



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

Address Management System Data

Audit Report

February 28, 2014

Report Number DR-AR-14-003



BACKGROUND:

The U.S. Postal Service uses Address Management System data to deliver mail to more than 127 million addresses in the U.S. Address information is critical to processing mail through automation to reduce delivery costs. The nation relies on the Postal Service to maintain accurate addresses to enable effective commerce and ensure customers receive quality service.

Carriers help maintain address quality by observing address changes on their routes, noting them in their edit books, and submitting them to update the Address Management System. The Postal Service's Address Quality Improvement Process identifies routes with address errors requiring review.

Our objective was to assess the effectiveness of efforts to ensure the accuracy of address data in the Postal Service's Address Management System.

WHAT THE OIG FOUND:

The Postal Service's efforts to reduce address database errors were ineffective. The reported address errors increased from 267,478 in fiscal year (FY) 2011 to 430,843 in FY 2013, primarily because carriers did not update edit books consistently and management did not conduct necessary street reviews. The Postal Service reduced its emphasis on ensuring address accuracy by initially reducing the number of address management specialists by nearly 40 percent and then reclassifying the specialist position

from non-bargaining to bargaining. Further, the Postal Service did not have a formal standardized training program or a follow-up process to ensure compliance.

We estimated address corrections costing about \$14 million were not made to the Address Management System in FYs 2012 and 2013. Effective controls over address corrections would increase delivery efficiency and avoid future costs of about \$16 million for FYs 2014 and 2015. Incorrect addresses increase business mailers' costs to process returned mail. Inaccuracies could also cause mailers to lose confidence in the effectiveness of mail, which could significantly reduce postal revenue.

WHAT THE OIG RECOMMENDED:

We recommended the vice president, Delivery and Post Office Operations, in coordination with the vice president, Product Information, establish deadlines for edit book updates, develop a formal training program, and update supervisor training. We also recommended establishing a follow-up process that ensures that address errors are corrected using Address Quality Improvement Process reports and that necessary street reviews are completed.

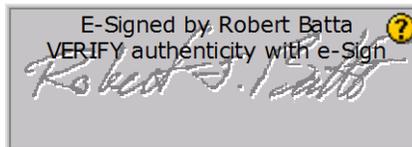
[Link to review the entire report](#)



February 28, 2014

MEMORANDUM FOR: EDWARD F. PHELAN, JR.
VICE PRESIDENT, DELIVERY AND POST OFFICE
OPERATIONS

ROBERT CINTRON
VICE PRESIDENT, PRODUCT INFORMATION



FROM: Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Audit Report – Address Management System Data
(Report Number DR-AR-14-003)

This report presents the results of our audit of the U.S. Postal Service Address Management System Data (Project Number 13XG016DR000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Rita F. Oliver, director, Delivery and Post Office Operations, or me at 703-248-2100.

Attachment

cc: Corporate Audit and Response Management

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Introduction

This report presents the results of our self-initiated nationwide audit of the U.S. Postal Service's Address Management System (AMS) data. Our objective was to assess the effectiveness of efforts to ensure the accuracy of address data in the Postal Service's AMS (Project Number 13XG016DR000). See [Appendix A](#) for additional information about this audit.

The Postal Service uses AMS data to deliver mail to every address in the country or more than 127 million delivery points. Accurate address information helps to process mail through automation to reduce delivery costs associated with manual mail handling. Further, business mailers purchase address information for delivery of mailpieces to targeted customers. Correct addressing is critical to reducing the costs associated with handling returned mail for the Postal Service and its customers.¹ The Postal Service spent \$1.31 billion last year processing undeliverable-as-addressed mail, and correct address data could reduce these costs. As the Postal Service moves forward with increases in parcels² and new modernization initiatives,³ the integrity of the address database is critical. As part of the national address quality program, carriers must identify address changes and update route edit books during street deliveries and district personnel must conduct street reviews on selected routes.

