



Efficiency of the San Francisco, CA Processing and Distribution Center

# Audit Report

Report Number NO-AR-15-001

November 19, 2014

San Francisco, California



# OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

# Highlights

While the San Francisco P&DC has increased efficiency, there are more opportunities for improvement.

We identified specific mail processing functional areas that could be more efficient, resulting in 486,781 fewer workhours and an annual cost avoidance of over \$21 million.

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## Background

The San Francisco Processing and Distribution Center (P&DC) is a mail processing plant in the U.S. Postal Service's Pacific Area. This facility processes inbound/outbound mail for the city of San Francisco and associate offices in the surrounding area. In fiscal year (FY) 2013, it processed about 1.41 billion mailpieces, a decrease of about 8.6 percent from FY 2012.

Our mail processing risk model identified the San Francisco P&DC as having significant potential for savings through improved efficiency. To maximize efficiency, the P&DC must process mail using the least amount of resources while meeting service standards. Our objective was to assess the efficiency of San Francisco P&DC mail processing operations.

# What The OIG Found

While the San Francisco P&DC has increased efficiency, there are more opportunities for improvement. We found it did not attain the efficiency achieved by similarly sized P&DCs. Specifically, in FY 2013 the San Francisco P&DC processed mail at a rate of 795 pieces per workhour, whereas the similarly sized P&DC at the median productivity level processed mail at the rate of 1,054 pieces per workhour. Accordingly, the San Francisco P&DC processed 259 fewer pieces per workhour than the comparable P&DC. This occurred because management did not adjust workhours to workload, analyze operational efficiency through benchmarking, adequately supervise employees, or fully utilize automation equipment. Consequently, the facility was using more workhours than necessary to process mail volume. We identified specific mail processing functional areas that could be more efficient, resulting in 486,781 fewer workhours and an annual cost avoidance of over \$21 million.

# What The OIG Recommended

We recommended management at the San Francisco P&DC eliminate 486,781 workhours to produce an annual cost avoidance of over \$21 million or increase mail volume by 533 million mailpieces, or increase efficiency by a combination of these actions.

We also recommended management periodically evaluate operational efficiency and staffing to determine whether additional workhour adjustments are needed based on workload and analyze operational efficiency by benchmarking operations against those of similarly sized plants. Additionally, we recommended management maximize the use of automated equipment and improve supervision of employees.

# **Transmittal Letter**

OFFICE OF INSPECTOR G UNITED STATES POSTAL	eneral Service
MEMORANDUM FOR:	DAVID B. STOWE DISTRICT MANAGER, SAN FRANCISCO DISTRICT DIANA T. MUNOZ SENIOR PLANT MANAGER, SAN FRANCISCO PROCESSING AND DISTRIBUTION CENTER
FROM:	Robert J. Batta Deputy Assistant Inspector General for Mission Operations
SUBJECT:	Audit Report – Efficiency of the San Francisco, CA, Processing and Distribution Center (Report Number NO-AR-15-001)
This report presents the r Processing and Distributi	results of our audit of the Efficiency of the San Francisco, CA, on Center (Project Number 14XG033NO000).
We appreciate the coope questions or need additic director, Network Process	eration and courtesies provided by your staff. If you have any onal information, please contact please contact James L. Ballard, sing and Transportation, or me at 703-248-2100.
Attachment	
cc: Corporate Audit and	Response Management

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# **Findings**

Our objective was to assess the efficiency of San Francisco, CA, P&DC mail processing operations.

## Introduction

This report presents the results of our self-initiated audit of the efficiency of the San Francisco, CA, Processing and Distribution Center (P&DC) (Project Number 14XG033NO000). Our objective was to assess the efficiency of San Francisco, CA, P&DC mail processing operations. See Appendix A for additional information about this audit.

During fiscal year (FY) 2013, the U.S. Postal Service further realigned its operations to cut additional costs and strengthen its finances. These operational realignments included reducing the number of mail processing facilities and delivery routes, modifying retail office hours to match demand, and consolidating delivery offices. The Postal Service was able to increase revenue and eliminate costs; however, it still faced a loss from ongoing business activities and ended FY 2013 with a net loss of about \$5 billion. As of March 31, 2014, the Postal Service had a net loss of over \$2.2 billion and it continues to pursue strategies to increase operational efficiency.

We conducted this audit based on an analysis of overall plant efficiency for FY 2013. The San Francisco P&DC's efficiency was ranked 34th of 36 compared to similarly sized facilities and we identified it as having the potential for significant savings through improved efficiency. Our mail processing risk model also found potential for sizable efficiency improvements at the San Francisco P&DC. To maximize efficiency, the goal is to process mail with the least amount of resources while meeting service standards.

## Conclusion

While the San Francisco P&DC has recently increased efficiency, there are more opportunities for improvement. We found the San Francisco P&DC did not attain the efficiency achieved by comparable P&DCs. Specifically, in FY 2013 first-handling piece (FHP)<sup>1</sup> productivity<sup>2</sup> at the San Francisco P&DC was 795 mailpieces per workhour, whereas median FHP productivity was 1,054 mailpieces per workhour. The San Francisco P&DC processed 259 fewer mailpieces per workhour than the similarly sized P&DC at the median productivity level.

<sup>1</sup> A letter, flat, or parcel that receives initial distribution at a Postal Service facility.

<sup>2</sup> We calculated FHP productivity by dividing FHP volume by Function 1 mail processing workhours. Function 1 mail processing workhours are those required to sort and distribute mail for dispatch and eventual delivery.

