



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

**Mail
Processing
Variance
Model**

Audit Report

Report Number
NO-AR-17-010

June 19, 2017

productivity

A close-up photograph of a hand holding a blue marker, drawing a white arrow that curves upwards and to the right. The background is dark blue, and the word "productivity" is written in a light blue, lowercase font below the arrow.



OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Highlights

Our objective was to determine if the Postal Service effectively used the MPV model to increase mail processing productivity.

Management could create more facility-specific and achievable MPV productivity targets.

Background

The U.S. Postal Service established its Mail Processing Variance (MPV) model in fiscal year (FY) 2011 to measure annual mail processing operational performance and efficiency.

The MPV model is a management tool that calculates mail processing productivity by dividing total mailpieces handled by workhours. The MPV model calculates national annual targets by excluding the top 10 percent most efficient facilities and the bottom 10 percent least efficient facilities, and averaging the productivities of the remaining top 25 percent most efficient facilities. Management uses model results to measure the mail processing productivity of all facilities in relation to the targets.

Our objective was to determine if the Postal Service effectively used the MPV model to increase mail processing productivity.

What the OIG Found

We determined the Postal Service did not effectively use the MPV model to increase mail processing productivity. From FYs 2014 to 2016, the Postal Service's mail processing productivity declined by almost 10 percent. According to Headquarters Network Operations management, the changes in productivity were due to mismanaging workhours and not ensuring that employees are recording their workhours in the correct operation.

We surveyed the plant managers of all of the 256 facilities in the MPV model about their use of the MPV model. We specifically questioned their familiarity with and use of the MPV model; whether it helps them evaluate and improve productivity and staffing and identify incorrect workhours; and whether they knew their FY 2016 productivity and MPV targets and if the targets were attainable.

We found correlations between the plant managers' answers and the changes in facility productivity from FYs 2015 to 2016. For respondents who said they used the MPV model more frequently and found it helpful, productivity only decreased by 2.68 percent. For respondents who said they sometimes used the model and found it helpful, productivity decreased by 4.84 percent. Finally for those respondents who said they used the model less frequently or not at all or found it only slightly helpful, productivity decreased by 9.03 percent. If the Postal Service were to use the model more frequently, we estimate it could save over 2.8 million workhours annually, or almost \$120 million.

In addition, management could create more facility-specific and achievable MPV productivity targets. These MPV targets could include recognizing facility differences such as types of mail processed, types of processing machines used, mail volume, and facility size. These factors impact productivity and allow for easier evaluation of individual facility performance compared to productivity targets.



OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

We found that no facility achieved all of the productivity targets for FY 2016. Additionally, on average, about 22 of the 256 processing facilities, or less than 9 percent, met any FY 2016 MPV productivity targets. Headquarters Continuous Improvement management said this was not an issue because facility managers are not expected to meet MPV targets and mail processing facility managers should use the MPV model to compare their productivity to previous periods and improve it.

Headquarters Network Operations management also told us they notify area vice presidents weekly of facilities with the most opportunity for improvement based on the MPV model. Even though Headquarters Network Operations management is making areas aware of opportunities for improvement, when mail processing facility managers do not use the model and do not have specific and achievable productivity targets it is unlikely that productivity will increase.

During our audit we noted that Headquarters Network Operations management has not updated Handbook M-32, *Management Operating Data System*, since March 2009. The handbook does not include the 79 mail processing operations that have since been created but does include

271 such operations that are no longer in use. Postal Service personnel use the handbook as a guide for correctly recording Management Operating Data System volume, workload, and workhours. This information is used in the MPV model to evaluate operational performance. Headquarters Network Operations management could not provide a reason for not updating the handbook and said they maintain current Management Operating Data System operating numbers on a web page.

When mail processing operation numbers are incorrect there is reduced assurance that the MPV model contains accurate data for measuring mail processing operational performance.

What the OIG Recommended

We recommended Postal Service management develop and implement an MPV model usage policy and training for mail processing managers to improve operational efficiency; evaluate developing specific MPV targets for similar mail processing facilities based on type of mail processed, type of processing machines used, mail volume, and facility size; and update Handbook M-32 to reflect all current mail processing operation numbers.

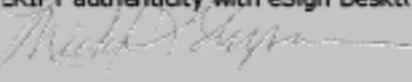
Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

June 19, 2017

MEMORANDUM FOR: ROBERT CINTRON
VICE PRESIDENT, NETWORK OPERATIONS

E-Signed by Michael Thompson
VERIFY authenticity with eSign Desktop


FROM: Michael L. Thompson
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Audit Report – Mail Processing Variance Model
(Report Number NO-AR-17-010)

This report presents the results of our audit of the Mail Processing Variance Model (Project Number 17XG007NO000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Margaret B. McDavid, Director, Network Processing, or me at 703-248-2100.

Attachment

cc: Postmaster General
Chief Operating Officer and Executive Vice President
Corporate Audit and Response Management

Table of Contents

Cover	
Highlights.....	1
Background	1
What the OIG Found	1
What the OIG Recommended	2
Transmittal Letter.....	3
Findings.....	5
Introduction.....	5
Summary	5
Mail Processing Productivity	6
U.S. Postal Service Office of Inspector General Mail Processing Variance Survey	8
Mail Processing Productivity Targets.....	10
Management Operating Data System	13
Recommendations.....	14
Management’s Comments.....	14
Evaluation of Management’s Comments.....	15
Appendices.....	16
Appendix A: Additional Information.....	17
Background	17
Objective, Scope, and Methodology	17
Prior Audit Coverage.....	18
Appendix B: U.S. Postal Service Office of Inspector General Mail Processing Variance Survey	19
Appendix C: Management’s Comments.....	20
Contact Information	23

Findings

We determined the Postal Service did not effectively use the MPV model to increase mail processing productivity.

