



May 20, 2011

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VICE PRESIDENT, NETWORK OPERATIONS MANAGEMENT

SUBJECT: Management Advisory Report – Assessment of Overall Plant
Efficiency 2011 (Report Number NO-MA-11-004)

This report presents our assessment of the overall efficiency of the processing and distribution network for fiscal year (FY) 2010 (Project Number 11XG022NO000). This report responds to a request from the inspector general to review the overall efficiency of the network and addresses operational risk. See [Appendix A](#) for additional information about this review.

Last year we reported on efficiency levels and mail volume in processing and distribution centers (P&DCs) and processing and distribution facilities (P&DFs) and recommended the U.S. Postal Service reduce almost 16.2 million workhours by FY 2012. The goal of the previous effort was to report on the Postal Service's efforts to "raise the bar" on productivity levels for those plants that were the least productive in the network nationwide. We took a similar approach in this report and plan to conduct this type of analysis annually.

The Postal Service has faced significant recent financial challenges. It concluded FY 2010 with a net loss of \$8.5 billion despite reducing total costs by \$3 billion. Without the expense of the Postal Service Retiree Health Benefits Fund and the increase to workers' compensation costs, the net loss would have been \$505 million.

Conclusion

In our Management Advisory Report – *Follow-Up on the Assessment of Overall Plant Efficiency 2010*¹ – we reported that the Postal Service made substantial progress by reducing workhours in the network from the previous year. Plants that were the least productive in FY 2009 reduced more than 13.3 million workhours (achieving 82.78 percent of the recommended workhour savings of 16.2 million workhours) and improved productivity by more than 9.3 percent. Moreover, from Quarter 1 (Q1), FY 2010 to Q1, FY 2011, the Postal Service maintained or improved service. See [Appendix B](#) for more information.

¹ Report Number NO-MA-11-001, dated February 1, 2011.

However, we found the Postal Service had not yet fully adjusted workhours in response to declining mail volume because of poor economic conditions nor achieved all possible efficiencies in mail processing operations.

We identified five major areas where the Postal Service could realize workhour savings:

- Overtime Hours
- Mail Handling
- Automated and Mechanized Equipment
- Allied Operations
- Manual Operations

The Postal Service could improve operational efficiency by reducing more than 14 million workhours by the end of FY 2013. This would allow the Postal Service to achieve at least median productivity levels in the network and avoid costs of more than \$647.5 million based on workhour savings for 1 year. See [Appendix C](#) for a detailed explanation of this cost avoidance.

Efficiency of Operations

Further opportunities exist for the Postal Service to reduce mail processing workhours by improving efficiency. For example, if the 145 plants with below-median productivity in FY 2010 achieved just the median productivity level for each respective plant group,² the Postal Service could realize savings of more than 14 million workhours. See [Appendix B](#) for our detailed analysis of this topic.

Plants that performed below the median productivity level also had significantly higher processing costs. For example, processing costs at Group 1 plants with productivity above the median were \$92.73 per 1,000 mailpieces, compared with processing costs at Group 1 plants with first-handling piece (FHP) productivity below the median, which were \$109.11 per 1,000 mailpieces. See [Appendix B](#) for a detailed explanation of this cost.

Potential Sources of Workhour Reductions

We identified several potential sources for achieving the recommended workhour reductions, which we explain below.

Reduction in Overtime

In FY 2010, overtime in the network increased by more than 43 percent compared to FY 2009. In addition, plants with below-median FHP productivity levels used a higher percentage of overtime workhours than those with above-median FHP productivity levels. If plants below the median achieved the average overtime percentage of the

² We divided facilities that process mail into seven groups ranked according to mail volume outlined in the Breakthrough Productivity Initiative (BPI). See [Appendix A](#) for more information.

above-median plants, the Postal Service would realize savings of more than 1.5 million workhours. See [Appendix B](#) for our detailed analysis of this topic.

[Mail Handling](#)

Excessive mail handling used more workhours than necessary to process mail volume and lowered productivity. In general, plants with lower FHP productivity³ tended to sort the mail more than plants with higher FHP productivity. For example:

- On average, large Group 1 plants that operated at above–median FHP productivity sorted each mailpiece 1.80 times from the moment it was received until it was dispatched from the facility.⁴ Group 1 plants with below-median FHP productivity on average sorted each mailpiece 1.91 times. If all Group 1 plants sorted mail at the 1.80 ratio, the Postal Service would save more than 2.06 million workhours.
- Similarly, the Postal Service could save more than 3.74 million workhours if plants with below-median FHP productivity levels sorted mail at the average handling ratio of plants with above-median FHP productivity levels. See [Appendix B](#) for our detailed analysis of this topic.

[Automated and Mechanized Equipment](#)

Plants that operated at below-median FHP productivity levels generally had lower productivity in automated and mechanized operations.⁵ If all plants with below-median FHP productivity levels increased the number of mailpieces handled per hour by operation to the average of the plants with above-median FHP productivity, the Postal Service could save more than 2.4 million workhours in automated operations and more than 600 thousand workhours in mechanized operations. In addition, plants with below-median FHP productivity levels generally had lower throughput, higher jams per 10,000 pieces, and higher reject rates on delivery barcode sorters (DBCSs) and automated flats sorting machine 100s (AFSMs), indicating that procedures for jogging and culling mail may need improvement. See [Appendix B](#) for our detailed analysis of this topic.

