UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF INSPECTOR GENERAL

400 MARYLAND AVENUE, S.W.
WASHINGTON, DC 20202-1500

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Control Number
ED-OIG/A19F0009

Michell Clark, Designee
Assistant Secretary for Management and Acting Chief Information Officer
U.S. Department of Education
Office of the Chief Information Officer
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Dear Mr. Clark:

This **Final Audit Report**, entitled *Telecommunications Billing Accuracy*, presents the results of
our audit. The purpose of the audit was to determine the effectiveness of the Department's
validation of the billing accuracy for its telecommunications services. Our review covered the
period October 1, 2003, through March 31, 2005.

BACKGROUND

The Office of the Chief Information Officer (OCIO) is responsible for negotiating, acquiring,
and managing the delivery of telecommunications services. The Telecom Services Group within
OCIO has primary responsibility for this area. Responsibility for telecommunications
management is also shared by individual Principal Offices (POs). Each PO designates a point of
contact to coordinate telecommunications management with the PO Executive Office and OCIO.

The Department's *Handbook for Telecommunications* states,[1]

> The Department of Education relies on telecommunications systems and services
> to support the mission and goals set out by the Secretary of Education, so it is
> vital that these resources be effectively managed.

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[1] Departmental Directive, Handbook OCIO-13, *Handbook for Telecommunications*, dated August 29, 2005.

> The ability of telecommunications to increase productivity has grown
> tremendously. Management of telecommunications resources, therefore, should
> actively ensure that telecommunications benefits (speed, usefulness, and service
> availability) are emphasized even while steps are taken to manage risks and
> reduce costs.

OCIO began implementation of the Telecommunications Automated Tracking System (TATS) in late 2002. According to the *Handbook for Telecommunications*, TATS is a web-based application that allows authorized officials to submit and approve requests for telecommunications equipment and services. Once approved, OCIO staff submits orders to telecommunications vendors. Once the equipment and/or services have been received, OCIO staff enters the items into the inventory in TATS. In addition to business process and asset management capabilities, TATS assists the Telecom Services Group in reconciliation of billing and accountability for telecommunications resources.

For the 18-month period ended March 31, 2005, Department telecommunications expenses totaled $20,863,907.

AUDIT RESULTS

OCIO needs to improve internal control over telecommunications billings. We found that although fraudulent activity by a former telecommunications staff member was discovered several years ago, OCIO has not performed a risk assessment of the functions in this area to establish appropriate controls to prevent future fraud and misappropriation of resources. OCIO staff performed only limited reviews of telecommunications billings and did not conduct regular inventories of telecommunications resources. Information provided to POs was limited to wireless devices, but that information was not provided timely, and did not request a response or certification as to the accuracy or appropriateness of resources allocated. Appropriate separation of duties was not maintained, as one OCIO staff member was responsible for both ordering wireless equipment and validating wireless billings. OCIO did not document procedures for validating telecommunications billings, and Department Directives in effect during the time period audited were not being followed. We found that insufficient staff, contractor support, and information technology resources were allocated to ensure OCIO staff could effectively manage this area. As a result, the Department lacks assurance that amounts paid for telecommunications services were accurate and that services provided were appropriate, accountability is hindered, and the risk of theft, fraud and misuse is increased.

In its response to the draft audit report, OCIO concurred with the finding and provided a proposed corrective action plan to address each of the recommendations included in our report. OCIO's response is included as an Attachment to this report.

FINDING – OCIO Needs to Improve Internal Control over Telecommunications Billings

OCIO needs to improve internal control over telecommunications billings. We reviewed the telecommunications billings process for the period October 2004 through March 2005 and noted the following weaknesses in internal control:

- Although fraudulent activity by former telecommunications staff was previously identified, OCIO has not performed a risk assessment to evaluate the work performed by the group, ensured that effective controls are established to prevent future fraud and misappropriation of resources, and aligned resources with risks identified and work priorities.

- While OCIO verified the accuracy of telecommunications billings calculations, it did not verify the appropriateness of individual line items billed for services under the Federal Telecommunications System (FTS) 2001 and Washington Interagency Telecommunications System (WITS) contracts, or for wireless devices.