Conclusion

The Postal Service's efforts to reduce address database errors in AMS data were ineffective. The reported yearly errors have increased, from 267,478 in fiscal year (FY) 2011 to 430,843 in FY 2013, primarily because edit books were not updated consistently and street reviews were conducted on only 13 percent of the routes that needed them. The Postal Service reduced its emphasis on address accuracy by initially reducing the number of address management specialists by nearly 40 percent and then reclassifying the position from a non-bargaining specialist position to a bargaining technician position. Further, the Postal Service did not have a formal standardized AMS training program or a follow-up process to ensure compliance.

We estimated address error corrections costing about \$14 million were not made to the AMS in FYs 2012 and 2013. Effective controls over address corrections would increase overall delivery efficiency, reduce reported errors, and avoid future costs of about \$16 million for FYs 2014 and 2015. In addition, incorrect addresses increase business mailers' costs because they create mailings for these invalid addresses and subsequently process the associated returned mail. If 50 percent of mailers lose confidence in purchased address products, we estimate the Postal Service risks losing

¹ Business mailers indicated they spend 39 cents for postage on each mailpiece and between 27 and 29 cents per mailpiece to resolve address database issues on returned volume that was sent to targeted customers.

² *Readiness for Package Growth - Delivery Operations*, DR-MA-14-001, December 11, 2013.

³ The Postal Service's *Real Time Scanning Decision Analysis Report* indicated that implementation of the Global Positioning System platform will facilitate electronic edit books. The OIG plans to perform a separate review on technology use in delivery operations.

more than \$3.5 million annually for these products. The Postal Service could lose much more revenue if its reputation as a provider of trusted and reliable service is damaged and customers move to other communication services.

Address Management System Data

Internal controls over AMS data were ineffective in ensuring correct and complete address data. The National Customer Support Center (NCSC) reported 430,843 operational address data errors for FY 2013⁴ on the 226,347 delivery routes.⁵ These errors, which have a negative impact on mail processing and delivery, are derived from the Postal Service Address Quality Improvement Process (AQIP) operational error reports. These error reports include ZIP Code™ discrepancies, delivery point sequencing conflicts, duplicate delivery points, overlapping ranges, high-rise addresses improperly coded, or missing defaults. The reported errors increased from 267,478 in FY 2011 to 430,843 in FY 2013 (see Table 1).

Table 1. NCSC Reported Operational AMS Errors - FYs 2007 - 2013⁶

Area	Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
4A	New York	2,602,063	1,738,498					
4B	Northeast	767,964	744,383	836,219	215,640	171,453	183,780	324,259
4C	Eastern	699,165	304,743	73,328	3,019	7,748	11,769	11,158
4E	Western	346,714	120,890	9,153	5,425	5,685	27,309	11,926
4F	Pacific	502,453	134,469	153,027	54,156	48,387	53,954	54,237
4G	Southern	*	*	*	*	*	9,776	5,221
4G	Southwest	124,569	13,595	17,291	1,000	4,785	*	*
4H	Southeast	988,768	568,415	73,845	4,596	3,992	*	*
4J	Great Lakes	57,982	19,343	2,455	2,484	2,715	8,526	1,312
4K	Capital Metro	236,486	13,302	3,319	3,819	3,380	7,610	2,968
	Unassigned	2,016	120,687	19,708	20,087	19,333	19,806	19,762
Total		6,328,180	3,778,325	1,188,345	310,226	267,478	322,530	430,843

*- Indicates no error data.

Source: OIG analysis of AQIP operational address error data.

⁴ Data as of September 19, 2013. NCSC officials indicated that the reported errors do not include the actual life of the errors; however, evidence does support error carryovers. NCSC officials indicated that to determine the actual life of the errors would not be practical, due to the significant amount of retroactive work that would be required. The error data excludes addresses managed by military post offices. These data are not subject to AMS quality standards.

⁵ NCSC develops products and services to help the Postal Service and the mailing industry fully and efficiently use their automation systems and software. NCSC's mission is to support the Postal Service with a quality address database, secure change of address system, address policies and programs, and customer address products to facilitate timely and cost effective coding, sorting, and delivery of the mail.

