



December 2009

Program/Operation: American Recovery and Reinvestment Act of 2009
Risk Areas: Accountability, Transparency

More Automated Processing by Commerce Bureaus Would Improve Recovery Act Reporting (ARR-19779)

On February 17, 2009, the President signed the American Recovery and Reinvestment Act of 2009 (Recovery Act) into law. The Department of Commerce received \$7.946 billion in total for the U.S. Census Bureau, the Economic Development Administration (EDA), the National Institute of Standards and Technology (NIST), the National Oceanic and Atmospheric Administration (NOAA), the National Telecommunications and Information Administration (NTIA), and the OIG.

The Recovery Act mandates unprecedented levels of transparency and accountability and sets out specific responsibilities for the OIG to provide oversight of the Department's activities under the Act and its spending of funds appropriated by the Act. Updated guidance provided by the Office of Management and Budget (OMB) on April 3, 2009, spells out, among other requirements, each department's responsibility to post Financial and Activity reports as well as Funding Notification reports on the public web portal Recovery.gov. Although specific directions and data requirements were provided by OMB in this initial guidance, during the course of our fieldwork the reporting templates were updated to capture additional required information such as expenditures, transfers, or reimbursable agreements between federal agencies.

These Recovery.gov reports should present true and accurate data reflecting the use and impact of Recovery Act funds. Reporting of this data began in March 2009; as of September 30, 2009, Department of Commerce reporting includes obligations (allocations) of approximately \$1.39 billion and outlays (funding) of \$572 million, representing seventeen and seven percent respectively of the Department's total supplemental appropriation under the Recovery Act.

Our objective for this evaluation was to assess the adequacy of key information technology (IT) and operational controls, to determine whether the controls ensure that the Commerce reports posted on Recovery.gov are complete, accurate, and reliable. The evaluation's scope included the primary (source) grant, contract, and/or financial systems for U.S. Census, EDA, NIST, NOAA, and NTIA.

Key Required Department Reporting

Financial and Activity Reports

The Recovery Act requires each funded department unit to provide weekly financial and activity reports on Recovery.gov, detailing

- obligations toward future outlays (as well as recoveries of current and prior year obligations),
- obligations paid (as well as payment refunds from current and prior year), and
- a short bullet list of major actions taken and actions planned.

Funding Notification Reports

The Act also requires each funded department to provide weekly funding notification reports on Recovery.gov, detailing

- fund amounts publicly announced as available to entities outside the federal government, and
- significant solicitations publicly available (e.g., on FedBizOpps.gov, Grants.gov, or GovLoans.gov).

Source: OMB guidance **M-09-15**, Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009 (April 3, 2009)

Our “end-to-end” evaluation began after grant or contract award, at the origin point of the data within each bureau’s primary grant and contract system. It continued through the data transmission to the financial system of record then ended at the aggregation of all Department of Commerce Recovery Act data—the weekly Financial and Activity and Funding Notification reports posted on Recovery.gov. We also back tested the reporting, beginning at the weekly aggregated Recovery.gov Financial and Activity reports and ending at the financial system of record, the Commerce Business System (CBS), from which all Recovery Act reporting generates. The evaluation was conducted in five major steps, as depicted below in figure 1. For further detail on each step’s rationale and outcome, see table 1.

Generally, the 11 Commerce systems we reviewed, which included both source and supporting systems, had adequate data input/edit controls. However, the lack of automated data transmission or interfaces from the three bureau grant systems to CBS could potentially lead to errors. Approximately \$5.2 billion (or 65 percent) of Commerce Recovery Act funds will be provided through grants; thus, more robust controls such as system-to-system interfaces should be employed to reduce the reliance on manual controls. Further, an automated process would be scalable and more efficient as volumes increase.

As it relates to reporting integrity on Recovery.gov, we noted that while the overall amounts on the weekly Financial and Activity reports were reasonably accurate, the report gathering, reconciliation, and dissemination processes are largely manual. With the current low volume of activity, these manual controls are operating acceptably; however, as volumes increase the process may not be sustainable.

