



Office of Inspector General | United States Postal Service

Audit Report

Inbound ePackets Cost Attribution

Report Number CP-AR-18-003 | January 23, 2018



Airmail
Postage Paid
China Post



FROM

SAMPLE NAME
SAMPLE BUSINESS NAME
STREET ADDRESS 0001100
CITY TOWN LOCATION
CHINA 123456



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Highlights

Objective

The Postal Accountability and Enhancement Act of 2006 (PAEA) allowed the U.S. Postal Service to enter into bilateral agreements with foreign posts to promote the efficient operation of international postal services. The Postal Service subsequently established bilateral agreements that developed new rates for existing letter class mailpieces and established a new letter class mailpiece designation for small lightweight packets weighing up to 2 kilograms (4.4 pounds). These small packets, or ePackets, offer delivery confirmation and tracking services, and are classified as market dominant products.

Our objective was to assess whether all costs associated with ePackets were accurately captured and aggregated.

What the OIG Found

While the Postal Service captured and aggregated most ePacket life cycle costs in its cost calculations, the Postal Service could still improve the accuracy and transparency of ePackets costing. Specifically:

- The Postal Service did not accurately capture or attribute the costs associated with returning undeliverable inbound ePackets to the product. During our site visits, we observed personnel preparing to transport undeliverable ePackets from the international service center back to the foreign post. However, our analysis of the ePacket financial model and fiscal year (FY) 2016 *Annual Compliance Report* found return costs were not captured or attributed to undeliverable inbound ePackets.

As a result, this inaccurate cost attribution understates the product costs of inbound ePackets and overstates the product costs of outbound international

“The Postal Service did not accurately capture or attribute the costs associated with returning undeliverable inbound ePackets to the product.”

packets between about \$1.02 and \$1.13 per returned mailpiece, depending on the destinating country. This could lead management and the Postal Regulatory Commission to rely on incorrect information when determining cost coverage and negotiating prices.

- We found the Postal Service incurred a financial loss for each returned inbound ePacket. When we calculated the estimated costs incurred before mailpieces were deemed undeliverable, as well as the international transportation costs and the postage paid to send them back, we found the Postal Service may be losing money on returned ePackets.

We estimated the Postal Service lost between \$0.20 and \$0.57 on each ePacket return in FY 2016. The precise total loss incurred for these items cannot be determined because the Postal Service does not track returned ePackets.

- The Postal Service does not separately report the cost of inbound ePackets as its own line item in its regulatory reports. In February 2014, the Postal Service agreed to evaluate a prior U.S. Postal Service Office of Inspector General recommendation to track and report costs and revenue for ePackets.

While the Postal Service has collected ePacket data in its In-Office Cost System (IOCS) since FY 2014, management stated they do not believe the data is sufficiently reliable to estimate and report accurate ePacket-specific costs. The Postal Service currently uses a proxy financial model to estimate the unit cost of ePackets, project future revenue, conduct bilateral agreement negotiations, and estimate cost coverage for ePackets. However, the Postal Service does not use the proxy to separately report ePacket costs. Although the proxy is reasonable, it is based on inbound international packet-shaped data rather than ePacket-specific data. A model that includes ePacket-specific statistical data from Postal Service data collection systems would produce more precise ePacket cost estimates.

From FY 2014 to FY 2016, ePackets volume grew by about 111 percent and revenue grew by about 163 percent. This resulted in over \$493 million

in additional revenue during those fiscal years. Aggregating the costs and revenue of ePackets with other inbound international products limits the transparency of these costs and insight into the profitability of a product with increasing demand and prominence.

What the OIG Recommended

We recommended management:

1. Establish procedures to track returns of undeliverable inbound ePackets.

“We estimated the Postal Service lost between \$0.20 and \$0.57 on each ePacket return in FY 2016.”

2. Include return costs in inbound ePacket proxy calculations and attribute those costs to ePackets.
3. Evaluate the costs of returning inbound ePackets and include a provision in future ePacket bilateral agreements that requires foreign posts to pay a service fee for ePacket returns.
4. Use the proxy ePacket cost estimate to report total costs and cost coverage for inbound ePackets as a separate line item in future fiscal years' *Annual Compliance Report*.
5. Develop a method to collect more accurate and reliable ePacket-specific data in Postal Service cost systems.