⁶ The Northeast Area received the addition of the New York District through Postal Service reorganization/realignments. The New York District historically had a challenge maintaining accurate AMS data due to changes associated with high-rise buildings, primarily delivery point sequence (DPS) conflict errors. These errors were discussed in a prior OIG AMS nationwide report.

Errors increased for several reasons, including:

- Inconsistent edit book updates. For delivery units we visited, we identified instances in which carriers' edit books showed no changes for more than 1 year on their assigned routes and updates submitted to unit supervisors were not corrected in the AMS database and associated subsystems. Unit supervisors change the AMS database based on carrier edit book submissions documented on web electronic edit sheets. Supervisors correct improper change of address submissions in the Electronic Uncoded Address Resolution Service system, and correct potential missing delivery points using the Delivery Sortation Management Automation Research Tool. Officials indicated that workload priorities associated with timely mail delivery make it challenging for supervisors to ensure updates and changes take place. Postal Service policy does not establish specific timeframes for various processes, including edit book updates.
- Street reviews were not always performed. In the seven postal areas, we identified street review targets that were not attained. For FY 2012, only 13 percent of the routes identified for street reviews were reviewed, which was well below the established 60 percent target (see Table 2).

Table 2. FY 2012 Total Routes, AQIP Routes Identified and Street Reviews Completed

Postal Areas	Total City and Rural Delivery Routes	Total AQIP Routes Identified for Street Review	Total Actual Street Reviews Performed by Delivery and AMS Personnel	Total Percent of Routes Reviewed by Delivery and AMS Personnel	Total Percent of Routes Reviewed by Delivery and AMS Personnel Compared to the 60 % Target
Capital Metro	23,295	11,645	4,719	41%	-19%
Eastern	36,900	20,378	1,149	6%	-54%
Great Lakes	29,050	14,528	6,217	43%	-17%
Northeast	29,371	14,141	2,901	21%	-39%
Pacific	23,743	9,915	98	1%	-59%
Southern	45,127	26,310	456	2%	-58%
Western	38,861	22,039	192	1%	-59%
Total	226,347	118,956	15,732	13%	-47%

Source: OIG Analysis of Postal AQIP Street Review Results.ⁱ
 Source: OIG analysis of street reviews.

District AMS personnel had to perform reviews (including follow-up reviews) on 10 percent of the required AQIP routes and delivery unit officials had to conduct such reviews on 50 percent of the routes. Street reviews are conducted under the *Delivery/AMS Quality Review Guidelines* to validate the number of possible delivery addresses assigned to each carrier route and ensure: all possible delivery addresses are identified and are included in the appropriate files; the correct line of travel or delivery sequence for each carrier route; and that ZIP+4[®] Codes are assigned to maximize automation compatibility. These reviews also ensure

standardization of addresses under Publication 28, *Postal Addressing Standards*, and that products derived from the AMS database meet the needs and expectations of our customers. Officials indicated that performing the street reviews and reviewing address data error online reports to make necessary corrections (which also includes contacting customers) is a challenge because of other workload priorities, overseeing multiple locations, and insufficient and untrained staff.

- Loss of AMS staff positions. From FYs 2007 to 2013, officials made two major reductions in AMS staff positions. First, they reduced AMS staff from 599 to 371 positions, a 38-percent reduction, and a hiring freeze was in place as the arbitration discussions continued with the American Postal Workers Union (APWU). Officials reduced staff a second time following the APWU labor agreement,⁷ dated September 25, 2012, which resulted in transferring all AMS specialist positions to the clerk craft (now called AMS technicians). The AMS specialists, Executive and Administrative Schedule (EAS)-15 positions were reclassified from non-bargaining to bargaining AMS technicians, P7-07 positions.⁸ As part of the agreement, AMS specialists had to vacate their positions by March 9, 2013. This change created additional vacancies and further loss of personnel with the institutional knowledge to conduct street reviews and correct address database errors. Officials indicated the AMS technician positions require decision-making skills and are not just data entry jobs. Managers said it has been challenging to find the right staff. All AMS technician positions were to be filled by March 10, 2013, per the APWU agreement. As of August 5, 2013, Postal Service officials had filled 316 of the 319 authorized AMS technician positions.
- No standardized AMS training program. We found some instances in which AMS technicians were being trained on the job and training techniques varied by location. The Postal Service's new delivery supervisor training course does not include a module on AMS instructions for street reviews and reviewing and correcting address data error online reports.
- No follow-up process. We found the Postal Service did not establish a follow-up process to ensure use of the AMS AQIP error report to correct errors, timely edit book updates, and complete required street reviews to reduce delivery costs and enhance customer service for business mailers.