Introduction

This report presents the results of our audit of the U.S. Postal Service's Mail Processing Variance (MPV) model (Project Number 17XG007NO000). The objective of this self-initiated audit was to determine if the Postal Service effectively used the MPV model to increase mail processing productivity. See [Appendix A](#) for additional information about this audit.

The Postal Service established the MPV model in fiscal year (FY) 2011 to measure annual mail processing operational performance and efficiency. The Postal Service's Office of Continuous Improvement maintains the MPV model.

The MPV model is a management tool that calculates mail processing productivity by dividing total mailpieces handled by workhours. The MPV model calculates national annual targets by excluding the top 10 percent most efficient facilities and bottom 10 percent least efficient facilities, and averaging the productivities of the remaining top 25 percent most efficient facilities. The Postal Services uses the model results as targets for measuring mail processing productivity for all facilities in relation to the targets.

Summary

We determined the Postal Service did not effectively use the MPV model to increase mail processing productivity. From FYs 2014–2016, the Postal Service's mail processing productivity declined by almost 10 percent. According to the Manager, Processing and Distribution Center (P&DC) Operations, productivity changes were due to mismanaging workhours and not ensuring that employees are recording workhours in the correct operation numbers.

We surveyed plant managers of all of the 256 facilities in the MPV model about their use of the MPV model, specifically asking about:

- Their familiarity with and use of the MPV model.
- Whether the MPV model is helpful in evaluating and improving productivity and staffing and identifying incorrect workhours.
- Whether they knew their FY 2016 productivity and MPV targets, and whether those targets were attainable.

See [Appendix B](#) for survey.

We found correlations between how plant managers answered the questions and the changes in productivity at their facilities from FYs 2015–2016. For respondents who said they used the MPV model more frequently and found it helpful, productivity only decreased by 2.68 percent. For respondents who said they sometimes used the model and found it helpful, productivity decreased by 4.84 percent. Finally, for respondents who said they used the model less frequently or not at all and found it only slightly helpful, productivity decreased by 9.03 percent. If the Postal Service were to increase the model's usage, we estimate the Postal Service could save over 2.8 million workhours annually, or almost \$120 million.

In addition, management could create more facility-specific and achievable MPV productivity targets. These MPV targets could include recognizing facility differences such as type of mail processed, type of processing machines used, mail volume, and facility size. These factors impact productivity and allow for easier evaluation of individual facility performance compared to

We found that no facility achieved all productivity targets for FY 2016.

productivity targets. We found that no facility achieved all productivity targets for FY 2016. On average, about 22 of the 256 processing facilities, or less than 9 percent, met any FY 2016 MPV target productivities.

Headquarters Continuous Improvement management said this was not an issue because facility managers are not expected to meet MPV targets and mail processing facility managers should use the MPV model to compare their productivity to previous periods and improve them. Headquarters Network Operations management told us they notify area vice presidents weekly of those facilities with the most opportunity for improvement based on the MPV model. Even though headquarters Network Operations management is making areas aware of opportunities for improvement, when mail processing facility managers do not use the model or have specific and achievable productivity targets it is unlikely that productivity will increase.

During our audit we noted that management has not updated their operations data system handbook¹ since March 2009. The handbook does not include the 79 mail processing operations that have since been created but does include 271 that are no longer in use. Postal Service personnel use the handbook as a guide for correctly recording Management Operating Data System (MODS) volume, workload, and workhours. This information is used in the MPV model to evaluate operational performance. The Manager, P&DC Operations, could not provide a reason for not updating the handbook and said they maintain current MODS operation numbers on a web page.

When mail processing operation numbers are incorrect, there is reduced assurance that the MPV model contains accurate data to measure mail processing operational performance.

Mail Processing Productivity

The MPV model calculates national targets for Labor Description Codes² (LDC) 11 to 18 annually by excluding the top 10 percent most efficient facilities and bottom 10 percent least efficient facilities, and averaging the productivities of the remaining top 25 percent most efficient facilities (see Table 1). The model also calculates an aggregate percentage achievement of all LDC 11 to 18 targets.

Table 1. LDCs Included in the MPV Model

LDC	Description	FY 2017 MPV Productivity Targets
11	Automated Letters	10,428
12	Automated Flats	3,767
13	Mechanized Packages, Trays, and Bundles	344
14	Manual	1,069
15	Remote Bar Code System	5,851
17	Other Direct Operations	11,404
18	Indirect Related	238

