In-Office Cost System Sampling Processes

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Highlights

Objective

The In-Office Cost System (IOCS) is the primary probability sampling system the U.S. Postal Service uses to attribute the labor costs of clerks, mail handlers, city carriers, and supervisors related to handling the mail. Data collected from IOCS enables the Postal Service to allocate labor costs to each mail category. The accuracy of product cost allocation is vital because the Postal Service is mandated to ensure all products cover their costs.

The IOCS is designed to supplement accounting system labor cost data by sampling mail handled by employees. Specifically, an IOCS reading is an observation that represents a snapshot of an employee's work activities at selected points in time throughout the year. In fiscal year (FY) 2019, IOCS sampled readings cost the Postal Service over $14 million and included 214,789 in-person readings, 339,318 telephone readings, and 20,869 missing or cancelled readings.

In FY 2015, the Postal Service began developing a new methodology for conducting IOCS sampling to more accurately attribute city carriers' labor costs. The primary objective of this new methodology, IOCS Cluster sampling, is to increase the number of in-person readings to capture mail characteristics data when carriers are on the premises and handling mail. The Postal Service must obtain regulator approval before applying this new methodology to current sampling processes.

While use of sampling data has been approved by the regulator, the Postal Service should continue seeking opportunities to use real-time census data for costing.

Our objective was to evaluate IOCS sampling processes to identify opportunities for improved efficiencies.

Our fieldwork was completed before the President of the U.S. issued the national emergency declaration concerning the novel coronavirus disease outbreak (COVID-19) on March 13, 2020. The results of this audit do not reflect any process and/or operational changes that may have occurred as a result of the pandemic. Given the circumstances of COVID-19, we are aware the Postal Service's immediate priorities are the safety and security of its employees and the mail. We understand data collectors are not operating at full capacity at this time and current sampling efforts may be impacted, as well as finalizing and filing for any IOCS sampling methodological changes.

Findings

Opportunities exist for the Postal Service to improve IOCS sampling efficiencies. Specifically, the current sampling design results in a significant number of readings scheduled when employees are unavailable. In FY 2019, of the 554,107 total IOCS readings marked as completed, 257,154 (or about 46 percent) were conducted while the selected employees were unavailable. These readings note the employee's status and were recorded as completed, even though no mail characteristics were captured. Additionally, readings for 50,304 (about 20 percent) of the total 257,154 unavailable employees were scheduled to be conducted in-person.

> "Samples completed for employees in a leave status in FY 2019 resulted in 257,154 readings that did not collect mail characteristic data and could not be used to attribute costs to products."

Management stated the current IOCS sampling system was not designed to substitute unavailable employees with employees available to conduct mail activities. In addition, although policy requires data collectors to verify sampled employees' leave status prior to visiting a location, there was no process in place to validate if prior verification occurred. Samples completed for employees in leave status in FY 2019 resulted in 257,154 readings that did not collect mail characteristic data and could not be used to attribute costs to products. In addition, readings conducted in person for employees in leave status may have resulted in additional costs to the Postal Service.

Opportunities also exist for the Postal Service to improve the IOCS sampling plan to reduce cancelled readings. From FYs 2015 through 2019, cancelled readings increased by about 62 percent. In FY 2019, there were 19,005 cancelled readings which did not attribute costs to products. The increase in cancelled readings was largely a result of rescheduled readings that were not completed. Another major contributing factor to cancelled readings were those automatically cancelled during data collectors' quarterly training. Management stated cancelled readings represent a small percentage of overall readings and are factored into the current sampling design. However, the number of cancelled readings in FY 2019 was 29 percent of the total number of readings that captured mail characteristics. Cancelled readings reduce opportunities to capture mail characteristics data needed for cost attribution.

Results from the IOCS Cluster sampling pilot indicate the pilot has increased efficiencies compared to the current IOCS sampling process. We identified some additional opportunities to further enhance the IOCS cluster sampling methodology, such as:

- Pilot Efficiencies: During our site visits, we found data collectors had idle time between readings. Enhancing the IOCS Cluster sampling pilot methodology to allow the system to reduce idle time would improve efficiency.

> *"Results from the IOCS Cluster sampling pilot indicate the pilot has increased efficiencies compared to the current IOCS sampling process."*

- Expanding IOCS Cluster Sampling: The pilot focused solely on capturing city carrier data because carriers are not always on-site, which resulted in missed opportunities to collect mail handling data. If the pilot expanded to other labor crafts, the Postal Service may be able to increase data captured for mail handling activities.

Recommendation

We recommended management:

- Evaluate and enhance, as appropriate, the IOCS sampling design to replace or reschedule readings of unavailable employees.

- Reiterate the verification policy and enhance the IOCS data entry system to indicate the verification of sampled employees work status in advance.

- Investigate cause(s) for increases in rescheduled readings that were cancelled and implement solutions to reduce cancelled readings, as appropriate.

- Document the methodology and analysis used to ensure sufficient samples are capturing mail characteristics for cost attribution.

- Enhance the cluster sampling methodology to reduce inefficiencies in the amount of time required to conduct readings.