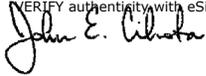
Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

January 23, 2018

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 – Inbound ePackets Cost Attribution
(Report Number CP-AR-18-003)

This report presents the results of our audit of Inbound ePackets Cost Attribution (Project Number 17BG018CP000).

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: Corporate Audit Response Management

Results

Introduction/Objective

This report presents the results of our self-initiated audit of Inbound ePackets Cost Attribution (Project Number 17BG018CP000). We performed this audit as part of our mandate under the Postal Accountability and Enhancement Act of 2006 (PAEA)¹ to regularly audit the data collection systems and procedures used to collect information and prepare reports.² Our objective was to assess whether all costs associated with ePackets were accurately captured and aggregated. See [Appendix A](#) for additional information about this audit.

Background

The PAEA allowed the U.S. Postal Service to enter into bilateral agreements with foreign posts to promote the efficient operation of international postal services.³ The rates established through bilateral agreements supersede terminal dues⁴ established by the Universal Postal Union (UPU).⁵ One such agreement is between the Postal Service and the China Post Group. The bilateral agreement developed new rates for existing letter class mailpieces and established a new letter class mailpiece designation for small, lightweight packets weighing up to 2 kilograms (4.4 pounds). These small mailpieces, called “ePackets,” offer delivery tracking and confirmation services and are classified as market dominant products.⁶ The Postal Service has since acquired similar bilateral agreements for ePackets with other foreign posts, to include Hong Kong and Korea. We illustrate the life cycle of an ePacket in [Appendix B](#).

The *International Cost and Revenue Analysis* (ICRA) report⁷ provides the cost, revenue, and volume for all classes of international mail. ePackets are considered inbound letter post⁸ mailpieces and are grouped within the inbound international Multi-Service Agreements with Foreign Postal Operators⁹ product in the ICRA report. This line item aggregates ePacket costs with those of other mailpieces and services within the bilateral agreements.¹⁰ Thus, the costs attributed to ePackets are not reported separately in the regulatory report.

In 2014, the U.S. Postal Service Office of Inspector General (OIG) conducted an audit¹¹ to assess whether the Postal Service accurately determined the cost of inbound China ePackets. The audit found the Postal Service did not report ePacket cost data as a separate line item in the ICRA report from other inbound international letter post mailpieces. As a result, it limited the Postal Service’s ability to establish effective pricing strategies and to determine if ePackets covered their attributable costs. The Postal Service has developed a financial model that it uses to develop ePackets pricing strategies and to estimate cost coverage. This model is not used to report ePacket cost data as a separate line item in the ICRA report.

The Postal Service uses data from the In-Office Cost System (IOCS),¹² Transportation Cost System (TRACS),¹³ City Carrier Cost System (CCCS),¹⁴ and Rural Carrier Cost System (RCCS)¹⁵ to attribute accrued costs to specific mail

1 39 U.S.C. §§ 101 et seq.

2 39 U.S.C. § 3652(a).

3 39 U.S.C. § 407(a).

4 The terminal dues system is a set of international postal rates that compensates the destination country for the costs incurred to handle, transport, and deliver letter post items from abroad.

5 The UPU sets the rules for international mail exchanges and makes recommendations to stimulate growth in mail, parcel, and financial services volumes and improve the quality of service for customers.

6 According to the PAEA, market dominant products are products for which the Postal Service holds a monopoly and include First-Class Mail, Periodicals, Standard Mail, single-piece letters, Standard Post, Media Mail, Bound Printed Matter, Library Mail, Special Services, and single-piece International Mail. ePackets fall under inbound international Multi-Service Agreements with Foreign Postal Operators, a market dominant product.

7 The ICRA report compares attributable costs to revenue to determine whether each international product’s revenue covers its costs. Attributable costs are those that are directly or indirectly caused by a product or service.

