



**U.S. Department of Education
Office of Inspector General**



American Recovery and Reinvestment Act

**The Effectiveness of the Department's
Data Quality Review Processes**

Final Audit Report



ED-OIG/A19K0010

August 2011



UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF INSPECTOR GENERAL

AUDIT SERVICES

August 22, 2011

Tony Miller
Deputy Secretary
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202

Dear Mr. Miller:

This **final audit report** presents the results of our review of the effectiveness of the U.S. Department of Education's data quality review processes. We received the Office of the Deputy Secretary's comments on the contents of our draft report. The comments are summarized within the Results section of this report.

Corrective actions proposed (resolution phase) and implemented (closure phase) by your office will be monitored and tracked through the Department's Audit Accountability and Resolution Tracking System (AARTS). Department 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 findings and recommendations contained in this final audit report.

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 6 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.

We appreciate the cooperation given to us during this review. If you have any questions, please call Michele Weaver-Dugan at (202) 245-6941.

Sincerely,

Keith West /s/
Assistant Inspector General for Audit

The Effectiveness of the Department's Data Quality Review Processes

Control Number ED-OIG/A19K0010

PURPOSE

The American Recovery and Reinvestment Act of 2009 (Recovery Act) places a heavy emphasis on accountability and transparency, including reporting requirements related to the awarding and use of funds. Challenges associated with the reporting requirements include ensuring that recipients of Recovery Act funds meet the reporting obligations, assessing the quality of the reported information, and using the collected information effectively to monitor and oversee Recovery Act programs and performance. As of the period ended March 31, 2010, the U.S. Department of Education (Department) had made 1,688 Recovery Act related grant awards totaling more than \$63 billion. These included awards made to augment existing programs such as Federal Work Study (FWS) and to newly established Recovery Act related programs such as the State Fiscal Stabilization Fund. In addition, the Department awarded 28 Recovery Act related contracts, totaling \$60.9 million.

This final report presents the results of our audit of the effectiveness of the Department's processes to ensure the accuracy and completeness of recipient-reported data.

RESULTS IN BRIEF

We found that the Department's processes to ensure the accuracy and completeness of recipient-reported data were generally effective. The Department established an internal control structure that included formal policies and procedures specifying Department-wide responsibilities, to include those of Principal Offices (PO), in performing data quality reviews. These procedures included automated data checks to validate selected recipient-reported data elements against data in the Department's financial system and manual reviews of reported data against specific grant program or contract criteria to identify outliers in certain data elements. The Department also formulated and distributed reporting guidance to Recovery Act recipients that specified the recipients' responsibilities and reporting requirements.

However, we found instances of recipient-reported data that were inconsistent with data in the Grants Administration and Payment System (GAPS), contract file documentation, or other data elements within the recipient reports. These anomalies still existed after the Department had completed its formal data quality review processes and after the related recipient correction period. Overall, we identified 2,043 anomalies (4 percent) out of the 49,150 data quality tests we performed for grant awards and 1 anomaly (1 percent) out of the 110 tests we performed for contract awards. We also noted that the Department had not established a formal process to identify and remediate instances in which Recovery Act recipients demonstrated systemic or chronic reporting problems and/or otherwise failed to correct such problems. Recipient reports are subject to public scrutiny and are intended in part to help drive accountability for the spending of Recovery Act dollars. As such, agencies must have an effective review process to ensure that recipient reports contain accurate and complete data. Incorrect data may lead to mistaken conclusions about Recovery Act funding and may obscure the transparency that these reports were designed to provide.

In its response to the draft audit report, the Office of the Deputy Secretary (ODS) agreed with the recommendations and described the corrective actions already taken or planned. ODS stated it was encouraged that the Office of Inspector General determined that the Department's processes to ensure the accuracy and completeness of recipient reported data were generally effective, notwithstanding the opportunities for improvement. ODS further stated that it would use the recommendations to support its ongoing efforts to continuously improve the quality of recipient-reported data. The full text of ODS' response is included as Attachment 4 to this report.

BACKGROUND

The Recovery Act was signed into law on February 17, 2009, and had three immediate goals: (1) create new jobs and save existing ones, (2) spur economic activity and invest in long-term growth, and (3) foster accountability and transparency in government spending. To ensure transparency and accountability of Recovery Act spending, recipients are required to submit quarterly reports on Recovery Act awards, spending, and jobs impact (§ 1512 of the Recovery Act).

