



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

---

# **Evaluation of the External First-Class Measurement System**

## **Audit Report**

September 18, 2012

---

**Report Number FF-AR-12-006**



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

# HIGHLIGHTS

September 18, 2012

## Evaluation of the External First-Class Measurement System

Report Number FF-AR-12-006

### **BACKGROUND:**

The U.S. Postal Service measures whether it delivers First-Class Mail on time and meets mail delivery standards to provide the Postal Regulatory Commission (PRC) and the general public with information on its service performance. The postmaster general requested we review whether there was a less costly way to implement this process, known as the External First-Class (EXFC) measurement system. In addition, we evaluated the integrity and usefulness of EXFC.

The law generally requires the measurement system to be external to ensure the objectivity and integrity of the system. Accordingly, the Postal Service measures on-time performance using studies conducted by a contractor.

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

We identified alternatives to reduce EXFC costs. For example, the Postal Service could reduce its sampling costs by using EXFC for its primary purpose of service performance measurement. It could also, with PRC approval, replace the contractor with an internal group or the next contract can be competed to reduce costs.

Further, the current contract relies on costly manual reporting and recording of test pieces. When negotiating the last EXFC contract, management intended to transition from the current, manual

process to an automated process. However, the Postal Service has not yet developed a plan to automate this process. Without automation, the Postal Service will continue having to pay the costs associated with manual reporting of test pieces. The automation plan should explore technological solutions such as using barcodes and hand held scanners to provide an effective end-to-end alternative to the current process. These technological solutions should also help to reduce costs and provide more reliable service performance measurement results.

In addition to cost reductions, we identified issues that affect program reliability. Specifically, EXFC is vulnerable to 'gaming' as management and staff often give potential test pieces preferential treatment to raise scores.

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

We recommended using EXFC only to meet statutory requirements, developing a comprehensive plan to replace the current EXFC activities with an automated solution and developing controls to eliminate unauthorized special treatment of test pieces.

[\*Link to review the entire report\*](#)



September 18, 2012

**MEMORANDUM FOR:** MEGAN BRENNAN  
CHIEF OPERATING OFFICER AND EXECUTIVE VICE  
PRESIDENT

JAMES P. COCHRANE  
VICE PRESIDENT, PRODUCT INFORMATION

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

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

**SUBJECT:** Audit Report – Evaluation of the External First-Class  
Measurement System (Report Number FF-AR-12-006)

This report presents the results of our audit of the External First-Class Measurement System (Project Number 11BG016FF000).

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: Joseph Corbett  
Corporate Audit and Response Management

## TABLE OF CONTENTS

Introduction .....	1
Conclusion .....	3
External First-Class Measurement System Reporting Requirements and Cost Reduction Alternatives .....	3
Alternatives to the Current Service Measurement Contract.....	5
Non-Contractor Alternative .....	5
Competing the Contract Alternative .....	6
External First-Class Measurement System Planning and Technological Alternatives.....	6
Using Intelligent Mail Barcode as an Automated Replacement to External First-Class Measurement System and Other Service Performance Measurement Processes .....	8
Other Automation Options .....	9
Current External First-Class Measurement System Vulnerabilities .....	9
Preferential Processing of Sample Pieces.....	9
Employee Participation in Induction and Reporting of Test Results .....	13
Recommendations .....	14
Management's Comments .....	14
Evaluation of Management's Comments.....	16
Evaluation of Management Comments to Recommendation 1 .....	16
Evaluation of Management Comments to Recommendation 2.....	17
Appendix A: Additional Information .....	18
Background .....	18
Objective, Scope, and Methodology .....	19
Prior Audit Coverage .....	20

Appendix B: Monetary Impacts .....	21
Appendix C. Additional Finding Information .....	23
Appendix D. External First-Class Measurement System Survey.....	32
Appendix E. Management’s Comments .....	37

## Introduction

This report presents the results of our audit of the External First-Class Measurement System (EXFC) (Project Number 11BG016FF000) and responds to a request from the postmaster general. Our objective was to determine whether EXFC is an effective tool for the U.S. Postal Service to measure First-Class Mail<sup>®1</sup> service performance. This audit addresses financial risk. See [Appendix A](#) for additional information about this audit.

The Postal Service measures whether it delivers mail on time and in accordance with mail delivery standards. To accomplish this, it has a contractor, International Business Machines (IBM),<sup>2</sup> conduct service measurement studies for many different classes of mail. The Postal Accountability and Enhancement Act of 2006 (Postal Act of 2006) requires an external party to conduct these studies to ensure the objectivity and integrity of the system. The Postal Regulatory Commission (PRC), however, might approve a qualified internal system as a replacement for an external one. The Postal Service uses service performance measurement data to:

- Partially satisfy the legislative<sup>3</sup> requirement to report to the PRC on the speed and reliability of delivery for market-dominant products.<sup>4</sup> Market-dominant products are mailing services over which the Postal Service exercises sufficient market power to enable them to set prices with limited competition.
- Support the National Performance Assessment, a system of scorecards used to monitor the performance of the Postal Service and its individual units across the nation. National Performance Assessment supports the Postal Service's Pay for Performance program and Performance Evaluation System. As a result, the service performance of First-Class Mail affects non-bargaining employees' performance ratings and any associated performance pay increases or bonuses.
- Provide information for various internal operational needs such as conducting area mail processing studies and diagnosing delivery problems at plants, delivery units, and carrier routes.

[Table 1](#) displays the current studies conducted by the contractor.

---

<sup>1</sup> First-Class Mail, ZIP Code, Confirm, and Intelligent Mail are trademarks of the Postal Service.

<sup>2</sup> The Postal Service awarded the Transit Time Measurement System (Contract Number 102592-02-B-0343) to Price Waterhouse Coopers LLP (PwC) on October 26, 2001. In October 2002, IBM purchased PwC Consulting and transferred the contract to IBM Global Business Services.

<sup>3</sup> Public Law 109-435, codified at 39 U.S.C. §3652 and 3691 (b).

<sup>4</sup> These products include mailing services such as First-Class Mail letters and sealed parcels, First-Class Mail cards, Periodicals, Standard Mail, single-piece parcel post, media mail, bound printed matter, library mail, special services, and certain international mail products.

**Table 1. Current Annual Costs of Contractor Studies  
(in millions)**

<b>Study Name</b>	<b>Fiscal Year (FY) 2011 (Actual)<sup>5</sup></b>	<b>FY 2012 (Planned)<sup>6</sup></b>	<b>FY 2013 (Estimated)<sup>7</sup></b>
EXFC	\$23.6	\$24.3	\$24.8
Intelligent Mail™ Accuracy and Performance System <sup>8</sup>	10.9	10.0	9.7
International Mail Measurement System <sup>9</sup>	1.2	1.2	1.3
Other Studies <sup>10</sup>	2.1	1.9	2.0
Postage <sup>11</sup>	3.0	3.6	3.6
<b>Total Annual Cost</b>	<b>\$40.8</b>	<b>\$41.0</b>	<b>\$41.4</b>

Source: Postal Service budget data for service measurement contract.

These studies rely heavily on a group of volunteers (test group)<sup>12</sup> that mails test pieces from nearly all ZIP Codes across the country, while a separate test group records and collects the delivery date information from the test pieces and reports the results to the contractor. The contractor uses these groups for single-piece, commercial, and international First-Class Mail and other studies to measure how timely the Postal Service delivers the mail.

First-Class Mail measurement is done through EXFC, which is the largest study conducted and relies heavily on manual processes based on input from the participant test groups. The study measures the time it takes the Postal Service to deliver single-piece First-Class Mail letters and flats to a household, small business, or Post Office Box.

The Postal Service measures commercial mail through the Intelligent Mail Accuracy and Performance System. The Intelligent Mail Accuracy and Performance System and the International Mail Measurement System demonstrate the Postal Service's ability to track mail by scanning pieces on automation equipment and to measure service performance. However, these studies also rely on test groups to determine when mail is delivered.

<sup>5</sup> Based on costs reported by the Transit Time Measurement System contract team.

<sup>6</sup> Based on current contract pricing data.

<sup>7</sup> Based on current contract pricing data and estimates provided by the Transit Time Measurement System contract team.

<sup>8</sup> The Intelligent Mail Accuracy and Performance System process measures delivery of commercial mail.

<sup>9</sup> The International Mail Measurement System process measures delivery of international First-Class Mail.

<sup>10</sup> Other studies include the City Matrix Analysis, Return Receipt (for example, Green Card) Study, Intelligent Mail Accuracy and Performance System diagnostic reports, Off Shore Special Study, and PRC Report 465 Study.

<sup>11</sup> This line item on the contract is for postage expenses for test pieces, communicating with the testers, and returning test mail to the contractor for diagnostics.

<sup>12</sup> A group of volunteers the contractor recruits and who are responsible for mailing and reporting on EXFC test pieces. The volunteers receive incentives, such as commemorative stamps and desk calendars. Droppers deposit bundles of mail into collection boxes and get monetary incentives for driving to those collection boxes.

## Conclusion

We identified alternatives to reduce EXFC costs. For example, the Postal Service could reduce its sampling costs by using EXFC resources for its primary purpose of service performance measurement. It could also, with PRC approval, replace the contractor with an internal group or compete the next contract to reduce costs.

Further, the current contract relies on costly manual reporting and recording of test pieces. The EXFC process was designed around a system of using test groups to measure service performance by sending and receiving mail as though the test groups were customers. The test groups would only mail large bundles at certain collection points located away from post offices, such as a blue collection box on the street corner. When negotiating the last EXFC contract, management intended to transition from the current, manual process to an automated process. However, the Postal Service has not yet developed a plan to automate this process. Without automation, the Postal Service will have to continue paying the costs associated with manual reporting of test pieces. The automation plan should explore technological solutions such as using barcodes and hand held scanners to provide an effective end-to-end alternative to the current process. These technological solutions should also help reduce costs and provide more reliable service performance measurement results.

In addition to cost reductions, we identified issues that affect program reliability. For example, EXFC is vulnerable to ‘gaming’ as management and staff often give potential test pieces preferential treatment to raise scores. For example, personnel take extraordinary and costly measures to separate and deliver possible test pieces, and Postal Service employees participated in the EXFC testing process by inducing mail and reporting mail delivery times. Additionally, the Postal Service has not modified the contractor’s tester selection procedures to prevent Postal Service employees and their family members from participating in the EXFC program.

As a result, the EXFC program costs more than what is necessary and the results might not be accurate. We identified annual cost savings of about \$4.1 million associated with reducing the sample size and eliminating certain manual processing. See [Appendix B](#) for the calculation of monetary impact.

## External First-Class Measurement System Reporting Requirements and Cost Reduction Alternatives

The Postal Service’s use of EXFC data to plan, execute, and evaluate its internal processes increased the sample size beyond what is necessary to meet the program’s statutory requirements. Internally, the Postal Service uses the data to support the National Performance Assessment and diagnose delivery problems at plants, delivery units and, in some instances, carrier routes. However, other internal reports already produced can provide alternative data to meet needs to reduce the costly sampling



associated with EXFC. Table 2 identifies EXFC reports currently used for internal processes where possible alternative data are available.