Productivity at the San Francisco P&DC was lower than that of median-productivity facilities because management did not:

- Adequately adjust workhours to workload.
- Fully analyze operational efficiency by benchmarking operations against those of comparable plants.
- Adequately supervise employees.
- Fully utilize automation equipment.

Consequently, the San Francisco P&DC was using more workhours than necessary to process mail volume.

We identified specific mail processing functional areas where San Francisco P&DC management could improve efficiency. Improvements in those areas could eliminate 486,781 workhours. Alternatively, to increase efficiency, management could increase volume by 533 million mailpieces per year through consolidations. It could also employ a combination of workhour reductions and mail volume increases to improve efficiency.

# The San Francisco Processing and Distribution Center Could Improve Efficiency

We identified specific mail processing functional areas where the San Francisco P&DC could improve efficiency. Table 1 shows potential workhour savings by labor distribution code (LDC).<sup>3</sup>

We calculated potential workhour savings for LDC 10 by determining the authorized supervisory workhours and comparing that number to supervisory workhours used.

We calculated potential workhour savings for LDCs 11, 12, 13, and 14 by raising San Francisco P&DC productivity to the average productivity of all Group 1 plants with above-median productivity.

We calculated potential workhour savings for LDC 17 by raising the San Francisco P&DC Breakthrough Productivity Initiative (BPI)<sup>4</sup> performance achievement to the FY 2013 national BPI performance achievement.

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We identified specific mail processing functional areas where San Francisco P&DC management could improve efficiency.

<sup>3</sup> A 2-digit code that identifies employees' major work assignments. The first number identifies the function within an office and the second number identifies the activity being performed.

<sup>4</sup> A nationwide program that identifies, documents, and replicates operational process improvements to standardize operations, increase efficiency, and reduce costs.

## **Table 1: Summary of Potential Workhour Reductions**

Eliminating 486,781 workhours at existing FHP levels would raise the San Francisco P&DC's productivity to 1,095 pieces processed per workhour.

Maintaining the existing workhours and increasing the volume of mail processed by 533 million mailpieces would also raise productivity to a level of 1,095 mailpieces processed per workhour.



Source: U.S. Postal Service Office of Inspector General (OIG) calculations.

For an analysis of potential workhour reductions by LDC, see Appendix B.

Eliminating 486,781 workhours at existing FHP levels would raise the San Francisco P&DC's productivity to 1,095 pieces processed per workhour (see Table 2).

## Table 2: Productivity Increase Based on Workhour Reduction

San Francisco P&DC		
FY 2013 FHP Volume	1,410,022,327	
FY 2013 Workhours	1,774,268	
FY 2013 Productivity	795	
Recommended Workhour Reduction	486,781	
San Francisco P&DC Target Workhours	1,287,487	
Target Productivity	1,095	

Source: Enterprise Data Warehouse (EDW) and OIG calculations.

Maintaining the existing workhours and increasing the volume of mail processed by 533 million mailpieces would also raise productivity to a level of 1,095 mailpieces processed per workhour (see Table 3). Consolidating mail processing operations from other plants would be one way to increase volume at the San Francisco P&DC and it would also increase machine utilization.

<sup>5</sup> Workhours required to raise the San Francisco P&DC's productivity level to 1,095 mailpieces processed per workhour.

### Table 3: Productivity Increase – Additional Volume

San Francisco P&DC	
FY 2013 FHP Volume	1,410,022,327
FY 2013 Workhours	1,774,268
FY 2013 Productivity	795
Recommended Volume Increase	533,109,910
San Francisco P&DC Target FHP Volume®	1,943,132,237
Target Productivity	1,095

In FY 2013, the San Francisco P&DC's FHP productivity was 795 mailpieces per workhour, ranking it 34th of 36 Group 1 plants.

#### Source: EDW and OIG calculations.

#### Comparison to Other Processing and Distribution Centers

In FY 2013, the San Francisco P&DC's FHP productivity was 795 mailpieces per workhour, ranking it 34th of 36 Group 1 plants, as shown in Figure 1. This was 259 fewer mailpieces processed per workhour than the comparable P&DC at the median productivity level.

#### Figure 1: Group 1 Plants' FHP Productivity for FY 2013



6 Volume required to raise the San Francisco productivity level to 1,095 mailpieces processed per workhour.

In addition, from FY 2011 to FY 2013, productivity at the San Francisco P&DC decreased by 3.32 percent while productivity for all Group 1 plants increased by 0.51 percent (see Table 4).

## Table 4: FHP Productivity Comparison of Mailpieces per Workhour

The San Francisco P&DC had sufficient machine capacity to process its mail volume.

Fiscal Year	Group 1 Median-Productivity Plant	San Francisco P&DC
2011	1,049	822
2012	1,078	798
2013	1,054	795
Total Percentage Change	0.51%	-3.32%

Source: EDW and OIG calculations.

Eliminating 486,781 workhours, or increasing mail volume by 533 million mailpieces, or a combination of the two would allow the San Francisco P&DC to achieve a productivity level of 1,095 mailpieces processed per workhour. This performance would exceed the Group 1 plant median-productivity level of 1,054 mailpieces processed per workhour.