8 International mail that comprises of letters, packages, postcards, printed matter, and small packets up to 2 kilograms (4.4 pounds). Regular inbound letter post mail is governed by UPU provisions, while ePackets are inbound letter post items governed by bilateral agreements.

9 This product provides prices, at negotiated rates, for acceptance, transportation within the U.S., and delivery of inbound letter post tendered by foreign postal operators.

10 Examples include inbound priority and/or non-priority letter trays, flat trays, bags, containers, ancillary and customized services, and direct entry letters, flats, and small packets bearing domestic postage and indicia.

11 *Inbound China ePacket Costing Methodology* (Report Number [MS-AR-14-002](#), dated February 25, 2014).

12 IOCS is the primary probability sampling system used by the Postal Service to attribute the labor costs of clerks, mail handlers, city carriers, and supervisors related to the handling of mail of all classes and rate categories.

13 TRACS is a statistical sampling and data collection system that provides information for the Postal Service to allocate transportation costs to mail products and services.

14 The CCCS gathers data on mail collected and delivered on city routes for distributing major portions of carriers’ salaries, benefits, and related costs to mail products and services.

15 The RCCS gathers data on mail collected and delivered on rural routes for distributing major portions of carriers’ salaries, benefits, and related costs to mail products and services.

classes and rate categories. While these systems gather statistical information to distribute costs to many products and special services, they currently do not collect reliable ePacket-specific data. They do, however, contain statistical data based on mail shape, among other characteristics. Therefore, the Postal Service uses data from those costs systems as well as the System for International Revenue and Volume/Inbound (SIRV/I)¹⁶ to estimate the total amount of inbound international letter post costs attributed to packet-shaped mailpieces. Management uses this cost estimate as a proxy¹⁷ for ePacket costs.

Finding #1: ePackets Cost Attribution

The Postal Service did not capture and aggregate all ePacket life cycle costs in its cost calculations. During our site visits, we observed personnel preparing to transport undeliverable¹⁸ ePackets from the international service center (ISC) back to the foreign post. However, our analysis of the ePacket financial model and fiscal year (FY) 2016 *Annual Compliance Report (ACR)*¹⁹ workbooks²⁰ found return costs were not captured or attributed to inbound ePackets.

The PAEA defines attributable costs as those that are directly or indirectly caused by a product.²¹ Therefore, the costs incurred to return undeliverable inbound ePackets should also be attributed to the product. Management stated this does not occur because the Postal Service mixes returned inbound ePackets with other outbound international packets. The Postal Service labels the return items

with the same mail subclass code as outbound packets and does not separately track those returns. Therefore, inbound ePacket returns cannot be distinguished from the outbound products they are mixed with. For this reason, management did not include the return international transportation costs or the terminal dues²² paid for returned ePackets in the proxy cost calculations for the product. In addition, these costs were not attributed to the inbound international Multi-Service Agreements with Foreign Postal Operators line item that ePackets fall under in the ICRA.

Returned inbound ePackets should not be classified as outbound products. Under current procedures, the international transportation costs and terminal dues paid to provide the return service for those items are not appropriately reflected in attributable costs for inbound ePackets. Instead, the costs are attributed to outbound packets. This inaccurate cost attribution understates the product costs of inbound ePackets and overstates the product costs of outbound international packets between about \$1.02 and \$1.13 per returned mailpiece, depending on the destinating country, as shown in [Table 1](#). Since the Postal Service does not track how many inbound ePackets are ultimately returned, the total impact to attributable costs cannot be precisely determined at this time. However, using the total volume of FY 2016 outbound international packets as a baseline, we estimated the Postal Service did not appropriately attribute \$310,984 to inbound ePackets in FY 2016.

¹⁶ The SIRV/I develops estimates of pieces and weight for inbound international mail.

¹⁷ A proxy is a figure that can be used to represent the value of something in a calculation. The Postal Service's ePacket cost estimate is a proxy because it uses the cost estimates for packet-shaped inbound international letter post mailpieces to represent that of an ePacket. This is done because the Postal Service's data collection systems do not reliably capture sample data specifically for ePackets.