- Analyze the expansion of the IOCS cluster sampling methodology to include other crafts, and implement a pilot as appropriate.
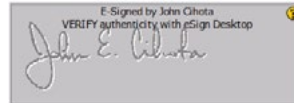
Transmittal Letter

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

May 22, 2020

MEMORANDUM FOR: SHARON D. OWENS
                                         VICE PRESIDENT, PRICING AND COSTING

E-Signed by John Cihota
VERIFY authenticity with eSign Desktop

FROM: John E. Cihota
                                         Deputy Assistant Inspector General
                                          for Finance and Pricing

SUBJECT: Audit Report – In-Office Cost System Sampling
                                         Processes (Report Number 19-032-R20)

This report presents the results of our audit of the In-Office Cost System Sampling Processes.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Sherry Fullwood, Director, Cost and Pricing, 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 In-Office Cost System (IOCS) Sampling Processes (Project Number 19-032). Our objective was to evaluate the IOCS sampling processes to identify opportunities for improved efficiencies.

Our fieldwork was completed before the President of the United States issued the national emergency declaration concerning the novel coronavirus disease outbreak (COVID-19) on March 13, 2020. The results of this audit do not reflect any process and/or operational changes that may have occurred as a result of the pandemic. Given the circumstances of COVID-19, we are aware the Postal Service's immediate priorities are the safety and security of the employees and the mail. We understand Data Collection Technicians (DCT) are not operating at full capacity at this time, and current sampling efforts may be impacted, as well as finalizing and filing for any IOCS sampling methodological changes.

Background

The IOCS is the primary probability sampling system used by the U.S. Postal Service to attribute the labor costs of clerks, mail handlers, city carriers, and supervisors related to the handling of mail. Although the Postal Service's accounting system tracks costs for various categories of employees, it does not identify labor costs by product because employees are simultaneously processing more than one product in most operations. The data collected from IOCS enables the Postal Service to allocate costs to each mail category. The accuracy of product cost allocation is vital because the Postal Service is mandated to ensure all products cover their costs. Further, accurate product costing is important for developing appropriate product rates.

The IOCS is designed to supplement the accounting system labor cost data by sampling mail handled by employees. An IOCS reading is an observation that represents a snapshot of an employee's work activities at selected points in time throughout the year. The current IOCS sampling design has multiple stages for randomly selecting sample readings. The reading selection process is comprised of the following three stages:

- Stage One – Postal Service facilities are grouped into Cost Ascertainment Groups (CAG)[1] based on the amount of revenue generated for the previous two years. Then, a random selection of facilities is chosen within each CAG.

- Stage Two – an employee is randomly selected within an office and grouped by craft within the CAG. The sampling week is also selected.

- Stage Three – a time is randomly selected from the employee's workday during the selected week for observation.

In fiscal year (FY) 2019, there were 574,976[2] IOCS readings scheduled, as shown in Table 1. These readings cost the Postal Service over $14 million and included 214,789 in-person readings, 339,318 telephone readings, and 20,869 readings that were autocoded,[3] missing or cancelled. Readings are collected using in-person observations or by telephone. Telephone readings are acceptable when it is not possible for a DCT to reach an employee at his or her work location at the scheduled time of the sample.

Table 1. FY 2019 IOCS Readings by Craft

Craft	Number of Craft Employees	Number of Readings Scheduled
City Carriers	208,464	232,416
Clerks	121,573	219,423
Mail Handlers	43,308	81,049
Supervisors/Managers	25,581	42,088
Total	**398,926**	**574,976**

Source: The Postal Regulatory Commission (PRC)[4] website.

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1   A method of classifying post offices according to volume of revenue generated for the prior two years. CAGs range in alphabetical order from A through L.
2   The total number of readings reported included 554,107 readings marked as completed, 19,005 cancelled readings, and 1,662 autocoded and 202 missed readings.
3   Autocoding occurs when the IOCS system automatically adds a result for readings for high level managers.
4   An independent federal agency that provides transparency and accountability of Postal Service operations.
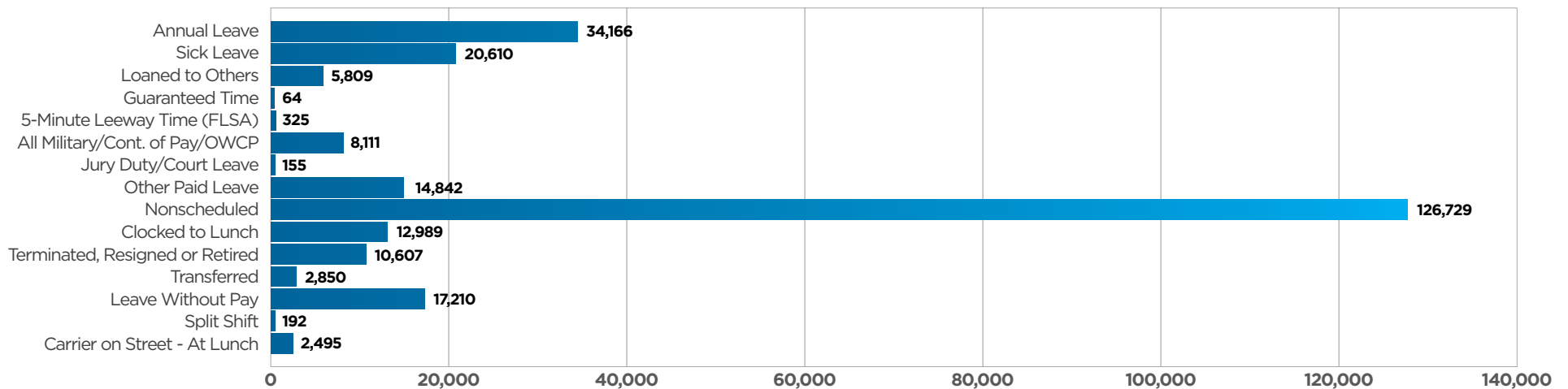
In FY 2015, the Postal Service began a pilot program to develop a new methodology for conducting IOCS sampling to attribute the mail handling labor costs of city carriers to products. The primary objective of the new cluster sampling methodology is to increase the number of in-person readings during times when carriers are on the premises and handling mail. IOCS cluster readings require DCT's to conduct samples for an extended period in the morning. This methodology seeks to reduce afternoon readings for city carriers since they are often on the street and not on the premises handling mail. Postal Service officials stated the cluster sampling methodology would allow DCTs to collect twice as much on-premises data than the current IOCS design and would not require additional data collection resources. Changes to sampling methodologies require PRC approval. Two proposals were previously filed with the PRC to change IOCS sampling procedures for city carriers. One of the proposals was withdrawn and the PRC partially accepted the other. Management is developing a third iteration to be filed in FY 2020. See Appendix B for an illustration of the IOCS cluster and current IOCS sampling processes.