**Table 2. Alternatives to Using EXFC Reports**

Internal Process	Use of EXFC Data	Possible Alternatives	Rationale
Processing First-Class Mail	EXFC Diagnostic Reports	Mail History Tracking System and Intelligent Mail Accuracy and Performance System	The Mail History Tracking System identifies specific processing errors such as barcode mismatches <sup>13</sup> and mis-sequenced, mis-sorted, and mis-sent mail to detect service problems before they happen. Alternative systems would produce a more accurate representation of processing operations.
Tracking Mail Processing Scans	EXFC Planet Code Reports	Intelligent Mail® barcode Service Performance Diagnostics application and Delivery Point Sequence Gap Analysis	The diagnostic system tracks barcodes and identification tags for commercial First-Class Mail, Standard Mail, and Periodicals and links the data to the Mail History Tracking System. <sup>14</sup> Delivery Point Sequence Gap Analysis provides more data than EXFC for monitoring delivery sequencing.
Monitoring Collection Boxes	Zero Bundle Reports	Collection Point Management System	The Collection Point Management System monitors more than 200,000 collection points where a customer can mail a First-Class letter. Because EXFC is only a sample, an alternative system would produce a more accurate representation of collection box management.

Source: Postal Service user manuals.

If the Postal Service relied on available alternative sources for its internal data needs, the Postal Service could reduce the EXFC program sample size and realize an annual cost savings of \$3.8 million, or \$11.4 million over the 3 remaining years of the contract. See [Appendix B](#) for details of the monetary impact and [Appendix C](#) for additional information on sampling.

<sup>13</sup> The system identifies barcode mismatches by comparing the barcode on the front of a mailpiece to the fluorescent barcode on the back of the mailpiece.

<sup>14</sup> The system relies on the mailpiece identification or national identification tag, a 4-inch long fluorescent barcode, to retrieve the data associated with each mailpiece.

## Alternatives to the Current Service Measurement Contract

In addition to savings available through reduced sampling, the Postal Service could consider two alternatives to the current contract that would provide additional cost savings: (1) establishing an internal group to replace the current contractor or (2) competing the next contract.<sup>15</sup>

### Non-Contractor Alternative

The Postal Act of 2006 requires performance measurement systems for market-dominant products to be external to ensure the objectivity and integrity of the system. However, the act also authorizes the PRC to approve a qualified internal system as a replacement for an external system. PRC officials expressed satisfaction with the current EXFC process and stated that any replacement needs must have reliability and integrity, and be representative of the mail. Staffing this function with Postal Service or other government personnel could result in significant yearly savings. For example, we found the Postal Service could save \$6.7 million annually in labor costs compared to current contract labor by moving EXFC and Intelligent Mail Accuracy and Performance System activities to the U.S. Postal Service Office of Inspector General (OIG),<sup>16</sup> as noted in Table 3.

**Table 3. Comparison of Top Three EXFC and Intelligent Mail Accuracy and Performance System Process Labor Categories<sup>17</sup>**

Labor Category	Contractor Rate	OIG Rate	Total Annual Savings <sup>18</sup>
Consultant <sup>19</sup>	\$ 99.29	\$78.71	\$1,037,067
Administrative <sup>20</sup>	\$ 82.04	\$63.99	771,096
Senior Consultant <sup>21</sup>	\$133.02	\$91.37	1,611,064
Other Categories <sup>22</sup>	\$131.52	\$81.16	3,255,102
<b>Total Savings</b>			<b>\$6,674,329</b>

Source: Contract labor rates and OIG wage rates for FY 2010.

The OIG could assist with service performance measurement for market-dominant products until the Postal Service develops automated processes. While EXFC

<sup>15</sup> As necessary, should an automated solution not be in place at the end of the contract period, scheduled for September 2014.

<sup>16</sup> OIG employees could not receive test pieces confidentially, because we assumed their identities are generally known. The OIG could subcontract for testers and production of the test pieces; however, the 99 full-time equivalents (FTEs) to administer the program would redirect staff from ongoing audits or require additional resources.

<sup>17</sup> We compared 19 labor categories and displayed here the three with the most labor hours. This comparison assumes the Postal Service replaces IBM consultants with OIG staff. We could not estimate savings on the smaller studies but would still complete the studies for the Postal Service.

<sup>18</sup> The number of hours in each labor category is the basis for the total savings. Compares full contract price to fully loaded wage rates.

<sup>19</sup> Contractor category compared to OIG journey employee category.

<sup>20</sup> Contractor category compared to OIG administrative employee category.

<sup>21</sup> Contractor category compared to OIG specialist employee category.

<sup>22</sup> Weighted average of remaining rates.

represents nearly 67 percent of the workload for service performance measurement, the OIG and the Postal Service could reorganize all the work with the consent of the PRC. OIG employees are located in 278 of the 892 3-digit ZIP Codes tested. The OIG could absorb the EXFC and Intelligent Mail Accuracy and Performance System components by supplementing the difference (614 ZIP Codes) with a smaller test group of volunteers and by obtaining Post Office Boxes in adjoining ZIP Codes. This method would be less vulnerable to manipulation, because OIG employees could perform mail handling inspections at delivery units and processing and distribution centers (P&DCs). The Postal Service could establish international agreements with foreign posts to induct bundles for the International Mail Measurement System process. If foreign posts inducted the bundles, the 60 overseas droppers would not be required and the OIG could measure the domestic leg of international mail. Likewise, the OIG could perform other special studies on service performance measurement requested by the Postal Service and the PRC.

### Competing the Contract Alternative

The Postal Service did not request proposals when accepting the current contract because it did not want to lose the knowledge and experience gained by the contractor since the program's inception in 1990. According to guidelines outlined in an Office of Management and Budget (OMB) study,<sup>23</sup> the Postal Service could save \$4 million annually<sup>24</sup> on EXFC and \$1.8 million on Intelligent Mail Accuracy and Performance System by improving contractor efficiency and reducing costs through competition.<sup>25</sup> Because the Postal Service currently is not realizing the cost savings and completing the transition discussed in its noncompetitive justification, it should solicit offers for the activity in FY 2014, should an automated alternative not be in place. See [Appendix C](#) for information on the costs savings for competing the contract.

### External First-Class Measurement System Planning and Technological Alternatives

The current service measurement contract relies on costly manual reporting and recording of test pieces. The Postal Service renewed the contract without competition and justified the action by stating that the renewal was a 5-year bridge to allow for a transition from the current manual method to an automated live mail measurement system. However, the Postal Service has not yet developed a written plan to replace the manual EXFC process with an automated system.<sup>26</sup>

---

<sup>23</sup> *Report on Competitive Sourcing Results*, FY 2007, May 2008, OMB.

<sup>24</sup> The study found federal agencies saved, on average, \$59,000 on logistics-type contracts for every FTE purchased through competition.

<sup>25</sup> The other studies were too small to produce a reliable cost savings estimate but could still benefit from open competition.

<sup>26</sup> In a report on a related Postal Service acquisition, the Government Accountability Office (GAO) stated a plan is an essential document to manage and control the execution of a project. *U.S. Postal Service Needs to Strengthen System Acquisition and Management Capabilities to Improve Its Intelligent Mail Full Service Program* (GAO Report Number [GAO-10-145](#), dated October 2009).

Replacing EXFC was a low priority because both the Postal Service and the PRC were satisfied with EXFC performance and developing a system for commercial mail performance measurement took priority. Additionally, managers responsible for EXFC stated that a complete plan would have been premature because technologies have only recently matured to the point that the Postal Service can design processes around them. Without a plan to move to an automated measurement system as intended, the Postal Service is at risk of incurring additional contract costs to continue the manual reporting of delivered mail. The Postal Service is 3 years into that 5-year transition period to an automated system using the Intelligent Mail barcode.<sup>27</sup> Further, the Postal Service currently uses the contract to measure service performance for other types of mail, including commercial and international First-Class Mail. It should consider the impact on these other measurement activities when developing its plan.

We believe the Postal Service should develop a formal plan to replace EXFC and other service performance measurement activities. The plan could include:

- Developing a methodology for collecting deposit and delivery times for measuring all market dominant-products.
- Increasing consumer use of Intelligent Mail barcodes on envelopes and supplementing sample data with test kits<sup>28</sup> until increased barcode use permits exclusive use of live mail.
- Creating a sampling plan that satisfies the PRC's data requirements for measuring all the market-dominant products.
- Communicating process requirements for related procurements such as the Intelligent Mail device.<sup>29</sup>
- Using enhanced visibility from Intelligent Mail barcode data for process improvement.
- Adding Intelligent Mail to the Domestic Return Receipt process.
- Identifying Intelligent Mail barcode data field requirements to capture sufficient information on the mailpiece, such as the class and shape, as well as a sufficient number of unique serial numbers to accommodate the larger population of mail using Intelligent Mail barcodes.

---

<sup>27</sup> *Noncompetitive Justification for the Transit Time Measurement System Contract*, dated September 29, 2009.

<sup>28</sup> A proposed tool to supplement live mail testing with fabricated pieces when a performance cluster does not contain sufficient barcoded letters to represent consumers. We anticipate a test kit will be required for imported international First-Class Mail assuming barcoded envelopes are not available for overseas senders.

<sup>29</sup> This is a handheld computer capable of scanning Intelligent Mail barcodes. The Intelligent Mail barcode appears as 65 vertical ascending and descending lines. The devices currently in the field will need a software upgrade to collect data using new start- and stop-the-clock event codes and make that data available to other Postal Service systems. The devices are included in the Intelligent Mail Data Acquisition System program, which is implementing a standardized hardware and software platform for mobile data collection and transfer.

Developing a formal plan could assist the Postal Service with phasing out the current service measurement contract and identifying potential cost savings. Further, without a plan, there is increased risk the new system will not accurately represent the mail, ensure the integrity of the data, and satisfy PRC requirements.

### Using Intelligent Mail Barcode as an Automated Replacement to External First-Class Measurement System and Other Service Performance Measurement Processes

Implementing an automated replacement to the current EXFC and other service performance measurement processes using Intelligent Mail depends on developing an approved process, identifying personnel and budget requirements, and acquiring and testing any needed new automation. Consequently, the transition requires sufficient planning for the Postal Service to implement and test the automated replacement process. Postal Service officials responsible for the EXFC program, however, have not formally developed and communicated the system's requirements for a comprehensive automated replacement.

The primary challenge to widespread consumer use of the Intelligent Mail barcode is the inability of consumers to generate and print them on envelopes. We met with representatives from the Envelope Manufacturers Association, the PRC, and the Postal Service to discuss solutions. The Envelope Manufacturers Association representative stated that envelope manufacturers could preprint barcodes with unique identification numbers on envelopes for consumer use. The Postal Service could provide tracking data associated with the barcoded envelopes to consumers as an incentive for buying and using the pre-barcoded envelopes. The Postal Service would apply delivery address information during mail processing. For imported international mail, the international service center or Exchange could similarly apply Intelligent Mail barcodes to mailpieces. If consumers used pre-barcoded envelopes for domestic single-piece and international First-Class Mail, the Postal Service could capture processing scans within the existing mail processing infrastructure.

