



Office of Inspector General | United States Postal Service

Audit Report

Highway Contract Route Optimization Initiative Savings Calculation Methodology and Accuracy

Report Number NL-AR-19-002 | January 30, 2019



Table of Contents

- Cover
- Highlights..... 1
 - Objective 1
 - What the OIG Found..... 1
 - What the OIG Recommended 2
- Transmittal Letter 3
- Results..... 4
 - Introduction/Objective 4
 - Background..... 4
 - Finding #1: Fiscal Year 2017 Highway Contract Route Savings Overstated 5
 - Policies and Procedures 7
 - Inaccurate Measures May Affect Business Decision Making 7
 - Recommendation #1 7
 - Management’s Comments..... 8
 - Evaluation of Management’s Comments 8
- Appendices 9
 - Appendix A: Additional Information..... 10
 - Scope and Methodology 10
 - Prior Audit Coverage 10
 - Appendix B: Management’s Comments..... 11
- Contact Information 13

Highlights

Objective

Our objective was to evaluate the U.S. Postal Service's Highway Contract Route (HCR) Optimization Cost Savings methodology and the accuracy of reported savings for fiscal year (FY) 2017.

The Postal Service implemented the Zero Base HCR initiative in FY 2014 (renamed HCR Optimization in FY 2017) to reduce surface transportation costs by identifying, adjusting, and eliminating unnecessary HCR trips.

The Postal Service Vice President, Network Operations, sets the HCR cost-reduction goal annually based on total HCR costs. The annual savings goal of about \$44.4 million for FY 2017 was allocated to each Postal Service area based on area HCR mileage. The headquarters Surface Transportation Operations (STO) group relies on area Network Operations managers and local administrative officials to review and adjust HCR trips to reduce costs and achieve planned savings goals. Administrative officials submit service change requests for HCR trip adjustments and the STO specialist calculates net quarterly savings for finalized service change requests and terminated routes.

We judgmentally selected two of the seven Postal Service areas (Pacific and Capital Metro) with the highest and the lowest ratios of reported to planned savings in FY 2017. We then selected six mail processing facilities from these two areas based on route utilization percentages to review underutilized trips. The six facilities were the Los Angeles and San Francisco Processing and Distribution Centers (P&DC) and the Los Angeles Network Distribution Center (NDC) in the Pacific Area; and the Southern Maryland P&DC, Atlanta NDC, and Capital Metro Surface Transfer Center in the Capital Metro Area. We also reviewed the nationwide savings calculated by the STO specialist for FY 2017.

The Postal Service reported savings of about \$67 million in FY 2017, exceeding its planned savings goal by about \$22 million.

What the OIG Found

“We determined the methodology used to calculate the HCR optimization cost savings was not documented, inconsistently followed, and inadequate.”

We determined the methodology used to calculate the HCR optimization cost savings was not documented and was inconsistently followed and inadequate. Furthermore, there were no nationwide cost savings from the HCR Optimization Initiative in FY 2017.

We reviewed and analyzed the FY 2017 HCR savings methodology, calculations, and the service change requests and HCR contract termination data files. We compared the results

to the Postal Service's reported savings and found that the methodology the Postal Service used for the savings calculations included errors, overstating reported savings by about \$119 million and understating them by about \$37 million, resulting in a net overstatement of about \$82 million. Specifically, we found that the reported savings calculations:

- Excluded 8,819 of 9,100 (or about 97 percent) service change requests, which resulted in a net overstatement of about \$82 million. For example, service change requests for eliminated and added trips for operational needs were not always included in the savings calculation, as required.
- Included 104 terminated routes and 31 service change requests subject to exclusion rules, which resulted in a net overstatement of about \$24 million and \$12 million, respectively. For example, service change requests and terminated routes related to Dynamic Route Optimization should be excluded from the HCR savings calculation because the savings are reported separately.

- Excluded 763 of the 930 (or about 82 percent) terminated routes which should have been included in the savings, resulting in an understatement of about \$36 million.
- Inaccurately calculated savings for 56 service change requests, which resulted in a net understatement of about \$800,000.

This occurred due to lack of standard operating procedures for the HCR savings calculation methodology; lack of requirements for updating the savings calculation for pending renewals/awards; and service change requests that were not previously captured due to timing differences, inconsistent application of the methodology, and insufficient validation of the calculated savings.