[Manual Operations](#)

Opportunities to improve efficiency in manual operations were twofold. First, plants with below-median FHP productivity levels also had lower productivity in manual operations. The Postal Service could save more than 3.6 million workhours if plants with below-median FHP productivity levels increased the mailpieces handled per hour to the average of the plants with above-median FHP productivity levels. Second, the Postal

³ We calculated FHP productivity by dividing FHP volume by Function 1 workhours.

⁴ We determined the handling ratio by comparing FHP volume to the number of times a mailpiece was handled from receipt to dispatch. A high handling ratio may indicate increased delivery point sequencing and is not always an operational weakness.

⁵ These operations include automated letter operations and distribution of flat mail on automated and mechanized equipment.

Service did not take full advantage of automated and mechanized equipment and, consequently, worked an excessive amount of mail manually. The Postal Service's manual sort target is no more than 2.5 percent of the total letter volume and 6 percent of the total flat volume. The Postal Service could save nearly 1.2 million workhours by using automation to sort letter and flat mail instead of manual sortation. See [Appendix B](#) for our detailed analysis of this topic.

Allied Operations

Plants with below-median FHP productivity levels generally used a larger percentage of workhours in allied operations⁶ (referred to as labor distribution code [LDC] 17) than plants with above-median FHP productivity levels. Allied operations represented the largest percentage (38 percent) of workhour usage in mail processing operations in FY 2010. By standardizing the percentage of hours used in allied operations across the network, compared with total mail processing workhours used, the Postal Service could save more than 3.8 million workhours. This represents the greatest opportunity to improve efficiency and achieve workhour reductions. See [Appendix B](#) for our detailed analysis of this topic.

The Postal Service could improve operational efficiency by reducing more than 14 million workhours. This would allow the Postal Service to achieve at least median FHP productivity levels in the network and avoid costs of more than \$647.5 million based on workhour savings for 1 year. See [Appendix C](#) for a detailed explanation of this cost avoidance.

The Postal Service reduced FY 2010 mail processing workhours by approximately 10.5 percent from FY 2009 levels. However, management had not evaluated operational efficiency by assessing performance based on median FHP productivity for each plant grouping.

We recommend the vice president, Network Operations Management:

1. Reduce 14,017,630 workhours by fiscal year 2013 with an associated economic impact of \$647,586,823.
2. Periodically evaluate operating efficiency by assessing performance against the median FHP productivity level for each plant grouping.

⁶ These operations are recorded in LDC 17 and include mail preparation, presort operations, traying, sleeving, opening, pouching, and platform operations.

Management's Comments

Management agreed with the findings and recommendations. Management plans to improve operational efficiency and reduce workhours in each of the five major areas highlighted in the report. See [Appendix D](#) for management's comments in their entirety.

Evaluation of Management's Comments

The U.S. Postal Service Office of Inspector General (OIG) considers management's comments responsive to the recommendations and corrective actions should resolve the issues identified in the report.

The OIG considers recommendation 1 significant, and therefore requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. This recommendation should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact James L. Ballard, director Network Processing, or me at 703-248-2100.



Robert J. Batta
Deputy Assistant Inspector General
for Mission Operations

Attachments

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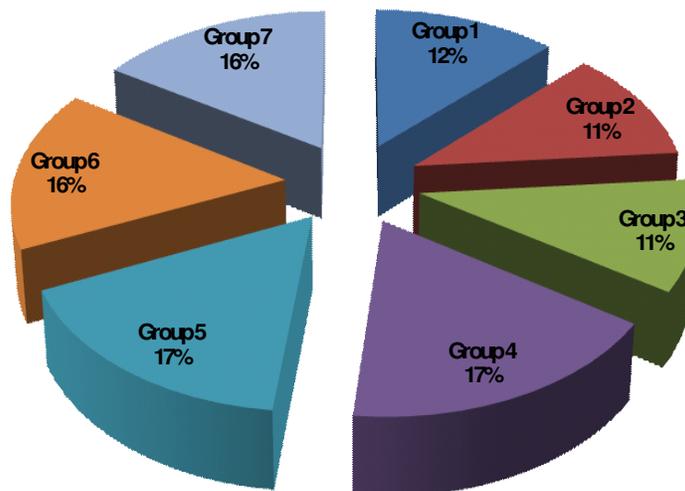
APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

Mail processing is an integrated group of activities⁷ required to sort and distribute mail for dispatch and eventual delivery. Post Offices, stations, and branches send outgoing mail to P&DCs and P&DFs for processing and dispatch for a designated service area. P&DCs report directly to area offices on mail processing matters. They also provide instructions on the preparation of collection mail, dispatch schedules, and sort plan requirements to associate offices and mailers. The Postal Service has more than 300 facilities with mail processing operations.