However, the Postal Service would still have to develop sampling programs with the next Intelligent Mail device to capture the deposit and delivery data for live mail because data captured only during mail processing cannot fully replace EXFC and other service performance measurement activities. The Postal Service does not currently have the infrastructure to capture the same deposit and delivery data<sup>30</sup> it obtains using contracted testers. Enhancements to the hand held scanner are needed to enable the capture of deposit and delivery data.<sup>31</sup> See [Appendix C](#) for additional information on the Intelligent Mail barcode.

Further, using the Intelligent Mail barcode with the hand held scanners as an automated replacement for EXFC could eliminate a program limitation in the EXFC sample design. The accuracy of EXFC results on single-piece First-Class Mail depends on the Postal Service processing all the pieces similarly. The contract requires measuring service

---

<sup>30</sup> EXFC droppers capture deposit data to start-the-clock and reporters capture delivery data to stop-the-clock.

<sup>31</sup> The Postal Service stated that handheld scanner requirements were developed in response to our audit.

performance using EXFC test pieces mailed from a blue collection box or a lobby receptacle in some office buildings<sup>32</sup> to avoid the identification of droppers<sup>33</sup> and subsequent preferential processing of EXFC mail. The EXFC program only measures single-piece First-Class Mail originating<sup>34</sup> from about 34 percent of potential collection points and does not represent customer expectations. We do not believe analyzing test piece mail originating from only about 34 percent of potential collection points meets the EXFC's program objective of measuring service performance. See [Appendix C](#) for additional information on the EXFC sample design.

### Other Automation Options

We identified and evaluated other optical-based technologies<sup>35</sup> such as microdots, information-based indicia, quick response codes, watermarks, and wave-based technologies<sup>36</sup> such as radio frequency identification devices and the global positioning system (GPS). All have limitations, which we discuss further in [Appendix C](#).

### Current External First-Class Measurement System Vulnerabilities

While alternatives are being considered for replacement of the current system, current vulnerabilities can and should be addressed to ensure the EXFC is as effective and efficient as possible. We identified issues with preferential processing of test mailpieces, employees improperly involved in inducting and reporting test mail, and sample design and sample sizes.

### Preferential Processing of Sample Pieces

We identified instances where mail entering the mailstream from blue collection boxes received preferential treatment. We visited one P&DC in each of the seven Postal Service areas and found three facilities getting preferential treatment:

- We observed employees separating and labeling collection mail coming from deposit points to indicate whether it was from a blue collection box.
  - Two of the three facilities received blue box flats<sup>37</sup> separated from other flats.
  - A third facility received both blue box letters and blue box flats in separate containers.

---

<sup>32</sup> The contractor only mails test pieces from containers with Postal Service Label 55, *Collection Box Pickup Times*.

<sup>33</sup> A dropper mails a bundle (up to 40 pieces) of letters for each blue collection box sampled.

<sup>34</sup> The Postal Service measures mail volume but does not collect statistics (such as the volume of mail collected at blue collection boxes and curbside boxes) by the originating source.

<sup>35</sup> Data from optical-based technologies is typically captured with reflected light such as a camera or laser.

<sup>36</sup> Data from wave-based technologies is captured by obtaining a signal such as a cellular, GPS, or radio signal.

<sup>37</sup> A flat piece of mail is a flexible mailpiece that has exceeded the size of a letter, but the Postal Service does not require that it be mailed as a parcel.

- The facilities manually sorted blue box flats in order to guard against automation mis-sorts that could direct mail to the wrong ZIP Code and negatively affect their EXFC scores. Even though automated flat sorting machines save about \$45 per 1,000 pieces processed, plants did not want to risk their EXFC scores with an automation mis-sort. Figure 1 shows the manual separation area for blue box flats at one of the P&DCs we visited.

**Figure 1. Manual Separation Area for Blue Box Flats**



Source: OIG photograph taken November 3, 2011 at a P&DC in the Capital Metro Area.

An OIG EXFC survey of postmasters and station managers<sup>38</sup> found that 25 percent of units reported separating blue box letters from other collection letters and 29 percent reported separating blue box flats from other collection flats. We observed that plants did not ordinarily provide preferred processing for this potential EXFC mail because it was more efficient to begin processing mail as it arrived. However, when plants experience malfunctioning equipment or high volume and it becomes apparent to managers that the plant will not be able to process all mail, this separation of measured mail allows plant staff the opportunity to give preferential treatment to potential EXFC mail. See [Appendix D](#) for additional information on the OIG EXFC survey.

Additionally, 84 percent of the units surveyed<sup>39</sup> reported taking extraordinary measures to deliver late arriving single-piece First-Class Mail. Specifically:

- Thirty-seven percent reported that office staff delivers late arriving mail.
- Thirty-three percent reported that someone delivers late arriving mail to carriers on their route.
- Nearly 9 percent reported that carriers who return from their routes go back out to deliver late arriving pieces.

<sup>38</sup> Randomly selected survey of post offices, stations, and branches completed January 11, 2012.

<sup>39</sup> This analysis excludes units that do not have delivery carriers.



- Five percent reported that they hold carriers until late arriving mail is ready.

The OIG previously assessed operational efficiency in city delivery operations and reported \$88.2 million in annual savings. The OIG cited late arriving mail as a contributing factor to unit inefficiency.<sup>40</sup>

Managers might have made these extra efforts because EXFC data (collected on single-piece First-Class Mail) were historically part of the National Performance Assessment, while commercial First-Class Mail was not.<sup>41</sup> National Performance Assessment supports the Pay for Performance program and Performance Evaluation System. Therefore, the service performance of First-Class Mail affects non-bargaining employees' performance ratings and associated pay increases or bonuses. See Table 4 for National Performance Assessment service goals for First-Class Mail.

**Table 4. FY 2012 First-Class Mail Minimum Scores for  
National Performance Assessment Ratings**

Service Standard	Non-Contributor	Contributor	High Contributor	Exceptional Contributor
Overnight	95.45	96.31	97.25	97.46
2-Day	92.30	93.62	95.82	96.41
3- to-5-Day	90.85	92.28	93.85	94.21

Source: Postal Service National Performance Assessment website.

The postmaster general has emphasized that units should not prioritize processing or delivery within a class of mail.<sup>42</sup> We reviewed allegations that processing employees used red trays to identify mail containing EXFC test pieces so those trays could get preferential treatment over non-red trays. We attempted to substantiate the allegations by reviewing procedures and performing observations at P&DCs. We often found First-Class Mail letters placed in red trays. However, we observed that mail handlers did not have a preference when selecting trays of First-Class Mail to process. Further, we noted that P&DCs often used red trays or red labels to ensure all mail set for next day delivery was processed.

Additionally, because the Postal Service added commercial First-Class Mail<sup>43</sup> to the National Performance Assessment, there is no longer a reason to prioritize single-piece First-Class Mail. A P&DC operations manager indicated that, because of this change, area management recently terminated a red tray procedure. We found that commercial First-Class Mail letters were treated the same as single-piece First-Class Mail letters at all seven P&DCs we visited.

<sup>40</sup> *National Assessment of City Delivery Efficiency 2011-Office Performance* (Report Number [DR-MA-11-002](#), dated July 19, 2011).

<sup>41</sup> Effective in FY 2012, the Postal Service added commercial mail to National Performance Assessment measurement.

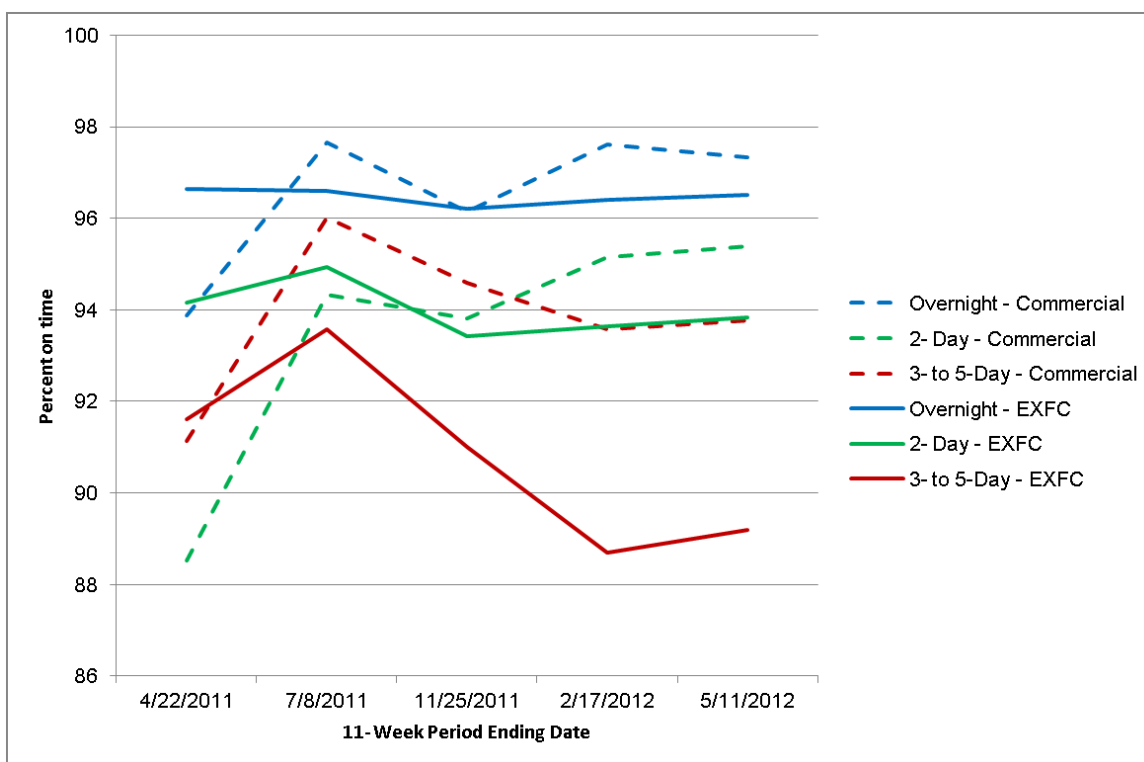
<sup>42</sup> *Discontinuance of Field Policies on Prioritizing the Processing or Deliver of Mail*, dated April 29, 2009.

<sup>43</sup> The National Performance Assessment First-Class Mail score is composite of First-Class single-piece, commercial, and parcel mail.



Further, as noted in Figure 2, although EXFC scores are not significantly different than scores from the Intelligent Mail barcode (commercial), customers expressed concerns about the reliability of EXFC results. Customers appreciate the Intelligent Mail barcode information because they believe it is more reliable.<sup>44</sup> Manual processes and sampled data provide opportunities for special treatment of mail and ‘gaming’ of scores.

**Figure 2. First-Class Mail Service Trend<sup>45</sup>**



Source: Postal Service Field Operations Performance Measurement website.

Service measurement scores derived from the barcode data provide a broader analysis as they are based on scanned, not sampled, data and reduce the opportunity for manipulation. Additionally, Postal Service customers are not concerned solely with EXFC scores but rather that the Postal Service delivers the mail as promised. Customer experience or perception indicates that mail delivery does not occur as promised. For example, media mailers rely on timely delivery of compact (video) discs as part of their business strategy. The barcode information provides these mailers with a method to evaluate where the mail delays are and an opportunity to adjust their mailing habits to avoid delays.