¹⁸ Nondelivery of mail can occur for the following general reasons: mail without postage; incomplete, illegible, or incorrect address; addressee not at address; mail unclaimed; mail refused by the addressee at time of delivery; mail refused by the addressee after delivery (when authorized under Postal Service policy); and mail not meeting minimum mailability criteria.

¹⁹ 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 its attributable costs. The ICRA report is a component of the ACR.

²⁰ Excel workbooks are used to collect and report financial costing, revenue, and rate data for the ACR.

²¹ 39 U.S.C. § 3631(b).

²² Management stated the Postal Service pays terminal dues to destinating foreign posts for returned inbound ePackets.

Table 1. FY 2016 Return Costs Not Attributed to ePackets

Countries	International Transportation Cost per Piece	Estimated Terminal Dues per Piece ²³	Total Estimated Return Cost per Piece	Total Potential Uncaptured Costs ²⁴	Value at Risk of Misattribution ²⁵
China	\$0.0730	\$0.9457	\$1.0187	\$474,044	\$144,859
Hong Kong	\$0.0730	\$0.9591	\$1.0321	\$282,750	\$86,403
Korea	\$0.0730	\$1.0605	\$1.1335	\$260,884	\$79,722
Total				\$1,017,678	\$310,984

Source: OIG analysis based on FY 2016 ICRA; 2013 UPU Letter Post Manual, Article 31 rates (China data); UPU Circular 56 rates, dated May 1, 2017 (Hong Kong and Korea data); FY 2016 Foreign Post Settlement (FPS)²⁶ data as of October 19, 2017 (China data) and October 30, 2017 (Hong Kong and Korea data); and OIG risk assessment model.

By not tracking inbound ePacket returns separately from other outbound packets, the Postal Service is unable to identify and capture the correct costs for those products. This poses a data integrity risk,²⁷ such as reporting inaccurate product costs. It could also lead management and the Postal Regulatory Commission (PRC)²⁸ to rely on incorrect information when determining cost coverage and negotiating prices. During our review of FY 2016 revenue, volume, and estimated unit costs for ePackets, we determined the product had a cost coverage of 137 percent, as shown in Table 2. However, those cost coverage calculations are likely overstated since the Postal Service did not attribute return costs to inbound ePackets.

Table 2. FY 2016 ePackets Cost Coverage Without Attributable Return Costs²⁹

	Revenue	Costs	Cost Coverage
Per Piece	\$1.84	\$1.34	137%
Total	\$275,155,174	\$201,147,983	137%

Source: OIG analysis based on FY 2016 FPS data as of October 19, 2017 (China data), and October 30, 2017 (Hong Kong and Korea data), and ePacket financial model workbook.

Recommendation #1

The Vice President, Pricing and Costing, should coordinate with Vice President, Network Operations, to establish procedures to track returns of undeliverable inbound ePackets.

23 In FY 2016, the terminal dues rate the Postal Service paid was \$0.30 per item plus \$2.35 per kilogram for China ePackets, \$0.32 per item plus \$2.47 per kilogram for Hong Kong ePackets, and \$0.31 per item plus \$2.34 per kilogram for Korea ePackets. We used the FY 2016 average per piece weight of 0.27 kilograms for China ePackets, 0.26 kilograms for Hong Kong ePackets, and 0.32 kilograms for Korea ePackets to calculate the estimated terminal dues per piece.

24 This value is based on the volume of outbound packets to each country in FY 2016 multiplied by the total estimated return cost per piece.

25 This value is based on a risk assessment model that conservatively assumed about 30 percent of the total potential uncaptured costs were related to inbound ePacket returns and, therefore, at risk of not being appropriately attributed to ePackets.

26 The FPS system bills and processes payments between Postal Service and foreign postal administrations according to UPU regulations, Express Mail Cooperative rules, and bilateral agreements.

27 The risk that the authorization, completeness, and/or accuracy of transactions as they are entered into, processed, summarized, and reported by application systems are compromised due to inadequate recording structures.

28 The PRC is an independent establishment of the executive branch of the U.S. government that has regulatory oversight over many aspects of the Postal Service, including the development and maintenance of regulations for pricing and performance measures.