- In addition, OCIO did not evaluate the appropriateness of services provided by conducting regular inventories of non-wireless telecommunications services, or provide this information to POs for review. While OCIO did provide some information to POs on wireless services, the information was not provided timely. OCIO staff provided summary data on a quarterly basis, rather than monthly as stated in its policy. Summary data for the five-month period January through May 2005 was not sent out until October 2005. Summary information sent for PO review did not request a certification from the POs that the services provided were appropriate, and that all devices issued were needed.

- OCIO did not ensure the accuracy of information in the systems maintained by the General Services Administration (GSA) for FTS 2001 and WITS services, or in the Department's TATS for wireless services.

- OCIO did not properly separate responsibilities among staff in the Telecom Services Group. One OCIO staff member was responsible for both ordering wireless equipment and validating wireless billings.

- OCIO did not have documented policies and procedures regarding review of telecommunications billings and inventory processes followed by its Telecom Services Group. In addition, the Department policy on wireless telecommunications services in effect during our audit was not being followed with regard to the processes for reviewing and certifying invoices for payment. On August 29, 2005, OCIO issued Handbook OCIO-13, *Handbook for Telecommunications*, which superseded policies in effect during the scope of our review. This Handbook is general in nature, and removed specific procedures related to the processes for reviewing and paying invoices, and to the TATS application.

Office of Management and Budget (OMB) Circular A-123, *Management Accountability and Control*, revised June 21, 1995, Section 2, "Policy," states,[2]

> Management accountability is the expectation that managers are responsible for the quality and timeliness of program performance, increasing productivity, controlling costs and mitigating adverse aspects of agency operations, and assuring that programs are managed with integrity and in compliance with applicable law.

> Management controls are the organization, policies, and procedures used to reasonably ensure that (i) programs achieve their intended results; (ii) resources are used consistent with agency mission; (iii) programs and resources are protected from waste, fraud, and mismanagement; (iv) laws and regulations are followed; and (v) reliable and timely information is obtained, maintained, reported and used for decision making.

Government Accountability Office (GAO), *Standards for Internal Control in the Federal Government*, issued November 1999, states,

> An agency must establish physical control to secure and safeguard vulnerable assets. Examples include security for and limited access to assets such as cash, securities, inventories, and equipment, which might be vulnerable to risk of loss or unauthorized use. Such assets should be periodically counted and compared to control records.

> Information should be recorded and communicated to management and others within the entity who need it and in a form and within a time frame that enables them to carry out their internal control and other responsibilities.

> Key duties and responsibilities need to be divided or segregated among different people to reduce the risk of error or fraud. This should include separating the responsibilities for authorizing transactions, processing and recording them, reviewing the transactions, and handling any related assets. No one individual should control all key aspects of a transaction or event.

> Internal control and all transactions and other significant events need to be clearly documented, and the documentation should be readily available for examination. The documentation should appear in management directives, administrative policies, or operating manuals and may be in paper or electronic form. All documentation and records should be properly managed and maintained.

Departmental Directive OCIO:2-101, *Acquisition and Management of Telecommunications Resources*, dated May 26, 1993, and in effect during the scope of our review, Section II.A, "Policy," states,

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[2] This circular was in effect during the scope of our review and was effective through FY 2005. OMB revised this circular on December 21, 2004, and again on August 22, 2005. Both revisions are effective for FY 2006. Similar requirements to those quoted above are included in the revisions to the circular. In the updated circular, the terminology "management controls" was changed to "internal control."

It is [the Department of Education's] ED's policy to acquire, manage and utilize telecommunication resources in the most efficient and cost-effective manner to support the operation of ED programs.

Directive OCIO:2-101, Section VI, "Responsibilities," states that the Chief, Telecommunications Management Branch (TMB), "1. Oversees telecommunications policies and procedures, 2. Ensures that telecommunication resources are technically adequate and cost effective…

Section VI.F, states that project managers within the TMB, "Monitor the management of telecommunication resources for assigned ED headquarters and regional organizations."

Section VII.B, "Management of Resources," states,

> TMB provides oversight and technical support to ED managers and supervisors to assist them in managing the telecommunication resources that have been assigned to their organization.

Departmental Directive OCIO:2-102, *Wireless Telecommunications Services*, dated March 9, 2004, also in effect during the scope of our review, Section VI, "Responsibilities," states,

> A.1. OCIO Telecommunications Support Manager, (a) Coordinates wireless telecommunications services support to all Department users to include the administration, management, and policy development required for the efficient deployment of wireless services . . . .

