysis Center (NCAC)"

Date: September 23, 2005

From: J. Richard Capka
Acting Administrator

Reply to
Attn. of: HAAM-1

To: Theodore P. Alves
Principal Assistant Inspector General
for Auditing and Evaluation (JA-20)

Thank you for the opportunity to provide comments on the subject draft report. We have carefully reviewed the report and agree with its recommendations. Of note, after learning of improper activities and fraudulent charges by a George Washington University (GWU) official at the NCAC, FHWA immediately suspended the cooperative agreement and convened an interdisciplinary process action team to review the Agency's administration of the cooperative agreement and overall policies and procedures for the award and monitoring of Federal assistance agreements. Many of the recommendations made by the Office of the Inspector General (OIG) in this audit report are congruent with the recommendations from FHWA's internal review and we have already taken steps to implement process improvements along these lines. The following comments discuss actions we have already initiated and have planned for implementation during the forthcoming year in response to the report's specific recommendations:

Recommendation: Continue program of intensive monitoring of The George Washington University's performance and invoices associated with cooperative agreements at the Center.

Response: Concur. In April 2005, FHWA entered into a limited partial reinstatement of the cooperative agreement with the condition that GWU provide enhanced financial and technical progress reporting on a monthly basis. This reporting significantly exceeds the requirements of the governing OMB Circulars and provides a high degree of transparency for FHWA into the day-to-day performance of GWU under the cooperative agreement. The GWU's reporting includes an itemization of all costs incurred during the month reported, level of effort worked for all individuals charged during the period, and agreement officer prior approval requirements for any equipment purchase exceeding \$500. Additionally, FHWA has appointed two new Federal officials responsible for technical oversight of the agreement. A new Agreement Officer's



APPENDIX. MANAGEMENT COMMENTS

Technical Representative (AOTR) performs regular site visits at the NCAC and provides a written weekly report on the cooperative agreement's activities to the FHWA agreement officer.

The FHWA also appointed a technical manager to oversee the daily activities at the Federal Outdoor Impact Laboratory (FOIL). Further, in June 2005 FHWA created a new division within its Office of Acquisition Management with specific emphasis on assistance agreements. Concurrent with the emergence of this new division, administrative oversight for the NCAC cooperative agreement was transferred to a new agreement officer.

The FHWA officials, including the FOIL manager, AOTR, agreement officer, agreement specialists, and other representatives, meet with GWU's principal investigator and financial staff each month to discuss the contents of GWU's technical and financial progress reports. The FHWA intends to continue this aggressive oversight under a full reinstatement of the agreement until such time that all corrective actions from GWU's Corrective Action Plan have been implemented and its purchasing, property management, and accounting systems have been recertified by GWU's cognizant audit agencies. Even after recertification, FHWA intends to continue with the appointment of the two technical representatives for monitoring overall technical performance (the AOTR and FOIL manager) as well as regular progress report meetings. We believe this level of oversight provides effective assurance to the Government that funds are being expended appropriately and that technical progress is meeting Agency goals.

Recommendation: Continue monitoring The George Washington University's progress in implementing planned corrective actions until they have verified that the University has significantly implemented the planned actions.

Response: Concur. During the current partial reinstatement and for any further reinstatement of the agreement, FHWA is requiring GWU to provide progress updates on the status of all corrective actions as part of its monthly technical and financial progress reporting. Additionally, GWU has provided firm completion dates for the implementation of all corrective actions as part of its proposal for full reinstatement of the agreement. The FHWA has coordinated its review of the corrective actions with the OIG's cost accounting team and has requested that GWU's cognizant audit agencies, the Office of Naval Research (ONR), and the Department of Health and Human Services, participate in the review and approval of the implemented actions.

Recommendation: Require that The George Washington University's officials establish firm completion dates with milestones and benchmarks for completing planned corrective actions that have not yet been implemented.

Response: Concur. As noted above, FHWA has required GWU to provide firm completion dates and milestones for implementing all corrective actions as part of its proposal for full reinstatement of the cooperative agreement. The FHWA is monitoring GWU's progress in this area on a monthly basis and has engaged GWU's cognizant audit agencies to assist in reviewing and approving the actions.