What the OIG Recommended

We recommended management reevaluate the continuation of the Highway Contract Route optimization cost savings calculation; and, if the program is continued, develop standard operating procedures and automate the methodology for calculating and validating the savings calculation to account for the timing differences, ensure consistent application, and avoid manual calculation errors.

Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

January 30, 2019

MEMORANDUM FOR: ROBERT CINTRON
VICE PRESIDENT, NETWORK OPERATIONS

E-Signed by Inspector General
VERIFY authenticity with eSign Desktop

FROM: Darrell E. Benjamin, Jr.
Deputy Assistant Inspector General
for Mission Operations

SUBJECT: Audit Report – Highway Contract Route Optimization
Initiative Savings Calculation Methodology and Accuracy
(Report Number NL-AR-19-002)

This report presents the results of our audit of the Highway Contract Route Optimization Initiative Savings Calculation Methodology and Accuracy (Project Number 18XG015NL000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Carmen Cook, Director, Transportation, or me at 703-248-2100.

Attachment

cc: Postmaster General
Corporate Audit Response Management

Results

Introduction/Objective

This report presents the results of our self-initiated audit of the Highway Contract Route Optimization Initiative Savings Calculation Methodology and Accuracy (Project Number 18XG015NL000). Our objective was to evaluate the U.S. Postal Service's HCR Optimization Costs Savings methodology and the accuracy of the reported HCR savings for fiscal year (FY) 2017. See [Appendix A](#) for more information about this audit.

Background

The Postal Service implemented the Zero Base HCR initiative in FY 2014 to reduce surface transportation costs by identifying, adjusting, and eliminating unnecessary HCR trips. The Postal Service calculated and reported the initiative savings in the Technology Management Office System (TMOS)¹ as Zero Base HCR Cost Savings from FY 2014 to FY 2016, and renamed it HCR Optimization Cost Savings in FY 2017.²

The Vice President, Network Operations, sets the HCR cost-reduction goal annually based on total HCR costs. The annual savings goal of about \$44.4 million for FY 2017 was allocated to each Postal Service area based on area HCR mileage. The headquarters (HQ) Surface Transportation Operations (STO) group relies on area Network Operations managers and local

“Our objective was to evaluate the U.S. Postal Service’s HCR Optimization Cost Savings methodology and the accuracy of the reported HCR savings for fiscal year 2017.”

administrative officials (AO) to review and adjust HCR trips to reduce costs and achieve the planned savings goal. AOs submit service change requests (SCR) for HCR trip adjustments and the STO specialist calculates net quarterly savings for finalized SCRs and terminated routes.

The STO specialist uses two weekly SCR and termination data files provided by the Postal Service contractor to calculate HCR savings.³ Savings are calculated based on the cost change of the SCR and the contract value of the ended HCR and is pro-rated quarterly up to 365 days from the SCR effective dates or HCR termination dates.

Postal Service HQ’s Finance Department reviews the savings calculation spreadsheets prepared by the STO specialist on a quarterly basis by tracing information against the two weekly SCR and termination data files, including HCR contract termination dates, SCR implementation dates, total HCR costs, Transportation Contract Support System (TCSS) cost changes, fuel gallons, types of fuel program, SCR statuses, and total quarterly savings.⁴ The verified savings figures are reported in TMOS.

We judgmentally selected two of the seven Postal Service areas (Pacific and Capital Metro) with the highest and the lowest ratios of reported savings to planned savings goals in FY 2017. We then selected six mail processing facilities from the two areas selected based on route utilization percentage to review underutilized trips. The six facilities were the Los Angeles and San Francisco Processing and Distribution Centers (P&DC) and the Los Angeles Network Distribution Center (NDC) in the Pacific Area; and the Southern Maryland P&DC, the Atlanta NDC, and the Capital Metro Surface Transfer Center (STC) in the Capital Metro Area. We also reviewed the nationwide savings calculated by the STO specialist for FY 2017.

1 TMOS is an enterprise initiative tracking tool with exception-based status reports to the Postal Service Executive Leadership Team.

2 In FY 2018, the Postal Service removed this initiative from Ready Now -> Future Ready, a portfolio of strategic initiatives, and renamed it to HCR Reduction Initiatives, which includes other initiatives such as Peak Season, Dynamic Route Optimization (DRO), Extra Trips, and Late Trips.