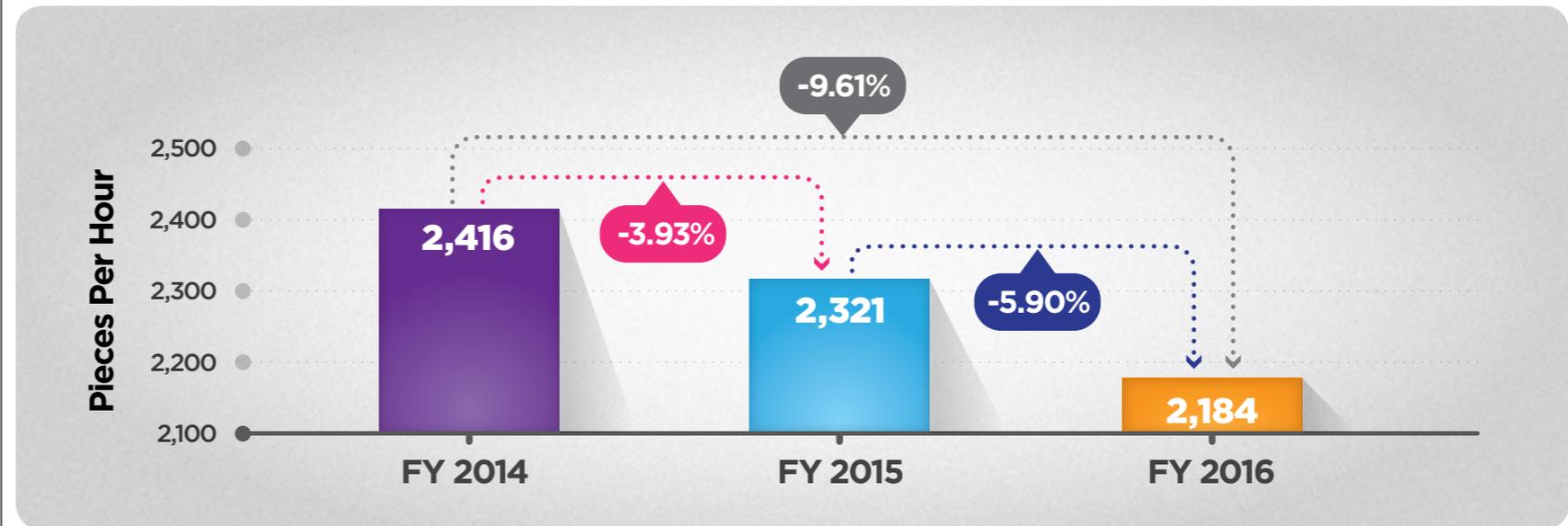
Source: Handbook M-32 and MPV national scorecard.

¹ Handbook M-32, *Management Operating Data System*.

² The Postal Service compiles workhour, workload, and other reports for management’s use by functional category or LDC. An LDC is a 2-digit code that identifies employees’ major work assignments.

From FY 2014 to 2016, the Postal Service's nationwide mail processing productivity for LDCs 11 to 18 declined by almost 10 percent (see Figure 1).

Figure 1. Nationwide Productivity for LDCs 11 to 18



Source: MODS Volume and Workhour reports for FYs 2014-2016.

Specifically, productivity decreased in five of seven LDCs. Productivity did improve in LDC 15 and LDC 18 but those LDCs only accounted for seven percent of total workhours in FY 2016. Additionally, the productivities for each LDC were between 29 percent and 56 percent below the MPV targets (see Table 2).

Table 2. Productivity by LDC

LDC		Change in Productivity 2014 - 2016	Percent Below MPV Target Productivity	Percent of Total LDC 11 to 18 Workhours
11	Automated Letters	-6%	29%	21%
12	Automated Flats	-9%	41%	4%
13	Mechanized Packages, Trays, and Bundles	-9%	39%	19%
14	Manual	-4%	46%	11%
15	Remote Bar Code System	31%	56%	1%
17	Other Direct Operations	-4%	36%	38%
18	Indirect Related	36%	39%	6%
LDC 11 to 18		-10%	N/A	100%

Source: MPV national scorecards for FYs 2014-2016 and MODS Volume and Workhours reports for FYs 2014-2016.

From FY 2014 to 2016, the Postal Service's nationwide mail processing productivity for LDCs 11 to 18 declined by almost 10 percent.

Most respondents said the MPV model is very helpful or helpful in identifying opportunity hours, evaluating and improving productivity by LDC, determining appropriate staffing, and identifying hours charged to incorrect operating numbers.

According to the Manager, P&DC Operations, productivity changes were due to mismanaging workhours and not ensuring that employees record workhours in the correct operation numbers.

U.S. Postal Service Office of Inspector General Mail Processing Variance Survey

We surveyed plant managers of all of the 256 facilities³ in the MPV model about their use of the MPV model (see Appendix B for survey). A total of 120, or 48.9 percent, of the 245 plant managers surveyed responded. Based on those responses we determined the following:

Question 1 - How familiar are you with the MPV model?

One hundred of 120 respondents, or 83 percent, said they were either familiar or very familiar with the MPV model while 20 respondents, or 17 percent, said they were only slightly familiar or not familiar at all (see Figure 2).

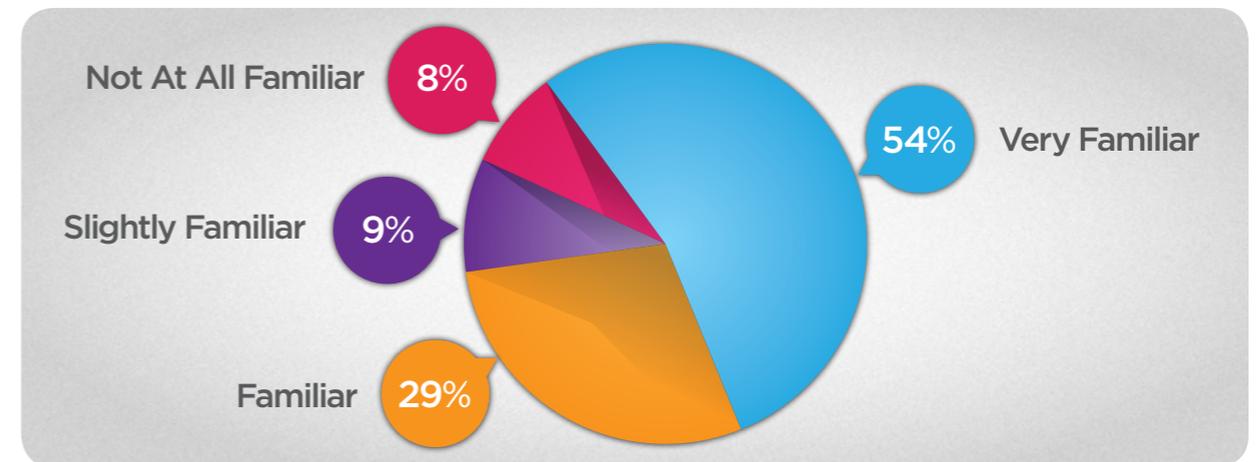
Question 2 - How often, if ever, do you use the MPV model?