The Funding Notification reports were difficult to reconcile without the assistance of the Department’s Office of Acquisition Management (OAM). The data is cumulative; therefore, tracing back to a specific announcement at a specific point in time is problematic. Further, the data is reported by program or state, which adds another level of difficulty in reconciling it back to its origin point. As the data provided on the web portal is required to be transparent, we suggest that OAM maintain sufficient detailed internal records to address any concerns or questions that may arise related to the origin and/or traceability of the data.

Figure 1. Evaluation Approach

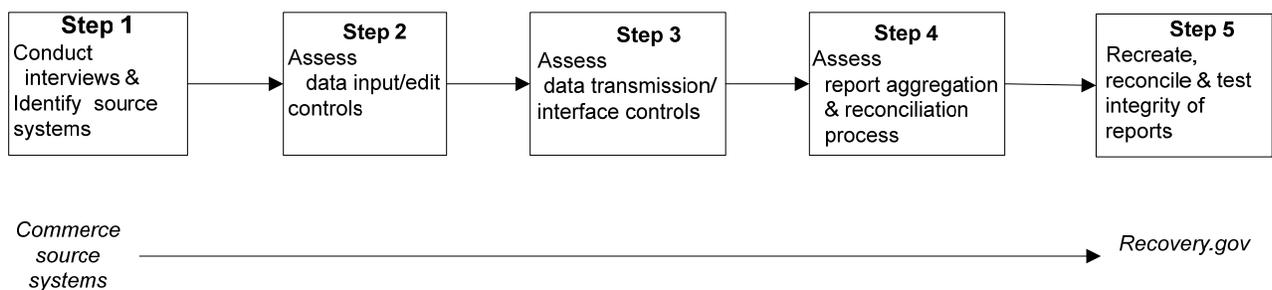


Table 1. Evaluation Steps, Approaches, and Outcomes

Step	Evaluation Approach	Evaluation Outcome
Step 1	Conduct key staff interviews; identify source systems	Our interviews found that bureaus have one or more source systems that enable grant, contract, and payroll processing, which are the primary means by which funds are expended. Other participating or subordinate systems provide data or data elements that fulfill procurement or other governmental requirements associated with grant and contract processing. As part of our evaluation we identified four source systems, six supporting/participating systems, and one financial system.
Step 2	Assess data input/edit controls; gather evidence	Our assessment of data input/edit controls included a review of controls designed to prevent and/or detect data input errors/omissions. Commerce bureaus have adequately configured various data edit controls (e.g., required fields, defined character and field length, and other required input based on business rules) in the 11 source and key supporting/participating systems identified in step 1.
Step 3	Assess data transmission/interface controls	Our assessment of data transmission controls included a review of controls designed to prevent and/or detect incomplete or corrupt data transfers/interfaces. Commerce bureaus only use automation when transmitting contract and labor data to the financial system of record, CBS. Bureaus manually key grant data into the CBS (see finding 1). Two major interfaces for contract and labor data, through the use of system utilities and/or exception reporting, effectively identify incomplete or corrupt transferred data (e.g., exception queues, header and trailer records counts, total records counts, and transferred amounts).
Step 4	Assess report aggregation and reconciliation process	Our assessment included a review of the report aggregation, reconciliation and final reporting processes. The processes are mostly manual. The obligation and outlay data is extracted by the five bureaus using an automated script executed against CBS. Manual reviews and approvals of this data are completed prior to copying and pasting the data into spreadsheets and emailing the information to the Commerce Recovery Act Implementation Office. Once received, the Implementation Office performs data reviews and reasonableness checks, obtains final individual bureau approvals, then copies and pastes all data into a consolidated weekly Commerce Financial and Activity Report spreadsheet. This spreadsheet is emailed to Recovery.gov for posting at the web site. The Funding Notification report final aggregation process is also manual. An aggregated Commerce report is provided to the Commerce Recovery Act Office by OAM, who performs specific data verifications. Their verifications include determining whether the daily submissions are qualifying actions and whether the actions have been posted on FedBizOps, Federal Procurement Data System-Next Generation, Grants.gov or the Federal Register. After verification, a consolidated Commerce report is provided to the Department Chief Financial Officer's office.
Step 5	Recreate, reconcile, and test integrity of historical reports	<p>Our integrity testing of the Financial and Activity reports included selecting a sample of eight consolidated Commerce reports from the Recovery.gov website between May and August 2009. We obtained the corresponding individual bureau reports from the Commerce Recovery Act Implementation Office and the bureaus and requested that the bureaus re-run the reports for the days we selected. We then completed reconciliations of all data between the reports back to the source systems and/or CBS.</p> <p>We also tested a sample of Funding Notification reports from the same eight days and reconciled them to their systems of origin.</p> <p>Overall, there was integrity in the Financial and Activity Reports; however, there were some minor errors due to the manual nature of the process (see finding 2).</p>