> A.2. OCIO Telecommunications Service Agents . . . (h) Reconcile Department service and asset inventory with vendor bills."

Directive OCIO:2-102, Section VII, "Procedures and Requirements," Subsection D, "Billing for Wireless Services," states,

> 1. Each month, a summary-level report that includes a compilation of all usage information within a Principal Office will be sent to the Executive Officers from the OCIO Telecommunications Services Group.

> 2. Each quarter, a summary-level report that includes a compilation of all usage information and a funding level report within a Principal Office will be sent to the Executive Officers from the OCIO Telecommunications Services Group.

> 4. If the total monthly charges accrued by a user does (sic) exceed the monthly calling plan limit, the funds come from the Principal Office's funds. EXOs, supervisors, and employees are responsible for reviewing and certifying these exception invoices for payment. Executive Officers may seek recovery per section V.II.D.8 . . . .

> 5. The Executive Officer may review the associated call detail record (CDR) file using the reporting tool available in the TATS application.

7. Executive Officers should review the usage reports and determine whether an
    employee is over- or under-utilizing a calling plan (in the case of a cell phone)
    or whether potential fraud or abuse of communication services (sic).

We found that the OCIO Telecom Services Group did not have sufficient staffing to establish
and implement effective internal control. Staff turnover and the lack of properly trained staff
have been recurring issues within the group. Recent reductions in available staff, as well as
turnover in contractor support staff due to the award of the Department's network contract to a
new vendor, have further exacerbated this issue.

For example, during the scope of our review, 18 Department and contractor staff were assigned
to the Telecom Services Group. Eleven of those staff either left the Department or the
contractor's staff. OCIO recently received five additional Department or contractor staff. The
Director, Telecom Services Group, stated that OCIO has been dealing with this issue for many
years, specifically due to changing leadership, prioritization of strategic direction, and the
perception that Telecom does not require specific skill sets.

We noted OCIO relies upon GSA to perform validation of FTS 2001 and WITS contract
services. GSA's role is limited, however, to monitoring the contracts and ensuring that correct
contract rates are charged. GSA cannot determine whether the services provided are appropriate.

Deficiencies and limitations in information systems also adversely impacted OCIO's ability to
effectively manage this area. During our review, OCIO staff stated that the PO designations in
the GSA systems for FTS 2001 and WITS billing information were not always correct. These
inaccuracies hampered OCIO's ability to generate reports from these systems for PO review of
the appropriateness of services and inventory of phone lines and other items provided. OCIO
staff also stated that PO staff would not be able to interpret the reports the way they are currently
formatted.

In addition, TATS was planned to include wireless telecommunications billings information, as
well as updated wireless inventory information, allowing PO staff to access and review billings
and call detail reports through the system. We noted the Wireless Telecommunications Services
Directive and TATS User Manual in effect during the scope of our review were based on these
plans for the TATS application. However, capabilities with respect to receiving, storing, and
reporting billing information have not yet been fully developed in TATS. In fact, during late
2004, OCIO staff disabled some of the reporting mechanisms for PO users in TATS due to
problems with the application. These problems have still not been resolved one year later
because current OCIO and contractor staff do not have the skills to modify the application or
develop other areas of TATS.

We further noted that billing information for the largest wireless service vendor used by the
Department was not received electronically.[3] This vendor represented 52 percent of the total
number of wireless devices issued by the Department. As a result, OCIO staff had to manually
generate usage reports to be sent for PO review. Billing information received from the other four
vendors was not in a standardized format, requiring additional effort by OCIO staff to
manipulate the information prior to sending it out for PO review. For all vendors, in order to

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[3] This vendor began providing electronic billing information in August 2005.

provide PO staff with detailed call information, OCIO staff must extract the information from electronic files, if available, or manually photocopy reports.

Overall, the Department lacks assurance that amounts paid for telecommunications services were accurate and that services provided were appropriate. For the 18 months ended March 2005, $20,863,907 was expended for telecommunications services. The Department cannot assert to the appropriateness of these expenditures.