Eighty-nine of 120 respondents, or 74 percent, said they use the model daily or weekly while 17 respondents, or 14 percent, said they do not use the model (see Figure 3).

Question 3 - How helpful is the MPV model?

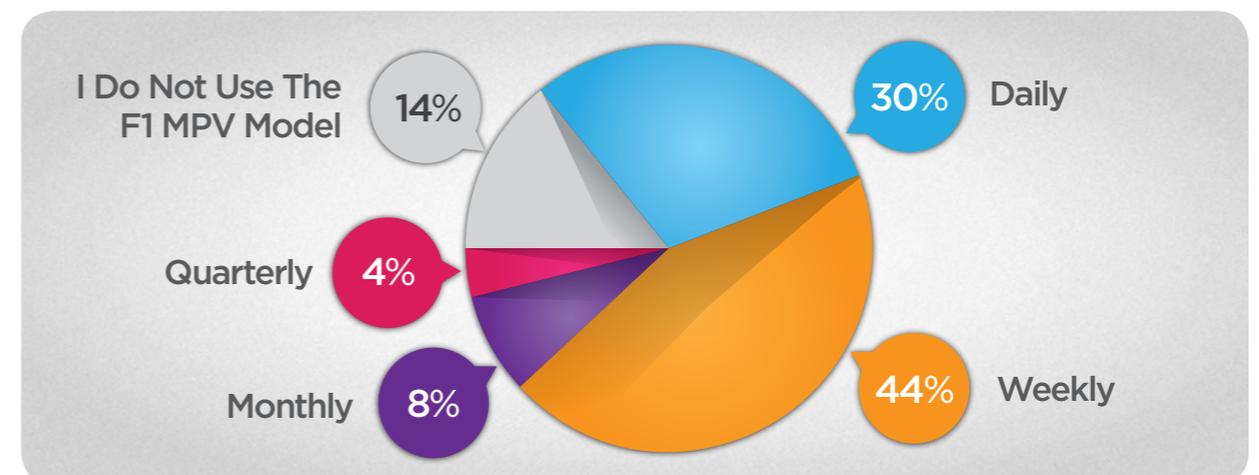
Most respondents said the MPV model is very helpful or helpful in identifying opportunity hours, evaluating and improving productivity by LDC, determining appropriate staffing, and identifying hours charged to incorrect operating numbers (see Table 3).

Figure 2. Plant Managers' Familiarity with the MPV Model



Source: U.S. Postal Service Office of Inspector General (OIG) analysis of survey results.

Figure 3. Plant Managers' Frequency of Use of the MPV Model



Source: OIG analysis of survey results.

³ We identified 256 sites in the FY 2016 MPV model for P&DCs and Processing and Distribution Facilities (P&DF). However, we sent our survey to the 245 plant managers of those sites based on the Postal Service's organizational structure as of February 2, 2017.

Only 57 percent of respondents felt MPV targets were achievable.

Table 3. Summary of Responses to MPV

How Helpful is the MPV Model When...	Very Helpful	Helpful	Slightly Helpful	Not Helpful at All	Have Not Used for This Purpose
Identifying opportunity hours?	30%	42%	16%	3%	9%
Evaluating and improving productivity by LDC?	31%	31%	23%	4%	11%
Determining appropriate staffing?	10%	35%	30%	11%	14%
Identifying hours charged to incorrect operating numbers?	20%	31%	21%	15%	13%

Source: OIG analysis of survey results.

However, overall 94 of the 470 responses, or 20 percent, indicated the MPV model is not helpful or they have not used it for those purposes.

Question 4 - Are there any other ways the MPV model could be useful in your operation?

Of the 33 responders who answered the question, about 36 percent said the model should be broken down by tour and LDC, or each plant should have its own target. About 21 percent said the model is not realistic and the method for calculating projected workloads needed to be adjusted. About 18 percent said the model should be linked to staffing.