<sup>44</sup> According to *Service Performance Measurement-Commercial Mail* (Report Number [CRR-AR-11-003](#), dated September 6, 2011), the Postal Service had issues affecting the reliability and usability of Intelligent Mail barcode data.

<sup>45</sup> We averaged scores over an 11-week period.

Special processes undermine the integrity of EXFC results and the PRC's requirement for a representative sample. When facilities implement extraordinary processing or delivery procedures to manage EXFC scores, postage costs may increase for mailers. For instance, manually processing blue box flats is inefficient and results in increased mail processing costs. The Postal Service could save \$253,000 annually by using the automated flat sorting machines at the plants we found to be manually processing flats. See [Appendix B](#) for details of the monetary impact. See [Appendix D](#) for the information on the OIG EXFC survey. Further, automated processes can provide customers with more reliable information in which to help them make better mailing decisions and reduce the opportunity for score manipulation.

### Employee Participation in Induction and Reporting of Test Results

The Postal Service did not modify the contractor's tester selection procedures to prevent Postal Service employees and their family members from participating in the EXFC program. Currently, the contractor matches addresses of testers with Postal Service employee addresses quarterly and removes testers when there is a match. Thus, an employee or family member could participate in the EXFC program for up to 3 months, having access to confidential test mail information, opportunities to affect EXFC results, and the opportunity to share confidential information.

During FYs 2010 and 2011, the contractor identified and removed 16 Postal Service employees and six family members (22 testers in total) from the EXFC test group. The 22 tester matches covered each of the three tester categories (one dropper, one return address tester,<sup>46</sup> and 20 reporters<sup>47</sup>), and at least one tester was located in each of the seven Postal Service areas.<sup>48</sup> In these instances, the dropper received 1,380 test pieces to mail and the reporters received an average of 47 test pieces each.<sup>49</sup> Consequently, these individuals obtained information on 2,325 test pieces, such as reporter addresses, return address tester addresses, and meter serial numbers that could identify future test pieces or confidential testers in the program.<sup>50</sup>

All 22 testers indicated during the application process that neither they nor anyone in their household worked for the Postal Service.<sup>51</sup> The application did not have legal language recognizing the Postal Service's right to take action for false statements. We referred the matter to the OIG Office of Investigations. However, the Postal Service did not remove these employees from their positions for failing to disclose that they or their family members worked for the Postal Service.<sup>52</sup> See [Appendix A](#) for additional

---

<sup>46</sup> Return address testers receive return to sender mail.

<sup>47</sup> Reporters are the addressed recipients of the mail from droppers.

<sup>48</sup> The contractor stated eight of the 22 testers were also involved in service measurement performance reviews of commercial mail (*Intelligent Mail Accuracy and Performance System* study).

<sup>49</sup> Reporters received between four and 247 test pieces.

<sup>50</sup> A meter serial number associated with the EXFC program is unique to test pieces and could be used to identify additional test pieces by reviewing the postage indicia.

<sup>51</sup> Sixteen applicants responded using the applicant website, while the remaining six applicants responded to a telephone operator.

<sup>52</sup> Since the contractor removed them from the test group, 17 employees remain actively employed with the Postal Service, while three retired, one resigned, and one casual employee reached the appointment limit.

information on the EXFC test group. See [Appendix C](#) for additional information on disqualified participants.

## Recommendations

We recommend the chief operating officer and executive vice president:

1. Use the External First-Class Measurement System (EXFC) contract to meet statutory reporting requirements only and adjust the EXFC sample size accordingly.
2. Develop controls to eliminate the unauthorized special treatment of potential test pieces and, as appropriate, take administrative action and make non-compliance with processing rules a factor in the unit's performance assessment. These controls should guard against separating mail by type or collection point or hiring Postal Service employees or family members as part of the External First-Class Measurement System contract.

We recommend the vice president, Product Information:

3. Develop a comprehensive plan to replace the current External First-Class Measurement System and other service performance measurement activities with automated processes utilizing the Postal Service's Intelligent Mail and other technologies for induction and delivery analysis. If an automated solution cannot be developed by the end of the current service measurement contract, the plan should consider other options, such as competing the next contract award or staffing these activities with Postal Service or other federal government personnel.

## Management's Comments

Management disagreed with the finding related to EXFC reporting requirements and cost-reduction alternatives and the associated recommendation 1, but provided an alternative action that could reduce the sample size. Further, management agreed with the finding related to EXFC vulnerabilities but neither agreed nor disagreed with the associated recommendation 2. Finally, management agreed with the finding related to EXFC planning and technological alternatives and the associated recommendation 3.

Management disagreed with recommendation 1 to use the EXFC contract to meet statutory requirements only and reduce the sample size accordingly. Management stated they did not have an internal system to provide end-to-end performance measurement and used EXFC to gain information on retail letters, cards, and flats to drive service improvements. They expressed concern over reducing the EXFC sample size because of the potential impact it may have on service performance when scrutiny is high. Management identified alternative systems that provide service performance information but also identified system limitations with those alternatives regarding measuring the complete induction-to-delivery process. Additionally, management stated the Postal Service is required to measure service in virtually all 3-Digit ZIP Code areas,

making reductions to the sample size less feasible than when fewer ZIP Codes are in the measurement system.

The Postal Service acknowledged making adjustments to sample sizes in Quarter 4 of FY 2012 when they reduced the overnight service standard. However, the Postal Service allocated those sample pieces from the overnight category to the 2-Day and 3- to 5-Day categories, thus there was not a reduction in the overall sample size.

Finally, management stated there was a regulatory requirement to report on First-Class Mail Flats performance on a quarterly basis and a reduction in sample size of the magnitude suggested will negatively affect the precision. However, management agreed to work with the contractor to assess the EXFC sample design. They obtained a simulation model to assess the impact of design changes on precision levels, ZIP Code and district coverage, as well as the ability to meet the various sample design requirements.

Regarding recommendation 2, management stated they have administrative controls in place to guard against the unauthorized special treatment of test pieces. They identified procedures in place for reporting the identification of test mail or participants in the test mail programs. Management handles allegations of failure to comply with the policies through the investigation process and takes corrective action in accordance with provisions in the *Employee Relations Manual*.

Management agreed that hiring Postal Service employees or family members as part of the EXFC contract creates a potential for bias and has worked with the contractor to improve on the administrative controls. In February 2012, the contractor modified the Address Verification Survey that goes out to reporters every 6 months. In March 2012, the contractor modified the screening questions to reduce the likelihood that a former Postal Service employee would share EXFC information with the Postal Service. Beginning in May 2012, employees do address checks monthly versus quarterly.

Management also stated they would consult with their counsel on the recommendation to adopt legal language into the screening process. The Postal Service believes a balanced approach is prudent, given the voluntary nature of the program.

Regarding recommendation 3, management agreed with the finding and recommendation. Management stated they are working on a plan to consolidate all visibility data into one system for service performance measurement, reporting and diagnostic analysis for both induction and delivery analysis. Management expects to finalize the plan by May 31, 2013. If they are unable to implement the plan prior to expiration of the current contract, management intends to commercially compete the contract. See [Appendix E](#) for management's comments in their entirety.

## Evaluation of Management's Comments

The OIG considers management's comments responsive to recommendation 3. However, we do not consider management's comments to be responsive to recommendations 1 and 2 but do not plan to pursue the issue through the formal audit resolution process. Lastly, management neither agreed nor disagreed with the monetary impact.

### Evaluation of Management Comments to Recommendation 1

We found the Postal Service could reduce contract costs by supplementing data from a reduced EXFC sample with data from other internal systems. Management stated these systems do not provide end-to-end measurement and the data has limitations. As an example, management stated that Collection Point Management System data does not measure whether the carrier removed all mail from a blue collection box. While management is correct, neither does EXFC. EXFC just measures whether the carrier removed test pieces from a collection box. The Collection Point Management System monitors whether a carrier scans a barcode on the inside of a collection box while picking up the mail. While we do not believe a carrier would remove some, but not all, pieces during mail pick-up, we do believe the use of additional EXFC test pieces to measure this represents an example of where management could reduce EXFC sampling by using other, available management information.

Additionally, management stated that reducing the sample size would negatively impact the precision level of the statistical projection of results and this could result in an undetected decline in service. Management is correct that the precision of statistically projected results decreases with decreases in the sample size and increases with an increased sample size. During our audit, plant managers stated they could rely on Mail History Tracking System data for identifying short-term processing issues and detect any decline in service. Therefore, we believe the Postal Service has an opportunity to reduce costs by reducing the EXFC sample and supplementing EXFC data with Mail History Tracking System data for short-term analysis.

In reducing the sample size, management stated that precision for measuring First-Class Mail flats would be negatively impacted because the sample of flats is already small. The sample of flat pieces is approximately 7 percent of the total EXFC sample because flats volume is 7 percent of total mail volume. Management insists that this be equal. We believe the Postal Service could still reduce the overall sample and keep the number of flats in the sample the same. Further, we did not see any merit in management's requirement to sample a proportional number of flats to the overall volume.

Lastly, management conceded that they are reviewing options for changing the sample with a contractor-developed model. While management appears to be open to reducing the sample size, we believe this effort is redundant. In May 2009, the contractor

proposed that the Postal Service could reduce the sample by 417,000 pieces (12 percent), save approximately \$1 million annually, and meet the various sample design requirements. We do not know why the Postal Service did not adopt the contractor's proposal.

### Evaluation of Management Comments to Recommendation 2

The Postal Service referred to existing procedures and policy in their comments to recommendation 2. However, management's response does not address the difference between written procedures and the local practices discussed in this report. Management said field policies intended to prioritize processing or delivery within a class of mail, having the same delivery expectation, are no longer permitted. During our audit, we found mail processing employees were either unfamiliar with the policy or had other, incorrect interpretations of the policy. Some managers even stated that manual processing was directly related to the EXFC scores because plant employees do not trust the automation equipment to do a good job. Since employees are looking to improve that which is measured, the Postal Service should make non-compliance with processing rules, such as the manual processing of flats, a factor in the unit's performance assessment.

Regarding the employee address checks, management made the change to require monthly versus quarterly checks in May 2012. While this will enhance the procedures to detect Postal Service employees who have falsified the application, it will not prevent employees from becoming EXFC testers, thereby gaining access to EXFC information. The Postal Service should compare applications to the employee address file before sending the applicant test pieces. Since each test piece contains the name and address of a confidential tester, sending only a few test pieces to a Postal Service employee warrants the removal of additional testers from the program.

## Appendix A: Additional Information

### Background

Since 1990, the Postal Service has contracted to measure First-Class Mail service performance independently and objectively. EXFC is an end-to-end performance measurement system. It measures single-piece First-Class Mail performance from the time mail enters the mailstream until the Postal Service delivers it to a household, small business, or Post Office Box.

The objective of the EXFC program is to measure service performance from the customer's perspective by comparing test mailpiece delivery times to delivery standards. EXFC data also satisfy part of the Postal Act of 2006 requirement to report performance for market-dominant products to the PRC. Internally, the Postal Service uses the data to support the National Performance Assessment and diagnose delivery problems at plants, delivery units and, in some instances, on carrier routes.