#### **Machine Capacity**

The San Francisco P&DC had sufficient machine capacity to process its mail volume. It could increase the volume processed by increasing runtime and reducing idle time. For example, we found that the operational window on the Automated Flat Sorting Machine 100 (AFSM 100)<sup>7</sup> and Automated Parcel and Bundle Sorters (APBS)<sup>8</sup> could be expanded by 4 hours. We also found that the P&DC could increase capacity by reducing idle time during the current operational window by 50 percent on the Delivery Bar Code Sorter (DBCS),<sup>9</sup> Delivery Barcode Sorter Input/Output Subsystem (DIOSS),<sup>10</sup> and Flat Sequencing System (FSS)<sup>11</sup> (see Table 5). Overall, the San Francisco P&DC has the potential to process over 587 million additional mailpieces per year.

## **Table 5: Machine Capacity**

Equipment	FY 2013 Mailpieces Fed	Machine Capacity	Additional Capacity
AFSM 100	137,804,093	209,815,510	72,011,417
APBS	54,906,982	70,641,737	15,734,755
DBCS	1,823,364,315	2,224,238,122	400,873,807
DIOSS	326,783,293	415,504,808	88,721,515
FSS	90,143,833	99,839,727	9,695,894
Total	2,433,002,516	3,020,039,904	587,037,388

Source: Web End-of-Run (WebEOR) and OIG calculations.

A fully automated machine that processes flat size mail.

8 A machine with barcode and optical character reader technology that sorts small parcels and packages or bundles of letters and flats to specific bins for either delivery or processing.

9 An automated letter sorting machine used for letter-size mail already barcoded by mailers or the Postal Service on other mail processing equipment.

10 A multi-functional letter mail processing system based on the DBCS with additional components for optical character recognition and image lift to the input subsystem as well as supporting output subsystem capabilities to spray barcodes on mail.

11 A two-pass flats sorting machine that automates the sorting of flat-sized mail into precise delivery order.

#### **Employee Complement**

Management would have to reduce the San Francisco P&DC's complement to increase productivity to the level of median Group 1 plants. As of May 30, 2014, there were 1,031 mail processing employees at the San Francisco P&DC and 901 of them were career employees (see Table 6).

To save the recommended 486,781 workhours, the P&DC needs about 280 fewer employees. We found that 47 percent of the San Francisco P&DC's career employees are eligible to retire. Assuming an annual retirement rate of about 9 percent,<sup>12</sup> the San Francisco P&DC could achieve the recommended workhour savings over the next 2 fiscal years (see Table 7).

## **Table 6: Complement Summary**

Complement	Career	Non-Career	Total
Management	40	N/A	40
Clerk	512	69	581
Mail Handler	349	61	410
Total	901	130	1,031
Number of Career Employees Eligible to Retire	419	N/A	N/A
Percentage of Career Employees Eligible to Retire	47%	N/A	N/A

Source: Web Complement Information System (WebCOINS),13 May 30, 2014.

## Table 7: Potential Savings Through Reduction of Non-career and Retirements

	Number of Employees	Annual Workhours	Cumulative Projected Workhour Savings
FY 2015 Non-Career Reduction	130	226,200	226,200
FY 2015 Projected Retirements	81	140,836	367,036
FY 2016 Projected Retirements	74	128,184	495,219

Source: WebCOINS, EDW, and OIG calculations.

#### **Causes and Impact on Operations**

Management at the San Francisco P&DC eliminated 157,645 workhours in FY 2013, an 8.16 percent decline from FY 2012. During the same period, volume decreased by 131,783,127 mailpieces (or 8.55 percent). This indicates that San Francisco P&DC management did not fully adjust workhours to workload. We also found management did not fully analyze operational efficiency by benchmarking operations against comparable plants and did not adequately supervise employees. Additionally, our observations revealed that San Francisco P&DC management did not maximize use of automated equipment. Consequently, the facility was using more workhours than necessary to process its mail volume.

To save the recommended

486,781 workhours, the P&DC

needs about 280

fewer employees.

<sup>12</sup> We estimated the retirement rate at 9 percent by dividing 81 FY 2015 projected retirements by 901 total career employees.

<sup>13</sup> A system that gives local management a resource for monitoring and tracking employee complement.

If the San Francisco P&DC eliminated 486,781 mail processing workhours, it could save over \$21 million in labor costs per year. Appendix C provides suggestions to help the San Francisco P&DC improve efficiency. These suggestions are not recommendations and management may implement them at their discretion.

#### San Francisco Processing & Distribution Center Management Actions

If the San Francisco P&DC eliminated 486,781 mail processing workhours, it could save over \$21 million in labor costs per year. Management at the San Francisco P&DC took steps to increase efficiency. For example, on June 2, 2014, management moved processing of North Bay 949 and 954 mail volume from the Oakland P&DC to the San Francisco P&DC. This will result in about 82.4 million more mailpieces per year for the San Francisco P&DC. Also, during the first 9 months of FY 2014, FHP productivity increased to 811 mailpieces processed per workhour.

Management has initiated a project to relocate and expand three APBSs to reduce rehandling of mail and improve efficiency. This project required at least one APBS to be out of service at a time and resulted in some disruption of employee schedules during our observations. Also, management immediately corrected instances of employees taking extended breaks when brought to their attention.

Although San Francisco P&DC productivity is lower than the median productivity, we found that External First-Class (EXFC)<sup>14</sup> service scores in the categories of Overnight, 2-day, and 3-day mail were higher than the national average (see Table 8).

#### Table 8: FY 2013 EXFC Service Scores

EXFC Standard	San Francisco P&DC	National Average	Difference
Overnight	96.76	96.27	0.49
2-Day	95.90	95.34	0.56
3-Day	93.24	91.65	1.59

Source: EDW.