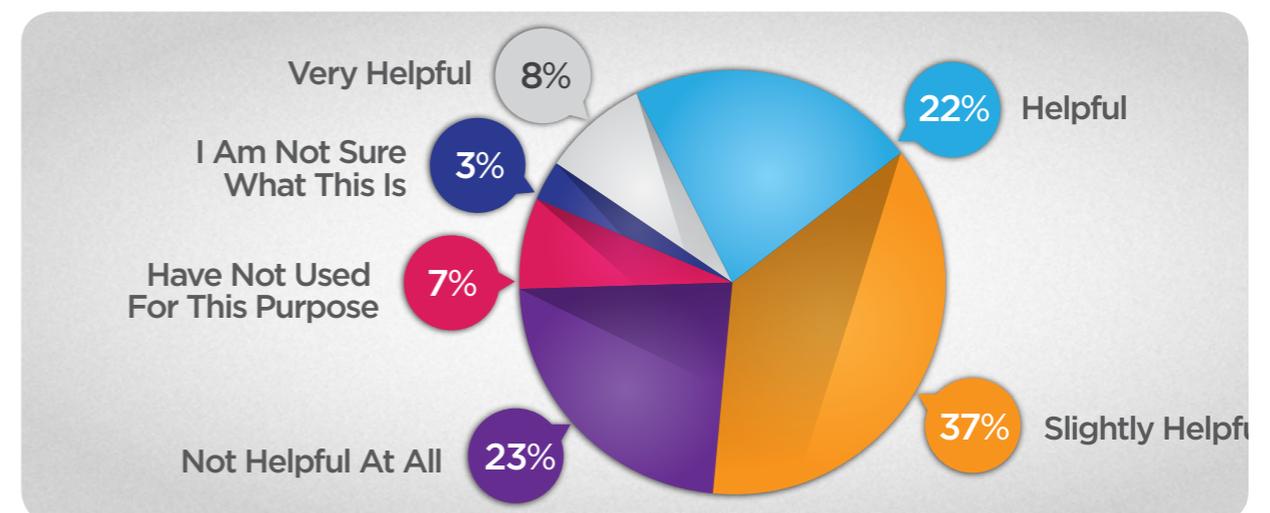
Questions 5, 6, and 7 - Do you know your MPV productivity target? Is it attainable? Do you know your FY 2016 productivity level?

Seventy-nine percent of the 120 respondents said they knew their current MPV target and 78 percent knew their prior year's productivity (95 knew their current MPV target and 94 knew the prior year's productivity); however, only 54 respondents, or 57 percent, felt they were achievable.

Question 8 - How helpful is the Function 1 scheduler for determining optimal staffing?

Thirty-six of 120 respondents, or 30 percent, said the scheduler is either very helpful or helpful in determining optimal staffing. However, 36 of 120 respondents, or 30 percent, have either not used the scheduler or said it is not helpful at all (see Figure 4).

Figure 4. How Helpful is the Function 1 Scheduler?



Source: OIG analysis of survey results.

About 22 percent of respondents said there should be more training on the MPV model.

The targets could include recognizing facility differences such as types of mail processed, types of processing machines, mail volumes, and facility size. These factors impact productivity and allow for easier evaluation of individual facility performance compared to productivity targets.

Question 9 - Are there any other comments that you would like to share with us?

Of the 48 respondents who answered this question, about 53 percent said that the model is not realistic or effective in real-world operations and about 22 percent said there should be more training. Other comments included:

- Productivity targets should be broken out by tour or hourly.
- Workloads should be projected based on “same period last year” volume.
- Including a drill-down feature would allow managers to pinpoint root causes of poor performance and include historical trends.
- The model needs more detail for specific LDCs.
- The model should be refined for use as a staffing tool.
- The model should help identify poor clock rings.

We found correlations between how respondents answered questions and actual productivity changes at their facilities from FYs 2015–2016. For respondents who said they used the MPV model more frequently and found it helpful, productivity decreased by 2.68 percent. For the respondents who said they sometimes used the model and found it helpful, productivity decreased by 4.84 percent. Finally, for those respondents who said they used the model less frequently or not at all and found it only slightly helpful, productivity decreased by 9.03 percent. If the Postal Service were to increase the model’s usage, we estimate it could save over 2.8 million workhours annually, or almost \$120 million. Over two years, the savings would total over \$239 million.

Mail Processing Productivity Targets

The Postal Service could create more specific and achievable productivity targets for each facility included in its MPV model. The targets could include recognizing facility differences such as types of mail processed, types of processing machines, mail volumes, and facility size. These factors impact productivity and allow for easier evaluation of individual facility performance compared to productivity targets.

In FY 2016, facilities processed letter mail at a rate of 7,374 mailpieces per hour, or about 35 times more mailpieces per hour than they processed packages (see [Table 4](#)).

Table 4. Mail Processing Productivity by LDC

LDC	FY 2014		FY 2015		FY 2016	
	Actual	Target	Actual	Target	Actual	Target
11	7,853	10,472	7,577	10,420	7,374	10,428
12	2,455	3,687	2,343	3,727	2,237	3,767
13	232	375	227	348	211	344
14	606	749	556	1,004	581	1,069
15	1,988	5,851	2,340	5,851	2,598	5,851
17	7,666	11,651	7,499	11,657	7,354	11,404
18	106	159	125	212	144	238

Source: Postal Service MPV model.

In addition, the Postal Service uses different machines within each LDC to process mail and they have different machine throughput⁴ averages. For example, the Postal Service uses the Flat Sequencing Systems (FSS)⁵ and Automated Flat Sorter Machines (AFSM 100)⁶ machines for LDC 12 operations. The FSS can process about 5,500 more mailpieces per hour than the AFSM 100, or almost 50 percent more. Additionally, the Postal Service uses the Delivery Bar Code Sorter (DBCS)⁷ and Combined Input/Output Subsystems (CROSS)⁸ machines for operations in LDC 11, but the DBCS processed about 5,900 more mailpieces per hour than the CROSS, or almost 32 percent more (see Table 5).

Table 5. Type of Mail Processing Machine and National Average for Mailpieces Processed Per Hour

LDC	Machine Type	FY 2016 National Average Piece Processed per Hour	Percentage Difference from High to Low
11	DBCS	23,950	32%
11	DBCS with Input/Output System (DIOSS) ⁹	19,130	
11	CROSS	18,124	
12	AFSM 100	10,878	50%
12	FSS	16,342	
13	Automated Parcel and Bundle Sorter (APBS) ¹⁰	3,946	46%
13	Automated Package Processing System (APPS) ¹¹	5,780	

Source: Mail Image and Reporting System.