We divided the facilities that process mail into seven groups ranked by mail volume outlined in the BPI.⁸ Chart 1 shows the percentage of mail processing facilities in each group.

Chart 1. Plant Grouping Based On FY 2006 BPI Groupings (Workload)



⁷ Mail processing activities include culling, edging, stacking, facing, canceling, sorting, tying, pouching, and bundling.

⁸ The Postal Service established the BPI to drive costs out while creating continuous improvement capability. The BPI uses comparative monitoring and performance ranking in operating units across the country. Higher performing units are sometimes used as models to identify best practices. Standard procedures are based on best practices and training is developed to share performance expectations. Targets are set to drive performance toward the highest levels.

Labor Distribution Codes

The Postal Service compiles workhour, labor use, and other financial reports for management use by functional category or LDC.⁹ For example, LDC 11 records workhours in automated letter operations, LDC 12 records workhours in distribution of flat mail on automated and mechanized equipment, and LDC 14 records manual sortation of letters and flats. The Postal Service uses LDC 17 to record hours by employees involved in allied operations or mail processing operations other than distribution.

The largest percentage of workhour usage in mail processing operations in FY 2010 was in LDC 17 and the largest amount of FHP volume in FY 2010 was in LDC 11.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to assess the overall efficiency of the processing and distribution network for FY 2010. This audit is a cooperative effort with the Postal Service.

To accomplish our objective, we identified trends in mail volume, workhours, overtime, and productivity for each of the seven plant groups for FY 2010. We calculated the median FHP per workhour for FY 2010, ranked the plants within each group, and used the median FHP productivity to calculate workhour savings for plants falling below the median level. We calculated workhour savings by raising the productivity level of the plants below the FHP median level to the median FHP productivity level. We also calculated overtime and handling ratios for each plant. We examined the costs of manual letter and flat operations, evaluated staffing and complement, and evaluated whether significant reductions could be made through attrition. We reviewed workhours, volume, and productivity levels for LDCs 11, 12, and 14. We determined the ratio of LDC 17 workhours to total workhours for FY 2010 for each of the seven plant groups.¹⁰

To conduct this review, we relied on computer-processed data maintained by postal operational systems, which included the Management Operating Data System, the Web Complement Information System, the Activity-Based Costing (ABC) System, and the Enterprise Data Warehouse System. We did not test the validity of controls over these systems; however, we verified the accuracy of the data by confirming our analysis and results with managers and other data sources.

⁹ Mail processing operations are in the Function 1 category.

¹⁰ We did not include LDCs 10, 13, 15, and 18 in this review for the following reasons: LDC 10 was not assessed because supervisory hours are based on a ratio of supervisors to employees and supervisory staff must be adjusted as workhours are reduced; LDC 13 was not assessed because the majority of volume is recorded as Total Pieces Handled or Not Added and because of a large array of equipment and methodology, a reasonable basis for comparison could not be performed; LDC 15 does not represent a significant total of workhours; and LDC 18 represents a wide variety of functions that could not provide a reasonable basis for comparison.

We conducted this review from February through May 2011 in accordance with the Council of the Inspectors General on Integrity and Efficiency, *Quality Standards for Inspection and Evaluation*. We discussed our conclusions with management on April 19, 2011, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

Report Title	Report Number	Final Report Date	Monetary Impact
<i>Assessment of Overall Plant Efficiency</i>	NO-MA-09-002	5/8/2009	\$969,495,708
<i>Assessment of Overall Plant Efficiency 2010</i>	NO-MA-10-001	6/11/2010	\$743,961,610
<i>Follow-Up to Assessment of Overall Plant Efficiency 2010</i>	NO-MA-11-001	2/1/2011	\$0
<i>Overtime Usage</i>	HR-AR-11-003	3/31/2011	\$0

As shown in the above chart, we have conducted two overall efficiency reviews, one follow-up review of mail processing operations, and one review of national overtime usage. The efficiency reviews showed that management had not evaluated operational efficiency by assessing performance against productivity targets and other plants and adjusting staff and equipment resources in response to workload changes. Consequently, more workhours than necessary were used to process the mail. These reviews identified opportunities to improve efficiency and reduce more than 39 million workhours that would produce more than \$1.7 billion in savings over 10 years. In response to our recommendations, management reduced workhours to better align with budgeted workhours. The audit of overtime usage showed that total overtime increased because management did not effectively plan for overtime usage. Management agreed with the recommendations made in these reports.

APPENDIX B: DETAILED ANALYSIS

Significant Workhour Reductions and Service Improvements

From FYs 2009 to 2010, the Postal Service made significant reductions in workhours and improvements to operational efficiency. For instance, from FYs 2009 to 2010, management used more than 26 million fewer workhours in mail processing.¹¹ Overall mail processing productivity improved from an average 789 mailpieces per hour in FY 2009 to an average 849 mailpieces per hour in FY 2010, representing a productivity increase of more than 7.6 percent.