To measure service performance for market-dominant products, the Postal Service uses a combination of testers and data collected from mail processing to identify transit times for its products. The wide field of view camera is the most common tool for collecting mail processing data and can analyze barcodes and information-based indicia. With the test groups, droppers report to the contractor's call center when they mail bundles of test pieces. Reporters acknowledge receipt of the test pieces to the call center or through the contractor's website. The Intelligent Mail Accuracy and Performance System reporters do this with a hand held scanner plugged into their personal computers. The contractor designed the sample pieces to blend in with the rest of the mail so the Postal Service will not recognize them as sample pieces and will treat them the same as any other piece of mail for processing, transportation, and delivery. The test group has three categories of testers:

- Droppers who induct the sample pieces into the blue collection boxes.
- Reporters who receive the sample pieces.
- Return address testers who account for mail that is undeliverable to the intended address.

As of March 2012, the Postal Service stationed 1,292 droppers, 17,026 reporters, and 2,640 return address testers throughout the country. About 8,794 reporters participate in both EXFC and Intelligent Mail Accuracy and Performance System activities. Further, EXFC reporters receive international mail from 60 overseas droppers. The Postal Service received about 2.9 million test pieces from testers in the performance clusters or districts, during FY 2011. In the Intelligent Mail Accuracy and Performance System study, testers scanned 8.9 million pieces in FY 2011.<sup>53</sup>

---

<sup>53</sup> IBM *Intelligent Mail Accuracy and Performance System Data Analysis Quarterly Summary Reports*, FY 2011, Quarters 1, 2, 3, and 4.



EXFC provides quarterly estimates of single-piece First-Class Mail service performance for 67 performance clusters, encompassing 892 3-digit ZIP Codes, from their overnight, 2-day, and 3- to-5 day service standard areas. This network represents the nation's single-piece First-Class stamped and metered mail volume. Table 5 shows the national service performance scores for FYs 2010 and 2011.

**Table 5. EXFC National Delivery Scores by Quarter for FYs 2010 and 2011**

Quarter	Overnight <sup>54</sup>	2-Day <sup>55</sup>	3-to-5-Day <sup>56</sup>
FY 2010 Quarter 1	96.91%	92.48%	89.14%
FY 2010 Quarter 2	96.09%	92.79%	90.41%
FY 2010 Quarter 3	96.79%	94.85%	93.41%
FY 2010 Quarter 4	96.69%	94.90%	93.69%
FY 2011 Quarter 1	96.05%	92.57%	89.25%
FY 2011 Quarter 2	96.14%	92.58%	89.75%
FY 2011 Quarter 3	96.65%	94.87%	93.35%
FY 2011 Quarter 4	96.44%	94.14%	92.60%

Source: EXFC Performance Reports. [USPS.com](http://USPS.com) provides additional delivery scores.

### Objective, Scope, and Methodology

Our objective was to evaluate current operations and plans for the EXFC system to determine whether it is the best value for the Postal Service in terms of cost, integrity, and usefulness. To accomplish this objective, we performed the following activities:

- Analyzed the EXFC sampling methodology that included statistical assumptions affecting sample size and precision levels.
- Reviewed statements of work, modifications, and the non-competitive justification for Contract Number 102592-02-B-0343, Transit Time Measurement System.
- Discussed plans for future EXFC services with Postal Service officials.
- Evaluated alternative technologies and conceptual frameworks for future use in EXFC. We identified stakeholder requirements concerning the future of EXFC.
- Reviewed the contractor's procedures for protecting the integrity and confidentiality of the EXFC program.
- Reviewed collection mail induction procedures and observed cancellation and mail processing at seven plants, one in each of the seven Postal Service areas.

<sup>54</sup> The FY 2010 and 2011 Overnight goals were 96.60 and 96.65 percent, respectively.

<sup>55</sup> The FY 2010 and 2011 2-Day goals were 94.10 and 94.15 percent, respectively.

<sup>56</sup> The FY 2010 and 2011 3- to-5-Day goals were 92.80 and 92.85 percent, respectively.



- Conducted a nationwide survey of randomly selected postmasters and station managers from December 23, 2011, to January 11, 2012, to determine whether post offices treat all collection mail equally. See [Appendix D](#) for information on the survey.

We conducted this performance audit from June 2011 through September 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 July 25, 2012, and included their comments where appropriate.

We assessed the reliability of EXFC data by reviewing integrity procedures, interviewing Postal Service officials knowledgeable about the data. We modeled the statistical assumptions to evaluate the statistical precision of the data. We determined that the data were sufficiently reliable for the purposes of this report.

#### Prior Audit Coverage

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<i>Processing of Collection Box Flats in the Philadelphia Metropolitan Customer Service District</i>	<a href="#">NO-MA-11-002</a>	3/1/11	\$188,170	Manual processing of collection box flats was part of a district-wide program to improve EXFC service scores. Management agreed with the findings and recommendation to process collection box flats in accordance with procedures.

## Appendix B: Monetary Impacts

### Monetary Impacts

Recommendation	Impact Category	Multiyear Savings	Annual Savings
1	Funds Put to Better Use <sup>57</sup>	\$11,365,403	\$3,820,362
2	Funds Put to Better Use	505,143	252,571
<b>Total</b>		<b>\$11,870,546</b>	<b>\$4,072,933</b>

### EXFC Testing

When computing the monetary impact for reducing the EXFC sample size, we first determined an acceptable quarterly precision that could increase the risk within tolerable levels and reduce the sample size by 1.3 million pieces. We then used pricing and labor data obtained from the contractor to determine the savings associated with reducing the sample size by 1.3 million pieces. We determined the Postal Service could save about \$3 for every piece reduced. The Postal Service could realize an annual cost savings of \$3.8 million or \$11.4 million over the 3 remaining years of the contract. See [Appendix C](#) for additional information on precision levels.

### Manual Processing

We calculated the number of hours it would take to process blue box flats volumes in both the manual and the automated flat sorting machine environment for each of the three sites where we observed plant personnel manually sorting blue box flats. We divided the annual blue box flat volume by productivity factors for each process, for each site. The difference between the number of manual hours calculated and automated flat sorting machine hours calculated was determined to be monetary impact, funds put to better use. We related \$398,671 of the monetary impact to three eliminated positions projected 10 years forward, using 1,750 hours as a FTE and the salary and fringe benefit rate for a Level 6 clerk.<sup>58</sup> We limited the claim to 2 years by multiplying the 10-year net present value by 2/10ths. Additionally, we calculated \$106,472 in overtime avoided for the remaining hours projected 2 years forward using the average clerk overtime rate from FY 2011 for a total monetary impact of \$505,143. We calculated annual savings averaging \$252,571. We adjusted our projections as appropriate using the Postal Service calculated workhour escalation rate<sup>59</sup> and the

<sup>57</sup> Funds that could be used more efficiently by implementing recommended actions.

<sup>58</sup> The Postal Service publishes salary and fringe benefit rates annually for clerk craft wage rates for Postal Service level 05, 06, and 07 employees. We chose to calculate monetary impact using the Postal Service 06 mid-level pay range.

<sup>59</sup> The Postal Service calculates and publishes factors for estimating future labor costs. On November 23, 2011, the *Decision Analysis Report Factors/Cost of Capital/New Facilities StartUp Costs Update* identified a labor rate escalation factor of 1.8 percent as the average annual change for the 10-year period beginning FY 2012 through 2021.

present value calculation rate<sup>60</sup> from the *Decision Analysis Report Factors/Cost of Capital/New Facilities StartUp Costs Update* letter dated November 23, 2011.

---

<sup>60</sup> The Postal Service calculates and publishes a cost of capital discount rate for use in the determination of present values for decision analysis. On November 23, 2011, the *Decision Analysis Report Factors/Cost of Capital/New Facilities Start-Up Costs Update* decreased the rate to 2.6 percent.

## Appendix C. Additional Finding Information

### Evaluating the Sample Size

Since new technologies became available to help plan, execute, and evaluate its internal processes, the Postal Service could re-evaluate its EXFC program sample size to meet the program's original reporting requirements.<sup>61</sup> Specifically, by increasing the risk of data inaccuracies while staying within tolerable levels, the Postal Service could reduce the sample size by 1.3 million pieces.

The contractor previously advised the Postal Service it could reduce the sample size to save money and still be statistically relevant; however, the Postal Service chose not to reduce the sample size because Postal Service managers wanted the data to plan, execute, and evaluate other processes not specifically related to service performance measurement. We found the Postal Service could adjust<sup>62</sup> the average quarterly precision<sup>63</sup> from +/- 0.8 percent<sup>64</sup> to +/- 1.5 percent to reduce the sample size. Adjusting the quarterly precision to +/- 1.5 percent would result in an annual precision within +/- 1.0 percent.<sup>65</sup> (The Postal Service would need to coordinate any revised sample sizes, and associated precision levels, with the PRC.) Table 6 provides details of the annual cost savings using precision levels of 1.5 and 2 percent.

**Table 6. Reduced Sample Size Annual Costs Savings**

Quarterly Performance Cluster Precision	Annual Sample Size Reduction (in millions)	Percentage Reduction	Cost Savings From Reduced Pieces (in millions)
0.8%(current)	0	0%	\$ 0
1.5%	1.3	37%	\$ 3.8
2.0%	2.1	62%	\$ 6.3

Source: Sample size reduction figures based on contractor data.

Postal Service managers wanted a larger sample than statistically needed, not only to satisfy the PRC's requirements<sup>66</sup> but also to produce data to plan, execute, and evaluate internal Postal Service operations. Historically, the Postal Service relied on EXFC data to drive service improvements through the National Performance Assessment when there were no other measurement systems. Currently the Postal Service uses the Mail History Tracking System and the Intelligent Mail Accuracy and Performance System to measure mail flow analysis and service performance. In the OIG EXFC survey, 52 percent of surveyed postmasters and station managers stated

<sup>61</sup> Examples of new technologies include Intelligent Mail barcode, the Mail History Tracking System, and the Intelligent Mail Accuracy and Performance System.

<sup>62</sup> Increasing the precision number has the effect of decreasing the accuracy of the results.

<sup>63</sup> The ability of a measurement to be consistently reproduced.

<sup>64</sup> +/- 0.8 percent was EXFCs FY 2011 average quarterly precision level.

<sup>65</sup> The International Post Corporations UNEX Measurement System, used to measure international service standards, uses an annual precision level of about +/- 5 percent. Officials at the PRC stated that 5 percent was too high for EXFC but would be willing to look at alternatives.

<sup>66</sup> Postal Act of 2006, Section 3652.