No later than 10 days after the end of each calendar quarter, recipients must submit Recovery Act data to FederalReporting.gov, the nationwide data collection system, in order to fulfill their Section 1512 reporting obligations. Recipient reports are required to include various data elements, such as the type, date, and amount of award; project description and status; the number of jobs created or retained; and the amount of Recovery Act funds received and spent. Following submission of the data reports, the relevant Federal agency is required to perform a limited data quality review that is intended to identify material omissions and/or significant errors in the recipient-reported data. When an agency identifies a data quality issue, it is required to notify the applicable recipient of the nature of the problem and the need to make appropriate and timely changes through FederalReporting.gov. Federal agencies must make the reports publicly available on the Recovery.gov website no later than 30 days after the end of each calendar quarter.

In January 2010, the Recovery Accountability and Transparency Board (Recovery Board) modified the process for correcting data in FederalReporting.gov by establishing a continuous corrections period. During this period, recipients can correct reported data from the preceding reporting quarter once that reporting quarter has ended and after the data is published on FederalReporting.gov. Federal agencies are required, at a minimum, to conduct a final review of the reported data upon the close of the continuous corrections period emphasizing the identification of significant report errors, material omissions, and administrative/technical problems. The continuous corrections period closes 90 days after the end of the reporting period.

ODS is responsible for providing primary oversight of the Department's Recovery Act policies, implementation, reviews, and reporting. ODS monitors the progress of the data quality reviews and provides external reports, as required, on the status of recipient reporting efforts while identifying and troubleshooting potential obstacles. ODS also leads daily meetings with the Department's POs, which are responsible for conducting the limited data quality reviews and providing advice and programmatic assistance to recipients.

FINDING AND RECOMMENDATIONS

FINDING – Department Processes to Ensure the Accuracy and Completeness of Recipient Reported Data Were Generally Effective

The Department's processes to ensure the accuracy and completeness of recipient-reported data were generally effective. Overall, we found that the Department had established an internal control structure that included formal policies and procedures specifying Department-wide responsibilities, to include those of POs, in performing data quality reviews. These procedures included automated data checks to validate selected recipient-reported data elements against data in the Department's financial system. The procedures also included manual reviews of the recipient-reported data against specific grant program or contract criteria to identify outliers in certain data elements. In addition, the Department formulated and distributed reporting guidance to Recovery Act recipients that specified the recipients' responsibilities and reporting requirements. Department officials stated that they also conducted outreach efforts to recipients that included providing technical assistance through telephone and email contact as needed.

However, we found instances of recipient-reported data that were inconsistent with data in GAPS, contract file documentation, or other data elements within the recipient reports. We reviewed and analyzed final recipient-reported data for the period ended March 31, 2010, associated with 1,688 of the Department's Recovery Act grant awards, including 745 FWS awards. Specifically, our analysis sought to identify potential discrepancies and omissions that still existed after the Department had completed its formal data quality review processes for this reporting period and after the related recipient correction period. We did not review whether the recipient-reported data were accurate; rather, our primary focus was to determine whether the Department's processes would identify potential problems with recipient-reported data.

To perform our review, we compared the recipient-reported data to GAPS data and to other logically related data elements within the recipient reports. Of the 49,150 data quality tests we performed, 47,107 (96 percent) identified no anomalies, which indicates that the Department's data quality review processes were generally effective. However, we did identify 2,043 anomalies (4 percent) between the recipient-reported data and GAPS data or other logically related data elements within the recipient reports. The areas with the highest anomaly rates were as follows:¹

- *Award Date*— 418 (44 percent) of the 943 non-FWS awards had inconsistencies between the reported award dates and the award dates in GAPS.²
- *Amount of Recovery Act Funds Received Compared to the Cumulative Amount of Drawdowns*— 226 (24 percent) of the 943 non-FWS awards had variances between the reported amount received and the cumulative amount of drawdowns listed in GAPS as of the end of the reporting quarter. Of these, 40 awards (18 percent) had variances of \$500,000 or more.

¹ Attachment 1 contains a listing of data quality tests performed on the grant awards and corresponding error rates.

² We did not perform tests relating to award date and amount of Recovery Act funds received compared to the cumulative amount of drawdowns for FWS awards. This was because the Department did not separately identify Recovery Act FWS awards from non-Recovery Act FWS awards in GAPS.