⁷ APWU labor agreement, dated September 25, 2012. Management oversight remained unchanged with Delivery and Post Office Operations officials overseeing the edit book update controls and Product Information officials overseeing the AQIP street review controls.

⁸ The AMS specialists, EAS-15 position, had a fully loaded labor rate of \$48.05 per hour for FY 2013. The AMS technician, P7-07 position, had a fully loaded rate for FY 2013 of \$45.31 per hour. The P7-07 technician position is able to earn overtime.

We estimated address corrections costing about \$14 million were not made to the AMS in FYs 2012 and 2013. However, opportunities exist to reduce reported errors for cost avoidance of about \$16 million for FYs 2014 and 2015.⁹ Further, if 50 percent of business mailers lose confidence in purchased address products, the Postal Service could lose more than \$3.5 million annually and its reputation as a trusted and reliable service provider could be damaged. A much larger revenue loss could result if customers move to other communication services.

Recommendations

We recommend the vice president, Delivery and Post Office Operations, in coordination with the vice president, Product Information:

1. Revise and implement delivery policy to include specific time requirements for carrier edit book updates, submissions to delivery supervisors, and error corrections in address systems.
2. Develop and implement a formal Address Management System training program.
3. Develop and incorporate an Address Management System module in the delivery supervisor's training course.
4. Establish and sustain a follow-up process to correct address errors using the Address Quality Improvement Process reports and complete necessary street reviews.

Management's Comments

Management agreed in principle with the four recommendations. Management also agreed with the monetary impact.

Regarding recommendation 1, management will develop a tracking and reporting tool to monitor how frequently edit books are updated. Management will also determine a methodology for factoring key indicators that would show when staff would likely need to update an edit book and a specific time requirement for completing the updates. The target implementation date is October 2014.

Regarding recommendation 2, management has coordinated with Professional and Skills Development to create a formal training program in the Learning Management System (LMS) for all new Address Management personnel. Management updated this training module in Quarter 4 of FY 2013 and began to require all AMS technicians and

⁹ The OIG relied on NCSC AQIP Operational Address Error Data for FYs 2012 to 2013 to determine potential cost impact. The NCSC AQIP reported errors do not include the actual life of the errors; however, evidence does support error carryovers. It would not be practical to determine the actual life of the errors due to the significant amount of retroactive work that would be required.

product information quality analysts to complete the AMS training module in the LMS. The target implementation date was January 2014.

Regarding recommendation 3, management will update the existing training module and integrate it into the newly promoted delivery supervisor's training requirements. After updating the training module, management will establish a process to ensure all existing delivery supervisors receive the updated training module. The target implementation date is September 2014.

Regarding recommendation 4, management will determine a monitoring and reporting process that identifies addressing related conditions requiring attention and action. Where a street review may be necessary, management will establish a process to ensure appropriate follow-up is performed. The target implementation date is October 2014.

Management disagreed with the OIG's assertion that the Postal Service has reduced its emphasis on ensuring address accuracy. They said staffing adjustments in Address Management personnel were necessitated by other compelling business factors. Officials also indicated the Postal Service remains committed to address quality and has initiated numerous programs that enhance address quality by using new data sources and collection methods.

Management also noted the OIG failed to acknowledge the Postal Service significantly improved address quality from FYs 2007 to 2011 and opted instead to focus on a recent increase in potential errors. Management said they are confident the levels of address quality that were evident in the past will be restored as a result of completing the AMS personnel transitional phase and new efforts underway to capture address information. Management stated that improved knowledge and understanding will occur as new AMS personnel gain more experience.

See [Appendix D](#) for management's comments, in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations and corrective actions should resolve the issues identified in the report.