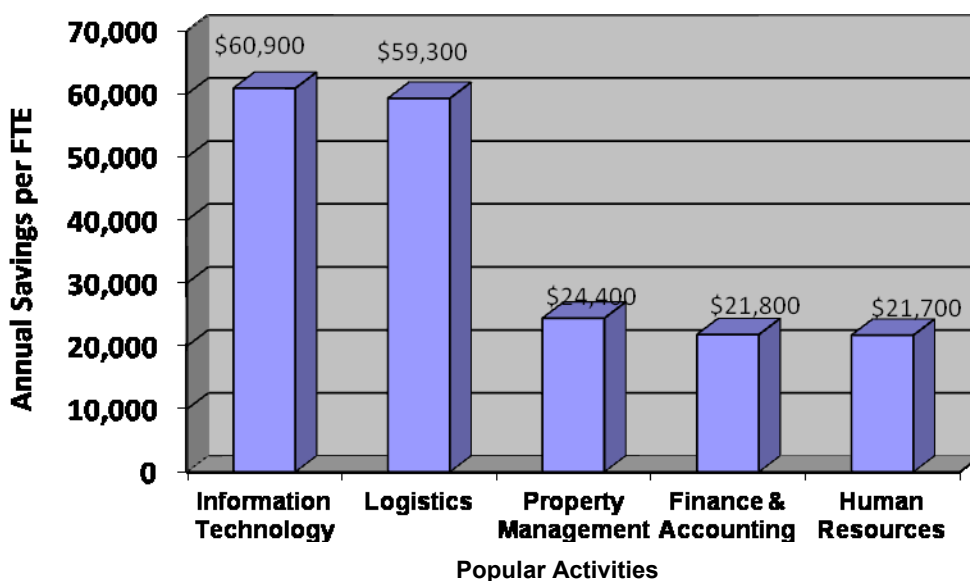
that the EXFC program is no longer a good value for the Postal Service in view of the new technologies and systems the Postal Service has fielded. See [Appendix D](#) for survey results.

The Postal Service risks the confidentiality of the program with the large sample size. In the last quarter of FY 2011, 109 confidentiality breaches<sup>67</sup> occurred, resulting in the cancellation of 485 test pieces and the removal of 300 testers.<sup>68</sup> Currently, each reporter receives about four test pieces per week and a dropper deposits one to two bundles of mail (up to 40 pieces per bundle) into a collection box each week. The size and frequency of the bundles deposited into collection boxes increases the likelihood of test piece identification by Postal Service employees. A smaller, more discreet sample would save money and protect the confidentiality of the system.

### Competing the Contract

The Postal Service could save \$4 million annually on EXFC and \$1.8 million on Intelligent Mail Accuracy and Performance System by improving contractor efficiency and reducing costs through competition. See Figure 3 for potential savings from competition by activity.<sup>69</sup>

**Figure 3. Popular Activities for Competition and Annual Gross Savings per FTE**



Source: OMB study 2007.

<sup>67</sup> Exposing sample information such as dropper identification or damaged, opened, or identified test pieces results in a confidentiality breach.

<sup>68</sup> It costs the Postal Service about \$234,000 a year to recruit and replace removed testers.

<sup>69</sup> We assumed EXFC and the Intelligent Mail Accuracy and Performance System activity are logistic-type studies and, therefore, calculated \$5.8 million in potential savings (\$59,000 for the 99 FTE positions on the contract less a transition cost).

The Postal Service stated in its non-competitive justification for EXFC that using the incumbent vendor for a 5-year transition period would result in opportunities for reduced training and administrative costs and overlapping structures as it moved from the current EXFC process to using Intelligent Mail barcode technology. However, the Postal Service has not taken steps to facilitate the transition, such as reducing the amount of work on the contract, requesting technical proposals from the contractor or the commercial sector, or conducting a pilot study.

## Evaluating Alternatives and Planning

The Postal Service developed a strategy<sup>70</sup> to obtain commercial mail processing information by placing information-rich barcodes on all mailpieces and deploying infrastructure that enables end-to-end visibility of the mail. The strategy, however, focused on commercial mailers and, as a result, did not include any enhancements to that process for single-piece First-Class Mail measured by EXFC.

Commercial mail service measurement depends on mailer participation in Full-Service Intelligent Mail barcode.<sup>71</sup> Mail processed through the Seamless Acceptance Service Performance System<sup>72</sup> starts the service measurement process by sending daily, scanned data to the Intelligent Mail Accuracy and Performance System.<sup>73</sup> The scans identify the time between the last scan a mailpiece passed through processing equipment and delivery of the mailpiece.<sup>74</sup> This process, though, requires about 11,000 testers that use scanners to record the delivery time of the commercial mail. Currently, about 8,800 Intelligent Mail testers are also EXFC testers.

The Full-Service Intelligent Mail barcode appears as 65 vertical ascending and descending lines. When decoded, the barcode offers five data fields totaling 31 digits of information. The Postal Service offers two versions of the barcode for Full-Service commercial mailer use — the 6-digit mailer identification and the 9-digit mailer identification. See [Figure 4](#) for the Full-Service Intelligent Mail barcodes.

---

<sup>70</sup> *USPS Intelligent Mail Vision*, Revision 3.0, November 2010.

<sup>71</sup> Full-service customers have agreed to the mailing business rules, such as the use of eDoc, inclusion of an 11-digit ZIP Code in their Intelligent Mail barcodes, and using unique Intelligent Mail barcodes over a period of 45 days to receive discount postage.

<sup>72</sup> The Seamless Acceptance Service Performance System measures data from Intelligent Mail barcode scans and associates the scans with mailer and customer information.

<sup>73</sup> The Postal Service refers to this measurement as 'start-the-clock.' Mail is scanned upon acceptance at the facility.

<sup>74</sup> The Postal Service refers to this measurement as the 'last-mile' or 'stop-the-clock.'

**Figure 4. Full-Service Intelligent Mail  
barcodes<sup>75</sup>**

**Intelligent Mail barcode (for letters and flats): 6- and 9-Digit Mailer Identifications**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Barcode ID (2N)		Service Type ID (3N)			Mailer ID (6N)						Serial Number (9N)									ZIP Code ( 0, 5, 9, or 11N )										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Barcode ID (2N)		Service Type ID (3N)			Mailer ID (9N)									Serial Number (6N)						ZIP Code ( 0, 5, 9, or 11N )										

Source: *USPS Intelligent Mail barcode Guide for Mail Processing*, Version 3, June 2008.

The difference between the two barcodes is the number of unique serial numbers available per service type. For mailers using 9-digit mailer identification, there are 1 million unique serial numbers for each service type. For mailers using 6-digit mailer identification, there are 1 billion unique serial numbers. Consequently, larger mailers use 6-digit mailer identification. The Postal Service allows commercial mailers to repeat serial numbers after 45 days.

The Postal Service could modify the Full-Service commercial mail barcode to work for single-piece First-Class Mail. We did not think it would be feasible for the Postal Service to issue a mailer identification to each single-piece First-Class Mail customer. However, if envelope manufacturers sold pre-barcoded envelopes in stores, barcodes would need to be unique for more than 45 days. Thus, more barcodes would be required. For manufacturers, the Postal Service could use combinations of the barcode identification, service type identifier, mailer identification, and serial number to provide trillions of unique barcodes for tracking purposes.<sup>76</sup> The Postal Service could pass the tracking and delivery data to customers as an incentive for buying pre-barcoded envelopes. While commercial mail customers get a discount for applying unique barcodes with delivery point information, the Postal Service could simply add free tracking as an incentive for using First-Class Mail. The incentive for the Postal Service would be getting data for analyzing and improving service performance.

However, data captured only during mail processing cannot replace EXFC and other service performance measurement activities. The contractor stated that, in its current pricing proposal, significant changes to the scope of EXFC or discontinuation of the program would have a significant impact on its ability to conduct the Intelligent Mail measurement program. Additionally, other studies, such as the International Mail

<sup>75</sup> The barcode identifies the presort makeup. The service type identifies the class of mail or automation rate discount. The mailer identification identifies the mail owner or agent. The serial number uniquely identifies the mailpiece. The routing ZIP Code is the 5-, 9-, or 11-digit designating ZIP Code. This field may also be blank (0-digit ZIP Code information).

<sup>76</sup> We assumed the Postal Service would need enough unique barcodes to track at least the annual single-piece First-Class Mail volume of about 26 billion pieces.

Measurement System<sup>77</sup> and Return Receipt,<sup>78</sup> also rely on EXFC reporters. Consequently, the Postal Service must develop other processes. For example, implementation of the system depends on the acquisition of the next hand held scanner, including new tracking capabilities and communication processes. Postal Service officials indicated they could incorporate a sampling program into the next Intelligent Mail device to record data for a sample of mail picked up or delivered by letter carriers. Assuming the device captured the appropriate location and sample data, this process would be less vulnerable to manipulation than the current EXFC process. Measuring live mail rather than test pieces reduces the risk Postal Service employees will identify the test pieces and provide preferential treatment. Lastly, measuring live mail could be beneficial to the other service performance measurement studies.

For example, if the Postal Service placed unique barcodes on PS Form 3811, it could track the cards on automation equipment and scan the cards at signature and delivery. Additionally, if the next Intelligent Mail device had global positioning technology, the device could also capture location data associated with scanned letters for integrity purposes. Management discussed concepts that could close gaps in the current infrastructure such as geo-fencing<sup>79</sup> and the Informed Visibility system<sup>80</sup>, but they do not have a comprehensive plan that addresses all PRC concerns. As a result, acquisition of the next scanner is at risk of not being available to assist in automating the collection of delivery data. Additionally, the Postal Service might need to extend and fund the service measurement contract at \$41 million per year starting in FY 2015 until the Postal Service can implement a replacement process.

Further, as noted in [Figure 5](#), the EXFC program only measures single-piece First-Class Mail originating from about 34 percent of potential collection points and does not represent customer expectations. For example, a customer taking his or her letter into the Post Office or using his or her curbside mailbox would not have his or her service measured. Rather than the contractor testing these locations, the Postal Service assumes that single-piece First-Class Mail from all locations (for example, blue collection boxes, curbside boxes, and Post Office Box™ lobbies) receive the same treatment for collection and dispatch. That assumption may or may not be true. Customers have other options for mailing letters that are not included in the measurement process.

---

<sup>77</sup> The International Mail Measurement System only measures the domestic leg between the sender or receiver and the international service center or Exchange. For this study, 60 overseas testers send and receive test pieces from EXFC testers.