- *Congressional District Identifier*— 267 (16 percent) of 1,688 awards had inconsistencies between the reported district numbers and the district numbers reported in GAPS.
- *Amount of Recovery Act Funds Expended Greater Than Amount of Recovery Act Funds Received*— 253 (15 percent) of 1,688 awards had an amount reported as expended that exceeded the amount of Recovery Act funds received. Of these, 41 awards (16 percent) had an amount reported as expended that exceeded the amount of funds received by \$1 million or greater.
- *Award Number*— 394 (23 percent) of 1,688 awards had inconsistencies between the reported award numbers and the award numbers in GAPS.

In addition to the data quality tests, we performed 110 data and logic checks on a random sample of 5 (18 percent) of the Department's 28 Recovery Act related contracts as of the March 31, 2010, reporting period. When selecting our random sample, we noted that 3 contracts (11 percent) contained duplicate data in the Recovery Act Prime Recipient Report. Overall, we noted 1 anomaly (1 percent) in the 110 tests performed.³ This anomaly related to the recipient using an incorrect award number.

During our review, we also noted that the Department had not established a formal, consistent, and centralized process to meet Office of Management and Budget (OMB) requirements that it identify and remediate instances in which Recovery Act recipients demonstrate systemic or chronic reporting problems and/or otherwise fail to correct such problems. Specifically, automated reports did not flag anomalies that were also identified during prior reporting periods, thereby allowing PO staff to easily identify recipients with reporting problems. Instead, the Department relied on POs to perform this function. Officials from the three POs that administer the largest number of Recovery Act awards stated they were aware of the OMB requirements. However, processes for identifying these recipients varied among the offices and among suboffices.

Finally, we reviewed the Department's Master List for the period ended June 30, 2010, to determine whether all Recovery Act grants and contracts with recipient reporting requirements were included on this list. We found that the Department accurately identified all 1,404 grants and 26 (96 percent) of 27 contracts on its Master List that were subject to Recovery Act reporting requirements.

OMB Memorandum M-09-21, "Implementing Guidance for the Reports on Use of Funds Pursuant to the American Recovery and Reinvestment Act of 2009," dated June 22, 2009, requires Federal agencies to provide programmatic assistance to recipients. It also states Federal agencies should "perform limited data quality reviews intended to identify material omissions and/or significant reporting errors, and notify the recipients of the need to make appropriate and timely changes."

OMB Memorandum M-10-08, "Updated Guidance on the American Recovery and Reinvestment Act – Data Quality, Non-Reporting Recipients, and Reporting of Job Estimates," dated December 18, 2009, provides guidance to Federal agencies intended to improve the quality of

³ Attachment 2 contains a listing of all data quality tests performed on the sample of contract awards and the corresponding error rates.

data reported and further outlines important steps Federal agencies must take during their data quality reviews. Specifically, it states that improving data quality requires a focus on possible data anomalies. Further, it states, in instances where agencies identify such anomalies in recipient reports, they are to:

1. Assess the highest priority corrections necessary to reduce the likelihood of significant error;
2. Assess other corrections that would improve recipient data quality; and
3. Encourage recipients to make corrections that ensure accurate data reporting.

OMB Memorandum M-10-08 also requires Federal agencies to continuously evaluate recipient efforts to meet Recovery Act recipient reporting requirements as well as the requirements of OMB implementing guidance. It states Federal agencies will work to identify and remediate instances in which recipients demonstrate systemic or chronic reporting problems and/or otherwise fail to correct such problems.

OMB Memorandum M-10-14, "Updated Guidance on the American Recovery and Reinvestment Act," dated March 22, 2010, requires Federal agencies to compile a comprehensive list, for each reporting period, of all awards that have Recovery Act recipient reporting requirements.

Grant Related Anomalies

As part of the Department's internal procedures for data quality reviews, the Office of the Chief Information Officer (OCIO) generated two automated reports: the error exception report and analysis/anomalies report. The error exception report validated selected recipient-reported data elements against data in GAPS and flagged data that may have been inaccurate. The analysis/anomalies report identified potential inconsistencies between selected recipient-reported data elements. Each day during the reporting period, the OCIO provided these two reports to PO staff to assist them in identifying material omissions, significant reporting errors, and possible data anomalies. In addition to the OCIO automated reports, PO staff could use data in GAPS, official grant files, and other recipient-reported data submitted to perform their data quality reviews. As further described below, we found flaws with the programming source codes that generated portions of OCIO's error exception report. As a result, some data discrepancies were not flagged and some information provided on the report was deemed of no value by PO staff and not used. We also noted that some staff performing the reviews did not have access to GAPS and therefore had limited ability to perform reviews of some of the reported data elements. In some instances, Department-developed reporting guidance allowed recipients to enter data in certain fields that differed from data in GAPS, hindering reconciliation efforts.