Finding 1 – System-to-System Interfaces are Needed to Improve Recovery Act Grants Processing, Especially as Volume Increases

The three Commerce bureaus (NOAA, NIST, and EDA) that service Recovery Act grants use three separate systems to maintain detailed grant data. Information from these grant systems is reviewed by bureau staff and verified against awards lists, e-mails, or other supporting documentation to ensure grant obligations are accurately captured. Once the grant data is verified for accuracy, the obligation information is manually entered into CBS. When input is complete, the accounting staff manually compares the supporting documentation to the CBS batch total for accuracy. We noted that the current process is accurately capturing grant activity, but it is inefficient and error prone given the human interaction required for manual data input. As grant volumes increase, this manual input and the associated manual validations may not be sustainable.

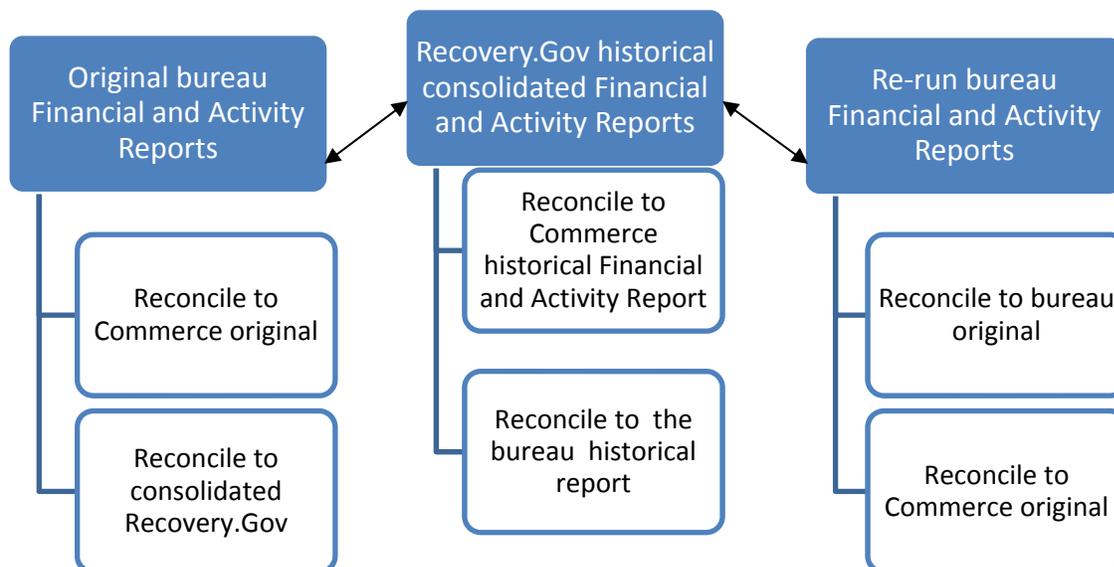
Recommendation

We recommend that NOAA, NIST, and EDA CFOs work with grants management staff to develop system-to-system interfaces between the three bureaus' systems and CBS. These interfaces would process grant activity more efficiently and ensure source systems reconcile to the financial system of record. Manual reconciliations can then supplement or provide a secondary level of control.