The PRC has approved the use of sampling data for cost attribution. However, in a prior audit,[5] we found the use of real-time, census data could increase the reliability and accuracy of cost attribution. Therefore, the Postal Service should continue to seek opportunities to use real-time, census data.

Finding #1: Employees in Leave Status

Opportunities exist for the Postal Service to improve IOCS sampling efficiencies. Specifically, a significant number of IOCS readings are marked as complete even though they did not capture mail characteristics. This occurred because the current sampling design results in numerous stopped readings.[6] The Postal Service reported in the data filed with the FY 2019 Annual Compliance Report (ACR)[7] that 554,107 IOCS readings were completed. However, 257,154 of those readings were conducted while the selected employees were in a nonscheduled[8] or leave status,[9] as shown in Figure 1.

Figure 1. Readings for Employees in a Paid and Unpaid Leave Status

Category	Value
Annual Leave	34,166
Sick Leave	20,610
Loaned to Others	5,809
Guaranteed Time	64
5-Minute Leeway Time (FLSA)	325
All Military/Cont. of Pay/OWCP	8,111
Jury Duty/Court Leave	155
Other Paid Leave	14,842
Nonscheduled	126,729
Clocked to Lunch	12,989
Terminated, Resigned or Retired	10,607
Transferred	2,850
Leave Without Pay	17,210
Split Shift	192
Carrier on Street - At Lunch	2,495

Source: FY 2019 ACR, Library Reference USPS-FY19-37, IOCS Documentation.

5   Costing Best Practices (Report Number CP-AR-19-004, dated September 17, 2019).
6   Stopped readings are readings conducted on employees not working in their regularly scheduled operations during the time of the reading. Examples include annual leave, sick leave, out to lunch, and transferred, among others.
7   The ACR analyzes cost, revenue, rates, and quality of service for all products. Further, it reports whether revenue for each mail class and service type covers it attributable costs, which are costs directly or indirectly caused by product.
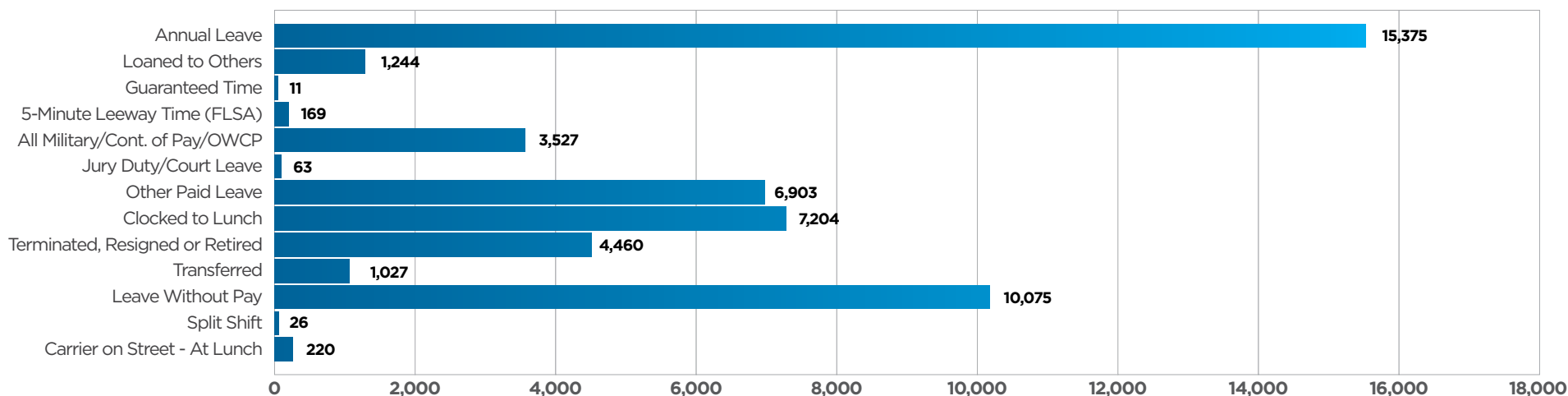8   A non-scheduled status refers to employees who are not scheduled to work and therefore not receiving pay for that time period they are not working.
9   This report references "leave status" as employees who were absent from work for a period of time or not working in the position where the IOCS reading was scheduled to be conducted.

