September 17, 2010

JOSHUA D. COLIN
DISTRICT MANAGER, COLUMBUS DISTRICT

SUBJECT: Draft Management Advisory Report – The Effects of the Flats Sequencing System on Delivery Operations – Columbus District (Report Number DR-MA-10-002)

This report presents the results of our review on the Flats Sequencing System (FSS) (Project Number 10XG006DR001). Our objective was to evaluate the effects of the FSS on delivery operations and operating costs at selected Columbus District delivery units. This self-initiated audit addressed operational risk. See Appendix A for additional information about this audit.

In October 2006, the U.S. Postal Service recommended approval to acquire, develop, purchase, and deploy 100 FSS machines at 33 sites. FSS machines sort flat-sized mail such as large envelopes, newspapers, catalogs, circulars, and magazines into delivery walk sequence at high speeds and at a much higher productivity rate than the manual process. In full deployment, the FSS is expected to produce annual operational savings for the Postal Service. Delivery units should achieve this savings by eliminating manual carrier casings and reducing the number of routes, resulting in reduced workhours.

Conclusion

The five Columbus District delivery units[1] reviewed improved delivery operations during FSS full production. These units cut operating costs by $546,252 and reduced city carrier office hours, manual distribution clerk workhours, and city carrier routes. Although the FSS improved delivery operations, these delivery units received over 8.5 million flat mailpieces that were not processed on FSS. Over 2 million of these mailpieces were not carrier routed[2] and required manual sorting and casing to put them in delivery walk sequence. This occurred because this mail did not meet flat mail automation requirements.[3] See Appendix B for our detailed analysis of this topic.

[1] The five Columbus District delivery units reviewed were: [redacted]

[2] These unworked pieces must be manually sorted by the clerks and cased by the carriers. The carrier-routed mailpieces are only handled by the carriers.

[3] Automation flats are not more than 11-1/2 inches long or more than 6-1/8 inches high, or more than 1/4 inch thick in size. The piece should be able to bend at least 1 inch vertically without being damaged. Flat-sized mailpieces must be uniformly thick so that any bumps, protrusions or other irregularities do not cause more than a 1/4-inch variance in thickness. Mailers using polywrap film or similar material to enclose or cover flat-sized mailpieces must apply the cover in the correct direction and ensure the label is readable.

As a result the Postal Service missed the opportunity to further reduce workhour costs and, consequently, we estimated incurred unrecoverable questioned costs of approximately $155,157 for fiscal year (FY) 2010. See Appendix C for our monetary impact.

We recommend the district manager, Columbus District:

1. Continue to collaborate with business mailers to ensure flat mailpieces meet automation requirements and reduce the amount of unworked flat mail sent to delivery units.

Management's Comments

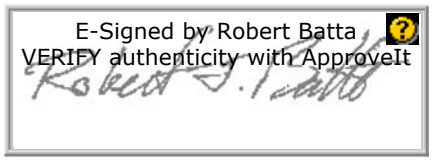
Management agreed with the finding and recommendation. Management stated they will continue notifying mailers of irregularities in the preparation of mail presented to the Columbus District utilizing the Electronic Mail Improvement Reporting (eMIR) system.

Management also indicated they have implemented two strategies to close the 13 percent gap between the district's performance and the FSS baseline projections. First, management is reviewing daily sites with more than 15 percent manual mail to evaluate and resolve those sites with below 70 percent of flats volume processed on FSS. This strategy has increased the FSS percentage by more than 2.07 percent. Secondly, management is in the process of developing strategies to run First Class flats on FSS. This initiative will occur in Quarter 1 of FY 2011. In subsequent discussions, management agreed with the monetary impact. See Appendix D for management's comments in their entirety.

Evaluation of Management Comments

The U.S. Postal Service Office of Inspector General (OIG) considers managements' comments responsive to the finding and recommendation, and management's corrective actions taken or planned should resolve the issue identified in the report.

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



Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

Attachment

cc: Patrick R. Donahoe
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Corporate Audit and Response Management

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

In October 2006, the Postal Service approved Phase I Decision Analysis Report (DAR) to develop, purchase, and deploy 100 FSS machines at 33 sites. The FSS machines sort flat-sized mail such as large envelopes, newspapers, catalogs, circulars, and magazines into delivery sequence at high speeds and at a much higher productivity rate than the manual process. FSS-processed mail will arrive at the delivery unit in walk sequence order, ready for delivery by the carrier with no additional mail movement or manual sorting required.

The Postal Service had a difficult FY 2009. Mail volume declined by approximately 25 billion pieces. Due to declining mail volume of catalogs and Periodicals mail, the Postal Service decided to add nearly 300 ZIP Codes™ to the list of areas that FSS machines will serve. Postal Service Headquarters officials will spread the 100 machines in Phase I of the FSS program among 42 city locations — including new sites in Houston, TX; Philadelphia, PA; Charlotte, NC; and Minneapolis and St. Paul, MN — rather than among the 33 original city locations.