<sup>14</sup> A system designed to measure service performance from a customer's perspective.

# Recommendations

We recommend management eliminate 486,781 workhours to produce an annual cost avoidance of over \$21 million or increase mail volume by 533 million mailpieces, or increase efficiency by a combination of these actions. We also recommend management periodically evaluate operational efficiency and staffing, analyze operational efficiency by benchmarking operations against those of similarly sized plants, maximize the use of automated equipment, and improve supervision of employees.

Efficiency of the San Francisco, CA, Processing and Distribution Center Report Number NO-AR-15-001 To improve efficiency at the San Francisco Processing and Distribution Center (P&DC), we recommend the district manager, San Francisco District, instruct San Francisco P&DC management to:

- 1. Increase efficiency by eliminating 486,781 workhours, or increase mail volume by 533 million mailpieces, or combine these actions to produce an annual cost avoidance of over \$21 million.
- 2. Periodically evaluate operational efficiency and staffing to determine whether further workhour adjustments are necessary based on workload and analyze operational efficiency by benchmarking operations against those of similarly sized plants.
- 3. Maximize the use of automated equipment by reducing machine idle time and expanding the operational window where possible.
- 4. Improve supervision of employees to ensure they are all fully engaged and fill supervisory vacancies and reduce supervisor replacement workhours accordingly.

## **Management's Comments**

Regarding recommendation 1, management disagreed with the methodology and monetary calculation rather than the finding of improving efficiency. With regard to improving efficiency, management acknowledges that opportunities for improvement exist and has begun to take corrective action by reducing workhours by 108,839 in FY 2014 and increasing volume. Management agreed with recommendations 2, 3, and 4.

Regarding recommendation 2, management stated they update the baseline model benchmarking tool, which complies with the Pacific Area's semiannual submission requirement, for any new headquarters mail processing activity. Management also stated that, through September 2015, they will continue to monitor and implement activities and strategies for improving productivity and throughputs to the established targets of mail processing functions.

Regarding recommendation 3, management stated that, since May 2014, the San Francisco P&DC's operational window expanded due to moving mail from the North Bay, CA, P&DC, which will be final in July 2015. Management stated that, with the addition of the volume from the North Bay P&DC, they adjusted preventative maintenance windows and run plant generators to improve machine utilization.

Regarding recommendation 4, management agreed to work with Human Resources to fill supervisory positions timely and to continuously coach supervisors on managing craft employees. Management stated they will implement a weekly review in November 2014 to match supervisory workhours to workload. Management also stated that by November 2014 they will develop a timeline to move the current location of the employee's locker rooms.

See Appendix D for management's comments, in their entirety.

# **Evaluation of Management's Comments**

The OIG considers management's comments responsive to recommendations 2, 3, and 4 and the corrective actions should resolve the issues identified in the report. Regarding management's partial disagreement with recommendation 1, the OIG believes the methodology for assessing the potential workhour reductions and labor cost savings was appropriate. For LDC 10, we calculated potential workhour savings by determining the authorized supervisory workhours and comparing that number to supervisory workhours used. For LDCs 11, 12, 13, and 14, we calculated potential workhour savings by raising San Francisco P&DC productivity to the average productivity of Group 1 plants with above-median productivity. For LDC 17, we calculated potential workhour savings by raising the San Francisco P&DC's BPI performance achievement goal to the actual national average performance achievement level.

Because management provided proactive actions they are taking to improve efficiency, the OIG will not pursue recommendation 1 through the formal audit resolution process, but will reevaluate the efficiency of the San Francisco P&DC in the future. Recommendation 1 will be closed with the issuance of this report.

# Appendices

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# Appendix A: Additional Information

## Background

Mail processing is an integrated group of activities<sup>15</sup> required to sort and distribute mail for dispatch and eventual delivery. Post offices, stations, and branches send outgoing (originating) mail to P&DCs and processing and distribution facilities for processing and dispatch for a designated service area. P&DCs report directly to area offices on mail processing matters and 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 250 plants with mail processing operations.

We stratified the plants that process mail into seven groups ranked by mail volume. Table 9 shows the number of mail processing plants in each group and their volume range. Group 1 plants are the largest and Group 7 plants are the smallest.

Plant Group	FHP Volume in Millions	Number of Plants
1	1,400 and above	36
2	900 to 1,399	37
3	600 to 899	38
4	370 to 599	37
5	250 to 369	37
6	130 to 249	39
7	0 to 129	38
Total		262

## Table 9: Plant Groups Based on FHP Volume

Source: EDW.

The San Francisco P&DC is a Group 1 plant in the U.S. Postal Service's Pacific Area. This facility processes inbound and outbound mail for the city of San Francisco and associate offices in the surrounding area. In FY 2013, the San Francisco P&DC processed about 1.41 billion mailpieces, a decrease of about 8.5 percent from FY 2012.

Title 39 U.S.C. §403 (a) states "The Postal Service shall plan, develop, promote, and provide adequate and efficient postal services ...." The *U.S. Postal Service Transformation Plan* also recommends that the Postal Service improve productivity. The Postal and Accountability 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 ...."

<sup>15</sup> Mail processing activities include culling, edging, stacking, facing, canceling, sorting, tying, pouching, and bundling.