The DCT appropriately documented the leave status of these employees in the Computerized On-Site Data Entry System (CODES)[10] and these readings were considered complete. These readings could not be used to attribute costs to products because they did not include any mail characteristics data.

Additionally, in the FY 2019 ACR, 50,304 (about 20 percent) of the total 257,154 readings conducted on employees in a leave status were scheduled to be conducted in-person, as shown in Figure 2.

Figure 2. Scheduled In-Person Readings for Employees in a Leave Status

Category	Value
Annual Leave	15,375
Loaned to Others	1,244
Guaranteed Time	11
5-Minute Leeway Time (FLSA)	169
All Military/Cont. of Pay/OWCP	3,527
Jury Duty/Court Leave	63
Other Paid Leave	6,903
Clocked to Lunch	7,204
Terminated, Resigned or Retired	4,460
Transferred	1,027
Leave Without Pay	10,075
Split Shift	26
Carrier on Street - At Lunch	220

Source: FY 2019 ACR, Library Reference USPS-FY19-37, IOCS Documentation.

Management stated the current IOCS sampling methodology was not designed to substitute employees in a leave status (unavailable) with employees conducting mail activities (available). Management further stated the IOCS sampling methodology has been in place for over 50 years, and the current design provides sufficient samples for the PRC to assess product cost estimates.

According to policy,[11] an IOCS reading consists of a DCT observing a selected employee at a designated time during the employee's workday. The DCT records the employee's assignment and the activity the employee is performing during the observation, as well as the characteristics of any mail handled at that time. The data collected is entered into CODES to be used to attribute costs to mail products. Furthermore, according to policy,[12] DCTs must verify the employee's schedule twice on the reading day, once in advance and again at the time of

the reading. DCTs have access to the Time and Attendance Collection System (TACS)[13] and information to contact the sampled employee's supervisor to confirm their work status. However, we could not determine if DCT's verified employees work status before conducting these readings because there is no process or mechanism in place to capture DCT verification.

Readings that do not capture mail characteristic data when employees are in a leave status are not used to attribute costs to products. Stop readings, which did not capture mail characteristics, represented about 46 percent of total readings. Furthermore, in FY 2019, the average cost to conduct an IOCS reading was about $51 an hour. If DCTs conducted in-person readings for employees in a leave status, the time spent visiting a facility could have cost the Postal Service up to $2.6 million.

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10   A computer architecture structured around the functions of a physical work site, which serves as the central gathering place of collected data from district's data collectors.
11   Handbook F-45, *Data Collection User's Guide for In-Office Cost System*, Chapter 3, dated August 2019.
12   Handbook F-45, Section 2-4 3.3.
13   The system used by all installations to automate the collection of employee time and attendance information.

Finding #2: Cancelled Readings

Opportunities exist for the Postal Service to reduce IOCS cancelled readings. From FY 2015 to FY 2019, cancelled readings increased by about 62 percent, as shown in Figure 3.

Figure 3. IOCS Rescheduled and Cancelled Readings

	2015	2016	2017	2018	2019
Total Scheduled	**572,030**	**572,199**	**630,299**	**604,619**	**574,976**
Total Rescheduled	87,210	82,719	88,654	94,629	91,245
Total Cancelled	11,717	10,690	12,849	15,329	19,005
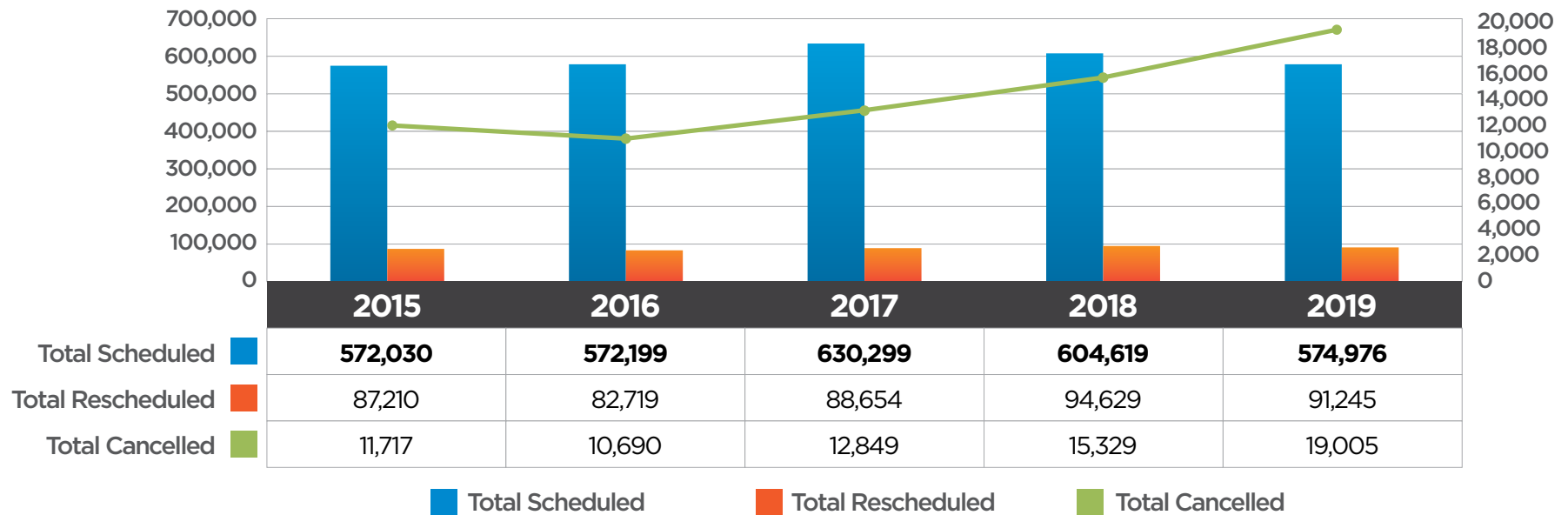
Source: Test Status Statistics Report[14] and PRC website.