Without effective controls for inventories of telecommunications services and equipment, accountability is hindered, unnecessary expenditures may be incurred for services that are not required, and the risk of theft, fraud and misuse is increased. We identified unnecessary expenditures made for local phone service and wireless service as follows:

- We reviewed charges for local phone service in the Washington, DC, area under the WITS contract for the month of January 2005. We provided this information to PO staff who in turn identified 792 telephone lines located in buildings from which Department staff moved in December 1999 (157 lines), and during the period April through June 2004 (635 lines). The Department was still being charged for the cost of these lines in January 2005. Based on the move dates, we projected the costs of these lines through the month OCIO requested that the lines be disconnected, or though September 2005 for lines still in service. In total, $174,438 in unnecessary expenditures were made for the 792 lines that should have been disconnected. A similar review performed by OCIO staff for local phone service lines in Department regional offices identified 475 lines to be disconnected at a savings of $13,253 per month.[4]

- As of October 03, 2005, TATS inventory records listed 647 wireless devices assigned to Department staff. We referred wireless device inventory listings from TATS to PO staff to determine whether the devices were appropriately assigned, whether the services were still needed, and whether information in TATS was accurate. PO staff identified 47 devices with a monthly recurring cost of $2,094, which were not needed. PO staff also identified 20 devices that were assigned to the wrong user.

The deficiencies and limitations in information technology support result in further strain on the limited personnel resources as staff must manually evaluate, enter, and/or provide information. Without information readily available for PO review, errors, unnecessary costs, or inappropriate use cannot be identified timely.

Without appropriate separation of duties, the Department remains vulnerable to further theft, fraud, and misuse of resources in this area. The prior fraudulent activity identified in this area was attributed, in part, to inadequate separation of duties.

Department policies that are not followed or are too general reduce the effectiveness of established controls, lead to inconsistent practices and confusion as to what procedures should be followed, and confusion over who is responsible for various processes. Without written internal

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[4] OCIO's analysis did not calculate when the phone lines should have been disconnected, or the total unnecessary costs expended, only the monthly cost of the lines.

procedures, training new staff is more difficult and time-consuming for current OCIO Telecom Services Group staff.

Recommendations

We recommend that the Acting Chief Information Officer:

1.1   Perform a risk assessment of the Telecom Services Group to (a) identify the functions performed by the group and the risks and vulnerabilities that exist, (b) design appropriate internal control over the functions, including appropriate separation of duties, (c) prioritize work to address the most significant risks, and (d) determine appropriate staff, contract and/or information technology resources required to perform the function.

1.2   Based on this assessment, allocate adequate staffing to the Telecom Services Group to establish appropriate internal control and allow effective management of telecommunications services and expenditures.

1.3   In the interim, provide sufficient resources, either through details of Department staff and/or contractor support, to the Telecom Services Group to allow completion of an inventory of telecommunications equipment and services as a first step toward verifying the appropriateness of telecommunications expenditures and the accuracy of information in GSA and Department systems. Based on the inventory results, take action to disconnect/discontinue unnecessary services.

1.4   Ensure TATS or other appropriate information technology resources are fully developed and operational to assist in the management of telecommunications services.

1.5   Establish and implement detailed procedures on the process for validating telecommunications billings, including those for the FTS 2001 and WITS contracts, as well as wireless services. Include in the procedures timely referral of information to PO staff, and a requirement for PO staff to certify the appropriateness of the services provided, the continuing need for such services, and the accuracy of data provided.

1.6   Ensure telephone lines are disconnected timely when staff move. Take immediate action to correct issues noted during our audit – disconnect/discontinue services identified as not necessary, and update records to correctly identify holders of wireless devices.

1.7   Ensure Department policies and the TATS user manual accurately reflect information regarding what is accessible to POs within the TATS application to effectively monitor telecommunications costs.

OCIO Comments

In its response to the draft audit report, OCIO concurred with the finding and provided a proposed corrective action plan to address each of the recommendations included in our report.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our audit was to determine the effectiveness of the Department's validation of the billing accuracy for its telecommunications services. To achieve our objective, we performed a review of internal control applicable to the process for reviewing and validating telecommunications billing information. We conducted interviews with OCIO staff, and Executive Officers and staff from selected POs, to obtain an understanding of the process. We also conducted interviews with GSA staff on their role in the process. We evaluated prior audits and reviews relating to telecommunications management to determine possible vulnerabilities and any areas that required audit follow-up. We reviewed requirements in the Federal Acquisition Regulation, Federal Management Regulations, OMB Circulars, GAO *Standards for Internal Control in the Federal Government*, and Department policies and procedures related to the management of telecommunications services.