The Postal Service made these improvements and raised service scores in External First-Class (EXFC) Measurement system service categories of overnight, 2-day, and 3-day service as shown in Table 1.

Table 1. EXFC Service Scores

Fiscal Year	Overnight	2-Day	3-Day
2009	96.19	93.68	90.89
2010	96.37	93.74	91.61

Service scores in all EXFC categories were also improved from Q1, FY 2010 to Q1, FY 2011 as shown in Table 2.

Table 2. EXFC Service Scores

Fiscal Year	Quarter	Overnight	2-Day	3-Day
2010	1	95.91	92.48	89.12
2011	1	96.06	92.58	89.24

Changing Economic Trends

The Postal Service concluded FY 2010 with a net loss of \$8.5 billion despite reducing total cost by \$3 billion. Without the expense of the Postal Service Retiree Health Benefits Fund and the increases to workers' compensation costs, the net loss would have been \$505 million.

In addition, a portion of the Postal Service's revenue drop in FY 2010 was attributed to continuing declines in total mail volume. In FY 2010, mail volume decreased about 6 billion pieces from the previous fiscal year to 171 billion pieces. This volume was 19.7

¹¹ These hours are recorded in a category referred to as Function 1, which includes hours worked in network distribution centers, international service centers, logistic and distribution centers, priority hubs, and processing distribution centers and facilities. There was a total 26.1 million workhour savings in Function 1 hours, 22.3 million of which were attributable to all plants and 13.3 million attributable to plants with below-median FHP productivity.

percent below the peak of 213 billion mailpieces delivered during FY 2006. Most of the volume declines were in the First-Class Mail® category, which has the greatest per piece contribution. The decrease in FCM is due to the continuous shift to electronic alternatives.

At the time of our review, the Postal Service continues dealing with a deteriorating financial condition as it ended Q1, FY 2011 with a loss of \$329 million. Without the expense of the Postal Service Retiree Health Benefits Fund and the increases to workers' compensation costs, the agency would have ended the quarter with a net income of \$226 million. Although FHP mail volume showed an increase of about 1.3 billion mailpieces from Q1, FY 2010 to Q1, FY 2011, the increase is attributed to Standard Mail, which generates only one-third of the contribution by FCM.

Title 39, U.S.C. Part 1, Chapter 1 § 101, states that the Postal Service “. . . shall provide prompt, reliable, and efficient services to patrons in all areas” Further, the September 2005 *Postal Service Strategic Transformation Plan* states that “The Postal Service will continue to provide timely, reliable delivery to every address at reasonable rates.” The Postal Accountability and Enhancement Act, P.L. 109-435, Title II, dated December 20, 2006, highlights “. . .the need for the Postal Service to increase its efficiency and reduce its costs, including infrastructure costs, to help maintain high quality, affordable postal services. . . .”

Efficiency of Operations

Further opportunities exist for the Postal Service to reduce mail processing workhours by improving efficiency. We compared FHP productivity among the seven plant groupings¹² and determined the median FHP productivity for each group. We determined that if the 145 plants with below-median FHP productivity in FY 2010 achieved just the median FHP productivity level for each respective plant group,¹³ the Postal Service could realize more than 14 million workhour savings and avoid costs of more than \$647.5 million¹⁴ in a single year. For example, if Group 1 plants with below-median FHP productivity increased their productivity to the average of the above-median plants (939 mailpieces per hour); the Postal Service could save almost 6 million workhours – 42.72 percent of the more than 14 million workhours. See Table 3.

¹² For this analysis, we used plant groupings based on FY 2006 BPI Groupings (Workload) (see [Appendix A](#).) We based savings on FHP mail volume and based productivity on median performers.

¹³ We divided the facilities that process mail into seven groups ranked according to mail volume outlined in the BPI. See [Appendix A](#) for more information.

¹⁴ We based workhour reductions on FY 2010 usage and used the Level 06 fully loaded FY 2010 clerk rate of \$45.47 per hour and the Level 05 fully loaded FY 2010 mailhandler rate of \$47.42 per hour (see [Appendix C](#)).

Table 3. Baseline Workhour Reductions

Plant Group	Median FHP Productivity	Workhour Savings	Percentage of Total Savings
1	939	5,988,398	42.72%
2	1,032	2,119,165	15.12
3	1,012	2,045,341	14.59
4	1,088	2,184,665	15.59
5	1,253	929,619	6.63
6	1,323	468,732	3.34
7	1,464	281,708	2.01
Total		14,017,630	100.00%

The recommended savings of more than 14 million workhours represents a 14.48 percent decrease in the 96,828,634 workhours used by plants that operated below the median FHP productivity level in FY 2010 and a 7.78 percent decrease in the 180,265,485 workhours used by all plants. See Table 4.