3 The SCR file contains the SCR Effective Date, Status, Reasons, Cost Change, Contract Service Type, Pay Type, Route Type, along with other HCR information. The Termination file contains the HCR Contract Term, Termination Date, Contract Value, Pay Type, and Route Type.

4 Since the initiative was removed from Ready Now -> Future Ready in FY 2018, the calculated HCR savings no longer requires Finance verification and records it in the TMOS. The STO specialist continues to use the same methodology since FY 2014 for FY 2018 for calculating and tracking HCR savings.

From FY 2014 to FY 2017, the Postal Service reported total HCR savings of about \$169 million, which was about \$19 million higher than its total goal for these years (see Table 1). In FY 2017, the Postal Service reported savings of about \$67 million,⁵ which exceeded its planned savings goals by about \$22 million⁶, (see Table 1).

Table 1. HCR Savings by Fiscal Year

Fiscal Year	Planned Savings	Reported Savings	Difference
FY 2014	\$45,218,654	\$39,317,239	\$(5,901,415)
FY 2015	30,145,869	38,511,247	8,365,378
FY 2016	30,683,582	24,960,556	(5,723,026)
FY 2017	44,408,395	66,626,546	22,218,151
Total	\$150,456,500	\$169,415,588	\$18,959,088

Source: TMOS and STO specialist calculations.

Finding #1: Fiscal Year 2017 Highway Contract Route Savings Overstated

We determined the methodology used to calculate the HCR optimization cost savings was not documented and was inconsistently followed and inadequate. Furthermore, there were no nationwide cost savings from the HCR Optimization Initiative in FY 2017.

We reviewed and analyzed the FY 2017 HCR savings methodology, calculations, and SCR and HCR contract termination data files. We compared the results to the Postal Service's reported savings and found the methodology the Postal Service used for the savings calculations included errors, overstating reported savings by about \$119 million and understating them by about \$37 million, resulting in a net overstatement of about \$82 million (see Table 2).

Table 2. FY 2017 HCR Reported Savings Discrepancy Summary

FY 2017 Reported Savings by the Postal Service	FY 2017 Savings Calculated by the OIG ⁸	Discrepancy (Overstated)
\$66,626,546	\$(15,799,107)	\$82,425,653

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

We found the methodology the Postal Service used for the savings calculations included errors

<p>Overstating reported savings by about</p> <p>\$119 million</p>	<p>and understating them by about</p> <p>\$37 million</p>
<p>resulting in a net overstatement of about</p>	
<p>\$82 million</p>	

⁵ The reported savings included unclaimed savings carried over from the prior year because savings are pro-rated up to 365 days from the SCR effective dates or HCR termination dates.

⁶ The Postal Service used the calculated savings for internal reporting and tracking purposes; the results of the calculated savings do not affect the highway transportation expenses in financial statements.

Specifically, we found that the reported savings calculations:

- Excluded 8,819 of 9,100⁷ (or about 97 percent) SCRs, which resulted in a net overstatement of about \$82 million. For example, SCRs for eliminated and added trips for operational needs were not always included in the savings calculation.
- Included 104 terminated routes subject to exclusion rules, which resulted in an overstatement of about \$24 million. For example, 43 of the 104 terminated routes were renewed or awarded after termination; therefore, these active routes should be excluded from the savings calculation. The remaining 61 terminated routes should also have been excluded from the savings calculations because they were subject to the Postal Service's exclusion rules.⁸
- Included 31 SCRs subject to exclusion rules, which resulted in a net overstatement of about \$12 million. For example, SCRs with contract service types such as Airport, Christmas, HQ Christmas Network, Mail Transportation Equipment, Piers, Railroad Depot, Truck Terminal, and Water are to be excluded from the savings calculation.
- Excluded 763 of the 930⁹ (or about 82 percent) terminated routes, which should have been included in the savings, resulting in an understatement of about \$36 million. The Postal Service did not capture these terminated routes in its savings calculation.

- Inaccurately calculated savings for 56 SCRs, which resulted in a net understatement of about \$800,000. For example, the Postal Service used the incorrect cost change amount or incorrect implementation date when calculating savings generated from SCRs.

Table 3 summarizes the FY 2017 HCR savings calculation discrepancies.