Award Date

To compare the recipient-reported award date with the award date in GAPS, the error exception report pulled data from a field in GAPS that identified the date the grant application was scanned into the system for processing as opposed to the actual grant award date field. OCIO staff stated neither they, nor the contracted report developer, knew why the grant application scan date field was used on the automated report as opposed to the actual

award date field. OCIO staff said they validated the error exception report with the assistance of the PO staff that used the report when it was first developed. However, we found that the information provided to PO staff noted only the data elements from the recipient reports that would be compared to data elements in GAPS, not which GAPS fields the data were actually being pulled from. As a result of the programming error, the report was flagging all awards as having award date exceptions. We found that staff in at least one PO had noted problems with this part of the exception report and no longer relied on it; however, they did not communicate their concerns to OCIO. As a result of our review, OCIO staff stated that they had instructed the report developer to correct the source code and review all remaining data fields.

To determine whether the POs employed other processes to review this field and took action to have identified anomalies corrected, we selected a random sample of 42 (10 percent) of the 418 awards identified as having an award date anomaly from our testing. We reviewed FederalReporting.gov to determine whether the Department provided applicable comments to these recipients, as this is the required means of communication with recipients for noted problems with submitted reports. None of the 42 awards sampled contained comments regarding discrepancies noted in the award date field. We subsequently found that none of the 42 awards were actually identified by PO staff as having award date anomalies. Staff in one PO stated that recipients were given the discretion to use dates other than the date the grant was awarded, such as the date the Recovery Act was enacted and the date Recovery Act funds became available to states. Staff in another PO said their agency reviewers do not have access to GAPS and could not verify if the reported award dates matched the dates in the system.

Amount of Recovery Act Funds Received Compared to the Cumulative Amount of Drawdowns

We found that the source code for the error exception report did not correctly report the difference between the amount of Recovery Act funds received and the cumulative amount of drawdowns from GAPS as of the end of the reporting quarter. The report provided a value of zero for all recipients regardless of what the real difference was. PO staff may have interpreted the zero as meaning that reported amounts did not differ from GAPS data and therefore initiated no follow-up. OCIO staff said the calculation was corrected in the source code for the reporting period ended December 30, 2010, in response to our inquiry.

We subsequently reviewed a sample of 40 (18 percent) of the 226 awards identified as having a related anomaly from our testing. The sampled awards had variances between the amount of Recovery Act funds received and cumulative amount of GAPS drawdowns that were greater than \$500,000. We specifically reviewed the Department's comments to these recipients made through FederalReporting.gov and found 6 (15 percent) of the 40 awards sampled had comments regarding the relationship between GAPS drawdowns and the amount reported as received. For 12 of the 34 awards without comments, POs did identify the anomaly but did not enter related comments in FederalReporting.gov. PO staff stated they held conversations with the recipients of 10 of these 12 awards to discuss the discrepancies. For the remaining two awards, PO staff stated they performed additional

research into the GAPS drawdowns and found that timing issues from when funds were drawn down and actually received by the recipient caused the discrepancies.

PO staff did not identify this anomaly for 22 of the 34 awards that did not have related comments in FederalReporting.gov. One PO stated that these anomalies were not identified because staff did not review these two data fields. Staff in another PO said that not all of their reviewers have access to GAPS to verify the drawdown amounts.

Congressional District Identifier

We also found that the error exception report's source code did not identify anomalies between the reported data and GAPS data for the congressional district identifiers. The source code ensured only that the reported data contained an acceptable value. OCIO staff stated that if the reported congressional district number was lower than the maximum district number possible, then the source code would not compare the reported identifier to the identifier in GAPS. OCIO further noted that recipient addresses often change and may not be updated in GAPS, therefore matching against the data in GAPS could likely result in an exception. We noted that on December 15, 2009, the Chairman of the Recovery Board announced that internal data checks were being incorporated into FederalReporting.gov that would prevent a recipient from entering a congressional district that did not match its zip code. Recipients were notified that the address on file in the Central Contractor Registration database would be the authoritative source for determining the appropriate congressional district.