Table 4. Opportunity Hour Percentage For Plants With Below-Median Productivity

Plant Group	FY 2010 Function 1 Workhour Usage	Workhour Savings	Percentage
1	37,522,077	5,988,398	15.96%
2	18,723,637	2,119,165	11.32
3	13,634,547	2,045,341	15.00
4	13,638,540	2,184,665	16.02
5	7,469,055	929,619	12.45
6	3,927,117	468,732	11.94
7	1,913,662	281,708	14.72
Total	96,828,634	14,017,630	14.48%
Total All Plants	180,265,485		7.78%

Cost per 1,000 Mailpieces

Using the Activity Based Costing system (ABC), we determined the costs per 1,000 mailpieces (FHP) for FY 2010. Costs were higher at plants with below-median FHP productivity and, in some cases, were more than 54 percent higher at plants with lower productivity. For example, costs at Group 1 plants with below-median FHP productivity were \$92.73 per 1,000 mailpieces, compared with \$109.11 per 1,000 mailpieces at sites with above-median FHP productivity. See Table 5.

Table 5. Cost Per 1,000 FHP

Group	Above Median Cost Per 1,000 FHP	Below Median Cost Per 1,000 FHP	Cost Difference	Percentage Cost Difference
1	\$92.73	\$109.11	-\$16.38	-17.66%
2	\$67.34	\$93.10	-\$25.76	-38.25
3	\$72.31	\$99.05	-\$26.74	-36.98
4	\$64.13	\$94.67	-\$30.54	-47.61
5	\$58.15	\$74.49	-\$16.34	-28.10
6	\$64.00	\$75.67	-\$11.67	-18.24
7	\$74.91	\$115.41	-\$40.50	-54.07

Potential Sources of Workhour Reductions

As shown in Table 6, we identified several potential sources for improving efficiency and achieve recommended workhour reductions. These potential sources total more than 17 million workhours, which represents 121.4 percent of the recommended savings, far more than needed to achieve the savings identified.

Table 6. Potential Sources Of Workhour Reductions

Source Of Workhour Reduction	Potential Workhour Savings	For Detailed Explanation See The Following Sections in this Appendix
Reduce Overtime	1,545,145	"Overtime Usage"
Reduce Handling Ratio	3,742,634	"Excessive Mail Handling"
Reduce Manual Sortation of Letters	684,678	"Excess Manual Letter Mail"
Reduce Manual Sortation of Flats	516,673	"Excess Manual Flat Mail"
Improve Efficiency in LDC 11 Operations	2,448,238	"Automated Letter Mail Processing"
Improve Efficiency in LDC 12 Operations	634,104	"Mechanized and Automated Flat Mail Processing"
Improve Efficiency in LDC 14 Operations	3,631,037	"Manual Operations"
Improve Efficiency in LDC 17 Operations	3,821,685	"Allied Operations"
Total	17,024,194	
FHP Productivity Savings	14,017,630	Appendix C
Percentage	121.4	

Human Resources

As of February 2010, 15,542 employees in plants with below-median productivity levels were eligible to retire. This represents a potential annual workhour reduction of more than 27 million workhours, far more than needed to achieve the savings identified. See Tables 7 and 8.

**Table 7. Potential Complement Reduction
For Plants Below The Median**

Plant Group	Total Function 1 Employees	Retirement Eligible	Percentage of Total Employees
1	21,404	6,661	31.12%
2	10,263	2,993	29.16
3	7,673	2,013	26.23
4	7,298	2,130	29.19
5	4,030	979	24.29
6	2,111	524	24.82
7	941	242	25.72
Total	53,720	15,542	28.93%

**Table 8. Potential Workhour Reduction
For Plants Below The Median¹⁵**

Plant Group	Total Function 1 Employees	Retirement Eligible	Percentage of Total Workhours
1	37,200,152	11,576,818	31.12%
2	17,837,094	5,201,834	29.16
3	13,335,674	3,498,594	26.23
4	12,683,924	3,701,940	29.19
5	7,004,140	1,701,502	24.29
6	3,668,918	910,712	24.82
7	1,635,458	420,596	25.72
Total	93,365,360	27,011,996	28.93%

¹⁵ We based workhour savings on 1,738 workhours per year.

Overtime Usage

Management increased overtime in the network by more than 43.7 percent compared to FY 2009, and opportunities exist to reduce overtime. The Postal Service could stabilize overtime usage and save more than 1.5 million workhours. When management does not properly monitor and control overtime, the Postal Service incurs higher labor costs, because these workhours are paid at a higher premium rate.

For example, Group 1 plants operating above median FHP productivity levels had an average overtime percentage rate of 6.32 percent. If all Group 1 plants operated at this overtime ratio, the Postal Service could save 265,389 workhours. Overall, the Postal Service could save more than 1.5 million workhours if all plants with below-median FHP productivity reduced their overtime percentages to the average of the plants with above-median FHP productivity. See Table 9.