Management disagreed with the OIG's assertion that the Postal Service has reduced its emphasis on ensuring address accuracy due to staffing adjustments in address management personnel. The OIG acknowledged the Postal Service transferred all AMS specialist positions to the clerk craft (now called AMS technicians) due to a hiring freeze and labor union agreements. However, opportunities exist for officials to provide more formal training to new AMS staff who do not know how to conduct street reviews and correct address database errors, as management has stated the AMS technician positions require decision-making skills and are not just data entry jobs.

Officials also indicated the Postal Service remains committed to address quality and has initiated numerous programs that enhance address quality by leveraging new data sources and collection methods. The OIG acknowledged the Postal Service's commitment to address quality and its new initiatives. We identified opportunities for officials to improve internal controls over AMS data. The nation relies on the Postal Service to maintain accurate addresses to enable effective commerce and ensure customers receive quality service.

Management also noted that the OIG failed to acknowledge the Postal Service significantly improved address quality from FYs 2007 to 2011 and opted instead to focus on a recent increase in potential errors. The OIG does acknowledge the NCSC Reported Operational AMS Error from FYs 2007 – 2013 in the finding, which shows a decline over that period.

The OIG considers all recommendations significant, and, therefore, requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective action is completed. These recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that they can be closed.

Appendix A: Additional Information

Background

Address management is the foundation the Postal Service uses to deliver mail to every address in the country and to process mail through automation to more than 127 million delivery points on 226,347 delivery routes.¹⁰ The nation relies on the Postal Service to maintain accurate address data to facilitate effective commerce, to ensure customers receive the appropriate service, and to support disaster relief efforts. Striving to obtain the highest quality of address information is of utmost importance for processing mail on automated equipment and providing address products to customers. Incorrect and incomplete address information adversely impacts processing of mail on automated equipment and contributes to additional work at delivery units associated with carriers manually casing mail not in DPS.¹¹ In addition, business mailers purchase address products to place Intelligent Mail[®] barcode. This helps them eliminate rehandling returned mailpieces and losing targeted customers due to undeliverable mail.

During FY 2012, business mailers purchased various Postal Service address products and made 7,166 payments, generating \$7,137,890 in revenue (see [Appendix C](#)). These address products, and the accuracy of the data the Postal Service uses to produce them, are critical to reducing the cost of processing undeliverable-as-addressed mail. This problem costs the Postal Service about \$1.31 billion per year.

During FY 2012, the Postal Service processed 68.6 billion mailpieces. Of those, 63.7 pieces (93 percent) were processed on automated equipment into delivery sequence and the remaining 4.9 billion pieces (7 percent) were processed manually.

In response to the 2007 OIG audit, *Address Management System Information-National Capping* (Report Number DR-AR-07-012, dated August 29, 2007), the vice president, Delivery and Retail, and the senior vice president, Intelligent Mail and Address Quality, issued a joint memorandum to area vice presidents implementing the AQIP to evaluate the quality of AMS data and meet the goal of having accurate address information nationwide. The process was not designed to replace current national address quality programs but to help improve address quality by identifying for review those routes with errors having the greatest negative impact on processing and delivery. District personnel and trained Delivery and AMS staff had to review 60 percent of the AQIP identified routes based on Postal Service guidelines.¹² Carriers also identify address changes, update route edit books with notations during their street deliveries, and submit the results to their supervisors for correction in the AMS. Carriers must update

¹⁰ Information as of February 8, 2013.

¹¹ The AMS captures address information in sort programs used to process/sort mail in DPS on a barcode sorter. Mail that cannot be processed on automated equipment requires manual processing, which is less efficient and more costly to the Postal Service.

¹² Street reviews conducted in accordance with the *Delivery/AMS Quality Review Guidelines*. District AMS personnel were required to perform reviews (including follow-up reviews) on 10 percent of the required Address Quality Review Team identified routes and unit officials were required to perform reviews on 50 percent of the identified routes.

route changes, such as new construction and new buildings, in their edit books. Carriers must keep the edit books accurate and up to date.