Finding 2 – Additional Automation is Needed in the Financial and Activity Reporting Process to Reduce the Risk of Erroneous Reporting

To assess the effectiveness of data edit and transmissions controls we directed bureaus to recreate Financial and Activity reports based on our judgmental sample of eight weekly reports from May through August 2009, which represented approximately 26 percent of the reports issued at that time. We then conducted testing to identify variances and other data anomalies within the reports. Our testing encompassed the steps noted in figure 2.

Figure 2. Evaluation Approach



Out of a sample of 40 reports (8 dates from each of the 5 bureaus), 11 (approximately 28 percent) contained some type of nonmaterial discrepancy. Although these discrepancies were not financially significant, and bureaus were generally able to provide explanations for the discrepancies, there were several reporting inconsistencies, largely due to the manual nature of the process.

The types of discrepancies varied and did not appear to occur in any specific pattern such that we could attribute them to a particular aspect of the process. Some variances included:

- obligations and outlays re-classified from one category on the report to another (e.g., an amount on the original report listed in the “Other” category appeared in the “Contract” category when the report re-ran for testing),
- run dates of original reports were moved forward or backward from the normal agreed-upon run date, causing exclusions or additional transactions to appear on the rerun reports, and
- other discrepancies due to incorrect manual data input or circumstances unique to a particular event around the original reporting date (e.g., data warehouse refresh).

In addition, reports could not be recreated for one of the bureaus due to a technical limitation of the scripting tool being used. However, we were able to validate their amounts by reviewing historical CBS reports and e-mail notifications from the time period.

The Commerce Recovery Act Implementation Office receives Financial and Activity report data from bureaus via spreadsheet and creates a consolidated Department report that is submitted for posting on Recovery.gov. In the process of creating the consolidated report and prior to the report’s transmission to Recovery.gov, there are various levels of manual review, reconciliation, and approval; however, nonmaterial errors have still occurred—due largely to the manual nature of the overall process. Data passes through several individuals and groups, making it vulnerable to intentional or unintentional modification.

Recommendation

We recommend that the Commerce Recovery Act Implementation Office evaluate ways to further automate report generation and ensure that consistent processes are used across bureaus. In addition, Commerce may want to consider implementation of a central data repository from which it can generate all Recovery Act data. A central repository could serve other purposes even after full implementation of the Recovery Act.

Additional Funding Notification Report Comment

We selected a sample of eight Funding Notification reports from Recovery.gov using the same dates (May–August 2009) as were selected for our the Financial and Activity Reports. We reconciled these back to their original data sources to assess consistency in reporting. The sample dates selected for the above testing were May 8, May 29, June 12, June 19, July 10, July 24, August 7, and August 21, 2009.

Overall, the data collection and review process appears adequate and we were able to reconcile the data back to their systems of origin without exception for the dates selected.

However, reconciling the Funding Notifications back to their systems of origin (e.g., FedBizOps.gov, Grants.gov, and the Federal Procurement System) from Recovery.gov was difficult for several reasons. Based on OMB guidance the reports are cumulative, which makes research by date difficult. Data are listed by program or state, with no additional references to direct readers to more information about the grant and contracts. Finally, it should be noted that while we were able to reconcile the Funding Notifications back to their systems of record, based on how the information is reported we were unable to verify whether the information was submitted to the Department within the exact specified timeframe—“sent in no less than every 48 hours after the notices are made available publicly”—directed by OMB guidance.

As traceability proved difficult without the assistance of OAM staff, we emphasize that OAM should continue to maintain complete internal documentation related to the notification reports, especially as activity increases and in the event there are follow-up questions on the data reported.

BACKGROUND

The *American Recovery and Reinvestment Act of 2009* provided \$16 million for Office of Inspector General audits and oversight of Commerce’s Recovery Act activities. Under the Recovery Act, inspectors general are expected to be proactive and focus on prevention.

Our work was performed in accordance with the *Quality Standards for Inspections* (rev. January 2005) issued by the President’s Council on Integrity and Efficiency and under authority of the IG Act of 1978, as amended, and Department Organization Order 10-13 (dated August 31, 2006).