The FSS is a critical component of the Postal Service's strategy to contain costs through automating the flat mail stream. In full deployment, the FSS is expected to produce annual operational savings of $613 million. These savings should result when delivery units can eliminate the requirement for mail carriers to manually case flat mail. Since mail clerks would no longer need to manually sort flats, there should be a reduction in clerks' workhours at delivery units. Full production of FSS began in June 2009 and 80 delivery units are currently receiving FSS-processed mail.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to evaluate the effects of FSS on delivery operations and operating costs at selected Columbus District delivery units. Due to staggered FSS full-production testing start dates, the selected delivery units reviewed were integrated into the process during different months of FYs 2009 and 2010. Our audit scope covered December 2008, to May 2010, which includes the performance period prior to the units receiving FSS-processed mail and the performance period during which the reviewed units received FSS-processed mail[4]. See Table 1.

[4] The scope limitations are due to differences in FSS production start dates for each delivery unit.

Table 1. FSS Review Periods

FSS Site	Performance Months Prior to Receiving FSS Mailpieces	Performance Months of Receiving FSS Mailpieces in FY 2010
[redacted]	December 2008 – May 2009	June 2009 – May 2010
[redacted]	December 2008 – May 2009	June 2009 – May 2010
[redacted]	February 2009 – July 2009	August 2009 – May 2010
[redacted]	February 2009 – July 2009	August 2009 – May 2010
[redacted]	January 2009 – June 2009	July 2009 – May 2010

Source: Postal Service Columbus District Management

To accomplish our objective, we:

- Statistically selected five[5] FSS delivery unit locations in the Columbus District.
- Reviewed operational issues throughout the district associated with delivery units receiving FSS sequenced flat mail.
- Reviewed applicable documentation, policies, and procedures such as the FSS DAR, dated October 20, 2006; the approved *FSS Work Methods* Memorandum of Understanding between the Postal Service and the National Association of Letter Carriers, dated November 24, 2008; the *FSS Implementation Guide*, Version 1, dated May 2009; and the *Domestic Mail Manual*, Section 300, Commercial Mail Flats, dated May 2008.
- Extracted and analyzed data from the Enterprise Data Warehouse (EDW) Delivery Data Mart for cased and FSS mailpieces, city carrier office and overtime workhours, carriers returning after 5 p.m., managed service scans, and mail distribution clerk office hours.
- Extracted and analyzed Customer Service Delivery Reporting System (CSDRS) Mail Condition, Curtailed and Delayed Mail, and Management Comment reports to determine the tracking and status of the mail as it arrives at the delivery unit.
- Extracted and analyzed CSDRS mail performance indicators from the WEB Executive Information System (WEBEIS).
- Extracted and analyzed eFlash data to determine delivery units' weekly operating reporting management system in delivery and mail processing.
- Conducted site visits at selected delivery unit locations.
- Interviewed Postal Service Headquarters, Eastern Area, and Columbus District officials.

[5] Our sample included [redacted] units.

We conducted this performance audit from February through September 2010 in accordance with the President's Council on Integrity and Efficiency, *Quality Standards for Inspections*.[6] We discussed our observations and conclusions with management officials on August 12, 2010, and included their comments where appropriate.

We extracted and analyzed data from EDW, CSDRS, and WEBEIS. We assessed the reliability of data such as delivery performance indicators, cased and FSS flat mailpieces, carrier and clerk workhours, and mail condition reports by interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

PRIOR AUDIT COVERAGE

The OIG has issued eight reports and the Government Accountability Office (GAO) has issued one report related to our objective in the last several years.

Report Title	Report Number	Final Report Date	Monetary Impact Report	Results
Flats Sequencing System Operational Issues	DR-AR-09-005	7/1/2010	$852,336	The report identified that Northern Virginia District delivery units have improved delivery operations with the FSS. These units' improvements contributed to a 6 month cost reduction of $196,271. However, we identified several FSS machines that were unavailable for several months and processing issues that negatively impacted delivery operations. Management agreed with the finding and recommendations.
Flats Sequencing System on Delivery Operation – Northern Virginia District	DR-AR-09-011	9/28/2009	None	The five selected Northern Virginia District delivery units improved in delivery operations during the initial 6 months of FSS testing. Flat volumes decreased by more than 50 percent during this testing period, so we could not determine how much of these operational gains were due to implementation of the FSS. We made no recommendations in this report.

[6] These standards were last promulgated by the President's Council on Integrity and Efficiency (PCIE) and the Executive Council on Integrity and Efficiency (ECIE) in January 2005. Since then, The Inspector General Act of 1978 as amended by the IG Reform Act of 2008 created the Council of the Inspectors General on Integrity and Efficiency (CIGIE), which combined the PCIE and ECIE. To date, the Quality Standards for Inspections have not been amended to reflect adoption by the CIGIE and, as a result, still reference the PCIE and ECIE.