Amount of Recovery Act Funds Expended Greater Than Amount of Recovery Act Funds Received

We identified 253 anomalies in which the amount of Recovery Act funds expended was greater than the amount of funds received. We reviewed a sample of 41 anomalies (16 percent) that had an amount expended that exceeded the amount of funds received by \$1 million or greater. We noted that all of the exceptions sampled were flagged on the Department's analysis/anomalies report. Of the 41 sampled awards, 5 (12 percent) had a related comment to the recipient in FederalReporting.gov and 36 did not have related comments. For 2 of the 36 awards without comments, PO staff stated they made verbal contact with the recipients to discuss the anomaly and the recipients provided explanations for the differences between the reported amounts. PO staff did not follow-up on the noted anomalies in 34 of the 36 awards. Staff in one PO stated that funds expended greater than funds received were allowable if the total amount expended did not exceed the award amount. Staff in another PO said many recipients use a reimbursement method for drawdowns; therefore, it may be correct to have an amount of funds expended that was higher than the amount of funds received. We agree with the statements made by PO staff with regard to this type of anomaly.

Award Numbers

Of the 394 awards that we found with inconsistent award numbers between reported data and GAPS data, 372 awards (94 percent) were from the FWS program. We noted that the Department's Tip Sheet for FWS awards instructed recipients to enter an award number that included two additional alphabetic characters from what was recorded in GAPS. Federal Student Aid staff stated that this was the designation for older FWS awards and that recipients were permitted to use either format for the award number.

Contract Related Anomalies

Duplicate data for individual contracts occurred when Contracts and Acquisition Management (CAM) staff requested recipients to correct their reported data. It appeared that instead of correcting the original data entered, additional records were created. The one anomaly that we identified occurred because the recipient placed data in an incorrect field. With regard to the missing contract award on the Department's Master List, CAM staff stated that the recipient had incorrectly marked a previous report as its final report and therefore it was no longer included on the Master List. CAM staff stated they would contact the recipient and have it submit a final report in the next reporting cycle, showing the correct information, and ensure it was added back to the Master List. CAM staff stated that according to the Recovery Board, this would be an appropriate corrective action for this situation.

Recipient reports are designed to provide the public with transparency as to how Recovery Act funds are being spent in their communities. In addition, other reports are generated from these data that are subject to public scrutiny and are intended in part to help drive accountability for the spending of Recovery Act dollars. Therefore, it is essential that agencies have an effective review process to ensure that recipient reports contain accurate and complete data. Although we noted a low anomaly rate in the Department's recipient reports, incorrect data may lead to mistaken conclusions about the funding and may obscure the transparency that these reports were designed to provide to the public, Congress, and the Recovery Board.

RECOMMENDATIONS

We recommend that the Deputy Secretary:

- 1.1 In coordination with the Chief Information Officer, ensure that the programming source codes for automated Recovery Act reports currently in use and those developed in the future are appropriately validated.
- 1.2 To facilitate validation efforts, ensure current and future recipient reporting guidance requires data to be reported that is consistent with data stored in official Department systems.
- 1.3 Ensure applicable staff review all required reporting elements and have access to GAPS and other data sources necessary for data validation.

- 1.4 In any future related efforts, ensure automated reports are effectively used to enable an efficient means of tracking recipients with chronic problems to better focus technical assistance efforts.

ODS Comments

ODS stated that it agreed with the draft report recommendations and will use the recommendations to support its ongoing efforts to continuously improve the quality of recipient-reported data. In its comments, ODS outlined actions that it had already taken to address the draft report recommendations. This included testing and correcting automated report source codes and using the newly available Automated Data Correction tool to fix errors and address chronic recipient errors from prior quarters. ODS further identified additional planned corrective actions such as the implementation of a validation process for automated reports to be completed prior to each reporting period, the review and update of existing recipient reporting guidance, and the issuance of a reminder to program offices to ensure appropriate staff complete the approval process for access to the Department's grants management system.

OTHER MATTERS

During our audit, we reviewed FedBizOpps (FBO) for contract awards that were funded by the Recovery Act to determine the completeness of the Department's Master List for the period ended June 30, 2010. As part of this review, we identified 2 (8 percent) of 26 contract awards that were on the Department's Master List, but did not have presolicitation and award notices posted on FBO as required. One of the contracts was issued on March 25, 2010, as a modification against a General Services Administration Schedule Delivery Order for additional services in the amount of \$50,000. The other contract was awarded on June 8, 2010, as a purchase order for services totaling approximately \$31,000. CAM staff stated that notices for these awards were not posted on FBO due to an oversight by staff. Subsequent to our review, award notices for both contract awards were publicized by CAM on FBO.