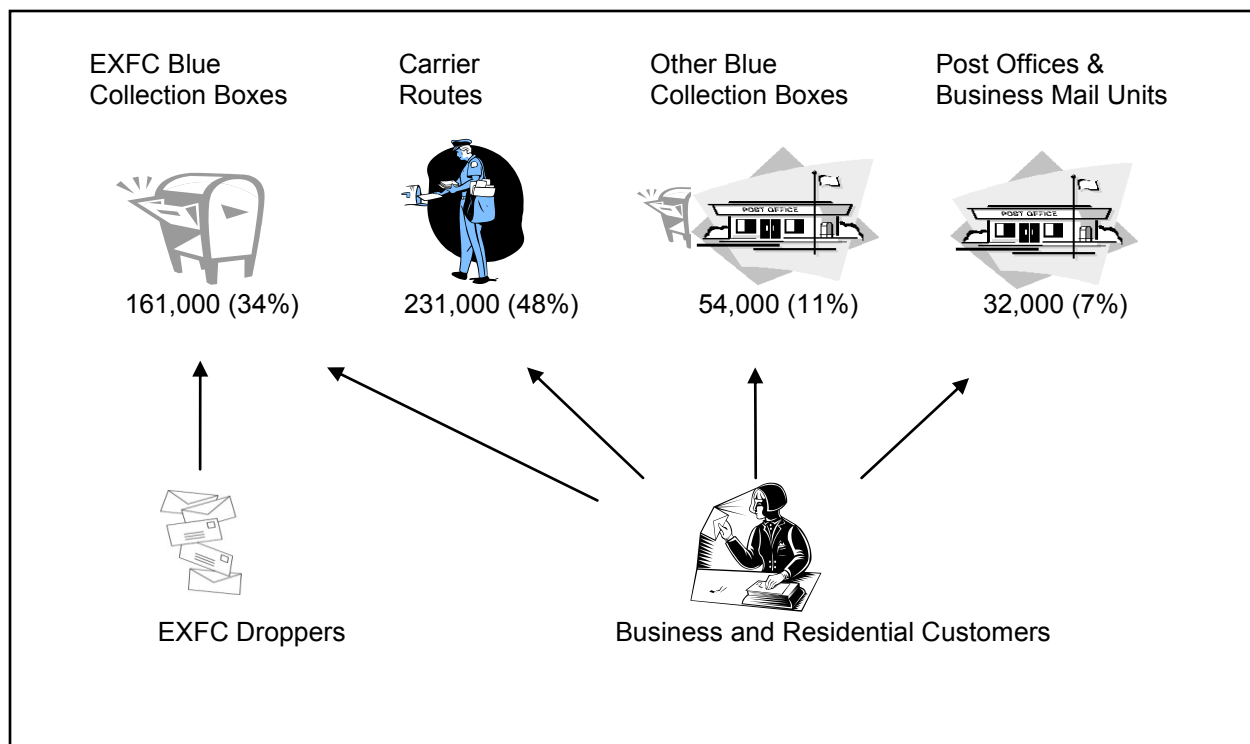
<sup>78</sup> This study measures the on-time delivery and completion of Postal Service (PS) Form 3811, Domestic Return Receipt, aka "Green Card." In this study, 1,900 EXFC reporters became Signature Reporters and another 1,900 became acceptance reporters.

<sup>79</sup> Geo-fencing is a proposed capability for the next handheld scanner device to use GPS data to prompt letter carriers to scan mailpieces for service performance measurement.

<sup>80</sup> A proposed system that combines mail-tracking data for all mail classes into one system.



**Figure 5. Comparison of EXFC Mailflow to  
All Other Single-Piece First-Class Collection Points<sup>81</sup>**



Source: Data collected from the contractor, Collection Point Management System, and [Postal Facts](#).

## New Technologies

Optical-based technologies. We concluded that optical technologies other than the Intelligent Mail barcode would be conspicuous on mail and would have the same deposit and delivery limitations as the Intelligent Mail barcode. For the measurement tool not to be conspicuous, every mailpiece would have to be similarly marked. As an example, the Postal Service could redesign the postage and replace postage stamps with a unique quick response code similar to how the Postal Service of Croatia tracks mail. However, this would be a major change as stamps are important to the Postal Service's heritage and brand. Another alternative would be to keep the current postage stamp designs and add a unique barcode to each of the 21 billion stamps produced each year.<sup>82</sup> However, quick response codes or barcodes could not accomplish anything more than the current Intelligent Mail barcode technology could and would require hardware and software upgrades to the current processing machines.

<sup>81</sup> Carrier routes collect mail from 151 million delivery points such as residences or commercial offices. Additionally, other blue collection boxes are not included in the EXFC sample because the box's location is not discreet enough for the dropper to deposit test pieces.

<sup>82</sup> The Postal Service produced 21,193,217,107 stamps in FY 2011.

Additionally, these alternatives require someone to scan mailpieces upon deposit and delivery to measure end-to-end performance.

Wave-based technologies. Wave-based technologies cannot capture all the deposit and delivery data needed by the Postal Service. These technologies are often limited where signals cannot be obtained such as cellular dead zones and office buildings. Further, technologies such as GPS are not practical as a test piece, because the devices are expensive and someone would need to mail the devices back to the Postal Service. We noted foreign posts such as Royal Mail place radio frequency identification transponders in mailpieces and place readers at mail processing gateways. This tells Royal Mail when mailpieces enter processing plants. Additionally, this process still relies on a test group to obtain deposit and delivery data. A Royal Mail official stated the agency relies on this technology because Royal Mail manually sorts 15 to 20 percent of its mail. Postal Service management did not have a cost estimate for employing a nationwide receiver network but stated that individual units cost at least \$1,000 each and had a read rate of only 80 percent. Assuming domestic mailpieces were already equipped with radio frequency identification transponders, installing readers in a way that represents 151 million delivery points might not be cost effective. Further, customers could construe installing portable receivers on residential mailboxes as an intrusion on privacy.

### Cost of Measuring Overnight Delivery

In December 2011, the Postal Service filed a request with the PRC for an advisory opinion regarding the removal of the overnight service standard. The PRC expects to complete the advisory opinion in late FY 2012. Without the overnight service standard, the Postal Service could obtain savings by not measuring overnight service performance for single-piece First-Class Mail. Table 7 illustrates the annual cost savings associated with the Postal Service no longer measuring overnight service performance.

**Table 7. Removal of Overnight Test Pieces Annual Costs Savings<sup>83</sup>**

Annual Sample Size Reduction (In millions)	Percent Reduction	Cost Savings From Reduced Pieces (In millions)
1.6	46%	\$4.7

Source: Sample size reduction figures based on contractor data.

Removing the overnight standard will not affect the other measurement categories. The sample for the 2-day standard had an annual precision of +/- 0.5 percent. The Postal Service would not need to increase the 2-day sample size, although the population would increase, because the population of mail is so large that changes to population size are not relevant to the sample size.

<sup>83</sup> Sample size reduction figures based on contractor data.

## Disqualified Participants

The Postal Service did not modify the contractor's tester selection procedures to prevent Postal Service employees and their family members from participating in the EXFC program. To become a tester, individuals can apply online or by telephone by confirming study participation interest, providing contact information, and answering 12 screening questions, including the following:

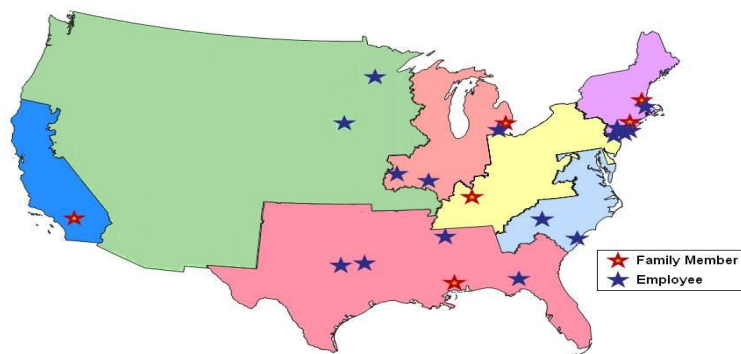
*Do you or does anyone in your household or immediate family work for the U.S. Postal Service or another mail carrier such as FedEx, DHL, or UPS?*

The questionnaire, though, did not have legal language recognizing the Postal Service's right to take action for false statements. For example, the contractor could have included the following:

*Applicants are required to abide by federal laws and regulations when applying to be a tester in the EXFC program. The EXFC program is an official function of the U.S. Postal Service. Administration of the EXFC, which includes the application process, is a matter that falls within the jurisdiction of the Postal Service. The Postal Service has the authority to take action against applicants who provide false information on this application. The furnishing of false information on this application violates Title 18 of the U.S. Code, and may subject the applicant to criminal penalties.*

At least one tester was disqualified for being an employee or family member in each of the seven Postal Service areas. Figure 6 displays the area locations of the disqualified participants.

**Figure 6. Disqualified Participants by Postal Area**



Source: Disqualified participant data provided by the contractor.

The Postal Service was aware that some employees and family members were able to participate in the test group for a limited time but believed the contractor's controls were sufficient to protect program integrity. The contractor is required to verify the testers' application information only after accepting them into the program and maintained it needed the testers in place for testing, so it cannot delay in recruiting individuals.<sup>84</sup> To identify Postal Service employees or their family members, the contractor matches addresses of testers with employee addresses quarterly and removes testers when there is a match. In the OIG survey on EXFC, 10 percent of the units indicated they have identified test pieces in the last 3 years by reviewing tester addresses, meter serial numbers, and packaging. See [Appendix D](#) for information on the OIG EXFC survey.

While the contractor does not have any means for determining whether employees from other commercial carriers are in the test group, the contractor compares all reporters to peers in the same delivery area<sup>85</sup> and performs other quality checks, such as bundle monitoring<sup>86</sup> and dropper observations,<sup>87</sup> to protect the data. If a reporter's results differ from those of his or her peers, the contractor investigates and removes the reporter as necessary. Assuming another carrier's employee was to sabotage the results, the contractor would take the appropriate action. Based on these additional procedures, we believe the contractor's procedures are sufficient to identify employees of other carriers.

---

<sup>84</sup> The contractor constantly replaces testers. In FY 2011, the contractor replaced 6,100 testers.

<sup>85</sup> The contractor assumes two reporters in the same area would report similar results.

<sup>86</sup> The contractor investigates when most mailpieces from the same bundle become late.

<sup>87</sup> The contractor and the contract officer representative perform observations of droppers to obtain assurance that droppers follow procedures and report activity properly.

## Appendix D. External First-Class Measurement System Survey

### Survey Methodology

We used a survey to gather data for our report. Our goal was to achieve, at most, 7 percent precision in a 95-percent confidence interval for each question. To accomplish this, we selected a simple random sample of postal units and sent our survey tool to each of the 400 postal units in our sample. From the sample, 275 responded. Acting under the assumption that the units that did not respond are not significantly different from the ones that did, we then projected our survey results to the universe of 28,353 units from which we selected the sample. Using the statistical program analysis tool, we generated a 95-percent confidence interval for each question to provide both an estimate and degree of accuracy. We met our goal of, at most, 7 percent precision on every question and provided our results in this report.

### Collections and Dispatch

**Does your office make separations to collection mail before dispatch to the plant?**

Yes 91.97%  
No 8.03%

**Describe how the office separates the mail (check all that apply).<sup>88</sup>**

Letters from flats	89.05%
Blue box letters from lobby and carrier collected letters	25.18%
Blue box flats from lobby and carrier collected flats	29.20%
Stamped mail from metered mail	48.18%
Local destinating mail from mixed states mail	26.28%
Other	20.44%

Based on the survey, we estimated 7,140 units were separating blue box letters from other letters and 8,278 units were separating blue box flats from other flats.

<sup>88</sup> When the survey question allows the respondent to select numerous options, the total response breakdown will be greater than 100 percent.

**What most closely describes the process for handling collection mail that misses the last dispatch of value?**

Drive the mail to the plant	83.64%
Call the delivery truck back	2.23%
Leave the mail for the next day	5.58%
Other	8.55%

**Are there written procedures for preparing collection mail for dispatch?**

Yes 91.14%

No 8.86%

**If yes, who prepared the procedures?**

Plant	22.36%
District	67.48%
Area	6.91%
Headquarters	1.63%
Other	1.63%

### Working Mail Volumes

**Please select what most closely describes the process for handling late-arriving working mail (single-piece First-Class Mail) at your office.**

Someone from the office delivers the pieces	36.90%
Someone takes the pieces to the carrier mid-route	33.30%
Carriers deliver late-arriving pieces after completing their route	8.40%
Carriers deliver pieces the next business day	16.40%
Hold Carriers	4.90%

## EXFC Confidentiality

**Please select what most closely describes whether your office has identified test pieces dropped into blue collection boxes along carriers' routes over the last 3 years.**

We have not identified any test pieces	82.44%
We have not identified any test pieces, but know what they look like	8.02%
We have identified test pieces and know what they look like	9.54%

Based on the survey, we estimate that 2,705 units have identified test pieces over the last 3 years.