Report Title	Report Number	Final Report Date	Monetary Impact Report	Results
Flats Sequencing System: First Article Retest Results	DA-AR-09-012	9/4/2009	None	Although FSS machine performance has improved since the original test, the system failed to meet key statement of work (SOW) performance parameters. The Postal Service attributed FSS performance shortcomings to the lack of additional hardware and software solutions incorporated into the First Article Testing 2A system. Failure to meet SOW performance requirements would reduce forecasted savings and increase operational burdens. Management partially agreed with the finding and recommendation.
Flats Sequencing System Contractual Remedies	CA-AR-09-006	7/1/2009	$7,733,522	This audit determined that management of the FSS contract process resulted in increased financial risk to the Postal Service. Management agreed with findings and recommendations 1 and 2 but only partially agreed with the finding and recommendation 3.
Flats Sequencing System: Program Status	DA-AR-09-001	12/23/2008	None	The report determined that program management was attentive to system performance and schedule risks. Management agreed with the finding and recommendation in this report.
Management of Contract Changes – Flats Sequencing System	CA-MA-09-002	12/1/2008	None	The report did not identify any unnecessary or inappropriate increased costs to the Postal Service because of changes to the FSS contract. Management agreed with the finding and recommendation in this report.
Flats Sequencing System: Production First Article Testing Readiness and Quality	DA-AR-08-006	6/4/2008	None	The report determined the Postal Service needed to focus greater attention on workload, the First Article Testing schedule, and critical deliverables. Management generally agreed with the finding and recommendation in this report.

Report Title	Report Number	Final Report Date	Monetary Impact Report	Results
Flats Sequencing System Risk Management	DA-AR-07-003	7/31/2007	None	The report determined that Postal Service Engineering needed to focus greater attention on risk management standards to ensure the significant risks associated with deployment of the FSS were adequately identified and managed. Management agreed with findings and recommendations 1 and 2, but disagreed with the findings and recommendations 3 and 4 of this report.
Mail Delivery Efficiency Has Improved, but Additional Actions Needed to Achieve Further Gains	GAO-09-696	7/15/2009	None	The Postal Service has taken steps to deliver mail more efficiently, including adjusting delivery routes to reflect declining volumes and investing in more efficient mail-sorting technologies. This report addressed how the Postal Service monitors delivery efficiency, characteristics of delivery units that affect their efficiency, and the status and results of the Postal Service's actions to improve delivery efficiency, in particular the FSS. There were no recommendations in this report.

APPENDIX B: DETAILED ANALYSIS

Improvements in City Delivery

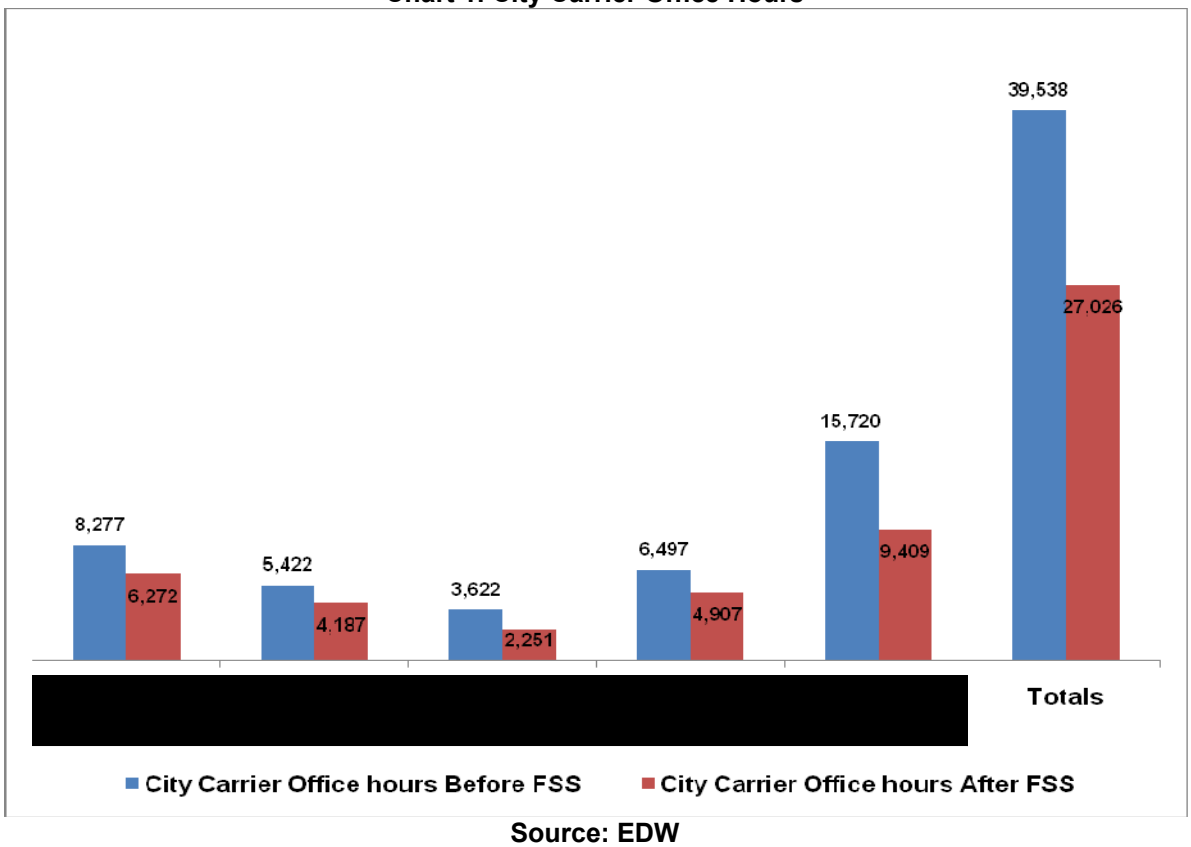
The selected Columbus District delivery units improved their delivery operations and reduced operating costs during the initial 6 months of FSS full production. Specifically, we found reductions in:

