



OFFICE OF  
**INSPECTOR  
GENERAL**  
UNITED STATES POSTAL SERVICE

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# **Postal Service Mail Volume Reporting Audit Report**

March 7, 2012

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**Report Number FF-AR-12-002**



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# HIGHLIGHTS

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March 7, 2012

## Postal Service Mail Volume Reporting

Report Number FF-AR-12-002

### **IMPACT ON:**

U.S. Postal Service mail volume reporting for first-handled pieces (FHP) and Revenue, Pieces, and Weight (RPW).

### **WHY THE OIG DID THE AUDIT:**

Our objective was to determine why there is a difference in mail volumes reported through FHP and RPW data. These two mail volumes have consistently been different from each other.

### **WHAT THE OIG FOUND:**

Differences in FHP and RPW mail volumes are expected, because the data are unrelated, collected, and calculated using different methods, and used by management for different purposes. The Postal Service, appropriately, does not reconcile the two mail volumes, because the reconciliation would not serve a business purpose. During our audit, we intended to

reconcile the two mail volumes; however, we found that, because of current technology limitations, it was not possible to reconcile the two volumes.

### **WHAT THE OIG RECOMMENDED:**

Based on the results, we are not making any recommendations.

### **WHAT MANAGEMENT SAID:**

Management agreed with our conclusion and appreciated that the U.S. Postal Service Office of Inspector General (OIG) documented the differences between the two systems that record mail volume data.

### **AUDITORS' COMMENT:**

The OIG considers management's comments responsive to the issues identified in the report.

[Link to review the entire report.](#)



March 7, 2012

**MEMORANDUM FOR:** DAVID E. WILLIAMS  
VICE PRESIDENT, NETWORK OPERATIONS

JOSEPH D. MOELLER  
MANAGER  
REGULATORY REPORTING AND COST ANALYSIS

A rectangular box containing a handwritten signature in cursive that reads "John E. Cihota". A small yellow question mark icon is located in the top right corner of the box.

**FROM:** John E. Cihota  
Deputy Assistant Inspector General  
for Financial Accountability

**SUBJECT:** Audit Report – Postal Service Mail Volume Reporting  
(Report Number FF-AR-12-002)

This report presents the results of our audit of the U.S. Postal Service's mail volume reporting processes (Project Number 11BG019FF000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Kevin H. Ellenberger, director, Data Analysis and Performance, or me at 703-248-2100.

Attachments

cc: Megan J. Brennan  
Joseph Corbett  
Corporate Audit and Response Management

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## Introduction

This report presents the results of our audit of the U.S. Postal Service's mail volume reporting (Project Number 11BG019FF000). The objective of our audit was to determine why there is a difference in mail volumes reported through first-handled piece (FHP) data and Revenue, Pieces, and Weight (RPW) system data. This self-initiated audit addresses operational and financial risk. See [Appendix A](#) for additional information about this audit.

The Postal Service captures mail volume through FHP and RPW data. FHP data are used to evaluate the productivity and workload of each mail processing facility, while RPW data are used to estimate mail volume for each class of mail to allocate costs and help develop new rates. In fiscal year (FY) 2011, FHP mail volume equaled 191.3 billion pieces, while RPW mail volume equaled 167.9 billion pieces.

## Conclusion

Differences in FHP and RPW mail volumes are expected, because the data are unrelated, collected and calculated using different methods, and used by management for different purposes. The Postal Service, appropriately, does not reconcile the two mail volumes, because the reconciliation would not serve a business purpose. During our audit, we intended to reconcile the two mail volumes; however, we found that, because of current technology limitations, it was not possible to reconcile the two volumes.

## First-Handled Pieces Volume Data

A mailpiece receives an FHP mail volume count, mainly through automation,<sup>1</sup> in the operation where it receives its first single piece distribution<sup>2</sup> handling. Each mailpiece distributed in a facility receives only one FHP count. However, a mailpiece receives an FHP count at each facility where it receives single piece distribution handling, because FHP data are used to evaluate the productivity and workload of each facility. Therefore, a mailpiece can have more than one FHP mail volume count. For example, if a single piece letter is mailed from Denver, CO, to Baltimore, MD, it will receive an FHP mail volume count in Denver, CO, when it is sorted and sent to the Baltimore ZIP Code, then receive an additional FHP mail volume count in Baltimore, MD, when it is sorted to the destination ZIP Code.

Even though a mailpiece receives an FHP count at each facility where it receives initial distribution handling, the total FHP mail volume does not differ greatly from RPW mail

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<sup>1</sup> Mail processing machines such as delivery barcode sorters, advance facer cancellers, and automated flats sorting machines provide FHP counts.