Table 3. FY 2017 HCR Savings Discrepancies

Discrepancy Category	Count ¹⁰	Amount
SCRs not included in the savings calculation	8,819	\$82,672,178
Terminated routes subject to exclusion rules should not be included in savings calculation	104	24,490,402
SCRs subject to exclusions rules should not be included in savings calculation	31	12,317,770
Subtotal Overstatement		\$119,480,350
Terminated routes not subject to exclusion rules should be included in savings calculation	763	(36,252,932)
SCR savings calculation errors ¹¹	56	(801,765)
Subtotal Understatement		\$(37,054,697)
Net Overstatement		\$82,425,653

Source: OIG analysis of STO calculations.

7 Total SCRs by cost segment count of 9,100 consisted of 8,819 SCRs not included in the Postal Service savings calculation, 56 SCRs with savings calculation errors, and 225 SCRs correctly calculated by the Postal Service.

8 The exclusion rules are related to DRO routes, peak season routes, Postal Vehicle Service conversions, non-finalized SCRs, trailer lease routes, air to surface conversions, DRIVE Network Rationalization, temporary and emergency contracts, and various contract service types (Airport, Christmas, HQ Christmas Network, Mail Transportation Equipment, Piers, Railroad Depot, Truck Terminal, and Water).

9 The total routes by cost segment count of 930 consisted of 763 routes not included in the Postal Service's savings calculation and 167 routes correctly calculated by the Postal Service.

10 The SCR and terminated route counts are by cost segment.

11 Savings calculation errors include missing calculations for some quarters and incorrect information (such as SCR effective date and cost change) used in calculations.

Policies and Procedures

This occurred due to the lack of standard operating procedures for the HCR savings calculation methodology, lack of requirements to update savings calculations for pending renewals/awards and SCRs that were not previously captured due to timing differences,¹² inconsistent application of the methodology,¹³ manual calculation errors, and insufficient validation of the calculated savings.¹⁴

Inaccurate Measures May Affect Business Decision Making

Inaccurate measures and errors in calculating initiative savings may result in incorrect reported savings and conclusions about initiative performance by management. As a result, the Postal Service had a predicted savings shortfall¹⁵ of about \$60 million for the HCR Optimization Initiative in FY 2017 (see Table 4).

“We recommended management reevaluate the continuation of the HCR Optimization Initiative savings calculation.”

Table 4. FY 2017 HCR Planned Savings of the Postal Service

FY 2017 Planned Savings by the Postal Service	FY 2017 Savings Calculated by the OIG	Predicted Savings Shortfall
\$44,408,395	\$(15,799,107)	\$60,207,502

Source: OIG analysis of STO calculations.

Recommendation #1

The **Vice President, Network Operations**, reevaluate the continuation of the Highway Contract Route Optimization Initiative savings calculation and, if the program is continued, develop standard operating procedures and automate the methodology for calculating and validating the savings calculation to account for the timing differences, ensure consistent application, and avoid manual calculation errors.

¹² Terminations and SCRs were finalized in TCSS after the effective date; therefore, the weekly data files did not include all finalized records at the time of the savings calculation.

¹³ The exclusion rules were not consistently applied in the saving calculations for both SCRs and Termination data file because the two files did not contain the same data elements. In addition, the specialist did not consistently apply the exclusion rules due to human error.

¹⁴ The review conducted by the Finance Department was insufficient and did not detect the errors we identified.

¹⁵ The difference between savings predicted by the Postal Service for a project (e.g., capital investment, consolidation) and the actual savings realized, or the OIG's estimate of savings which will be realized.

Management's Comments

Management generally agreed with the report's findings and agreed with the recommendation. Management had concern that while the overall HCR costs went up, over \$66 million in trips were cancelled resulting in cost savings. Management stated without the savings captured, the overall HCR cost impact would have been much greater in FY 2017. See [Appendix B](#) for management's comments in their entirety.

Regarding recommendation 1, management agreed with this recommendation with one reservation. Management will develop a SOP and rework the calculation methodology and explore an alternate methodology to automate the calculation and validation. However, management cannot commit to this given the current capabilities of the existing systems. The target implementation date is April 2019.

Evaluation of Management's Comments

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

Regarding management's comment on the finding, we acknowledge the overall HCR cost impact would be greater in FY 2017 without the Postal Service's effort to reduce surface transportation cost. However, the methodology the Postal Service used to calculate the \$66 million savings included both canceled and added trips and did not account for the missing records the OIG identified in this report. Therefore, the \$66 million savings did not accurately reflect the FY 2017 savings the Postal Service reported.

The recommendation requires OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective action is completed. The recommendation should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

Appendices

Click on the appendix title below to navigate to the section content.