29 We used the proxy ePacket cost estimate to compute the ePacket costs and cost coverage.

Recommendation #2

The Vice President, Pricing and Costing, should include the outbound international transportation costs and terminal dues paid to return inbound ePackets in ePacket proxy calculations, and attribute those costs to ePackets.

Finding #2: ePackets Returned to Foreign Posts

We found the Postal Service incurred a financial loss for each returned inbound ePacket. The Postal Service invoices foreign posts for all ePackets received regardless of whether they are delivered. The bilateral agreement rate the foreign posts pay to the Postal Service for received ePackets is higher than the terminal dues rate the Postal Service pays to send them back. However, when we calculated the costs for mail processing, domestic transportation, delivery, and other domestic costs that are incurred before mailpieces are deemed undeliverable, plus the international transportation and postage paid to return the items, we found the revenue from a returned ePacket does not sufficiently cover its costs. Thus, the Postal Service is losing money on returned ePackets.

The loss on returned ePackets occurred because the Postal Service does not have a provision within its ePacket bilateral agreements that make the foreign posts financially responsible for costs incurred to return undeliverable items. In addition, the costs of returning ePackets is not considered in the ePackets pricing strategy. We estimated the Postal Service lost between \$0.20 and \$0.57 on each ePacket return in FY 2016, depending on when personnel identified the mailpieces as undeliverable, as shown in Table 3. Since the Postal Service does not track inbound ePacket returns, the total loss incurred for these items cannot be precisely estimated at this time. However, using the total volume of FY 2016 outbound international packets as a baseline, we estimated the Postal Service risked a revenue loss of between about \$57,806 and \$167,774 in FY 2016 due to returning ePackets.

30 Includes the proxy ePacket unit cost estimate, plus the FY 2016 international transportation unit cost for returned ePackets, plus the average FY 2016 terminal dues rate for mailpieces destinating to China, Hong Kong, and Korea (based on an average ePacket weight of 0.29 kilograms).

31 This value is based on the volume of outbound packets to China, Hong Kong, and Korea in FY 2016 multiplied by the net loss per ePacket for each scenario.

32 This value is based on a risk assessment model that conservatively assumed about 30 percent of the total potential net loss was related to inbound ePacket returns and, therefore, considered revenue the Postal Service was at risk of losing due to returning ePackets.

33 Includes proxy ePacket unit cost estimates for mail processing, domestic transportation, delivery (including delivery confirmation and tracking), and other domestic costs.

34 Includes proxy ePacket unit cost estimates only for mail processing, domestic transportation, delivery confirmation and tracking, and other domestic costs; excludes delivery unit costs.

35 Includes proxy ePacket unit cost estimates only for mail processing, delivery confirmation and tracking, and other domestic costs; excludes domestic transportation and delivery unit costs.

Table 3. FY 2016 Net Loss Incurred on ePackets Returns

Scenario	ePacket Unit Revenue	ePacket Unit Cost ³⁰	Net Loss per Returned ePacket	Total Potential Net Loss ³¹	Revenue at Risk ³²
ePacket Marked Undeliverable After Delivery Attempt ³³	\$1.84	\$2.41	(\$0.57)	\$549,031	\$167,774
ePacket Marked Undeliverable Before Delivery Attempt ³⁴	\$1.84	\$2.20	(\$0.36)	\$345,412	\$105,552
ePacket Marked Undeliverable Before Departing ISC ³⁵	\$1.84	\$2.04	(\$0.20)	\$189,166	\$57,806

Source: OIG analysis based on FY 2016 FPS data as of October 19, 2017 (China data) and October 30, 2017 (Hong Kong and Korea data); ePacket financial model workbook; FY 2016 ICRA; 2013 UPU Letter Post Manual, Article 31 rates (China data); UPU Circular 56 rates, dated May 1, 2017 (Hong Kong and Korea data); and OIG risk assessment model.

A provision in the bilateral agreements that imposes a return service fee would help to offset the net loss realized for many ePackets that do not end up being delivered. In addition, tracking returns would enhance visibility and enable management to determine the materiality of this issue for more informed decision making.