Table 9. Overtime Savings

Plant Group	Above-Median Productivity – Average Overtime Percentage	Group Workhour Savings
1	6.32	265,389
2	6.02	434,870
3	6.72	348,901
4	6.95	231,088
5	6.79	155,774
6	7.57	59,716
7	7.39	49,407
Total		1,545,145

Excessive Mail Handling

The Postal Service could reduce the number of times mail is handled and save more than 3.7 million workhours. Excessive mail handling uses more workhours than necessary to process mail volume, which means productivity is lower.¹⁶ In general, plants with lower FHP productivity levels tended to sort the mail more often than plants with high FHP productivity levels. For example, on average, Group 1 plants operating above the median FHP productivity sorted a piece of mail 1.80 times from the moment it

¹⁶ We calculated the handling ratio by comparing FHP volume to total piece handlings (TPH) volume. TPH measures the number of handlings used to distribute each mailpiece from receipt to dispatch. As an example, if the handling ratio is 1.5, the average mailpiece was handled 1.5 times from the moment it was received until it was dispatched from the facility. Management uses this information to measure performance and efficiency. This ratio can vary depending on mail flow and operating plans.

was received until it was dispatched from the facility. Group 1 plants with below-median productivity, on average, sorted each mailpiece 1.91 times. If all Group 1 plants sorted mail at the 1.80 ratio, the Postal Service could save more than 2.0 million workhours. Further, the Postal Service could save more than 3.7 million workhours if plants with below-median FHP productivity sorted mail at the average handling ratio of the plants with above-median FHP productivity levels. See Table 10.

Table 10. Handling Ratio Savings

Plant Group	Above-Median Productivity – Average Handling Ratio	Group Workhour Savings
1	1.80	2,062,487
2	1.93	260,986
3	2.02	104,525
4	1.89	625,279
5	1.79	385,275
6	1.79	225,094
7	1.76	78,988
Total		3,742,634

[Automated and Mechanized Equipment](#)

Plants that operated below the median FHP productivity level generally had lower productivity in automated and mechanized operations. If all plants with below-median FHP productivity increased the pieces handled per hour to the average of the plants with above-median FHP productivity, the Postal Service could save more than 2.4 million workhours in automated operations and more than 634,000 workhours in mechanized operations. In addition, plants with below-median productivity generally had lower throughput, higher jams per 10,000 mailpieces, and higher reject rates on the DBCS machines and on the AFSM 100s, indicating that procedures for jogging and culling the mail may need improvement.

[Automated Letter Mail Processing – LDC 11](#)

Plants that operate at below-median FHP productivity levels generally had lower productivity in LDC 11. For example, Group 1 plants operating at above-median FHP productivity had an average LDC 11 productivity of 3,915 mailpieces per hour. If all Group 1 plants operated at this productivity level, the Postal Service could save more than 1.0 million workhours. Further, the Postal Service could save more than 2.4 million workhours if all plants with below-median FHP productivity levels increased the pieces handled per hour in LDC 11 operations to the average of the plants with above-median FHP productivity. See Table 11.

**Table 11. Automated Letter Mail Processing
LDC 11 FY 2010**

Plant Group	Above-Median Productivity – Average LDC 11 Productivity	Group Workhour Savings
1	3,915	1,052,790
2	3,795	436,898
3	3,411	113,181
4	4,032	466,898
5	4,730	188,171
6	4,865	135,054
7	5,251	55,246
Total		2,448,238

[Mechanized and Automated Flat Mail Processing – LDC 12](#)

Plants with below-median FHP productivity levels also had lower LDC 12 productivity on average. For example, Group 1 plants operating at above-median FHP productivity had an average LDC 12 productivity of 2,066 mailpieces per hour. If all Group 1 plants operated at this productivity level, the Postal Service could save 164,700 workhours. Further, the Postal Service could save 634,104 workhours if all plants with below-median FHP productivity levels increased the mailpieces handled per hour in LDC 12 operations to the average of the plants with above-median FHP productivity. See Table 12.

**Table 12. Mechanized and Automated Flat Mail Processing
LDC 12 FY 2010**

Plant Group	Above-Median Productivity – Average LDC 12 Productivity	Group Workhour Savings
1	2,066	164,700
2	1,679	92,945
3	2,318	128,576
4	1,877	114,750
5	1,972	71,900
6	1,549	53,982
7	1,248	7,252
Total		634,104

Throughput, Jam Rates, and Reject Rates

The average throughput for the DBCS was lower in Group 1 plants with below-median FHP productivity than in plants with above-median FHP productivity. In addition, the DBCS and the AFSM 100 jam reject rates were higher in plants with below-median FHP productivity levels. These trends indicate that management at these plants might not be properly instructing employees on procedures for jogging and culling the mail. In addition, equipment at these plants may not be properly or sufficiently maintained. See Tables 13 and 14.

Table 13. Group 1 DBCS FY 2010

Group 1 Plants	Average Throughput	Jam Rate	Reject Rate
Above-Median	36,175	1.99	0.91%
Below-Median	36,165	2.21	1.04%
Difference	11	-0.22	-0.13%

Table 14. Group 1 AFSM 100 FY 2010

Group 1 Plants	Average Throughput	Jam Rate	Reject Rate
Above-Median	15,290	23.25	3.31%
Below-Median	14,852	26.82	3.63%
Difference	437	-3.57	-0.32%

Manual Operations

Opportunities to improve efficiency in manual operations were twofold:

- Plants with FHP productivity below the median also had lower productivity in manual operations.
- Management did not take full advantage of automated and mechanized equipment and, consequently, worked an excessive amount of mail manually.