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14   The *Test Status Statistics Report* provides information about a district's readings for each CODES application, such as unapproved, canceled, and rescheduled readings.

In FY 2019, there were 19,005 cancelled readings, as shown in Table 2, which could not be used to attribute costs to products. The table shows about 21 percent of total cancelled readings were a result of rescheduled readings that could not be completed.

Table 2. Cancelled Readings

Causes	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Quarterly Training	7,056	6,334	6,459	7,284	6,096
Unable to Reschedule Before End of Quarter	4,661	4,356	6,390	8,045	10,830
Cancelled - Not Transmitted	0	0	0	0	2,079
Total Cancelled	**11,717**	**10,690**	**12,849**	**15,329**	**19,005**

Source: PRC website.

The *IOCS Readings Schedule Report*[15] from CODES provides the DCT an assigned list of employees to sample and the time a reading must be conducted. If a reading is not conducted at the scheduled reading time indicated in the report, it must be rescheduled.

According to policy,[16] DCTs must reschedule a reading in the same quarter it was originally scheduled. DCTs have until the last week of the quarter to reschedule readings. Postal Service policy[17] also states that when a reading is scheduled during the last seven calendar days in a quarter, the rescheduled reading date may be conducted any day the DCT chooses during that week. This policy increases the risk for the Postal Service to cancel readings at the end of the

quarter because it requires DCTs to complete more readings in less time as the quarter progresses. Another major contributing factor to cancelled readings were those automatically cancelled during DCTs' quarterly training.

Only about 12 percent of the 574,976 scheduled readings in FY 2019 captured mail characteristic data. The PRC accepted this sampling size; however, increasing mail characteristics data captured would increase accuracy of product cost attribution. Postal Service uses the data collected from IOCS readings to distribute about $22 billion in costs, per year, to mail products. Management stated that cancelled readings represent a small percentage of scheduled readings, and the number of sampled readings is sufficient for product cost estimates. However, in FY 2019, the number of cancelled readings was 29 percent of the number of total readings that captured mail characteristic data. Cancelled readings reduce the number of overall readings that obtain mail characteristics data needed for cost attribution.

> *"Postal Service uses the data collected from IOCS readings to distribute about $22 billion in costs, per year, to mail products."*

Recommendation #3

We recommend the **Vice President, Pricing and Costing**, investigate cause(s) for increases in rescheduled readings that were cancelled and take appropriate action.

Recommendation #4

We recommend the **Vice President, Pricing and Costing**, document the methodology and analysis used to ensure sufficient samples are capturing mail characteristics for cost attribution.

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15 This report contains information about the sampled employee and other information needed to determine the time the IOCS reading should be conducted.
16 Handbook F-45, Section 2-4.6.
17 Handbook F-45, Section 2-4.6.

Finding #3: IOCS Cluster Sampling Pilot Efficiencies and Expansion

Pilot Efficiencies

The IOCS cluster sampling pilot results indicate the pilot has increased efficiencies as compared to the current IOCS sampling process. For example, when a sampled employee is in a leave status during a scheduled reading, CODES would replace the unavailable employee with an available employee. This new design would address the inefficiency discussed in the first finding of this report, whereby 257,154 readings were completed on employees in leave status and did not capture mail characteristic data. Our observations generally support management's findings that the IOCS cluster sampling methodology has increased efficiencies over the current sampling methodology; however, we found some additional opportunities to increase process efficiencies in the cluster sampling methodology. Specifically:

- The DCT is designated 10 minutes between each reading to locate the selected employee, collect the mailpiece handled, and document the activity observed. During our site visits, we found DCTs had idle time between readings when employees were replaced. This occurred because the policy requires DCTs to wait the full 10 minutes before conducting a replacement sample, even if a replacement employee could be identified in less time. We also observed it sometimes took a DCT several attempts before locating a replacement employee. Each attempt to identify a replacement employee required 10 additional minutes of wait time.

- We observed a DCT having idle time before the first scheduled employee selected for a reading arrived. This occurred because DCTs must arrive at the selected facility prior to employees selected for observation and meet with the supervisor to determine the selected employee's work schedule. We observed a DCT waiting almost two hours before the selected employee arrived for work.