<sup>2</sup> A distribution operation is defined as "the sortation of a single/individual piece of mail to an area distribution center, state, sectional center facility, city, foreign country, official mail, associate office, station, branch, carrier route, box section, ZIP Code, or other facility."

volume at a facility. This is because the majority of mail the Postal Service receives is presorted to its destination ZIP Code; therefore, the mail does not receive distribution handling until it arrives at its destination facility.

FHP data are used mainly by headquarters personnel for workload and productivity indicators such as:

- Benchmarking FHP vs. total pieces handled ratios between facility and national levels.
- The Distribution Productivity Index (DPI).<sup>3</sup> The Postal Service compares DPI on a weekly, monthly, and same period last year basis to evaluate the productivity of their mail processing facilities.

### Revenue, Pieces, and Weight Volume Data

Eighty percent of RPW mail volume data comes from automated sources such as the *PostalOne!*<sup>4</sup> and point-of-service systems<sup>5</sup> and automated postal centers (APC).<sup>6</sup> The remaining RPW mail volume data comes from the physical counting of mailpieces by an individual. The Postal Service uses statistical analyses based on manual counts that record mailpiece<sup>7</sup> characteristics into a database. For RPW data to be statistically valid, each mailpiece must have the same percent chance of being sampled and can only be counted once.

RPW data are used to calculate the official mail volume and revenue for the Postal Service. Additionally, RPW data are used to:

- Develop new rates.
- Assist in budget preparation.
- Conduct management studies.
- Support management decisions concerning mail flow.

### Comparison of First-Handled Piece and Revenue, Pieces, and Weight Data and Reconciliation

Because a mailpiece can receive more than one FHP mail volume count, FHP mail volume is and should always be greater than RPW mail volume. As noted in [Table 1](#), FHP mail volumes have been greater than RPW mail volumes over the last 3 fiscal years. Mail volumes for both FHP and RPW decreased at about the same rate from FYs 2009 to 2010. However, in FY 2011, RPW mail volume decreased, while FHP mail

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<sup>3</sup> DPI equals FHP divided by workhours.

<sup>4</sup> A system that provides web-based services for business mailers and business mail acceptance employees. The *PostalOne!* system reduces hard copy paperwork.

<sup>5</sup> The electronic system used at retail facilities to record sales and payment transactions.

<sup>6</sup> The APC is a self-service platform designed to perform many transactions currently conducted at the full-service retail counter.

<sup>7</sup> A single addressed article of mail, usually a letter, flat, post card, or parcel.

volume actually increased, resulting in an additional 2-percent difference from the prior fiscal year difference.<sup>8</sup>

**Table 1: Comparison of FHP and RPW Mail Volumes – FYs 2009-2011**

FY	FHP	RPW	Percentage Difference
2009	196.7 billion	177.5 billion	10%
2010	189.5 billion	170.9 billion	10%
2011	191.3 billion	167.9 billion	12%

Source: FHP data obtained from Enterprise Data Warehouse, and RPW data obtained from Postal Service annual reports.

The Postal Service does not reconcile FHP mail volume to RPW mail volume, because it would not serve any business purpose. To reconcile FHP mail volume to RPW mail volume, we would have to determine the number of mailpieces that received more than one FHP mail volume count. However, this information is not captured (or necessary) in FHP automated data.

### Management's Comments

Management agreed with our conclusion and appreciated that the U.S. Postal Service Office of Inspector General (OIG) documented the differences between the two systems that record mail volume data.

### Evaluation of Management's Comments

The OIG considers management's comments responsive to the issues identified in the report.

<sup>8</sup> The Postal Service did not provide a reason why FHP mail volume increased while RPW mail volume decreased.

## Appendix A: Additional Information

### Background

The Postal Service captures mail volume through FHP and RPW data. The Postal Service tracks mail volume at mail processing facilities by capturing FHP data. FHP data are used to evaluate the productivity and workload of each mail processing facility. In addition, the Postal Service uses RPW to estimate mail volume for each class of mail. These estimates are used to allocate costs to each class of mail and help develop new rates.

### Collection of First-Handled Piece Data

The vast majority of FHP mail volume is calculated automatically by mail processing machines.<sup>9</sup> When a mailpiece is run on a machine, the piece count is stored on the machine and uploaded at the end of the day to the Management Operating Data System (MODS). The remaining FHP mail volume results from non-automated sites. Facility personnel calculate FHP by counting containers and converting that count to pieces. The number of pieces is then uploaded to MODS.