During FY 2013, the Postal Service further realigned its operations to cut additional costs and strengthen its finances. These operational realignments included reducing the number of mail processing facilities, realigning retail office hours to match demand, reducing the number of delivery routes, and consolidating delivery offices. The Postal Service was able to increase revenue and cut costs; however, it still faced a loss from ongoing business activities and ended FY 2013 with a net loss of about \$5 billion. The Postal Service continues to face significant financial challenges and, as of March 31, 2014, had a net loss of over \$2.2 billion. The Postal Service has ongoing strategies to increase operational efficiency.

# **Objective, Scope, and Methodology**

Our objective was to assess the efficiency of San Francisco, CA, P&DC mail processing operations. We performed this audit based on an analysis of overall plant efficiency for FY 2013. As a result of that analysis, we identified the San Francisco P&DC as having the potential for significant savings through improved efficiency. Our mail processing risk model had a similar finding. To maximize efficiency, the goal is to process mail using the least amount of resources and still achieve service standards.

To assess the efficiency of the San Francisco P&DC, we observed mail processing operations during the week of June 2, 2014, analyzed FY 2013 mail volume and workhours, evaluated machine usage, interviewed Postal Service officials, and benchmarked achievement to target productivities of similarly sized plants.

We conducted this performance audit from May through November 2014, in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on October 2, 2014, and included their comments where appropriate.

To conduct this review, we relied on computer-generated data maintained by Postal Service operational systems, which include the Management Operating Data System, webCOINS, the National Maintenance Activity Reporting System, the Web-based Mail Condition Reporting System, WebEOR, and the EDW. We assessed the reliability of the data by confirming our analysis and results with Postal Service management and found no material differences. 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 (in millions)
Assessment of Overall Plant Efficiency 2013	NO-MA-13-007	9/26/2013	\$628.7
Report Results: The Postal Service nowever, we found the Postal Service possible efficiencies in mail procession performance based on median produ- more than necessary to process mail	made substantial progress b e had not yet fully adjusted we ng operations. Also, manager activity for each plant grouping I volume. Management agree	y reducing workhours in the network orkhours in response to declining ma nent had not evaluated operational of g. Therefore, the Postal Service use of with the recommendations.	k from the previous year; ail volume or achieved all efficiency by assessing d over 14 million workhours
Supervisor Workhours and Span of Control	NO-MA-13-005	4/4/2013	\$12
Report Results: Although the Posta did not always achieve its span of vas a shortage of 412 regular supe Y 2012. Replacement supervisors Postal Service did not always adjus addition, the Postal Service did not Postal Service incurred excess cost with the recommendations.	al Service generally reduced control target. Specifically, v rvisors nationwide and an ex are craft employees used to t supervisor positions in rela always monitor span of cont s from replacement supervis	supervisor workhours in relation to ve found that, based on the 1:25 sp ccess of 1.8 million replacement sup backfill supervisors. These condit ation to craft positions to achieve sp trol during the plant consolidation p for workhours with no real added be	o craft employee workhours, ban of control target, there pervisor workhours used in tions occurred because the ban of control targets. In process. As a result, the enefit. Management agreed
Efficiency Review of the Cleveland, OH, Processing and Distribution Center	NO-AR-12-005	6/5/2012	\$22.7
Report Results: While the Clevelar urther opportunities exist for improv 2&DCs or take full advantage of exi	nd P&DC made significant pr rement. Specifically, the Clev sting automation. Managem	ogress in increasing productivity develand P&DC did not attain the efficient agreed with the recommendation	uring the past several years, ciency achieved by other large ons.
Assessment of Overall Plant Efficiency 2012	NO-MA-12-001	4/27/2012	\$665
Report Results: We found the Posi because of poor economic condition could improve operational efficiency with the recommendations.	tal Service had not yet fully and so a chieved all possible ef by reducing more than 14.2	adjusted workhours in response to a ficiencies in mail processing opera million workhours by the end of F	declining mail volume tions. The Postal Service Y 2014. Management agreed

# Appendix B: Potential Sources of Workhour Reductions by Labor Distribution Code

We identified the following potential sources of workhour reductions by LDC that would enable the San Francisco P&DC to improve efficiency.

#### LDC 10 – Supervision

The San Francisco P&DC used more supervisory workhours than expected based on its complement of 40 supervisors. We found that the San Francisco P&DC used about 14,846 replacement supervisor workhours in FY 2013, or the equivalent of eight replacement supervisors (see Table 10).

### **Table 10: Summary of Supervisor Workhours**

Number of Supervisors	Hours Worked Per Year	Expected Supervisor Workhours	Actual Supervisor Workhours	Replacement Supervisor Workhours
40	1,828	73,120	87,966	14,846

Source: WebCOINS, OIG calculations and the Postal Service's Finance web page.

Replacement supervisors are generally less qualified, independent, experienced, and accountable than regular supervisors. The intent of the replacement supervisor program is to train and develop future supervisors rather than serve as a primary means of providing mail processing oversight. The San Francisco P&DC has an authorized complement of 46 supervisors and managers, with six vacancies (see Table 11). The vacancies should be filled and supervisor replacement workhours reduced accordingly (see Table 12).

## Table 11: Manager and Supervisor Staffing

Туре	Authorized	Actual	Difference
Managers	6	5	-1
Supervisors	40	35	-5
Total	46	40	-6

Source: WebCOINS and OIG calculations.

## Table 12: Potential Workhour Reduction LDC 10 – Supervision

Number of Authorized Supervisors	Workhours Per Year	Supervisor Workhours at Authorized Complement	Actual Supervisor Workhours	Potential Reduction in Supervisor Workhours
46	1,828	84,088	87,966	3,878

Source: WebCOINS and OIG calculations.