- City carrier office hours.
- Manual distribution clerk workhours.
- City carrier routes.

City Carrier Office Hours

City carrier office hours declined at the selected units. In the 6 months prior to receiving FSS-processed flat mail, city carriers used 39,538 office hours. During the initial 6 months of receiving FSS-processed mail, the number of office hours used declined to 27,026 — a reduction of 12,512 hours. According to delivery unit officials, the reductions were due to flat mailpieces arriving in sequence order, resulting in less time required to case flat mailpieces. See Chart 1.

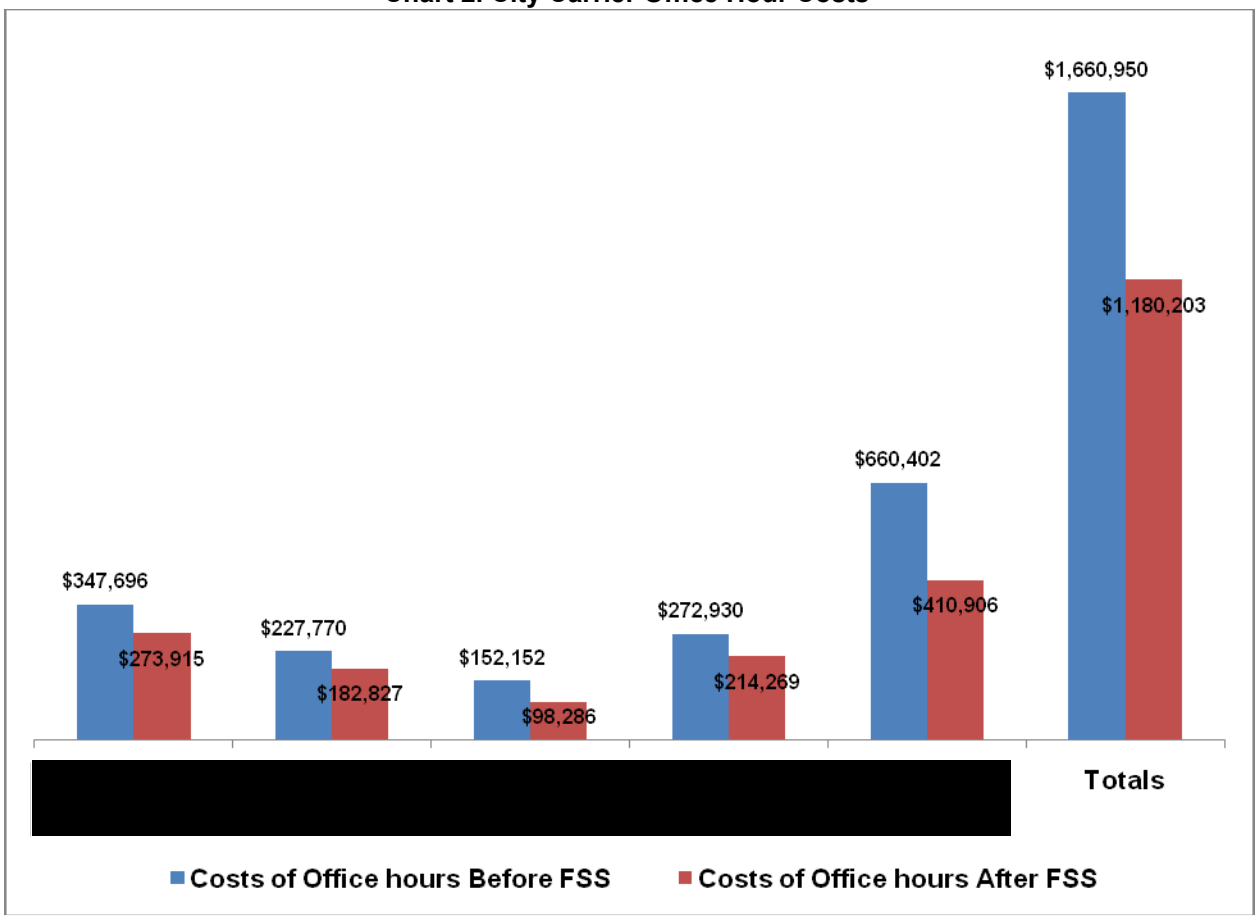
Chart 1. City Carrier Office Hours



Source: EDW