Manual Operations – LDC 14

Plants with FHP productivity lower than the median also had lower productivity in

LDC 14. For example, Group 1 plants operating at above-median FHP productivity had an average LDC 14 productivity of 440 mailpieces per hour. If all Group 1 plants operated at the average of 440 mailpieces per hour, the Postal Service could save almost 2.1 million workhours. Further, the Postal Service could save more than 3.6 million workhours if all plants with below-median FHP productivity levels increased the mailpieces handled per hour in LDC 14 operations to the average of the plants with above-median FHP productivity levels. See Table 15.

Table 15. LDC 14 FY 2010

Plant Group	Above-Median Productivity – Average LDC 14 Productivity	Group Workhour Savings
1	440	2,073,201
2	405	383,613
3	428	358,002
4	445	380,101
5	529	219,354
6	580	107,064
7	741	109,701
Total		3,631,037

Excess Manual Letter Mail

Plants operating at below-median FHP productivity levels generally worked an excessive amount of letter mail manually. The Postal Service's manual sort target is no more than 2.5 percent of the total letter volume. However, in FY 2010, plants with less than median FHP productivity sorted an excess of more than 385 million letters manually. The largest percentage (30.83) of excess manual letters was at Group 2 plants. The Postal Service could save 684,678 workhours by using automation rather than manual methods to sort letter mail. See Table 16.

Table 16. Excess Manual Letters

Plant Group	Excess Letters Worked More than 2.5 Percent of Total Letter Volume	Group Workhour Savings	Percentage of Excess Letters
1	24,541,567	43,591	6.37%
2	118,843,457	211,090	30.83
3	46,483,394	82,564	12.06
4	30,319,034	53,853	7.87
5	83,112,376	147,624	21.56
6	30,970,221	55,009	8.03
7	51,203,775	90,948	13.28
Total	385,473,824	684,678	

Excess Manual Flat Mail

Plants operating at below-median FHP productivity levels also generally worked an excessive amount of flat mail manually. The Postal Service's manual sort target is no more than 6 percent of the total flat volume. However, in FY 2010, plants with less than median FHP productivity sorted an excess of 177 million flats manually. The largest percentage (22.38) of excess manual flats was at Group 1 plants. The Postal Service could save 516,673 workhours by using automation to sort flat mail instead of manual sortation. See Table 17.

Table 17. Excess Manual Flats

Plant Group	Excess Flats Worked More than 6 Percent of Total Flat Volume	Group Workhour Savings	Percentage of Excess Flats
1	39,777,600	115,633	22.38%
2	39,516,209	114,873	22.23
3	26,104,795	75,886	14.69
4	33,767,852	98,162	19.00
5	20,726,977	60,253	11.66
6	9,182,812	26,694	5.17
7	8,659,147	25,172	4.87
Total	177,735,392	516,673	

Allied Operations – LDC 17

Plants with below-median FHP productivity levels used a greater percentage of workhours in allied operations (LDC 17) than plants with above-median FHP productivity levels. As an example, Group 1 plants with above-median FHP productivity levels used 36 percent of workhours in LDC 17. By standardizing the percentage of workhours used in allied operations across the network, compared with total mail processing workhours used, Group 1 plants could reduce workhours by more than 1.5 million. Further, by standardizing the percentage of workhours used in LDC 17 in all plant groups, the Postal Service could save more than 3.8 million workhours. See Table 18.

Table 18. LDC 17 FY 2010

Plant Group	Above-Median Average LDC 17 Percentage to Total Mail Processing Workhours	Group Workhour Savings
1	36	1,573,575
2	33	948,833
3	36	498,129
4	35	398,108
5	37	261,633
6	38	88,519
7	38	52,888
Total		3,821,685

APPENDIX C: MONETARY IMPACT

To calculate total questioned costs, we determined median FHP productivity for each group and found that 145 plants throughout the country operated at below-media FHP productivity. If these plants achieved just the median productivity level for each respective plant group, the Postal Service could realize workhour savings of 14,017,630 and avoid costs of \$647,586,823 in a single year. See Table 19.

Table 19: Calculation of Questioned Costs¹⁷

Recommended Action and Employee Category Impacted	Workhour Reduction	Workhour Rate	Cost Avoidance Based on One FY
Level 6 Clerk	10,195,945	\$45.74	\$466,362,536
Level 5 Mailhandler	3,821,685	\$47.42	181,224,287
Total	14,017,630		\$647,586,823

We determined the workhours used by clerks and mailhandlers in each group and multiplied that number by the appropriate workhour rate. For example, if Group 1 plants operating below the median increased their productivity to the average of the above-median plants, the Postal Service could save 5,988,398 workhours, representing an economic impact of \$276,552,950, as shown in Table 20.