**If you have previously identified test pieces, please check the boxes that describe how your office was able to identify the test piece. (Check all that apply)**

By the test piece return address	24.24%
By the test piece addressee	21.21%
By the test piece appearance/packaging	57.58%
Test piece dropper identified during collection box drop	15.15%
Postage meter serial number identified	3.03%
Other	27.27%

**Do you have any knowledge of the identity of EXFC droppers, reporters, or return address testers?**

Yes 3.31%  
No 96.69%

**Has your office ever identified an EXFC dropper?**

Yes 3.35%  
No 96.65%

## Value

**The Postal Service implemented EXFC in 1990 and since then the Postal Service has implemented many new technologies and systems. Do you think the EXFC is still a good value?**

Yes 47.86%

No 52.14%

## Feedback

At the end of the survey, we asked for any additional comments. Eighty-seven units provided additional feedback. Nine responses were positive or expressed satisfaction with the program while 78 were neutral or negative. Here are some of the comments<sup>89</sup> we considered from the units:

Subject	Comment
Internal Testing	I think that we could provide the same process internally using planet codes to test service to our customers which, in turn, would keep us from paying someone to test us and still be confidential.
	We have planet codes. Why are we not using our own system rather than paying a company \$23 million a year?
	Taking into consideration the amount of scanning and the use of intelligent bar codes, paying a private company to drop test pieces is obsolete and not cost effective.
	I feel we should take our new technologies and systems and use them to the extent we can. I do not feel we can continue to spend enormous dollars on EXFC. It has served us very well, but now we need to take our technologies and systems and use them.
Special Treatment	We spend far too much money shuttling around one or two pieces of mail that may or may not be test pieces when they miss dispatch.
	Many of these small offices do go out of their way to get these pieces delivered in a timely manner.
	We have systems in place to adjust the amount of mail that must be considered a test piece by isolating blue box flats from others. The system is not a true picture of all mail.

<sup>89</sup> We made grammatical changes to their comments and summarized lengthy comments as necessary.



Subject	Comment
	<p>I feel we spend too many hours and mileage chasing an EXFC score. Because the casing time is different for all carriers, there is no way to connect every First-Class piece of mail without driving mail out. This takes time away from the supervisor daily duties to drive mail out. Years ago, if we left no more than three pieces of mail per route it was fine. That worked so much better. If we had the money for driving mail out, mileage money for gas to drive out and backtrack plus the carrier time to deliver we would be better off. Our decline began when we started chasing the EXFC score that we put on ourselves.</p>
Delivery Standards	<p>Test pieces kept workers honest, but it is costly for the Postal Service. For the price we charge for First-Class Mail, it should never be a 1-day deal. That is why we have Express Mail. The Postal Service just needs to continue hiring hard workers to do the job correctly and efficiently without over spending. Making sure 44 cents gets there overnight — to me that is absurd.</p>

## Appendix E. Management's Comments



August 20, 2012

To: LUCINE WILLIS  
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Evaluation of the External First-Class Measurement System  
Report Number FF-AR-12-DRAFT

This letter is in response to the Office of the Inspector General Audit, Report Number FF-AR-12-DRAFT, Evaluation of the External First-Class Measurement System.

### Recommendation 1:

Use the External Measurement System (EXFC) contract to meet statutory reporting requirements only, and adjust the EXFC sample size accordingly.

### Response:

The Postal Service disagrees with the OIG recommendation to use the External First-Class Measurement System (EXFC) contract to meet statutory reporting requirements only, and adjust the EXFC sample size accordingly.

The Postal Service does not have an internal system to provide end-to-end measurement of service performance for retail letters, cards, and flats. As a result, the Postal Service uses the external measurement system to gain information on retail letters, cards, and flats. The diagnostic information from the external measurement system provides relevant information to drive service improvements. For example, root cause reports provide information on the reasons for service failure and quantify the impact so that resources can focus on those issues having the largest negative impact on service performance. Other EXFC diagnostic reports break down certain failure types such as last mile failures by geographical areas. These reports help to focus resources on the highest priorities.

Making reductions to the EXFC sample size before internal systems are fully ready to replace EXFC pose significant risks to service performance at a time when scrutiny is high. For example, reducing the precision on service performance results makes determining whether a service decline is real or simply associated with the sampling variation.

The Postal Service uses Collection Point Management System (CPMS) and Mail History Tracking System (MHTS) extensively to manage service; specifically to diagnose and improve service. However, both systems have limitations. CPMS allows the Postal Service to monitor collection points, containing location, along with scheduled pick-up times and records of scan events at collection boxes. It is used extensively to manage the collection process. However, it does not measure whether all mail was removed from the collection box and delivered on time to the plant for cancellation as scheduled.

The MHTS system provides information to local facilities to help identify processing issues. MHTS historically has been and continues to be an integral component in service improvement initiatives. However, the system has limitations. It does not measure the complete end-to-end induction to delivery process. The system measures from application of an ID tag to final automated processing, leaving out measurement to delivery.

For example, the MHTS service data does not roll-up across plants to district, area, and national levels to enable overall views of service from both origin and destination. In addition, the data is only available for a limited number of days before rolling off, limiting the ability to analyze trends.

The Postal Service is required to measure service in virtually all 3-Digit ZIP Code area; making reductions to the sample size less feasible than when the measurement system coverage was significantly lower. To meaningfully measure service across the 892 ZIP Code areas as both origins and destinations, while still maintaining a design that allocates test mail in proportion to actual mail volumes, there become practical boundaries on how low one can reduce while maintaining meaningful coverage. The overnight service standard, with limited combinations of ZIP Codes is a better candidate for reduction than the other service standards due to the much greater number of links. The Postal Service has made adjustments to sample sizes in the past through evaluating sample size options with the contractor. For example, adjustments were made for Q4 FY12 sampling, reducing the overnight sample by 1,050 pieces per district when the overnight service standard area was reduced to the intra SCF area. The service standard change reduced the number of overnight ZIP Code and district-to-district links and reduced the portion of the mail volume represented by the overnight service standard. However, because of the large volumes shifting to other service standards, the reduced overnight sample volume was allocated instead to the other service standard groups in order to maintain a similar level of coverage across district-to-district and ZIP Code-to-ZIP Code links within and across service standards.

Finally, there is a regulatory requirement to report on First-Class Mail Flats performance on a quarterly basis. Because flats represent approximately seven percent of Single-Piece Mail, the EXFC sample contains a similar percent of test mail flats. The performance of these test mail flats are measured and reported separately each quarter. The current sample size and performance levels yields 95% confidence intervals that averaged +/- 3.5% for overnight, +/- 4.6% for Two-Day and +/- 4.8% for Three-To-Five Day. The maximum extended to +/- 9.1%. A reduction in sample size of the magnitude suggested will negatively impact the precision.

Postal Service management will continue to work with the contractor to assess the EXFC sample design and options for changing it to meet our evolving needs. Due to the complexity of the EXFC sample design, the contractor has developed detailed simulation models to assess the impact of design changes on precision levels, ZIP Code and district coverage, as well as the ability to meet the various sample design requirements.

#### **Recommendation 2:**

Develop controls to eliminate the unauthorized special treatment of potential test pieces and, as appropriate, take administrative action and make non-compliance with processing rules a factor in the unit's performance assessment. These controls should guard against separating mail by type or collection point or hiring Postal Service employees or family members as part of the External First-Class Measurement System contract.

#### **Response:**

The Postal Service has administrative controls in place to guard against the unauthorized special treatment of test pieces. Those controls include the standard operating procedures, the *Discontinuance of Field Policies on Prioritizing the Processing or Delivery of Mail*, and procedures for how employees should report the identification of test mail or the identification of participants in the test mail programs. Allegations of failure to comply with the policies are handled through the investigation process and corrective actions taken in accordance with the Employee Relations Manual.

The Postal Service agrees that the hiring of Postal Service employees or family members as part of the EXFC contract creates a potential for bias or the perception of potential bias. The Postal Service has taken action since the audit interviews to guard against hiring Postal Service employees or family members as part of the EXFC contract.

Page 2 of 4

Postal Service management made it a priority to work with the contractor to implement the following changes:

- Increased the frequency of the Employee Address Checks to monthly verses quarterly in May, 2012. The change in frequency for the address check lowers the risk of USPS employees who have falsified the application and joined the reporter, dropper, or return address panels receiving test mail.
- Modified the screening questions for participants to include a time element to some of the questions. The revised questions will reduce the likelihood that a former postal employee, who recently left the organization and may still have regular contact with postal employees, would share EXFC information with the Postal Service. The change was introduced in March 2012 for dropper screening and implemented in June 2012 for reporters and return address panelists. The original screening question was divided into the following two questions:
  - Are you or is anyone in your immediate family or household a current employee of the U. S. Postal Service or a former employee within the last three years?
  - Do you or does anyone in your immediate family or household currently work for UPS, Fed Ex or another competitor?
- In February of 2012, Postal Management worked with the contractor to modify the Address Verification Survey that goes out to reporters every six months. The survey now asks participants "Do you or anyone in your immediate family or household work for the USPS, UPS, Fed Ex or other competitor?" By adding this question, we are providing panelists with an additional opportunity to notify us in case someone's work responsibility has changed since the screening was conducted.

In regards to adding specific legal language into the screening process for all participants, Postal Service Management will consult with its counsel on the recommendation. The Postal Service will work with the contractor to develop language that communicates the imperative of providing accurate information without intimidating too many potential participants. Given the voluntary nature of the program, the Postal Service believes a balanced approach is prudent.

**Recommendation 3:**

Develop a comprehensive plan to replace the current External First-Class Measurement System and other service performance measurement activities with automated processes utilizing the Postal Service's Intelligent Mail and other technologies for induction and delivery analysis. If an automated solution cannot be developed by the end of the current service measurement contract, the plan should consider other options, such as competing the next contract award or staffing these activities with Postal Service or other federal government personnel.

**Response:**

We agree with this recommendation. The Postal Service is currently working on a plan to consolidate all visibility data (Intelligent Mail and other technologies) into one system for service performance measurement, reporting and diagnostic analysis for both induction and delivery. We expect to finalize our plan in the Spring of 2013 and will provide plan details when available. If we are unable to implement the plan prior to expiration of the current contract, we intend to commercially compete the Single Piece First Class Mail service performance measurement contract. The Postal Service will update the OIG if and when the contract becomes competitive.

**Target Implementation Date:** May 2013

**Responsible Official:** Stephen M. Dearing, Manager, Mailing Information Systems

This report as well as management's response do not contain information that may be exempt from disclosure under the Freedom of Information Act (FOIA).



James P. Cochrane  
Vice President, Product Information

cc: Sally K. Haring, Manager, Corporate Audit Response Management