As the Postal Service moves forward with increases in parcels and new modernization initiatives, address database integrity is critical to its reputation as a provider of trusted and reliable universal delivery service.

Objective, Scope, and Methodology

Our objective was to assess the effectiveness of efforts to ensure the accuracy of address data in the Postal Service's AMS.

To accomplish our objective, we:

- Reviewed documentation and applicable policies and procedures related to maintaining quality address information in the AMS, including current methodologies used to identify and correct AMS data deficiencies.
- Performed follow-up work on the 2007 OIG audit, *Address Management System Information - National Capping* (Report Number DR-AR-07-012, dated August 29, 2007) regarding address accuracy of AMS information in postal areas.
- Reviewed Association of Postal Commerce podcast information to determine business mailers' concerns related to AMS data management.
- Obtained data on FY 2012 delivery AMS quality reviews from the NCSC to analyze the routes reviewed, AMS data errors identified, and corrections made.
- Obtained FY 2012 subscription service revenue data from the NCSC.
- Obtained AQIP Operational Address Yearly Error data for FYs 2007 to 2013¹³ reported by NCSC to analyze the AMS data errors identified, and the yearly changes.

¹³ Data as of September 19, 2013.

- Relied on NCSC AQIP Operational Address Error Data¹⁴ reported for FYs 2011 to 2013 in determining potential cost impact. These errors, which have a negative impact on processing and delivery of mail, are derived from the Postal Service AQIP operational error reports. They include: ZIP Code discrepancies, delivery point sequencing conflicts, duplicate delivery points, overlapping ranges, and high-rise addresses improperly coded or missing defaults (see [Appendix B](#)).
- Judgmentally selected area, district, and unit locations to visit based on actual street reviews completed for the AQIP and identified delivery routes in comparison to the target review goals and geographical locations to minimize project travel costs.
- Interviewed Postal Service Headquarters, areas, district, and selected unit officials to discuss the increase in address errors, edit books, and street review internal controls.

We conducted this performance audit from January 2013 through February 2014, 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 July 10 and 18, November 5, 2013, and January 8, 2014, and included its comments where appropriate.

We relied on AQIP Operational Address Yearly Error data for FYs 2007 to 2013¹⁵ reported by NCSC in Postal Service database systems. These errors, which have a negative impact on processing and delivery of mail, are derived from the Postal Service AQIP operational error reports. We did not directly audit the systems, but performed a limited data integrity review to support our data reliance. We assessed the reliability of AMS database error data from NCSC by reviewing existing information about the data and the system that produced it, and interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

¹⁴ The NCSC AQIP reported errors do not include the actual life of the errors; however, officials indicated that evidence does support error carryovers. To determine the actual life of the errors would not be practical due to the significant amount of retroactive work that would be required.

¹⁵ Data as of September 19, 2013.

Prior Audit Coverage

The OIG issued a report titled, *Delivery Operations Data Usage* (Report Number [DR-AR-13-001](#), dated October 11, 2012), which found there are a substantial number of systems, reports, and data indicators supporting city delivery operations. We identified 44 systems containing city delivery data and over 160 reports from various systems with thousands of data points. We also found that new unit supervisors and managers did not always know how to use tools and data to manage operations. Further, our assessment of 32 prior OIG and U.S. Government Accountability Office delivery reports showed there were ongoing issues in delivery operations, which include data usage, availability, and accuracy. For rural delivery, there is no centralized system containing routes, workhours, and other management information. Management agreed with the findings and recommendations.

Appendix B: Monetary and Other Impacts

Recommendation	Impact Category	Amount
4	Questioned Cost ¹⁶	\$ 6,037,761
4	Questioned Cost	8,065,380
	Subtotal	14,103,141
4	Funds Put To Better Use ¹⁷	8,065,380
4	Funds Put To Better Use	8,065,380
	Subtotal	\$16,130,760
Total		\$30,233,901

We estimate that the Postal Service had potential questioned costs of \$14,103,141 for FYs 2012 and 2013. However, effective controls over address corrections would increase overall efficiency and provide future potential cost avoidance of \$16,130,760 for FYs 2014 and 2015.