4 Number of mailpieces fed through the machine divided by machine usage hours.

5 A machine that sorts flat-size mail into delivery point sequence.

6 A machine that processes flat-size mail.

7 An automated sorting machine used for letter-size mail already barcoded.

8 An extension of the DBCS that incorporates additional components for use in Postal Automated Redirection System processing.

9 A multi-function letter mail processing system based on the DBCS with additional components for optical character recognition (OCR) and image lift to the Input Subsystem as well as supporting Output Subsystem capabilities to spray barcodes on back-end processed mail.

10 A machine that sorts small parcels and bundles with barcode and OCR technology.

11 A machine that process parcels and is capable of processing 9,500 pieces per hour.

On average, about 22 of the 256 processing facilities, or less than 9 percent, in the MPV model met any FY 2016 MPV target productivities.

The MPV model groups facilities by size when comparing LDC 17, but does not consider other facility differences. See Table 6 for MPV groupings for LDC 17.

Table 6. MPV Groupings for LDC 17

Group	Facility Size	FY 2016 Target Productivity
1	One Floor, 0-150,000 square feet (SF)	26,693
2	Multi-floor, 0 – 150,000 SF	23,423
3	One Floor, 150,001 – 300,000 SF	16,604
4	Multi-floors, 150,001 – 300,000 SF	12,575
5	300,001 – 500,000 SF	13,471
6	500,001 or more SF	10,551
7	Logistic and Distribution Centers ¹² and Air Mail Centers ¹³	2,494

Source: Postal Service MPV model.

We found that no facility achieved the total productivity target for LDCs 11 to 18 for FY 2016. Additionally, on average, about 22 of the 256 processing facilities, or less than 9 percent, in the MPV model met any FY 2016 MPV target productivities (see Table 7).

Table 7. Facilities that Met FY 2016 MPV Target Productivities

MPV Target	Number of Facilities Meeting Target	Percentage of Facilities Meeting Target
LDC 11	18	7.03%
LDC 12	7	2.73%
LDC 13	21	8.20%
LDC 14	18	7.03%
LDC 15	48	18.75%
LDC 17	0	0.00%
LDC 18	40	15.63%
Total LDC 11 to 18	0	0.00%

Source: Postal Service MPV model and OIG analysis.

¹² A mail processing facility that primarily performs shape-based piece distribution, typically for parcels and/or bundles, aggregated from more than one client P&DC that it serves.

¹³ A Postal Service facility at an airport that receives, concentrates, transfers, dispatches, and distributes mail transported by air.

The Postal Service has not updated Handbook M-32 since March 2009. The handbook does not include 79 mail processing operations created since that date and includes 271 that are no longer in use.

Management said that not meeting target productivities was not an issue because facility managers are not expected to meet MPV targets and mail processing facility managers should use the MPV model to compare their productivity to previous periods and improve it. Postal Service Headquarters uses the MPV model each week to identify facilities with the most opportunity for improvement and sends alerts to the applicable area vice presidents. Manager, P&DC Operations, said the Postal Service has assembled an efficiency improvement team to evaluate the MPV model to find ways to streamline the operation numbers and make it easier to evaluate productivity.

When mail processing facility managers do not use the model or have specific and achievable productivity targets it is unlikely that productivity will increase.

Management Operating Data System

The Postal Service has not updated Handbook M-32 since March 2009. The handbook does not include 79 mail processing operations created since that date and includes 271 that are no longer in use. Postal Service personnel use the handbook as a guide for correctly recording MODS volumes, workloads, and workhours. This information is used in the MPV model to evaluate operational performance. The MPV model uses MODS data for mail volume, workload, and workhours for each mail processing operation. The Manager, P&DC Operations, could not provide a reason for not updating the handbook and said they maintain the current MODS operating numbers on a web page.

The Postal Service requires managers to ensure policies and procedures are current, complete, and available.¹⁴ When mail processing operation numbers are not correct, there is reduced assurance that the MPV model contains accurate data to measure mail processing operational performance.

¹⁴ *Administrative Support Manual*, Chapter 3, Section 313.2 Responsibilities.

Recommendations

We recommend management develop and implement an MPV model usage policy and training; evaluate developing specific targets for similar mail processing facilities; and update Handbook M-32.

We recommend the Vice President, Network Operations:

1. Develop and implement a Mail Processing Variance (MPV) model policy and mail processing manager training for use in fiscal year 2018 to increase MPV model usage and improve operational efficiency.
2. Evaluate developing specific Mail Processing Variance targets for similar mail processing facilities based on types of mail processed, types of processing machines used, mail volume, and facility size.
3. Update Handbook M-32, *Management Operating Data System*, in the next 90 days to reflect all current mail processing operation numbers.

Management's Comments

Management partially agreed with our findings and recommendations. Management agreed they need to revise the MPV model and update Handbook M-32 to reflect operation numbers currently used in mail processing operations.

Regarding recommendation 1, management stated that the Postal Service is currently revising the MPV model and will provide training after completing the revisions. Management also stated that the model is a tool that provides after-the-fact lagging performance indicators and will not reduce workhours or improve performance, as productivity improvements are generated through innovation and compliance to operational policies and best practices. The target implementation date is April 1, 2018.

Regarding recommendation 2, management stated that the Postal Service is currently evaluating the calculations and methodologies used for some of the MPV model targets, but has not made a final decision relative to what criteria it will use to establish the revised targets. The target implementation date is April 1, 2018.

Regarding recommendation 3, management stated that the Postal Service will update Handbook M-32 to reflect the operation numbers that mail processing operations employees currently use, but do not anticipate completion of the update within 90 days. Subsequent to providing their comments, management said that the delay was necessary because of the routing, review, approval, and clearance process through the required functional groups that must be completed prior to publishing the revised handbook. The target implementation date is January 1, 2018.