For the 6 months prior to units receiving FSS-processed mail, city carriers' office hour costs were $1,660,950. During the initial 6 months of receiving FSS-processed mail, office hour costs declined to $1,180,203, resulting in a cost reduction of $480,747. See Chart 2.

Chart 2. City Carrier Office Hour Costs

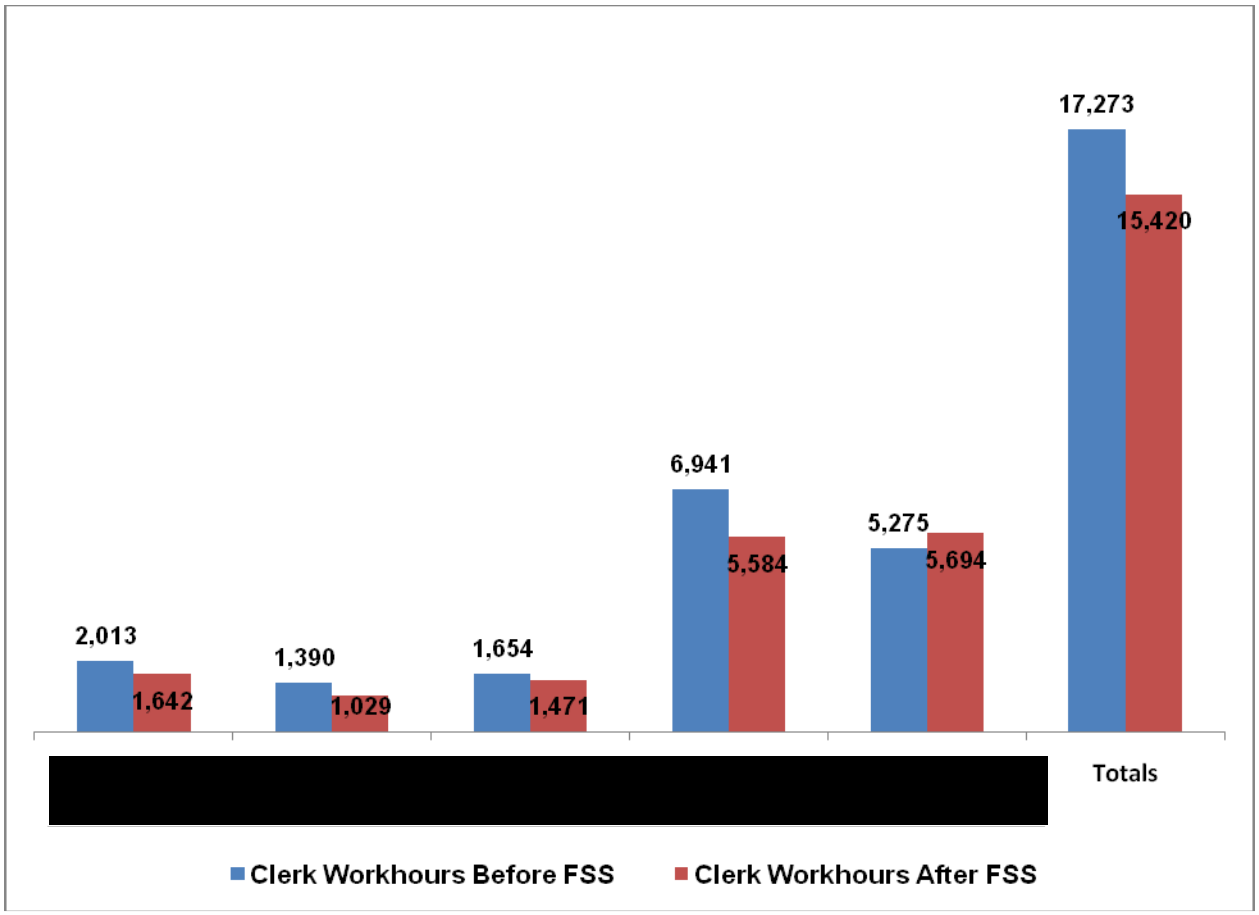


Source: EDW

Manual Distribution Clerk Workhours

The FSS environment caused a change in the manual distribution clerks' workload. Manual distribution clerk workhours decreased by 1,853 for these five units. For the 6 months prior to units receiving FSS-processed mail, Manual Distribution clerks used 17,273 workhours to manually sort mail at the selected delivery units compared to the 15,420 workhours they used during the initial 6 months of receiving FSS-processed mail. See Chart 3.