Recommendation #3

The Vice President, Pricing and Costing, should evaluate the costs of returning inbound ePackets and consider including a provision in future ePacket bilateral agreements that requires foreign posts to pay a service fee for ePacket returns.

Finding #3: ePackets Cost Isolation

The Postal Service does not report the cost of inbound ePackets as a separate line item in the ICRA report or the ACR. In February 2014, the Postal Service agreed to evaluate a prior OIG recommendation³⁶ to track and report costs and revenue for ePackets. Although the PRC does not require the Postal Service to report the cost of ePackets as a separate line item, this would increase transparency of ePackets costing to external stakeholders.

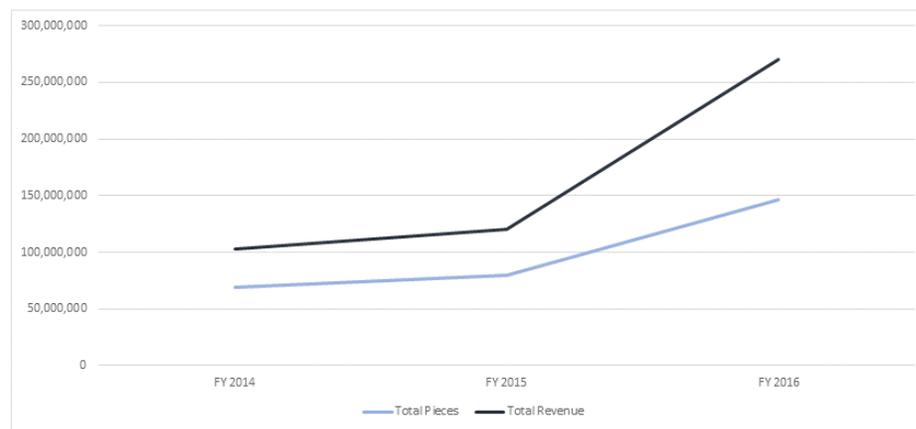
While the Postal Service has collected ePacket data as part of IOCS statistical sampling since FY 2014, management stated they do not believe the data is sufficiently reliable to estimate and report accurate ePacket-specific costs. This is because foreign posts do not consistently apply ePacket markings on labels or the markings are hard to recognize due to the small size of the mailpieces. As a result, management has found data collector technicians (DCT)³⁷ sometimes miss the markings entirely and do not accurately record mailpieces as ePackets in the IOCS data entry system. Barcode scans obtained by DCTs could assist in identifying sample mailpieces that were ePackets and enable management to adjust for incorrect entries in

“Since DCTs conduct the majority of IOCS readings by telephone, the Postal Service has not been able to rely solely on barcode scans to collect reliable sample data for ePackets cost estimation.”

the data entry system. However, this scan data is only collected during in-person IOCS readings. Since DCTs conduct the majority of IOCS readings by telephone, the Postal Service has not been able to rely solely on barcode scans to collect reliable sample data for ePackets cost estimation.

From FY 2014 to FY 2016, ePackets volume grew by about 111 percent and revenue grew by about 163 percent (see Figure 1 for growth trend). This resulted in over \$493 million in additional revenue during those fiscal years. Aggregating the costs and revenue of ePackets with other inbound international products limits the transparency of these costs and insight into the profitability of a product with increasing demand and prominence.

Figure 1. FYs 2014-2016 Inbound ePackets Volume and Revenue Trend



Source: FPS inbound input data from the FYs 2014-2016 ACRs.

Although the Postal Service cannot currently rely on its data collection systems to gather ePacket-specific cost estimates, management has developed a model to estimate the cost of ePackets. The Postal Service’s data collection systems do collect data on inbound international letter post costs by shape. The ePackets financial model assumes the inbound international unit costs for packet-shaped letter post mailpieces is equivalent to that of an ePacket. Specifically, based on

³⁶ *Inbound China ePacket Costing Methodology* (Report Number MS-AR-14-002, dated February 25, 2014).