The employee sampled and reading times are determined based on statistical methods. The reading time is the approximate time the reading should be taken,

based on the sampled employee's scheduled starting and ending times. DCTs must make every effort possible to find the sampled employee and conduct the reading at the appropriate time for results to be statistically valid and unbiased. Considering the average hourly cost for DCTs to conduct readings is $51, idle time between readings can be as much as 16 percent[18] of these costs for a full 10-minute wait time. Although we could not calculate the amount of idle time that occurred during the cluster sampling pilot, there is a cost associated with DCTs having to wait to conduct readings. Enhancing the IOCS Cluster sampling methodology to reduce idle time would further improve efficiency.

Recommendation #5

We recommend the **Vice President, Pricing and Costing**, enhance the cluster sampling methodology to reduce inefficiencies in the amount of time required to conduct readings.

Expanding IOCS Cluster Sampling

Opportunities exist for the Postal Service to expand the IOCS Cluster sampling to other crafts. Currently, the cluster sampling methodology focuses solely on capturing city carrier data because carriers are not always on-site, resulting in missed opportunities to collect mail handling data. If the cluster sampling methodology would include other crafts, the Postal Service may be able to reduce the number of readings for non-mail handling and support activities which do not capture mail characteristic data needed for product cost attribution. For example, using cluster sampling for window service clerks could reduce sampling of the following non-mail handling activities:

- Opening and closing windows.

- Balancing, counting, and replenishing stamp stocks.

- Running daily financial reports.

- Collecting fees (i.e., mailbox and passport) and performing work not related to products.

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18 $51 divided by 60 minutes = .85 cents per minute. 85 cents x 10 minutes idle time = $8.50 (or 16 percent of hourly cost).

During our site visits in the Capital Metro Area, we identified DCTs in the cluster sampling pilot capturing mail characteristics from 15 to 18 mailpieces within a three-hour window compared to the current IOCS process which captures mail characteristics from one piece of mail for one reading. In addition, while on-site, the DCTs did not have to reschedule readings because the system allowed the DCT to continue with the next available employee. As a result, DCTs were able to gather more mail characteristic data than the current IOCS sampling process.

Management provided us with the results of their FY 2019, Quarter 4, data analysis of the IOCS cluster pilot program for city carriers. The results indicate the Postal Service identified about 27 percent in additional mail handling cost data. According to the Postal Service, cluster sampling resulted in the attribution of more costs to products for city carriers because DCTs conducted more on-site readings. These readings reduce the number of readings for non-mail handling and support activities, like checking vehicles and break time, and increase the number of readings for mail handling activities. This enabled the Postal Service to capture more data on mailpiece characteristics that could be used to increase the accuracy of labor costs attributed to products.

Extending the cluster sampling methodology to other crafts could possibly improve the measurement of mail handling costs as demonstrated with IOCS-Cluster for city carriers. This would provide the Postal Service with more available data for making management decisions on product costing. For example, given an assumption that the Postal Service were able to achieve similar results for window services as those achieved with the city carrier cluster pilot, it could improve mail handling cost data by about 27 percent for clerks at window units.

Recommendation #6

We recommend the **Vice President**, **Pricing and Costing**, analyze the expansion of the In-Office Cost System cluster sampling pilot to include other crafts, and implement a pilot as appropriate.

Management's Comments

Management generally agreed with the recommendations.

Regarding recommendation 1, management partially agreed, stating the current IOCS was not designed to replace unavailable employees. Enhancing current sampling methodology would require a redesign from sampling of moments of time for employees to sampling of moments of time for work units. Management asserts this change, if not done properly, could introduce bias into the estimates. However, management provided an alternative, noting it is currently piloting the IOCS-Cluster system. The process samples carrier workhours and randomly selects not only employees but also an alternative employee if the originally selected employee is not available. The system needs the approval of the PRC, with plans to implement the system by January 1, 2021.

Regarding recommendation 2, management partially agreed, noting they are sympathetic to efficiency improvements of data collection but stated adding requirements for time-consuming advance verification may result in a net increase in workhours. Additionally, management stated the assertion that up to $2.6 million may have been saved if data collectors did not conduct unnecessary on-site readings is substantially overstated. This calculation assumes that on-site readings take one hour, but on-site readings generally take less than half of that amount of time. Management agreed to review the current policy for data collection when there is advance indication that the employee will not be working, and to reiterate the verification policy in training during the next Statistical Programs National Quarterly Training on June 4, 2020. Management also agreed to investigate approaches to reducing the number of on-site visits in situations where it can be reliably determined in advance that the sampled employee will not be working, including possible changes to CODES data collection software. The target implementation for the policy review and reiteration is October 1, 2020.

Regarding recommendation 3, management analyzed the cancellation rates by district from FY 2015 through FY 2019 and found that five districts significantly contributed to the high increase of cancellations from 2018 to 2019. Management will work with these five districts to establish a plan to reduce the number of cancellations. The target implementation date for this investigation is April 1, 2021.

Regarding recommendation 4, management will document the methodology used to ensure sufficient IOCS samples are capturing mail characteristics by November 30, 2020.

Regarding recommendation 5, management intends to invest in improvements in the IOCS Cluster sampling to reduce inefficiencies after the IOCS Cluster sampling approach has been approved by PRC. The target implementation date for these enhancements is April 1, 2021.

Regarding recommendation 6, management stated analysis for potential expansion of the IOCS Cluster sampling pilot will be conducted after PRC has ruled on the upcoming proposal to implement cluster sampling for city carriers. The target implementation date for this analysis is May 1, 2021.