Management disagreed that there is a correlation between how plant managers responded to our survey and changes in their mail processing productivity. Management also disagreed with our estimated workhour savings from increasing the use and helpfulness of the MPV model.

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

Evaluation of Management's Comments

Regarding management's planned corrective actions for recommendation 1, we agree with management's plan to revise the MPV model and provide training after the revisions are completed. However, we disagree with management's statement that the MPV model is a tool that provides after-the-fact lagging performance indicators that will not reduce workhours or improve performance. If used to measure facility performance against specific and achievable targets and develop action plans for improving the performance, the model should help management sustain or improve operational efficiency.

The OIG considers management's comments responsive to recommendations 2 and 3 and corrective actions should resolve the issues identified in the report.

Regarding management's disagreement that there was a correlation between how plant managers responded to our survey and changes in their mail processing productivity, statistical correlation measures the strength and direction of linear relationships between two variables. Our analysis found an equal to or greater than 70 percent correlation coefficient¹⁵ between responses to the six questions. These are statements of fact based on survey responses and, as mentioned by management, are but one set of tools useful to decision makers. They do not, however, imply causality.

Regarding management's disagreement with our estimated workhour savings from increasing the use and helpfulness of the model, we grouped respondents into three categories: those who used MPV frequently and found it helpful, those who used it occasionally and found it helpful, and those who used it less frequently or never and found it only slightly helpful or not helpful at all. Postal Service productivity data were then matched to units in each category. Our analysis revealed correlations between the three categories and productivity. While our correlation coefficients were never absolute, we based our productivity benefit on groups two and three achieving the level of group one. From this, we estimated the Postal Service could save 2.8 million workhours annually. Our conclusion is that greater understanding and use of MPV may be a significant tool in increasing productivity. This is a conservative estimate considering that if the Postal Service had maintained its actual mail processing productivity from FY 2015 in FY 2016, it would have used over 12 million fewer workhours.

We view the disagreement with recommendation 1 as unresolved and it will remain open as we coordinate resolution with management. All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. All recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

¹⁵ Measures the strength of association between two variables.

Appendices

*Click on the appendix title
to the right to navigate
to the section content.*

Appendix A: Additional Information.....	17
Background	17
Objective, Scope, and Methodology	17
Prior Audit Coverage.....	18
Appendix B: U.S. Postal Service Office of Inspector General Mail Processing Variance Survey	19
Appendix C: Management’s Comments	20

Appendix A: Additional Information

The MPV model is a management tool that calculates mail processing productivity using total mailpieces handled divided by workhours.

Background

The Postal Service established the MPV model in FY 2011 to measure annual mail processing operational performance and efficiency. The Postal Service's Office of Continuous Improvement maintains the MPV model.

The MPV model is a management tool that calculates mail processing productivity using total mailpieces handled divided by workhours. The MPV model calculates national annual targets by excluding the top 10 percent most efficient facilities and bottom 10 percent least efficient facilities, and averaging the productivities of the remaining top 25 percent most efficient facilities. The model results are used as targets to measure mail processing productivity for all facilities in relation to the targets.

Objective, Scope, and Methodology

Our objective was to determine if the Postal Service effectively used the MPV model to increase mail processing productivity.

To achieve our objective we:

- Reviewed and evaluated FY 2016 MPV target goals and results for LDCs 11 to 18.
- Reviewed and evaluated FYs 2014-2016 productivity for LDCs 11 to 18.
- Reviewed and evaluated MPV targets to determine if they are specific and achievable.
- Interviewed the acting director, Postal Service Operations Research, and manager, P&DC Operations, to determine controls over the MPV model and how facilities should use it.
- Surveyed 245 mail processing plant managers to determine their use of the MPV model.
- Calculated, analyzed, and evaluated survey results in comparison to changes in productivity.
- Calculated workhours savings associated with increased usage of the MPV model.
- Traced and compared operating numbers contained in Handbook M-32 to operation numbers in MODS.

We conducted this performance audit from November 2016 through June 2017, 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 May 8, 2017, and included their comments where appropriate.

We assessed the reliability of various Postal Service data systems, and prior information technology reports issued by the OIG, and interviewed Postal Service management knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

The OIG did not identify any prior audits or reviews related to the objective of this audit.

**Appendix B:
U.S. Postal Service Office
of Inspector General Mail
Processing Variance Survey**

We solicited responses to our MPV survey from 245 managers of mail processing facilities on February 2, 2017. We received 120 responses (49 percent of total surveys sent). All questions had a margin of error of 6.25 percent or less, with an average margin of error of 4.2 percent.



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

MPV Survey for Managers of Mail Processing Facilities

Thank you for clicking through to this survey!

Your thoughtful participation in this survey will help improve the management tools and processes that people like you interact with every day by helping leaders understand your needs and interests.

Your individual feedback is confidential, so you should feel comfortable expressing your honest opinions. This survey should take less than 5 minutes to complete.

Your feedback really does make a difference – so let's begin!

1. How familiar are you with the Function 1 Mail Processing Variance (MPV) Model?

Very Familiar	Familiar	Slightly Familiar	Not at All Familiar
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How often, if ever, do you use the MPV Model?