Table 20: Associated Economic Impact by Group

Plant Grouping	Recommended Workhour Savings	Associated Economic Impact
1	5,988,398	\$276,552,950
2	2,119,165	98,524,659
3	2,045,341	94,390,754
4	2,184,665	100,595,413
5	929,619	42,960,322
6	468,732	21,588,529
7	281,708	12,974,196
Total	14,017,630	\$647,586,823

¹⁷ Questioned costs are unnecessary, unreasonable, unsupported or an alleged violation of law or regulation, contract, etcetera. They may be recoverable or unrecoverable and are usually the result of a historical event.

APPENDIX D: MANAGEMENT'S COMMENTS

DAVID E. WILLIAMS
VICE PRESIDENT, NETWORK OPERATIONS



May 16, 2011

Lucine M. Willis
Director, Audit Operations
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Arlington, VA 22209-2020

SUBJECT: Draft Management Advisory Report – Assessment of Overall Plant Efficiency 2011 (Report Number NO-MA-11-Draft)

Thank you for the opportunity to review and comment on the Assessment of Overall Plant Efficiency 2011 draft audit report.

Management agrees with the recommendations in this draft report and will address each separately below.

Recommendation 1:

Reduce 14,017,630 work hours by fiscal year 2013 with an associated economic impact of \$647,586,823.

Management Response:

Management agrees with this recommendation. Management will continue to improve operational efficiency. In response to the specific areas of improvement identified in the report, the following information is provided:

1. Overtime Hours - As described in the draft report, mail processing overtime increased by 43.7 percent in fiscal year (FY) 2010 compared to FY2009 primarily resulting from incentives for retirement to craft employees. We will drive the use of overtime to budgeted plan levels in alignment with complement levels, attrition rates, and productivity improvements. The Mail Processing Employee Scheduler and Mail Processing Staffing Opportunity Model (MPES/MPSOM) provide operations managers a tool to react to and plan for volume variations in their operations and schedule accordingly. The MPES and MPSOM models are used in plants and allow management to plan and monitor specific overtime reduction parameters, such as off day overtime and supervisory extra straight time. Through the use of specific reports in MPES and MPSOM, managers can focus on overtime reduction.

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2. Mail Handling - Our existing efforts to maximize tray density have improved our Total Pieces Handled to First Handled Pieces ratio (the number of pieces handled compared to the number of first handling pieces). A sort program tool, Sort Program Optimization, ensures a systematic approach to sort program development by ensuring volume-based, system driven; standardized sorts are made by our automation equipment. This tool enables greater tray density and fewer sort handlings and tray handlings.

We have also recently initiated a Lean Six Sigma (LSS) project which is intended to reduce the First Handled Pieces ratio.

3. Automated and Mechanized Equipment - Management continues to maximize the use of our most efficient equipment by removing or reducing excess processing equipment such as the Upgraded Flat Sorter Machine (UFSM) 1000. Deployment of Low Cost Reject Encoding Machines (LCREM) is continuing, with expected completion this year. LCREM units will provide facilities additional opportunities to move manual volumes into the automated mail stream. Management continues to use the Run Plan Generator (RPG) to plan machine runs and track performance to plan. The RPG and MPES models allow management to improve the use of automated and mechanized equipment and reduce the staffing associated with those operations.
4. Allied Operations - Opportunities have been identified to improve Powered Industrial Vehicle equipment utilization as well as allied and indirect position reductions. These initiatives will continue through 2012. Management deployed LDC 17 Platform and PIV LSS models to the field providing additional tools for capturing workhours in our high opportunity LDC 17 areas.
5. Manual Operations - Continuous improvement efforts using LSS have enabled management to develop programs and plans that can be replicated in the field to maximize savings opportunities. LSS projects have identified manual mail reduction opportunities through automation improvements in coding and image resolution. Operations Industrial Engineers in the field coordinate replication activities and leverage work methods and operational performance improvements. Replication of these projects nationwide will provide additional manual savings.

In addition to these efforts, one of the FY2011 initiatives is to continue LDC 14 manual distribution compression to a twelve hour, one tour operation, which will further reduce manual work hours.

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Target Implementation Date:

September 2013

Responsible Official:

Frank Neri, Manager, Processing Operations
Network Operations

Recommendation 2:

Periodically evaluate operating efficiency by assessing performance against the median productivity level for each plant grouping.

Management Response:

Management agrees with this recommendation. Operational level Breakthrough Productivity Initiative (BPI) targets are updated yearly based upon the top quartile performances throughout the nation. These targets establish the foundation for performance expectations of the BPI Scorecard and Mail Processing Variance models, as well as staffing tools such as MPES. The models also enable efficiency ranking comparisons to identify best in class performances for activities such as the identification of proven practices for organizational standardization.

Additionally, BPI modeling is used to identify recoverable savings opportunities through Local Management Initiatives (LMI) within the budget process.

Target Implementation Date:

October 2011

Responsible Official:

Frank Neri, Manager, Processing Operations
Network Operations

This report and management's response do not contain information that may be exempt from disclosure under the Freedom of Information Act.



David E. Williams

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cc: Ms. Brennan
Mr. Neri
Mr. Batta
Corporate Audit and Response Management