³⁷ DCTs are responsible for recording the characteristics (for example, indicia, special services, and weight) of any mail or mail processing equipment a sampled employee is handling at a given time.

statistical data from the data collection systems, the Postal Service does the following to determine unit costs for packets:

- Calculates the percentage of total sampled inbound international letter post mailpieces that are letter-shaped, flat-shaped, and packet-shaped.
- Applies the packet-shaped percentage, also known as a distribution key, to total mail processing, domestic transportation, delivery, and other domestic costs for inbound international letter post to determine the proportion of those functional costs that are allocated to packets.
- Multiplies the distribution key for packets to total inbound letter post mailpieces received to estimate the total volume of packet-shaped inbound letter post items.
- Divides total mail processing, domestic transportation, delivery, and other domestic costs for packet-shaped mailpieces by the estimated total volume of packet-shaped inbound letter post mailpieces to determine the unit costs by function for each packet.
- Calculates the unit cost for delivery confirmation and tracking for packets.
- Sums the unit costs for mail processing, domestic transportation, delivery, other domestic, and delivery confirmation and tracking for packet-shaped mailpieces to compute the total overall unit cost for each packet.

The Postal Service uses the total overall unit cost for packet-shaped mailpieces to represent the unit cost of ePackets. Management stated this ePacket proxy provides the most feasible cost estimate of ePackets available at this time. In terms of ePacket cost data, packet-shaped data is the most granular level of information currently obtainable from the data collection systems. Our analysis determined the ePacket proxy cost model provides the most viable calculations to estimate ePacket costs at this time. We analyzed and traced the inputs for the Postal Service's ePacket proxy cost estimate workbooks to applicable source data and documentation. We determined the proxy financial model is a reasonable method for estimating ePacket costs until the Postal Service can obtain reliable ePacket-specific data from its data collection systems.

The Postal Service currently uses the proxy ePacket cost estimate to project future revenue, conduct bilateral agreement negotiations, and estimate cost coverage for ePackets. However, the ePacket proxy is not used to report ePacket costs as a separate line item. Reporting ePacket costs separately would increase transparency of ePacket profitability and cost coverage. Although the proxy is reasonable, it is based on inbound international packet-shaped data rather than ePacket-specific data. A model that includes ePackets-specific statistical data from Postal Service data collection systems would produce more precise ePacket cost estimates.

Recommendation #4

The Vice President, Pricing and Costing, *should use the proxy ePacket cost estimate to report total costs and cost coverage for inbound ePackets as a separate line item in future fiscal years' Annual Compliance Report.*

Recommendation #5

The Vice President, Pricing and Costing, *should develop a method to collect ePacket-specific data in Postal Service cost systems to determine more accurate and reliable ePacket cost estimates.*

Management's Comments

Management agreed with recommendations 1, 2, and 4. Management partially agreed with recommendation 3 and disagreed with recommendation 5.

Regarding recommendations 1 and 2, management stated the current cost systems capture the cost of inbound ePackets from entry into the U.S. at the ISCs to dispatch of returns at the ISCs. However, management plans to separately dispatch returns to China in terminal dues-exempt sacks in FY 2018. They will also investigate methods to accurately assign return costs to inbound products rather than outbound products. Management stated this will likely require filing a petition with the PRC to propose a change in analytical principles. Once approved, the change would be applied to the ePacket proxy as appropriate. In subsequent

correspondence, management clarified the target implementation date for recommendations 1 and 2 is December 28, 2018.

Regarding recommendation 3, management stated they agree the costs of returning inbound ePackets should be evaluated. However, they asserted many returned ePackets already avoid terminal dues because they are separated into terminal dues-exempt sacks. Management stated they will continue to investigate various methods of recouping the transportation costs associated with returned ePackets in future bilateral agreements. In subsequent correspondence, management clarified the target implementation date for recommendation 3 is September 30, 2018.

Regarding recommendation 4, management stated they will file a petition with the PRC to consider a change in analytical principles to separately report Inbound Air Letter Post packets (the ePackets proxy) in the *International Cost and Revenue Analysis* report. If the PRC approves the petition, management will report total costs and cost coverage for Inbound Air Letter Post packets as a separate line item in future fiscal years' ACRs. In subsequent correspondence, management clarified the target implementation date for this action is December 28, 2018.