In their response, management added clarification to the "20,869 missing or cancelled readings" quoted in the report. The 20,869 readings were comprised of 202 "missing", 1,654 "autocoded", and the remaining readings were formally cancelled.

See Appendix C for management's comments in their entirety.

Evaluation of Management's Comments

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

Regarding managements statement that up to $2.6 million for unnecessary on-site readings was an overstatement, we recognize this figure is the maximum value of reduced costs based on the quantity of on-site readings for employees in a leave status and the average hourly data collector rate. Enhancing CODES to annotate whether the data collector went on-site to conduct a reading will assist management with more accurately quantifying the number of on-site readings and corresponding costs associated with those readings.

All recommendations require OIG concurrence before closure. The OIG requests written confirmation when corrective action is completed. Recommendations 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

Scope and Methodology

The scope of our audit was to review the IOCS sampling processes the Postal Service used to attribute labor costs in FY 2019.

To achieve our objective, we:

- Reviewed PRC documents related to IOCS sampling methodologies.

- Reviewed Postal Service handbooks related to the IOCS sampling process.

- Conducted a trend analysis of IOCS reading samples from FY 2015 to FY 2019.

- Interviewed headquarters Pricing and Cost personnel to gain an understanding of the IOCS sampling methodology.

- Interviewed external stakeholders to identify ways to improve the IOCS sampling process.

- Conducted site visits to observe and compare the current and cluster IOCS sampling processes.

- Interviewed PRC officials regarding the latest proposed IOCS Cluster sampling process.

We conducted this performance audit from October 2019 through May 2020 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 April 7, 2020, and included their comments where appropriate.

We assessed the reliability of computer-generated data from IOCS through discussion with personnel from the Postal Service Cost Systems and Analysis group and comparison of key information and data against separately prepared documents provided by management. We determined that the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

Report Title	Objective	Report Number	Final Report Date	Monetary Impact
Accuracy of In-Office Cost System Data	Assess the accuracy and reliability of IOCS telephone readings.	CP-AR-18-001	10/18/2017	None

Appendix B: IOCS Sampling

As shown below, with the current IOCS sampling methodology, the DCT receives the name of the employee to be sampled from headquarters via the CODES laptop, verifies the employee is working, and either goes to the location or conducts a phone call to initiate the reading. The data retrieved from the mailpiece is then entered into the CODES laptop and transmitted to headquarters. With cluster sampling the DCT will receive a list of six employees who are to be sampled and continuously conduct the readings over an extended period, thereby collecting data from numerous mailpieces.

Non-Cluster

On Location

Phone Call

Headquarters — Digital Transmit — Data Collection Technicians — Data — CODES — Headquarters

Cluster

On Location

Phone Call

Headquarters — Digital Transmit — Data Collection Technicians — Data — CODES — Headquarters

Source: OIG analysis.

Appendix C: Management's Comments

Sharon Owens
Vice President, Pricing and Costing

UNITED STATES POSTAL SERVICE

May 19, 2020

LAZERICK POLAND
DIRECTOR, AUDIT OPERATIONS

SUBJECT: In-Office Cost System Sampling Processes
(Project Number 19-032-DRAFT)

Postal Service management has reviewed the findings and recommendations outlined in the subject audit report and provide the following comments to the contents of the report and the recommendations:

Highlights - Objective:
Management would like to clarify the "20,869 missing or cancelled readings" under the Objective in the OIG report. Of the 20,869, only 202 readings are "missing", where no data was received from the field. A further 1,654 readings are "autocoded"; these use information about higher level managers to assign an activity code automatically so that the sample does not even have to be sent to the field. This technique has been a longstanding approach used to reduce data collection workload in the field. The remaining readings were formally cancelled.

Recommendation #1:
We recommend the Vice President, Pricing and Costing, evaluate and enhance, as appropriate, the In-Office Cost System sampling methodology to replace or reschedule readings of (unavailable) employees.

Management Response / Action Plan:

The Postal Service partially agrees with this recommendation.

In-Office Cost System (IOCS) was not designed to enable replacement of unavailable employees. Each IOCS reading is a random snapshot of the cost distribution represented by an employee's work activity at selected points in time during their work day, and probability of selecting that moment in time is known. In order to substitute a different employee when the original employee is not available, it is necessary to be able to correctly calculate the selection probability associated with the substitute employee; otherwise, bias can be introduced into the estimates. For example, work units with no other suitable employees available for sampling at the time of the reading may be under-represented in the final estimation compared to large units with many available employees, and the products handled in small units may not be the same as in large. Although the recommendation sounds simple, implementation requires a redesign from one focused on probability sampling of moments of time for employees to probability sampling to moments of time for work units.

As an alternative enhancement, management is currently piloting the IOCS-Cluster system, which is designed to randomly sample workhours for a finance number, specifically the hours worked by carriers in the morning. It has an algorithm to not only randomly select employees but to also randomly select an alternative employee if the originally selected employee is not available, thereby enabling calculation of an appropriate weighting factor for the data collected.

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The implementation of IOCS-Cluster needs the approval by Postal Regulatory Commission (PRC). Management is developing the third iteration to be filed in FY 2020.