Federal Acquisition Regulation (FAR) 5.7, "Publicizing Requirements Under the American Recovery and Reinvestment Act of 2009," effective March 31, 2009, requires presolicitation and award notices to be posted on FBO for actions expected to exceed \$25,000, funded in whole or in part by the Recovery Act.

Publicizing contract opportunities and award information that were funded in whole or in part by the Recovery Act enhances transparency to the public. We suggest that the Department ensure all pre-award and post-award notices for future Recovery Act contract actions are publicized as required by the FAR.

SCOPE AND METHODOLOGY

To accomplish our objective, we performed a review of internal control applicable to the Department's processes to ensure the accuracy and completeness of recipient-reported data. This included reviews of applicable Federal laws and regulations; OMB memoranda; prior audit reports from OIG and other agencies, through which we sought to identify any potential vulnerabilities in this area; and the Government Accountability Office's "Standards for Internal Control in the Federal Government." We reviewed Department policies and procedures, as well as Department guidance made available to Recovery Act funding recipients. We conducted interviews with appropriate Department officials to gain an understanding of the data quality review and recipient notification processes.

To perform our audit, we extracted the March 31, 2010, Prime Recipient Report from FederalReporting.gov. This file contained data for 1,723 unique Recovery Act awards, which included 1,688 grants and 35 contracts. The file contained 83 data elements that could contain responses for each award. In addition, we obtained the Department's Master List of Recovery Act awards for the period ended June 30, 2010, from OCIO staff. The Master List contained 1,430 unique Recovery Act awards, which included 1,404 grants and 26 contracts.

Prime Recipient Report for the Period Ended March 31, 2010

To evaluate the effectiveness of the Department's data quality review processes, we judgmentally identified data quality checks based on our review of OMB guidance, the Department's internal policies, and analysis of the relationship between data within the Prime Recipient Report and the Department's GAPS. We performed these data quality checks for all 1,688 grant awards, as applicable, to determine whether recipient-reported data were consistent with grant data maintained in GAPS, data provided to recipients in the Tip Sheets, and other data elements.

To determine whether PO staff were reviewing the areas with the highest discrepancy rates and taking action to have the anomalies corrected, we selected samples of awards to review as follows:

- *Award Date*— We selected a random sample of 42 (10 percent) of the 418 awards that we identified as having this anomaly.
- *Amount of Recovery Act Funds Received Compared to the Cumulative Amount of Drawdowns*— We judgmentally selected a sample of 40 (18 percent) of the 226 awards that we identified as having a related anomaly from our testing. These sampled awards had variances between the amount of Recovery Act funds received and cumulative amount of GAPS drawdowns that were greater than \$500,000.
- *Amount of Recovery Act Funds Expended Greater Than the Amount of Recovery Act Funds Received*— We judgmentally selected a sample of 41 (16 percent) of the 253 awards that we identified as having a related anomaly from our testing. These awards had an amount reported as expended that exceeded the amount of funds received by \$1 million or greater.

For each of the 123 sampled awards, we reviewed the Department's automated reports to determine whether the anomalies were flagged. We also reviewed comments to these recipients made through FederalReporting.gov and determined whether comments were made regarding the anomalies in each of the specific areas we identified. If we did not identify related comments, we then determined whether the Department identified the discrepancies at all and had communicated them to the recipients in another manner.

To evaluate the effectiveness of the Department's data quality review processes for contract awards, we judgmentally identified data quality checks based on our review of OMB guidance, the Department's internal policies, and analysis of the relationship between data within the Prime Recipient Report and the official contract file maintained by the Department. We selected a random sample of 5 (18 percent) of the 28 contracts⁴ from the Prime Recipient Report and performed data checks to determine whether reported data were consistent with the contract file documentation and other data elements.

To evaluate the completeness of recipient-reported data for the 1,688 grants and 5 randomly sampled contracts, we examined all 83 data elements on the Prime Recipient Report, determined which elements would be expected to have reported values for all awards, and reviewed these categories for incomplete data.

Our work was limited to an assessment of the Department's processes for reviewing recipient reports and identifying data discrepancies. We did not perform work to assess the actual quality of the data reported by recipients.

Master List for the Period Ended June 30, 2010

To determine whether the Department's Master List was complete for grant awards, we extracted awards from GAPS that had Recovery Act funded Catalog of Federal Domestic Assistance numbers, award dates prior to July 1, 2010, award amounts greater than \$25,000, and had not submitted a final recipient report in a prior reporting period. We compared these awards to the 1,404 grants on the Department's Master List to identify any awards that were not contained on the Master List, but had recipient reporting requirements.