Observations at the San Francisco P&DC indicated supervisors were not always fully engaged in supervising employees. At times we could not find supervisors in active operations and noted that some employees stopped operations early and took extended breaks.

#### LDC 11 - Automated Distribution - Letters

Opportunities exist to increase the San Francisco P&DC's efficiency in letter automation operations. In FY 2013, above-median Group 1 plants processed, on average, 4,074 mailpieces per workhour, while the San Francisco P&DC processed an average of 3,510 mailpieces per workhour. Eliminating 45,385 LDC 11 workhours would enable the San Francisco P&DC to achieve the average productivity of above-median Group 1 plants (see Table 13).

## Table 13: LDC 11 – Potential Workhour Reduction

	Above-Median Productivity Group 1 Plants	San Francisco P&DC
FHP Volume	26,705,011,081	1,151,793,197
Workhours	6,555,636	328,131
Productivity	4,074	3,510
San Francisco P&DC Actual Workhours		328,131
San Francisco P&DC Target Workhours <sup>16</sup>		282,746
Potential Workhour Savings		45,385

Source: EDW and OIG calculations.

Several factors negatively impacted the efficiency of the San Francisco P&DC's DBCSs. For example, in FY 2013, the San Francisco P&DC's DBCS jam rate was 2.37 jams per 10,000 mailpieces. The best Group 1 plant had a jam rate of 1.36 per 10,000 mailpieces. Also, the median FHP productivity Group 1 plant had a lower jam rate of 1.78 per 10,000 mailpieces. Jams create mail that has to be reworked and reduces throughput,<sup>17</sup> resulting in mail processing inefficiencies.

Observations at the San Francisco P&DC revealed that:

- Some mail processing machines were improperly staffed. For example, improper staffing resulted in DBCSs operated by too many or too few employees. It is more efficient to operate machines with two employees (see Figure 2 and Figure 3).
- Employees were frequently idle, indicating overstaffing.
- Employees were manually sorting machinable letter mail (see Figure 4).

<sup>16</sup> Target workhours are the number of workhours required to raise the San Francisco P&DC productivity to the average of the above median Group 1 plants.

<sup>17</sup> The rate at which a machine processes mail, usually designated in mailpieces per hour.

Figure 2: Machine Overstaffed



Source: OIG photograph taken June 4, 2014, 12:41 a.m. Note: Five employees are working on a DBCS but only two are needed to run a DBCS productively.

# Figure 3: Machine Understaffed



Source: OIG photograph taken June 2, 2014, 10:27 p.m. Note: One employee is operating a DBCS but optimal staffing for a DBCS is two employees.

Figure 4: Machinable Letter Mail Sorted Manually



Source: OIG photograph taken June 2, 2014, 7:55 p.m. Note: One of three clerks in this area is shown working machinable mail by hand.

LDC 12 – Automated/Mechanized Distribution – Flats

The San Francisco P&DC can improve the efficiency of its automated/mechanized flats distribution operations. Above-median Group 1 plants processed, on average, 2,939 mailpieces per workhour during FY 2013, while the San Francisco P&DC processed 2,364 mailpiece per workhour. Increasing the San Francisco P&DC's efficiency to the average of the above-median Group 1 plant could save 11,139 workhours annually (see Table 14).

## Table 14: LDC 12 Potential Workhour Reduction

	Above-Medium Productivity Group 1 Plants	San Francisco P&DC
FHP Volume	2,990,426,434	134,604,153
Workhours	1,017,465	56,937
Productivity	2,939	2,364
San Francisco P&DC Actual Workhours		56,937
San Francisco P&DC Target Workhours		45,798
Potential Workhour Savings		11,139
Source: EDW and OIG calculations.		

Other opportunities exist for the San Francisco P&DC to improve the efficiency of its automated/mechanized flats distribution operations (LDC 12). For example, the San Francisco P&DC's AFSM 100 throughput rate was 14,834 in FY 2013. The best Group 1 plant had a throughput rate of 19,189. The median Group 1 plant based on FHP productivity also had a higher throughput rate of 16,381. Lower throughput on automated equipment results in inefficiency because mail is not being processed as quickly as possible.

Additionally, in FY 2013, the San Francisco P&DC AFSM 100 jam rate was 19.51 per 10,000 mailpieces. The best Group 1 plant had a jam rate of 9.06 per 10,000 pieces. A higher jam rate results in lower throughput. Further, the San Francisco P&DC AFSM 100 reject rate was 3.79 percent. The best Group 1 plant had a reject rate of 0.97 percent. The median Group 1 FHP, median-productivity plant also had a lower reject rate of 2.17 percent.

When management does not properly instruct employees on procedures for jogging<sup>18</sup> and culling<sup>19</sup> the mail and does not ensure equipment is properly or sufficiently maintained, the number of rejects and jams can increase and throughput can decrease.

Observations at the San Francisco P&DC revealed that:

- Flat sorter operations were not always adequately supervised. For example, AFSM 100s were found to be idle for as long as 15 minutes after the shift had started.
- Some employees were frequently idle, indicating overstaffing.
- Machinable flat mail was being sorted manually (see Figure 5).

## Figure 5: Machinable Flat Mail Sorted Manually



Source: OIG photograph taken June 2, 2014, 10:14 p.m. Note: Machinable flat mail being staged and sorted manually.