- Appendix A: Additional Information 10
 - Scope and Methodology 10
 - Prior Audit Coverage 10
- Appendix B: Management’s Comments 11

Appendix A: Additional Information

Scope and Methodology

Our audit scope was HCR savings reported for FY 2017, which included unclaimed FY 2016 savings carried over to FY 2017. We did not review savings calculation for other fiscal years. We also did not review savings calculations for other HCR reduction initiatives, including DRO, Peak Season, Extra Trips, and Late Trips.

To accomplish our objective, we:

- Obtained and summarized HCR savings goals reported in TMOS and detailed savings calculation files for FY 2014 through FY 2017.
- Interviewed STO personnel at Postal Service HQ to obtain an understanding of the HCR savings calculation methodology.
- Obtained weekly SCR and Termination files as of April 30, 2018, and used these files to perform independent HCR savings calculations based on the Postal Service's methodology with modifications agreed to by the STO, and compared to Postal Service results.
- Judgmentally selected two Postal Service areas¹⁶ with the highest and the lowest ratios of reported savings to planned savings goals in FY 2017. We interviewed personnel in these areas to obtain an understanding of the process for achieving HCR savings.

- Judgmentally selected six mail processing facilities¹⁷ from the two Postal Service areas based on Quarter 2, FY 2018, route utilization percentages to review underutilized HCR trips.

We conducted this performance audit from June 2018 through January 2019, 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 finding and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective. We discussed our observations and conclusions with management on December 3, 2018, and included their comments where appropriate.

We assessed the reliability of the HCR savings calculation by tracing SCRs and terminated routes from the Postal Service FY 2017 HCR savings spreadsheet to the SCR and termination data files. In addition, we traced and verified the data in the SCR and termination data file to the TCSS source system. We also interviewed Postal Service personnel 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 within the last five years.

¹⁶ The two Postal Service areas we selected for review were the Pacific and Capital Metro areas.

¹⁷ The six facilities we selected for review were the Los Angeles and San Francisco P&DCs and the Los Angeles NDC in the Pacific Area; and the Southern Maryland P&DC, Atlanta NDC, and Capital Metro Surface Transfer Center in the Capital Metro Area.

Appendix B: Management's Comments

ROBERT CINTRON
VICE PRESIDENT, NETWORK OPERATIONS



December 21, 2018

RICK POLAND
Director, Audit Operations

SUBJECT: Highway Contract Route Optimization Initiative Savings Calculation
Methodology and Accuracy
(Project Number 18XG015NL000)

Thank you for providing the Postal Service with an opportunity to review and comment on the recommendation contained in the draft audit report.

Highway Contract Route Optimization Initiative Savings Calculation Methodology and Accuracy. Management generally agrees with the report's findings of fact, but has concern with the lack of acknowledgement that while the overall costs of HCR went up, over \$66M in trips were in fact cancelled and did save costs. Without the savings captured by working with transportation network managers at Area and Local levels throughout the year, the overall HCR cost impact would have been much greater in FY17.

Also, we would like to clarify that due to the process and technology used by the Service Change Request System (SCR) and the Transportation Contract Support System (TCSS), it may take weeks or even months to reconcile the additions and terminations in the system. The OIGs use of a file from April of 2018 vs. the weekly FY 17 files used by Surface Transportation exposed this shortcoming.

Surface Transportation along with Finance and Supply Chain Management will work together to find ways to resolve the shortcomings of the existing SCR and TCSS systems. However at this point we cannot agree to have this calculation automated without having determined if the existing systems are capable.

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Recommendation #1:

The Vice President, Network Operations, reevaluate the continuation of the Highway Contract Route optimization initiative savings calculation and, if the program is continued, develop standard operating procedures and automate the methodology for calculating and validating the savings calculation to account for the timing differences, ensure consistent application, and avoid manual calculation errors.

Management Response/Action Plan:

Management agrees with this recommendation with one reservation. Management will develop a SOP and rework the calculation methodology to include the "add/renewal" weekly HCR data from TCSS. Management will also explore alternate methodology to automate the calculation and validation but cannot commit to this given the current capabilities of the existing systems.

Target Implementation Date:

April 2019

Responsible Official:

Director, Surface Transportation



Robert Cintron
Vice President, Network Operations

cc: Corporate Audit and Response Management
Director, Surface Transportation



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