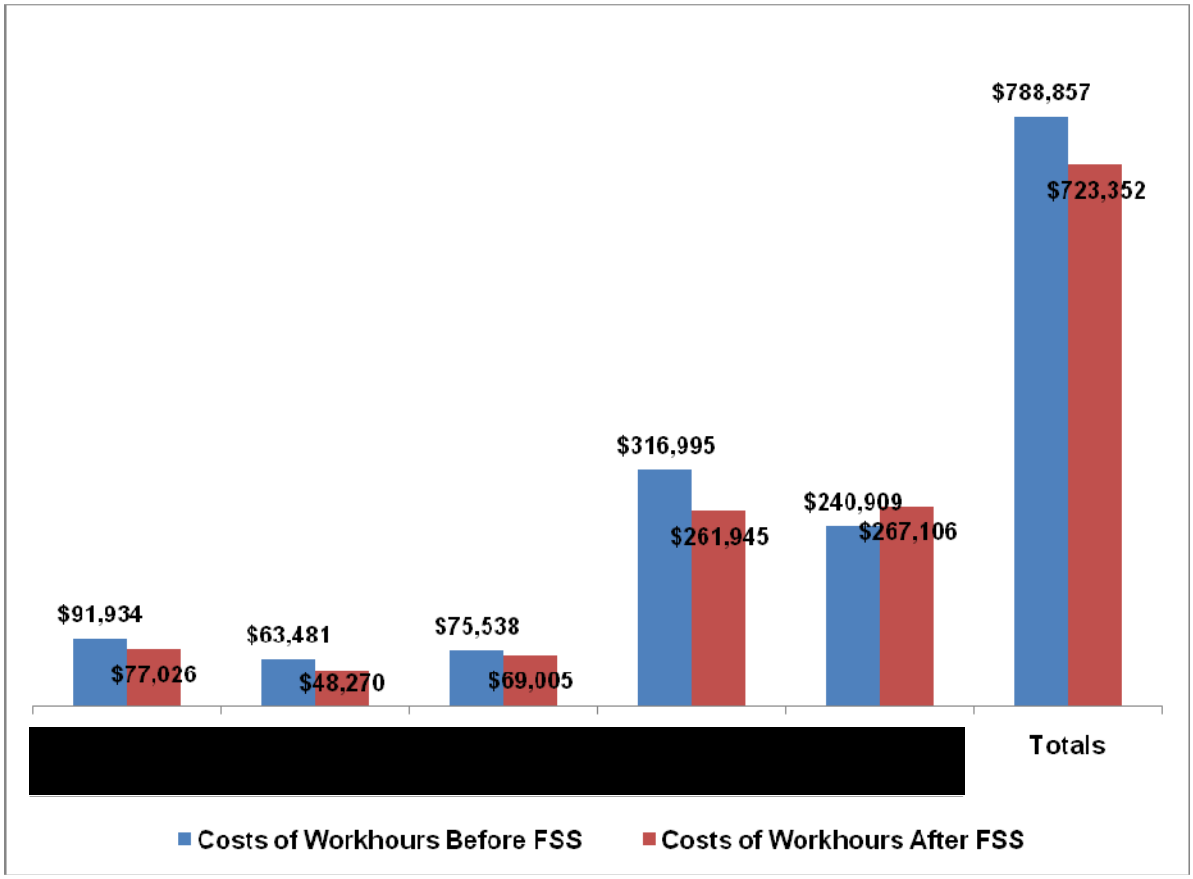
Chart 3. Manual Distribution Clerk Workhours



Source: EDW

For the 6 months prior to units receiving FSS-processed mail, manual distribution workhour costs were $788,857 and during the initial 6 months of units receiving FSS-processed mail the workhour costs declined to $723,352. This resulted in a cost reduction of $65,505. See Chart 4.

Chart 4. Manual Distribution Clerk Workhour Costs



Source: EDW

City Carrier Routes

The delivery units receiving FSS mail will be the ultimate driver of the savings from FSS processing. The savings are a result of reductions in the number of routes based on reduced casing of flats from the FSS. For the selected delivery units receiving FSS-processed mail, management conducted route adjustments to reduce the number of routes from 118 to 102, resulting in the elimination of 16 city carrier routes. See Table 2.

Table 2. FSS Route Adjustments for City Delivery

Delivery Unit	Total City Routes Before Route Adjustments	Total City Routes After Route Adjustments
[redacted]	27	23
	20	18
	12	10
	22	20
	37	31
Totals	**118**	**102**

Source: Postal Service Columbus District Management

Unworked Flat Mailpieces

These delivery units received approximately 20.2 million flat mailpieces[7] of which over 8.5 million could not be processed on FSS (see Table 3). Of the 8.5 million mailpieces, more than 2 million were not carrier-routed and required manual sorting by clerks and manual casing by carriers.