<sup>18</sup> To hit or shake a handful of mailpieces against a hard surface to align their edges.

<sup>19</sup> To remove pieces that are too thick, stiff, long, or tall for machine processing.

#### LDC 13 - Mechanized Distribution - Other

The San Francisco P&DC can improve the efficiency of its mechanized parcel, bundle, and tray distribution operations. Above-median productivity Group 1 plants processed, on average, 176 mailpieces per workhour during FY 2013, while the San Francisco P&DC processed 126 mailpieces per workhour. Increasing the San Francisco P&DC to the average of the above-median Group 1 plant could save 76,656 workhours annually (see Table 15).

## Table 15: LDC 13 Potential Workhour Reduction

	Above-Medium Productivity Group 1 Plants	San Francisco P&DC
FHP Volume	545,423,070	34,310,803
Workhours	3,107,314	272,127
Productivity	176	126
San Francisco P&DC Actual Workhours		272,127
San Francisco P&DC Target Workhours		195,471
Potential Workhour Savings		76,656

Source: EDW and OIG calculations.

Observations at the San Francisco P&DC revealed that:

APBSs were sometimes operated with too many employees (see Figure 6).

■ Low Cost Tray Sorters (LCTS)<sup>20</sup> were often overstaffed (see Figure 7).

<sup>20</sup> A system made up of barcode-reading cameras, a powered roller conveyor, and a narrow belt sorter with pneumatic pop-up rollers for diverting product, replacing the manual sorting of letter trays and flat tubs.

Figure 6: APBS Overstaffed



Source: OIG photograph taken June 3, 2014, 10:00 p.m.

Note: Every space on the APBS is filled with a parcel. As a result, one of the five employees cannot process mail because the first four employees fill every available space.

## Figure 7: Excessive Staffing on LCTS



Source: OIG photograph taken June 3, 2014, 12:22 a.m. Note: Excessive staffing on the LCTS. One employee is feeding the LCTS and 10 are staffing the run outs waiting for mail. This is an example of an idle employee at one of the run outs.

#### LDC 14 – Manual Distribution

Opportunities in manual operations are twofold. First, the San Francisco P&DC can improve the efficiency of its manual distribution operations. Above-median productivity Group 1 plants process, on average, 731 mailpieces per workhour, while the San Francisco P&DC processes 357 mailpieces per workhour. In addition, the San Francisco P&DC processes excess mail in manual operations. Reducing the amount of mail processed manually to the average percentage of the above-median productivity Group 1 plants and increasing the San Francisco P&DC productivity to the average of the above-median productivity Group 1 plants could save 166,606 workhours annually (see Table 16).

## Table 16: LDC 14 Potential Workhour Reduction

	Above-Medium Productivity Group 1 Plants	San Francisco P&DC
FHP Volume	2,061,979,349	84,012,465
Workhours	2,819,061	235,199
Productivity	731	357
San Francisco Target Volume <sup>21</sup>		50,171,762
San Francisco P&DC Actual Workhours		235,199
San Francisco P&DC Target Workhours		68,593
Potential Workhour Savings		166,606

Source: EDW and OIG calculations.

<sup>21</sup> Target volume is the amount of volume that should have been sorted manually if the percent manual of the above the median site had been achieved.

Observations at the San Francisco P&DC revealed that:

- Machinable mail was being sorted manually.
- Manual operations were often overstaffed (see Figure 8).

#### Figure 8: Machinable Mail Sorted Manually



Source: OIG photograph taken June 4, 2014, 4:36 p.m. Note: Six clerks are working machinable mail by hand. There is not enough mail to keep six clerks productive.

#### LDC 17 – Mail Processing – Other Direct Operations

The Mail Processing – Other Direct Operations category provides another opportunity for the San Francisco P&DC to reduce workhours. These operations include mail preparation, presort operations, opening, pouching, and platform operations. In FY 2013, the national BPI performance achievement was 54.47 percent, while the San Francisco P&DC's BPI performance achievement was 34.65 percent. If the San Francisco P&DC had the same BPI performance achievement as the national average, it could save 183,117 workhours (see Table 17).

## Table 17: LDC 17 Potential Workhour Reductions

Other Direct Operations	Workhours
Workload <sup>22</sup>	1,030,003,329
Workhours	503,347
San Francisco Actual Productivity	2,046
Target Productivity to Achieve the National BPI Average	3,216
Target Workhours	320,230
Potential Workhour Savings	183,117

Source: EDW, BPI, and OIG calculations.

Observations at the San Francisco P&DC revealed that:

- Idle employees waited for mail in various operations (see Figure 9).
- Tow operators only moved mail in one direction, returning without containers of mail or empty equipment.

## Figure 9: Idle APBS



Source: OIG photograph taken June 3, 2014, 3:41 p.m. Note: Employees waiting for mail so they can begin ABPS operations.

<sup>22</sup> The sum of Total Piece Handling (TPH) and non-add TPH. For manual operations, TPH is the total of FHP and subsequent handling pieces. For machine operations, TPH is total pieces fed minus any reworks or rejects. For non-distribution operations, the TPH count is not added to the mail processing distribution total and is referred to as non-add TPH.

# Appendix C: Suggestions for Improving Efficiency<sup>23</sup>

The following are suggestions for improved efficiency at the San Francisco P&DC.