To determine whether the Department's Master List was complete for contract awards, we compared the 26 contracts on the Master List to the Recovery Act funded contracts that were awarded prior to July 1, 2010, and posted on FBO. We also compared the 26 contracts to the recipient reports for the periods ended March 31, 2010, and June 30, 2010, to identify contracts that were not completed and required to report.

This audit did not include a review of non-reporting recipients due to previous related work that we performed in this area as part of a Recovery Board request in February 2010.⁵

⁴ The Department's Recovery Act Prime Recipient Report for the period ended March 31, 2010, included 35 contracts. During our review, we noted that three contracts each had two duplicative reports. One contract was not a contract awarded by this Department.

⁵ "Recovery Act Data Quality: Errors in Recipients' Reports Obscure Transparency," issued February 23, 2010.

The audit itself was a test of the reliability of computer-processed data in FederalReporting.gov for the Department's Recovery Act awards. As part of this audit, we compared the recipient-reported data to data in the Department's GAPS. GAPS is the official system of record for grant awards, widely used by Department officials, and considered the best available data for the purpose of this audit.

We conducted fieldwork at Department offices in Washington, D.C., from July 2010 through April 2011. We provided our audit results to Department officials during an exit conference conducted on May 2, 2011.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on the audit objectives.

Results of Data Quality Tests for Grant Awards

	Data Quality Test	Percentage of Awards with Anomalies
1	Award type	2
2	Award number	23
3	Funding agency code	2
4	Awarding agency code	2
5	Award date (excludes FWS awards)	44
6	Award amount	3
7	Catalog of Federal Domestic Assistance (CFDA) number	2
8	Program source/Treasury Account Symbol (TAS)	2
9	Recipient Data Universal Numbering System (DUNS) vs. DUNS in GAPS	5
10	Recipient state	0.3
11	Congressional district identifier	16
12	Agency code vs. TAS	0.2
13	CFDA vs. awarding/funding agency	0.1
14	Award type vs. agency code	0
15	Final report vs. project status	1
16	Final report vs. ARRA funds received	0.5
17	Project status vs. ARRA funds received	0.4
18	Project status vs. amount of ARRA expenditure (project completed, but all funds not expended)	3
19	Project status vs. amount of ARRA expenditure (project not initiated, but funds expended)	1
20	Award date vs. jobs created/retained	0.2
21	Award date vs. projects completed	0.2
22	Amount of ARRA expenditure vs. award amount	0
23	Amount of ARRA expenditure vs. ARRA funds received	15
24	Amount of ARRA expenditure vs. number of jobs created/retained	1
25	Amount of ARRA funds received vs. total expenditure in GAPS (excludes FWS awards)	24
26	Amount of ARRA funds received vs. award amount	0
27	Amount of ARRA infrastructure expenditure vs. CFDA	0
28	Amount of ARRA infrastructure expenditure vs. total ARRA expenditure	0
29	Total amount of sub-awards less than \$25,000/award vs. total number of sub-awards less than \$25,000/award	0.2
30	Recipient highly compensated officers	2

Results of Data Quality Tests for Sampled Contract Awards

	Data Quality Test	Percentage of Sampled Contracts with Anomalies
1	Award type	0
2	Award number	20
3	Funding agency code	0
4	Awarding agency code	0
5	Award date	0
6	Award amount	0
7	TAS code	0
8	Recipient DUNS vs. DUNS in GAPS	0
9	Recipient name	0
10	Recipient state	0
11	Congressional district identifier	0
12	Order number	0
13	Government contracting office code	0
14	Agency code vs. TAS	0
15	Award type vs. agency code	0
16	Final report vs. project status	0
17	Final report vs. ARRA funds invoiced	0
18	Project status vs. ARRA funds invoiced	0
19	Award date vs. jobs created/retained	0
20	Award date vs. projects completed	0
21	Amount of ARRA funds received vs. award amount	0
22	Total amount of sub-awards less than \$25,000/award vs. total number of sub-awards less than \$25,000/award	0