Table 3. October 2009 – May 2010 Flat Mail Volume

Delivery Unit	Total Delivered Flat Mailpieces	Total FSS Mailpieces	Other Sequenced Volume[8]	Total Cased Flat Mailpieces	Total Cased Flat Mailpieces Not Carrier Routed
[redacted]	**3,212,766**	1,767,887	351,029	1,093,850	204,78 6
[redacted]	**1,868,493**	926,194	407,928	534,371	133,52 9
[redacted]	**1,788,036**	872,914	389,856	525,266	249,70 3
[redacted]	**7,815,891**	1,613,312	1,565,014	4,637,565	734,67 7
[redacted]	**5,542,169**	2,807,934	937,109	1,797,126	739,62 6
Totals	**20,227,355**	**7,988,241**	**3,650,936**	**8,588,178**	**2,062,321**

Source: eFlash

This condition occurred because the mail did not meet automation requirements[9] which the district management acknowledged. The district manager stated that he monitors FSS operations and conducts daily teleconference meetings with district delivery unit officials and business mailers to discuss FSS improvements. In addition, the district manager participates in a weekly teleconference with Eastern Area and Postal Service Headquarters officials to discuss any FSS issues occurring in the field.

Unworked flat mailpieces that arrive at delivery units which are not processed on the FSS machines negatively impact delivery operations by requiring manual casing and sorting to put the mailpieces in sequenced order for delivery. Consequently, we estimated unrecoverable questioned costs of approximately $155,157 for FY 2010. See Appendix C for our monetary impact.

[7] From October 2009 through May 2010, the processing facility sent 20,227,355 flat mailpieces to the five selected units during full production. These flat mailpieces included 11,639,177 in sequenced order (7,988,241 flat mailpieces processed on an FSS machine and 3,650,936 other sequenced flat mailpieces such as advertisement flyers and newspapers) and 8,588,178 cased flat mailpieces.

[8] Other sequenced flat mailpieces include advertisement flyers and newspapers in sequence order

[9] Automation flats are not more than 11-1/2 inches long, more than 6-1/8 inches high or more than 1/4 inch thick in size. The piece should be flexible enough to bend at least 1 inch vertically without being damaged. Flat-sized mailpieces must be uniformly thick so that any bumps, protrusions or other irregularities do not cause more than a 1/4-inch variance in thickness. Mailers using polywrap film or similar material to enclose or cover flat-sized mailpieces must apply the cover in the correct direction and ensure that label is readable.

APPENDIX C: MONETARY IMPACT

We estimated a monetary impact of $155,157 in unrecoverable questioned costs[10] for FY 2010. We calculated the cost savings[11] based on additional labor cost incurred by selected Columbus delivery units due to city carriers and manual distribution clerks casing and sorting flat mailpieces. See Tables 4, 5, and 6.

Table 4. Summary of Cost Savings

Findings	Impact Category	Amount
Unworked Flats City Carriers October 2009 – May 2010 FY 2010 Costs for Manual Casing (see Table 5)	Unrecoverable questioned costs	**$112,000**
Unworked Flats Manual Distribution Clerks October 2009 – May 2010 FY 2010 Costs for Manual Sorting (see Table 6)	Unrecoverable questioned costs	**43,157**
	Total	**$155,157**

Source: OIG Analysis

Table 5. City Carrier Costs for Manually Casing Flat Mail October 2009 – May 2010

Delivery Unit	FY 2010 Number of Casing Workhours	Total Cased Unworked Flat Pieces (100 Percent)	FY 2010 Cost of Casing Workhours (100 Percent)	Total Cased Unworked Flat Pieces (80 Percent)	FY 2010 Cost of Casing Workhours (80 Percent)	Total Cased Unworked Flat Pieces (67 Percent)	FY 2010 Cost of Casing Workhours (67 Percent)
[redacted]	475	204,786	$ 20,749	163,829	$ 16,599	109,765	$ 11,121
[redacted]	310	133,529	13,529	106,823	10,823	71,571	7,251
[redacted]	579	249,703	25,301	199,762	20,240	133,841	13,560
[redacted]	1,705	734,677	74,439	587,742	59,551	393,787	39,899
[redacted]	1,716	739,626	74,941	591,701	59,953	396,440	40,169
Totals	**4,785**	**2,062,321**	**$208,959**	**1,649,857**	**$167,166**	**1,105,404**	**$112,000**

Source: EDW and OIG Analysis

Table 6. Manual Distribution Clerk Costs for Manually Sorting Flat Mail October 2009 – May 2010