We initially identified the total expenditures for telecommunications for the period October 1, 2003, through February 28, 2005. For this period, Department expenditures totaled $19,992,656. We evaluated the three major categories of telecommunications expenses based on total expenditures – Local Services, Long Distance Services, and Dedicated Circuits – and judgmentally selected the three largest expenses within each category to provide review of the greatest proportion of total telecommunications expenditures – WITS, Toll Free Services, and Asynchronous Transfer Mode (high speed connections), respectively. We also judgmentally selected two additional expenses from the Long Distance category of expenses – Universal Service Fund (USF) and Wireless Services – based on lack of agency control over USF charges by vendors, and vulnerabilities noted in a prior audit of wireless devices.[5] In total, the five expenses selected for review represented $13,794,932 or 69 percent of the total telecommunications expenses for the 17-month period initially identified.

We focused our review on the selected expenses during the period October 1, 2004, through March 31, 2005, to ensure we reviewed the Department's current practices in validating telecommunications billings[6]. To test controls and evaluate the appropriateness of telecommunications charges, we reviewed vendor invoices, electronic data in GSA and Department systems, and additional supporting documentation provided by OCIO staff for charges made during this six-month period.

We relied on computer-processed data obtained from OCIO to select the line item expenditures during the scope period. This data included worksheets OCIO developed to summarize telecommunications expenditures, and information from TATS. With the exception of wireless service expenditures, the data in OCIO's worksheets was also recorded in systems maintained by GSA – the Monthly Online Records and Reports of Information-Technology Services system for

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[5] Audit Control Number (ACN) A11-A0014: "Audit of the U.S. Department of Education's Controls Over Cellular Phones," issued September 15, 2000.

[6] At the time we began this audit, expenditure data was only available through February 28, 2005. However, during our testing, OCIO was able to provide expenditure data through March 31, 2005.

long distance services, and Telecommunications Ordering and Pricing System for local services. We verified the completeness and accuracy of this data by comparing the information in these systems with that in the OCIO worksheets. For wireless services, we compared billing information received from the vendors to the amounts recorded in the OCIO worksheets. During our audit, we also referred selected information from the GSA systems and TATS to PO staff for validation. Based on our testing, we concluded that the computer-processed data were sufficiently reliable for the purposes of our audit.

We conducted fieldwork at Department offices in Washington, DC, during the period April 22, 2005 through October 25, 2005. We held an exit conference with OCIO staff on October 27, 2005. Our audit was performed in accordance with generally accepted government auditing standards appropriate to the scope of the review described above.

ADMINISTRATIVE MATTERS

Corrective actions proposed (resolution phase) and implemented (closure phase) by your office(s) will be monitored and tracked through the Department's Audit Accountability and Resolution Tracking System (AARTS). ED policy requires that you develop a final corrective action plan (CAP) for our review in the automated system within 30 days of the issuance of this report. The CAP should set forth the specific action items, and targeted completion dates, necessary to implement final corrective actions on the finding and recommendations contained in this final audit report. An electronic copy of this report has been provided to your Audit Liaison Officer.

In accordance with the Inspector General Act of 1978, as amended, the Office of Inspector General is required to report to Congress twice a year on the audits that remain unresolved after six months from the date of issuance.

In accordance with the Freedom of Information Act (5 U.S.C. §552), reports issued by the Office of Inspector General are available to members of the press and general public to the extent information contained therein is not subject to exemptions in the Act.

If you have any questions, please call Michele Weaver-Dugan, Director, Operations Internal Audit Team, at (202) 245-6941.

Sincerely,

Helen Lew /s/
Assistant Inspector General for Audit Services

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF MANAGEMENT

January 25, 2006

TO: Michele Weaver-Dugan
              Operations Internal Audit Team
              Office of Inspector General

FROM: Michell Clark, Designee   /s/
              Assistant Secretary for Management and Acting Chief Information Officer

SUBJECT: DRAFT AUDIT REPORT: *Telecommunications Billing Accuracy*, Control Number ED-OIG/A19F0009

Thank you for your draft audit report, *Telecommunications Billing Accuracy*, ED-OIG/A19F0009, dated December 21, 2005. The Office of the Chief Information Officer (OCIO) concurs with the single finding and related seven recommendations. Our proposed corrective action to address these recommendations is attached. If you have questions, please contact Nina Aten of my staff on (202) 401-5846.

ATTACHMENT