Daily

Weekly

3. How helpful is the MPV Model when ...

	Very Helpful	Helpful	Slightly Helpful	Not Helpful at All	Have Not Used for This Purpose
Evaluating and improving productivity by labor distribution code (LDC)?	<input type="radio"/>				
Determining appropriate staffing?	<input type="radio"/>				
Identifying opportunity hours?	<input type="radio"/>				
Identifying hours charged to incorrect operating numbers?	<input type="radio"/>				

4. Are there any other ways the MPV Model could be useful in your operation?

5. Do you know your MPV productivity target?

Yes

No

6. Do you feel that your plants MPV goals are attainable?

Yes

No

7. Do you know your plant's fiscal year 2016 productivity level?

Yes

No

8. How helpful is the function 1 scheduler for determining optimal staffing?

Very Helpful

Helpful

Slightly Helpful

Not Helpful at All

Have Not Used for This Purpose

I am not sure what this is

9. Are there any other comments that you would like to share with us?

Appendix C: Management's Comments

ROBERT CINTRON
Vice President, Network Operations



June 2, 2017

LORI LAU DILLARD
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report – Mail Processing Variance Model (Report Number NO-AR-17-DRAFT)

Thank you for providing the Postal Service with the opportunity to review and comment on the subject draft Audit Report. Management agrees that the Mail Processing Variance (MPV) model needs revisions and that Handbook M-32 - Management Operating Data System (MODS), version March 2009, should be updated to reflect the operation numbers currently in use by mail processing operations. However, Management disagrees with other recommendations, premises and the OIG's suggest correlation of plant managers' responses to survey questions to changes in facility productivity. Management also disagrees with the OIG's suggested monetary impacts in their entirety.

Management is currently in the process of revising calculation methodologies for some operations in the MPV model. Although a final decision has not been made with respect to which methodology will be used for the new calculations, the Postal Service seeks to incorporate industry standard methodologies where practicable. While the Postal Service understands the importance of providing relevant and current performance analysis tools such as the MPV model to its managers, we disagree that revisions to this model will directly correlate to improved productivity performance. The data and reports generated from MPV are "lagging" indicators which are a reflection of past performance. Authentic productivity improvements are only realized through compliance to operational policies, best practices and innovation and not from reports depicting after-the-fact performance.

Management also disagrees with the premise that productivity performance is necessarily correlated to plant managers' responses to a survey regarding their familiarity with and their use of the MPV model. There are a number of efficiency performance analysis tools available to plant managers including the MPV model, Web End of Run (WebEOR), Run Plan Generator (RPG), Web Management Operation Data System (WebMODS) and the Function 1 Scheduler, to name a few. In the OIG's survey to plant managers, only one question regarding the Function 1 Scheduler was asked regarding these other tools. In addition, there is no data or evidence provided by the OIG that actual productivity performance could be correlated to one or more of these other tools.

475 L'ENFANT PLAZA SW
WASHINGTON, DC 20250-7100
WWW.USPS.COM

which were not evaluated nor included in the OIG's survey. In addition, a number of operating factors in a mail processing facility affect productivity performance. These include internal, management-initiated operational changes, compliance to Lean Mail Processing principles, operational best practices, changing mail volumes and proper staffing, among others. It does not appear from the OIG's audit that any of these factors were tested for potential correlation or eliminated as possible causes of productivity performance.

The Postal Service disagrees entirely with the OIG's suggested monetary impacts of 2,863,618 work hours and \$119,641,963 that by simply "...increasing how often facilities use the model and how helpful the model is to facilities" (Monetary Impacts Page 2). As described earlier, the MPV model is a tool that provides after-the-fact lagging performance indicators. The use of this tool, along with various other efficiency tools that are available to plant managers, help to provide a scorecard of past performance and help to identify specific areas of opportunity. However, the MPV model will not reduce work hours or improve performance. Again, productivity improvements are generated through innovation and compliance to operational policies and best practices.

Again, thank you for allowing us the opportunity to respond to this audit.

We recommended the vice president, Network Operations:

Recommendation #1:

Develop and implement a Mail Processing Variance (MPV) model policy and mail processing manager training for use in fiscal year 2018 to increase MPV model usage and improve operational efficiency.

Management Response:

Management partially agrees with this recommendation.

The Postal Service is currently revising the MPV model. Training will be provided after all revisions are completed. Management disagrees that using the MPV model will improve operational efficiency. The data and reports generated from MPV are "lagging" indicators which are a reflection of past performance. Improvements are realized through compliance to operational policies, best practices and innovation and not from reports depicting after-the-fact performance.

Responsible Management Official:

Manager, Processing Operations

Target Implementation Date:

April 1, 2018

Recommendation #2:

Evaluate developing specific Mail Processing Variance targets for similar mail processing facilities based on types of mail processed, types of processing machines used, mail volume, and facility size.

Management Response:

Management partially agrees with this recommendation.

The Postal Service is currently evaluating the calculations and methodologies for some of the MPV targets; however, a final decision has not been made relative to what criteria will be used to establish the revised targets.

Responsible Management Official:

Manager, Processing Operations

Target Implementation Date:

April 1, 2018

Recommendation #3:

Update Handbook M-32, *Management Operating Data System*, in the next 90 days to reflect all current mail processing operation numbers.

Management Response:

Management partially agrees with this recommendation.

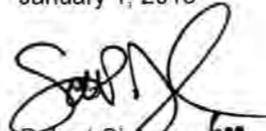
The Postal Service will update Handbook M-32 to reflect the operation numbers currently in use by mail processing operations; however, we do not anticipate completion within 90 days.

Responsible Management Official:

Manager, Processing Operations

Target Implementation Date:

January 1, 2018


Robert Cirtron



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

Contact us via our [Hotline](#) and [FOIA](#) forms.
Follow us on social networks.
Stay informed.

1735 North Lynn Street
Arlington, VA 22209-2020
(703) 248-2100