Delivery Unit	FY 2010 Number of Sorting Workhours	Total Sorted Unworked Flat Pieces (100 Percent)	FY 2010 Cost of Sorting Workhours (100 Percent)	Total Cased Unworked Flat Pieces (80 Percent)	FY 2010 Cost of Casing Workhours (80 Percent)	Total Sorted Unworked Flat Mailpieces (67 Percent)	FY 2010 Cost of Sorting Workhours (67 Percent)
[redacted]	204	204,786	$ 9,547	163,829	$ 7,638	91,929	$ 4,285
[redacted]	133	133,529	6,225	106,823	4,980	59,941	2,795
[redacted]	248	249,703	11,641	199,762	9,313	112,091	5,225
[redacted]	730	734,677	34,250	587,742	27,400	329,796	15,374
[redacted]	735	739,626	34,480	591,701	27,584	332,018	15,478
Totals	**2,050**	**2,062,321**	**$96,143**	**1,649,857**	**$76,915**	**925,775**	**$43,157**

Source: EDW and OIG Analysis

[10] Unrecoverable costs that are unnecessary, unreasonable or an alleged violation of law or regulation.
[11] According to the DAR for the FSS program, delivery units should expect to capture an 85 percent savings rate for city carriers and an 80 percent savings rate for manual distribution clerks; we used the 80 percent rate to be conservative in our calculations. We based the calculated savings on a carrier productivity rate of 431 flats per hour and clerk productivity of 1,006.25 mailpieces per hour. The manual distribution clerk calculation does not consider carrier route mailpieces because the piece count is not available. Calculations used FY 2010 wage rates.

APPENDIX D: MANAGEMENT'S COMMENTS

COLUMBUS DISTRICT

UNITED STATES POSTAL SERVICE

September 15, 2010

Amended

Lucine M. Willis,
Director, Audit Operations

SUBJECT: Transmittal of Draft Management Advisory Report – The Effects of the Flats Sequencing System on Delivery Operations – Columbus District (Report Number DR-MA-10-DRAFT)

The Columbus District would like to thank you for the opportunity to review and comment on the subject draft audit report. We have reviewed the report and agree with the findings and recommendations.

The Columbus District agrees with recommendation # 1

Recommend 1: Continue to collaborate with business mailers to ensure flat mail pieces meet automation requirements and reduce the amount of unworked flat mail sent to delivery units.

Response: We will continue notifying mailers of irregularities in the preparation of mail they present to the Columbus District utilizing the Electronic Mail Improvement Reporting (eMIR) system. Both our Marketing Department and FSS coordinator will champion this process.

Based on the DAR projected FSS percentage of 80% and the Columbus district current FSS % of 67, we have lost opportunity of 13%. In addition, FSS does not align with letter DPS thus preventing 1st class processing for most zones and the 2nd class CET does not align with FSS processing Nationally. This prohibits some of our opportunity.

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Below are the two strategies that will be implemented to close the 13% gap.

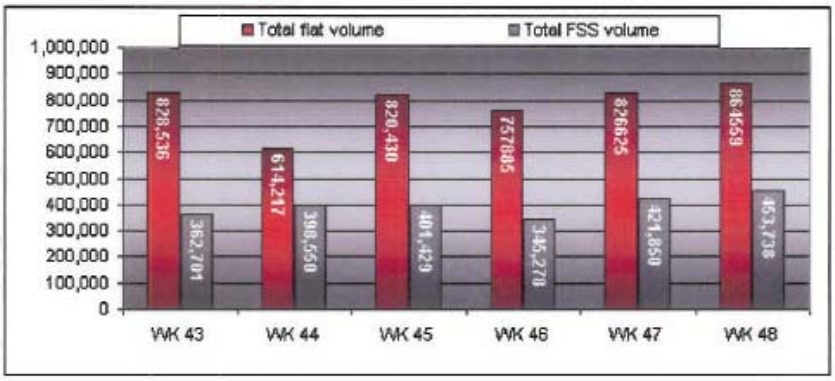
1. COLUMBUS DISTRICT 15% OR LESS CASE VOLUME INTIATIVE – FSS SITES

PQ 3 FY 2010, The Columbus District FSS percentage was 65.6%.

By reviewing daily sites over 15% manual to evaluate and resolve below 70%, this initiative, since its inception has increased FSS percentage to 67.67% an overall increase of 2.07%.

The chart below will illustrate the District FSS volume increase based on the 15% case volume initiative which was implemented in WK 43.

	WK 43	WK 44	WK 45	WK 46	WK 47	WK 48
FSS %	69.55%	60.65%	67.15%	68.70%	66.21%	65.58%
Total flat volume	828,536	614,217	820,430	757885	826625	864559
Total FSS volume	362,701	398,550	401,429	345,278	421,850	453,738



2. FIRST CLASS FLAT VOLUME INTO FSS

The Columbus District has begun to develop strategies to run 1st class flats in FSS. This volume increase will have a greater volume of flats processed which equates to higher FSS percentage opportunity. This initiative will occur in Quarter I, FY 11.

Joshua D. Colin, Ph.D.
District Manager
Columbus District

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Edward K. Harants