We calculated the total questioned cost of \$14,103,141 for FYs 2012 and 2013 as follows:

- We extracted and reviewed the number of AMS errors for FYs 2012 and 2013 to arrive at the total address database errors (see Table 3).

Table 3. Address Error Cost Impact

FYs	Actual Number of AMS Address Database Errors	Average AMS Error Rate Number Escalation Added	Potential Cost Impact
2012	322,530	\$18.72	\$ 6,037,761
2013	430,843	\$18.72	8,065,380
Total	753,373		\$14,103,141

Source: OIG analysis.

- We developed an overall average AMS rate of \$18.72, with no added escalation factor, based on prior audit “per error” rate information and coordination with NCSC officials on the data crosswalk for the five address errors categories used in AQIP to identify routes for street review. The average \$18.72 error rate we developed excluded the “+4” discrepancy category as we applied a conservative cost-saving approach. The average AMS rate calculation of \$18.72 is \$6.18 less than the \$24.90 per error rate used in the previous OIG AMS audits conducted in 2007.

¹⁶ A cost the OIG believes is unnecessary, unreasonable, unsupported, or an alleged violation of law, regulation, or contract.

¹⁷ Funds the Postal Service could use more efficiently by implementing recommended actions.

- We multiplied the total database errors for FYs 2012 and 2013 by the average AMS rate of \$18.72 to arrive at the potential cost impact for FYs 2012 and 2013.

We calculated funds put to better use of \$16,130,760 as follows:

- We projected the future number of AMS address database errors based on a trend of the errors from FYs 2011 through 2013. The projection resulted in 430,843 errors in FY 2014 and 430,843 in FY 2015 (see Table 4).

Table 4. Address Error Cost Impact

FY	Projected Number of AMS Address Database Errors	Average AMS Error Rate No Escalation Added	Potential Cost Impact
2014	430,843	\$18.72	\$ 8,065,380
2015	430,843	\$18.72	8,065,380
Total	861,686		\$16,130,760

Source: OIG analysis.

- We used the previously developed overall average AMS rate of \$18.72.
- We multiplied the total projected adjusted address database errors for FYs 2014 and 2015 by the average AMS rate of \$18.72 to arrive at the potential cost impact for FYs 2014 and 2015.

Other Impacts

Recommendation	Impact Category	Amount
4	Potential Loss In Revenue ¹⁸	\$3,568,945
4	Potential Loss In Revenue	3,568,945
Total		\$7,137,890

If business mailers lose confidence in purchased address products, we estimate the Postal Service is at risk of annual potential loss in revenue of \$3,568,945 for addressing products. A much larger revenue loss could result if the Postal Service's reputation as a provider of trusted and reliable service is damaged and customers move to other communication services.

We calculated the other impact potential loss in revenue based on the following:

- During FY 2012, business mailers made 7,166 purchases that included 3,243 customer requests and 3,923 annual renewals for address products, which generated revenue of \$7,137,890 in FY 2012 for the Postal Service. See [Appendix C](#).
- Mailing industry officials have expressed concern with the Postal Service's lack of accountability regarding edit book updates, completion of AMS street reviews, and addition of new addresses into the AMS.
- Business mailers indicated that incorrect and incomplete address information impacts their ability to deliver mailpieces to customers, which results in rehandling of returned mailpieces and losing targeted customers due to mail being undeliverable.
- Business mailers indicated they spend 39 cents for postage on each mailpiece and between 27 and 29 cents per mailpiece to resolve address issues on returned volume.
- Using the information discussed above, we calculated the other impact potential loss in revenue based on the assumption that 50 percent of the business mailers would abandon the Postal Service.

¹⁸ Revenue the Postal Service could potentially generate for goods delivered or services rendered based on suggested improvements.