Abbreviations, Acronyms, and Short Forms Used in this Report

CAM	Contracts and Acquisitions Management
CFDA	Catalog of Federal Domestic Assistance
Department	U.S. Department of Education
DUNS	Data Universal Numbering System
FAR	Federal Acquisition Regulation
FBO	FedBizOpps
FWS	Federal Work Study
GAPS	Grants Administration and Payment System
PO	Principal Office
OCIO	Office of the Chief Information Officer
ODS	Office of the Deputy Secretary
OMB	Office of Management and Budget
Recovery Act	American Recovery and Reinvestment Act of 2009
Recovery Board	Recovery Accountability and Transparency Board
TAS	Treasury Account Symbol



UNITED STATES DEPARTMENT OF EDUCATION

THE DEPUTY SECRETARY

August 1, 2011

MEMORANDUM

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

FROM: Tony Miller *Anthony W. Miller*

SUBJECT: Draft Audit Report, American Recovery and Reinvestment Act: The Effectiveness of the Department's Data Quality Review Processes (ED-OIG/A19K0010)

Thank you for the opportunity to comment on the draft audit report, "American Recovery and Reinvestment Act: The Effectiveness of the Department's Data Quality Review Processes." We are encouraged that the Office of Inspector General (OIG) determined that the Department's processes to ensure the accuracy and completeness of recipient reported data were generally effective, notwithstanding the opportunities for improvement. As your report notes, the Department established and implemented policies and procedures for performing data quality reviews, which included, for example, automated data checks, manual reviews of recipient-reported data against specific grant program or contract criteria, and written guidance and technical assistance to recipients of American Recovery and Reinvestment Act (Recovery Act) funds. We are encouraged that 96 percent (47,107 of 49,150) of the data quality tests that OIG performed identified no anomalies and that the anomalies identified were not in areas of great significance (e.g., award numbers, award dates). We fully appreciate the importance of providing the public with accurate and complete data about how Recovery Act funds are being spent and that an effective review process is essential to that effort. Therefore, we appreciate and agree with your recommendations and will use them to support our ongoing efforts to continuously improve the quality of recipient-reported data. Following is the Department's response to each recommendation.

The Deputy Secretary:

- 1. In coordination with the Chief Information Officer, ensure that the programming source codes for automated Recovery Act reports currently in use and those developed in the future are appropriately validated.**

As noted in the report, the Department already has corrected source code errors for automated Recovery Act reports and conducted a technical walk-through of all remaining data fields. With the implementation of the Department's new grants management system (G5), codes were converted and retested with G5. We also note that some data fields

identified as anomalies in this report (e.g., award dates) would no longer be considered anomalies based on updated guidance from the Office of Management and Budget (OMB).

Corrective Action: To ensure that the programming source codes developed in the future are appropriately validated, the Department's Office of the Chief Information Officer (OCIO) will update the internal Data Quality Review procedures to require a validation process and test report be completed prior to each new reporting period. The update to the procedures will be completed by August 30, 2011.

- 2. To facilitate validation efforts, ensure current and future recipient reporting guidance requires data to be reported that is consistent with data stored in official Department systems.**

Corrective Action: To facilitate validation efforts, the Department's Metrics and Monitoring Team will review existing recipient reporting guidance and, where applicable, update the information to require data to be reported that are consistent with data stored in the official Department systems. Updated guidance will be communicated to recipients by September 30, 2011.

- 3. Ensure applicable staff review all required reporting elements and have access to GAPS and other data sources necessary for data validation.**

The Department's data quality processes are aligned with OMB's guidance, and the Department already requires program offices to ensure that all applicable staff conduct thorough reviews of their recipients' reports. OCIO currently has procedures and forms in place for all appropriate Department personnel to obtain access to the G5 system.

Corrective Actions: OCIO will develop and implement a process to regularly monitor and ensure that program offices are reviewing their recipient reports. The process will be developed and implemented by August 30, 2011. In addition, the link to the most current User Access Request Form will be distributed by OCIO to applicable program offices by August 15, 2011, with a reminder for the program office to ensure that all appropriate staff complete the approval process to access the G5 system.

- 4. In any future related efforts, ensure automated reports are effectively used to enable an efficient means of tracking recipients with chronic problems to better focus technical assistance efforts.**

The Department has been tracking multiple-time non-reporters for several reporting cycles. The Department began tracking recipients with incorrect award numbers across multiple cycles during the Continuous Correction portion of the 2011 Q1 cycle. In addition, during the April 2011 reporting period, the Department began using the newly available Automated Data Correction tool to fix errors and address chronic errors by recipients in previous quarters.

Corrective Action: The Department will provide OIG with a report of this tracking activity by August 30, 2011.

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