- Adjust employee schedules to match workload.
- Use the Run Plan Generator to better align staff to workload.
- Expedite plans to move employee break rooms closer to the workroom floor to reduce employee travel time.
- Monitor break areas for employees not scheduled for breaks.
- Eliminate unauthorized break areas.
- Monitor and improve jam and reject rates on equipment.
- Assign maintenance staff to machines frequently needing repairs.
- Clear docks prior to beginning collection operations.
- Improve scheduling of preventative maintenance.
- Ensure color-code tags are complete with time and date.
- Assign employees secondary duties during down time.
- Maximize the use of automation.
- Involve the Business Service Network to improve mail quality.
- Have supervisors move with employees to other operations.
- Have supervisors meet employees at the time clock when they clock in.
- Ensure employees remain busy until the end of their tour.
- Coordinate tow operator trips to move mail on all trips.

<sup>23</sup> These items present options to management as possible sources of workhour reductions. These best practices observed at other facilities are not recommendations and management may implement them at their discretion.

# Appendix D: Management's Comments



POSTAL SERVICE

October 29, 2014

Lori Lau Dillard Director, Audit Operations

Subject: Draft Audit Report – Efficiency of the San Francisco Processing and Distribution Center (Report Number NO-AR-15-DRAFT)

Thank you for your analysis of the Mail Processing operations at the San Francisco P&DC. Management does not agree with each of findings identified in this report. This report simplifies an overview of the SF P&DC mail processing operations of machine capabilities by first handling pieces productivity. We do agree there is room for improving SF P&DC efficiencies but disagree on the methodology in arriving at monetary impacts.

We do agree in part of recommendations # 2, #3 and # 4 in this report.

#### Recommendation 1:

Increase efficiency by eliminating 486,781 work hours, or increase mail volume by 533 million mail pieces, or combine these actions to produce an annual cost avoidance of over \$21 million.

#### Management Response/Action Plan:

**Disagree.** In the past two fiscal years SF P&DC continues to reduce work hours based upon workloads with savings of 157,053 hours for FY 2013. This year, FY 2014, SF P&DC further reduced work hours by 108,839 hours through baseline modeling of F1 and improved efficiencies.

To increase workload, the SF P&DC took on North Bay (NB) originating product lines on May 17, 2014, and all NB destinating product lines from NB on July 1, 2014. (Excluding destinating letters) The SF P&DC will continue to increased workload for FY 2015, and yet to be determined projected volume increase, as of YTD FY 2015, FHP is 12.1% over plan and 9.7% over SPLY.

In addition, total F1BPI for FY 2014 for the SF P&DC was at 59.59% with a target to increase incrementally through FY 2015.

#### Target Implementation Date:

October 2014 through September 2015

Responsible Official: Senior Plant Manager

#### Recommendation 2:

Periodically evaluate operational efficiency and staffing to determine whether further work hour adjustments are necessary based on workload and analyze operational efficiency by benchmarking operations against those of similarly sized plants.

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#### Management Response/Action Plan:

Agree. SF P&DC updates the F1 Baseline Model benchmarking tool and is in compliance with the Pacific Area's twice a year submission. In addition, any new Headquarter Mail Processing activity such as the new 24HR clock initiative, initiates an updated F1 Baseline Model, most updated F1 Baseline model is dated August 14, 2014.

Management consistently monitors and implements activities and strategies for improving productivity and throughputs to the established targets of mail processing functions. A plant similar size does not specifically equal same throughput/ productivity due to different sets of equipment and logistics.

#### Target Implementation Date:

October 2014 through September 2015

#### **Responsible Official:**

Manager In-Plant Support

#### **Recommendation 3:**

Maximize the use of automated equipment by reducing machine idle time and expanding the operational window where possible.

#### Management Response/Action Plan:

Agree. Since May 2014, the SF P&DC operational window has expanded due to the additional NB's volumes; letter volume increased by 44% from SPLY, flat volumes increased by 29.9% and parcel volume increased by 30% from SPLY.

With the addition of NB volumes from May 2014 through June 2014, preventative maintenance windows and Run Plan Generators were adjusted for the increase of volume and improvement of machine utilization. As seasonal volumes change in product line the RPG's are continuously modified in the SF P&DC.

#### Target Implementation Date:

The NB volume move June 2014 and will finalize in July 2015

#### Responsible Official:

Senior Plant Manager

#### Recommendation 4:

Improve supervision of employees to ensure they are all fully engaged and fill supervisory vacancies and reduce supervisor replacement work hours accordingly.

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#### Management Response/Action Plan:

Agree. San Francisco Plant will work with Human Resources to fill EAS 17 positions timely. The most current EAS first level supervisory positions were filled in July 2014. Continuous coaching on proper engagement of supervisor staff managing back to basics with craft employee is ongoing.

A weekly review of higher level hours utilized will be implemented to match work hours to workload for supervisory staffing.

In addition, based on suggestions in the report, we are currently in progress of identifying potential square foot space on the first floor (occupied by administrative functions) space to relocate and move the current location of the employee's locker rooms from the second floor, to reduce travel time. (Build out)

#### Target Implementation Date:

November 2014, in reviewing higher level usage November 2014, develop a timeline on identified floor space from current occupants.

#### Responsible Official:

Senior Manager Distribution Operations (Higher Level usage) Manager, Maintenance (Re-location of employee lockers)

We will continue to evaluate operating efficiency and reinforce Postal policies and procedures.

No FOIA concerns on this report.

If you need additional information or have any questions, please contact me at 415-550-5638.

Thank you.

Jiana J. Munoz Diana T. Munoz

Senior Plant Manager San Francisco P&DC

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