Appendix C: Business Mailers' Purchases of Address Products Fiscal Year 2012

Postal Service Address Products	Number of Customer Payments in FY 2012	Total Revenue Generated from Customer Payments FY 2012
Address Element Correction (Caps) - Per customer request	2,361	\$ 275,771
Address Element Correction II (Caps) - Per customer request	829	597,188
Electronic Address Sequence	53	7,658
Presort Accuracy Validation Evaluation - Per Customer Request	0	0
Total - Customer Requests	3,243	\$ 880,617
Address Information System - Annual Renewal	1,775	\$ 804,602
Address Information System Viewer - Annual Renewal	1,009	88,187
Address Matching System - Annual Renewal	206	1,039,807
Computerized Delivery Sequence - Annual Renewal	534	2,279,049
Delivery Point Validation - Annual Renewal	34	357,000
Delivery Sequence File - Annual Renewal	15	1,560,000
Fast Forward - Annual Renewal	12	24,470
Locatable Address Conversion System Link - Annual Renewal	36	12,440
Residential Delivery Indicator - Annual Renewal	284	85,596
Topological Integrated Geographic Encoding - Annual Renewal	18	6,122
Total - Annual Renewal	3,923	\$6,257,273
Total - Customer Request and Annual Renewals	7,166	\$7,137,890

Appendix D: Management's Comments



February 11, 2014

JUDITH LEONHARDT
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Response to Draft Audit Report – Address Management Data Systems
(Report Number DR-AR-14-DRAFT)(R)

Management agrees in principle with the four recommendations presented by the OIG in the draft audit report. Included in this response are the specific comments and reactions to each of the recommendations and the actions that will be undertaken addressing the individual recommendations. Management accepts the monetary impact assessments noted in the report given the hypothetical assumptions used by OIG to produce the results.

Management disagrees with the OIG's assertion that the Postal Service has reduced its emphasis on ensuring address accuracy due to the staffing adjustments in Address Management personnel necessitated by other compelling business factors. The Postal Service remains committed to address quality and has undertaken a number of initiatives that enhance address quality by leveraging new sources of data and collection methods beyond the traditional methods. Management also notes that OIG fails to acknowledge the significant improvements in address quality that had been achieved in the period between FY 2007 and FY 2011 and instead opted to focus only on a recent increase in potential errors that have occurred. Management is confident that with the completion of the AMS personnel transition phase, the improved knowledge and understanding that will develop as new AMS personnel gain more experience and the new efforts underway to capture address information in new ways the levels of address quality that were evident in the past will be restored.

The following are management's responses to the recommendations:

Recommendation 1: Revise delivery policy to include specific time requirements for carrier edit book updates, submissions to delivery supervisors, and error corrections in address systems.

Delivery and Post Office Operations and the Address Management function within Product Information will collaborate to develop a tracking and reporting tool that monitors the frequency for performing Edit Book updates. A methodology will be determined on how to factor key indicators that identify when an Edit Book update is likely necessary and a specific time requirement for completion of required actions.

Target implementation date: October 2014

Responsible Manager: Address Management

Recommendation 2: Develop and implement a formal Address Management System training program.

Address Management has coordinated with Professional and Skills Development to create a formal training program within the Learning Management System to be used by all new Address Management personnel. An update of this training module was completed in Quarter 4 of FY13. Address Management has initiated the process to establish the completion of the LMS training module as a mandatory requirement for all Address Management System Technicians and Product Information Quality Analyst positions.

Target implementation date: January 2014

Responsible Manager: Address Management

Recommendation 3: Incorporate an Address Management System module in the delivery supervisor's training course.

Delivery and Post Office Operations, in collaboration with Address Management, will update existing training and integrate the module into all newly promoted delivery supervisor's training requirements. Upon completion of the update, a process will be established to ensure all existing delivery supervisors receive the updated training.

Target implementation date: September 2014

Responsible Manager: Delivery Operations

Recommendation 4: Establish and sustain a follow-up process to correct address errors using the Address Quality Improvement Process reports and complete required street reviews.

Address Management will collaborate with Delivery and Post Office Operations to determine a monitoring and reporting process that identifies addressing related conditions that require attention and action. Where an indication exists that a street review may be necessary a process will be established to ensure appropriate follow up is performed.

Target implementation date: October 2014

Responsible Manager: Address Management

The subject report and this response are not considered to have information that would be restricted from release under a Freedom of Information Act request.



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