Target Implementation Date: January 1, 2021
Responsible Official: Manager, Cost Systems and Analysis

Recommendation #2:
We recommend the Vice President, Pricing and Costing, reiterate the verification policy and enhance the In-Office Cost System Computerized On-Site Data Entry System to indicate the verification of sampled employees work status in advance.

Management Response / Action Plan

The Postal Service partially agrees with this recommendation.

The OIG's finding: DCTs must verify the employee's schedule twice on the reading day, once in advance and again at the time of the reading [OIG, p. 5] is not entirely correct. According to policy, the MFPC may also request that you verify the employee's schedule several hours before the reading time [F-45, 2-4.3.3, p. 8], but it is not always required. Advance verification on the day of the reading may not be useful information since the DCT must verify additional information with the sampled employee's supervisor, postmaster or designee at the reading site, before starting the reading and during the completion of the reading.

In addition, the OIG's finding that: DCTs have access to the Time and Attendance Collection System (TACS) [OIG, p. 5] is not correct. While some data collectors have access to TACS, many do not. For those that do not, advance verification would require communication with the employee's supervisor. Furthermore, TACS is not a 100 percent reliable indicator of the future status of the employee. IOCS seeks to get confirmation of the employee's status either by verification from a supervisor or by an onsite reading. In some cases, it can take more of a data collector's time to obtain confirmation in advance by phone from a supervisor than it does to merely conduct an on-site reading.

The OIG's finding that up to $2.6 million might have been saved if data collectors did not conduct on-site readings which led to stop ("leave") readings is substantially overstated. This calculation assumes that every reading takes one hour, when in fact readings, even on-site readings, take less than half of that amount of time.

Management is very sympathetic to the idea of improving the efficiency of data collection by avoiding travel when unnecessary. Adding requirements for time-consuming advance verification, particularly contacting supervisors in advance, may however result in a net increase in workhours, not a decrease in avoided travel hours. In addition, it is important to continue to reinforce the importance of onsite readings in order to record the observation and the activities being performed, and not to depend completely on what is conveniently available in electronic databases.

Management agrees to review the current policy for data collection when there is advance indication that the employee will not be working, and to reiterate the verification policy in training during the next Statistical Programs National Quarterly Training on June 4, 2020. Management also agrees to investigate approaches to reducing the number of on-site visits in situations where it can be reliably determined in advance that the sampled employee will not be working including possible changes to CODES data collection software.

Target Implementation Date: October 1, 2020

Responsible Official: Manager, Statistical Programs

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Recommendation #3:
We recommend the Vice President, Pricing and Costing, investigate cause(s) for increases in rescheduled readings that were cancelled and take appropriate action.

Management Response / Action Plan

The Postal Service agrees with this recommendation. Statistical Programs has analyzed the cancellation rates by district from FY 2015 - FY 2019 and found that five districts significantly contributed to the high increases of cancellations from 2018 to 2019. Our initial analysis indicates that the high cancellation rates are directly related to management and DCT staffing issues. We will work with these five districts to establish a plan to reduce the number of cancellations.

Management would like to clarify the following statement under Finding #2.

"However, in FY 2019, the number of cancelled readings was 29 percent of the number of total readings that captured mail characteristic data."

The statement above implies that had all cancelled readings been conducted, then there would have been an additional 29 percent of readings that capture mail characteristic data, i.e. direct tallies. However, this is not plausible. First, training of DCTs is critical, and in fact quarterly training days were implemented due to earlier recommendations by the OIG. Second, even if all of the cancelled readings not due to quarterly training were conducted, the expected increase in the number of direct tallies would only be 2 percent.

Target Implementation Date: April 1, 2021

Responsible Official: Manager, Statistical Programs

Recommendation #4:
We recommend the Vice President, Pricing and Costing, document the methodology and analysis used to ensure sufficient samples are capturing mail characteristics for cost attribution.

Management Response / Action Plan

The Postal Service agrees with this recommendation.

Cost Systems and Analysis will document the methodology used to ensure sufficient IOCS samples.

Target Implementation Date: November 30, 2020

Responsible Official: Manager, Cost Systems and Analysis

Recommendation #5:
We recommend the Vice President, Pricing and Costing, enhance the cluster sampling methodology to reduce inefficiencies in the amount of time required to conduct readings.

Management Response / Action Plan

The Postal Service agrees with this recommendation.

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Following the rejection of the previous IOCS-Cluster sampling proposal by PRC, a number of design changes were made to address PRC's concerns but created inefficiencies. These inefficiencies can be reduced. Management intends to invest in these improvements after the IOCS-Cluster sampling approach has been approved by PRC.

Target Implementation Date: April 1, 2021

Responsible Official: Manager, Cost Systems and Analysis

<u>**Recommendation #6:**</u>
We recommend the Vice President, Pricing and Costing, analyze the expansion of the In-Office Cost System cluster sampling pilot to include other crafts, and implement a pilot as appropriate.

Management Response / Action Plan

The Postal Service agrees with this recommendation.

However, note that there are many more city carriers working in the same facility at the same time compared to other crafts. That may make cluster sampling at facilities and at times when city carriers are not in-office too inefficient to be justified. The potential for improving sampling efficiency may be constrained by requirements from PRC. Analysis for potential expansion of the pilot will be conducted after PRC has ruled on the upcoming proposal to implement cluster sampling for city carriers.

Target Implementation Date: May 1, 2021

Responsible Official: Manager, Cost Systems and Analysis

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