APPENDIX. MANAGEMENT COMMENTS

Recommendation: Develop a grants-administration manual or detailed procedures for administering grants and cooperative agreements.

Response: Concur. As noted earlier, shortly after learning of the improper billing activity under the GWU NCAC agreement, FHWA convened a process action team to conduct a comprehensive review of FHWA's practices for the award and administration of assistance agreements. The goal of this team was to identify any potential weaknesses in FHWA's practices and procedures and to seek possible measures for improvement in this area. In addition to examining FHWA's internal practices, the action team reviewed best practices and met with representatives from other Federal agencies, including the ONR, the National Institutes of Health, the U.S. Geological Survey, and the National Highway Traffic Safety Administration. Among the action team's recommendations is to update FHWA's grant and cooperative agreement policy guidance in FHWA Order 4410.1 and to develop better written procedures to be followed both by acquisition personnel and technical representatives engaged in the award and administration of assistance agreements. Work on the update to FHWA Order 4410.1 is presently underway and all activities under this area are planned for completion during fiscal year 2006. The FHWA intends to incorporate best practices studied at other Federal agencies into this policy guidance.

Recommendation: Develop best practices that agreement officers, contracting specialists, and technical representatives should consider performing during each phase of the agreement delineated in 49 CFR 19, including pre-award, post-award, and after-the-award.

Response: Concur. As noted above, FHWA's cooperative agreement process action team identified this as a recommendation and work is proceeding on the development of updated procedural and policy guidance incorporating best practices. A further recommendation of this action team is to develop a quick reference guide of best practices to be utilized by AOTRs. The FHWA intends to complete development and distribution of this guide as well as the updated policy guidance during fiscal year 2006.

Recommendation: Include steps in best practices for (a) performing site visits and desk reviews of financial, purchasing, and property systems; (b) utilizing standard forms to document site visit findings when accessing financial, purchasing, and technical progress; and (c) reviewing invoices, such as comparing costs against assessed progress and budgeted amounts for individual cost elements.

Response: Concur. Each of the OIG's recommendations in this area will be included in FHWA's quick reference guide and the updated policy guidance.

Recommendation: Develop guidance for reviewing billings for cooperative agreements, including coordinating with University officials to ensure that invoices include supporting details to allow for adequate evaluation, including hours and costs associated with individual tasks.



APPENDIX. MANAGEMENT COMMENTS

Response: Concur. The FHWA's updated policy guidance, the proposed AOTR quick reference guide, and a new AOTR training module will all discuss practices for reviewing assistance agreement billings and financial reports. Additionally, FHWA is updating and standardizing its format for Requests for Applications for all assistance agreements. This update will include more detailed information on recipient requirements for requests for advances or reimbursements and financial status reports. To further augment this area and overall agreement monitoring, FHWA's best practices guide will discuss contents for kick-off meetings to be held immediately after the award of new assistance agreements. Billing and financial requirements will be a key component of these meetings.

As discussed above, FHWA concurs with all of the OIG's recommendations. We believe our planned process improvements, along with the recommendations of our cooperative agreement process action team fully address all OIG recommendations and will significantly strengthen our internal controls for monitoring grants and cooperative agreements. Many of these improvements have already been implemented and others are currently underway.

The FHWA's goal is not simply to operate a fully compliant Federal assistance program, but to be a best-in-class organization, providing exceptional business judgment in utilizing tax payer dollars toward achieving advancements in the Nation's highway infrastructure and safety. As we implement the actions discussed herein and in our cooperative agreement process action team's final report, we will continue to explore other means of improving our operations toward this end.

We appreciate the cooperation and invaluable assistance of the OIG's cost accounting team in reviewing GWU's internal controls, risk assessment, and corrective action plan. We look forward to continuing this relationship as we evaluate the implementation of this plan. Please feel free to contact Mr. Arlan Finrock of our Office of Acquisition Management, at 366-0125, if you have any questions regarding the actions and initiatives discussed herein.