### Revenue, Pieces, and Weight System

There are many inputs into the RPW system, including the Origin-Destination Information System (ODIS-RPW); the Bulk Mail Revenue, Pieces, and Weight system (BRPW); and the RPW Adjustment (ARPW) system. The BRPW system provides estimates of mail volume for bulk mailings that have corresponding postage statements. The ODIS-RPW system is used to produce component estimates of mail volume for mail categories where the data are not available from the Postal Service's revenue accounting system or from postage statements. The BRPW and ODIS-RPW estimates are combined with other data in the ARPW to produce RPW reports for mail volume estimates. These systems have been reviewed in prior OIG audits and the methodologies for each system presented by Postal Service statistical programs personnel to the Postal Regulatory Commission (PRC)<sup>10</sup> in 2006.

### Objective, Scope, and Methodology

The objective of our self-initiated audit was to determine why there is a difference in mail volumes reported through FHP and RPW data. To accomplish our objective, we reviewed FHP and RPW volume data for the last 3 fiscal years. We reviewed Postal Service handbooks and memorandums to determine current policies and procedures. We conducted observations of mail processing operations at the Denver Processing

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<sup>9</sup> Mail processing machines at each facility count the total pieces handled and subtract the number of pieces that had subsequent handling. The end result is the number of FHPs at that facility.

<sup>10</sup> The PRC is an independent agency that has exercised regulatory oversight over the Postal Service since its creation by the Postal Reorganization Act of 1970.

and Distribution Center (P&DC).<sup>11</sup> We interviewed unit personnel and Postal Service Headquarters' and area<sup>12</sup> management to obtain an understanding of current policies and procedures and noted their comments, where appropriate.

We conducted this performance audit from September 2011 through March 2012 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on February 7, 2012, and included their comments where appropriate.

We assessed the reliability of FHP and RPW data by interviewing postal officials knowledgeable about the data. As noted in the prior audit coverage section of this report, the OIG has conducted prior audits on the MODS and RPW system used to collect and compile this data and determined that, generally, internal controls were in place and effective. See Prior Audit Coverage for additional information. We determined that the data were sufficiently reliable for the purposes of this report.

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<sup>11</sup> This facility was judgmentally selected based on its proximity to OIG offices.

<sup>12</sup> We interviewed personnel at the Denver, CO; Los Angeles, CA; Santa Ana, CA; and Merrifield, VA P&DCs; and the Western and Pacific areas.

## Prior Audit Coverage

Report Title	Report Number	Final Report Date	Report Results
<i>Internal Controls over the Revenue, Pieces, and Weight Adjustment System</i>	CRR-MA-08-001	12/14/2007	Overall, ARPW system internal controls were effective and included an established control environment, identification of risks, functioning control activities, effective communication, and adequate system monitoring. Management agreed with the recommendations.
<i>Controls over the Bulk Mail Revenue, Pieces, and Weight System</i>	CRR-AR-09-007	9/30/2009	Controls over the BRPW estimation process were generally adequate. Specifically, the program code used for processing BRPW data contain adequate edit controls. Revenue and Volume Reporting office personnel review processing logs, take necessary corrective action, and back up program code and data. Further, they evaluate the reliability of calculated values by determining statistical measures and variances. Management agreed with the recommendations.
<i>Management Operating Data System</i>	CRR-AR-12-002	12/13/2011	Although the Postal Service has taken steps to improve the overall accuracy of MODS data, additional steps are needed to provide more accurate mail processing and cost avoidance estimates. In FY 2010, about 27 percent of MODS observations were zero workhour or zero mail volume errors. Management agreed with the recommendations.

<i>Revenue, Pieces, and Weight Inputs into the Cost and Revenue Analysis Report</i>	<a href="#">CRR-AR-12-003</a>	1/27/2012	The Postal Service could significantly reduce manual data collection for RPW estimation by modifying existing automated processes to collect mailpiece images for analysis and by moving sampling from delivery units to supporting processing plants. Management agreed with the recommendations.
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## Appendix B: Management's Comments

FINANCE



March 1, 2012

SHIRIAN HOLLAND  
ACTING DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report – Postal Service Mail Volume Reporting  
(Report Number FF-AR-12-DRAFT)

Thank you for the opportunity to review and comment on this draft report. The audit report was aimed at determining why there is a difference in the mail volume reported as first-handled pieces (FHP) and the volume reported in Revenue, Pieces and Weight (RPW). We appreciate you acknowledging and documenting the fact that the systems are designed and developed with different goals in mind and that even though the systems are measuring the same characteristic, there is no reason why their results should be the same.

This report and management's response do not contain information and/or data that may be exempt from disclosure under FOIA.

A handwritten signature in black ink, appearing to read "D Williams".

David E. Williams  
Vice President  
Network Operations

A handwritten signature in black ink, appearing to read "Joseph D. Moeller".

Joseph D. Moeller  
Manager, Regulatory  
Reporting & Cost Analysis

cc: Megan J. Brennan  
Joseph Corbett  
Corporate Audit and Response Management