Regarding recommendation 5, management stated they believe the most reliable estimate for ePacket data is the estimate for Inbound Air Letter Post packets.

Management also disagreed that a model with ePacket-specific statistical data from Postal Service data collection systems would produce more precise ePacket cost estimates. Management stated separate estimates for ePackets from the sampling systems would be less precise because there would be fewer data records for ePackets than for aggregate letters and cards/other articles (LC/AO). The smaller sample sizes would result in less precision.

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

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations and corrective actions should resolve the issues identified in the report. Regarding recommendations 1, 2, 3, and 4, we agree management's actions will address the issues noted.

Regarding recommendation 4, we partially agree that management's action to report total costs and cost coverage for Inbound Air Letter Post packets will address the issues noted. Although we believe specific ePacket volume and revenue should be reported to enhance transparency, reporting total costs and cost coverage for Inbound Air Letter Post packets as a separate line item may be sufficient. We will continue to monitor this line item and evaluate if it provides reasonable transparency into ePackets costs and cost coverage.

Regarding recommendation 5 and management's comment that ePacket-specific data would be less precise, we understand current sampling methodologies would not capture a sample size that is statistically representative of all inbound ePackets. However, our report presumed a statistically representative sample size for ePackets could eventually be achieved, and that management would explore other procedures to collect statistically reliable ePackets-specific data in its cost systems. We agree the current ePacket proxy cost model provides the most reliable ePacket cost estimate at this time.

All recommendations require OIG concurrence before closure. The OIG requests written confirmation when corrective actions are completed. Recommendations 1 through 4 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. We consider recommendation 5 closed, not implemented, with the issuance of this report.

Appendices

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Appendix A: Additional Information

Scope and Methodology

The scope of our audit was to assess whether all costs associated with the processing and handling of inbound ePackets were appropriately captured, aggregated, and attributed to the product to ensure accurate cost coverage determinations. Specifically, we focused our review on the accuracy of FY 2016 ePacket cost estimates.

To accomplish our objective, we:

- Reviewed manuals and guidelines related to inbound international mail procedures to determine the activities and cost drivers for processing and handling inbound ePackets.
- Performed a trend analysis of FPS volume and revenue data for ePackets by origin country and destination facility from FY 2014 to FY 2016.
- Conducted site visits to the following Postal Service facilities to obtain an understanding of the inbound ePackets' process flow and the associated costs:
 - John F. Kennedy ISC, Jamaica, New York.
 - J.T. Weeker ISC, Chicago, Illinois.
 - Queens Processing and Distribution Center (P&DC), Flushing, New York.
 - Stamford P&DC, Stamford, Connecticut.
 - Chicago Metro Surface Hub, Elk Grove Village, Illinois.

We selected the two ISCs for site visits because our analysis of FY 2016 inbound ePacket data showed they received the most ePackets. We selected the three mail processing plants because ISC managers stated ePackets were subsequently transported to those locations for further processing.

- Reviewed ePacket bilateral agreements to identify relevant cost and pricing provisions.

- Interviewed personnel in the Postal Service's Cost Attribution, Cost Systems and Analysis, Global Business, International Accounting, International Operations, and Revenue and Volume Reporting groups to determine the:
 - Methodology used to identify and calculate ePacket costs.
 - Systems, procedures, and controls in place to track, record, and verify ePacket data.
 - Process used to obtain, aggregate, and reconcile ePacket electronic manifest and receipt data to appropriately invoice foreign posts for inbound ePackets.
- Evaluated non-public ICRA data files, ePacket financial model workbooks, and expense account data by cost segment to determine if all costs associated with ePackets were isolated, captured in cost estimates, and attributed to the line item ePackets falls under in the ICRA report.
- Verified the accuracy of input data used in proxy ePacket cost calculations.
- Analyzed FY 2016 Global Business System (GBS) receipt data for inbound ePackets to determine whether there was a significant risk of the Postal Service accepting ePackets over the 2 kilogram threshold and the impact that may have had on the product's profitability.

We conducted this performance audit from July 2017 through January 2018 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 December 18, 2017, and included their comments where appropriate.

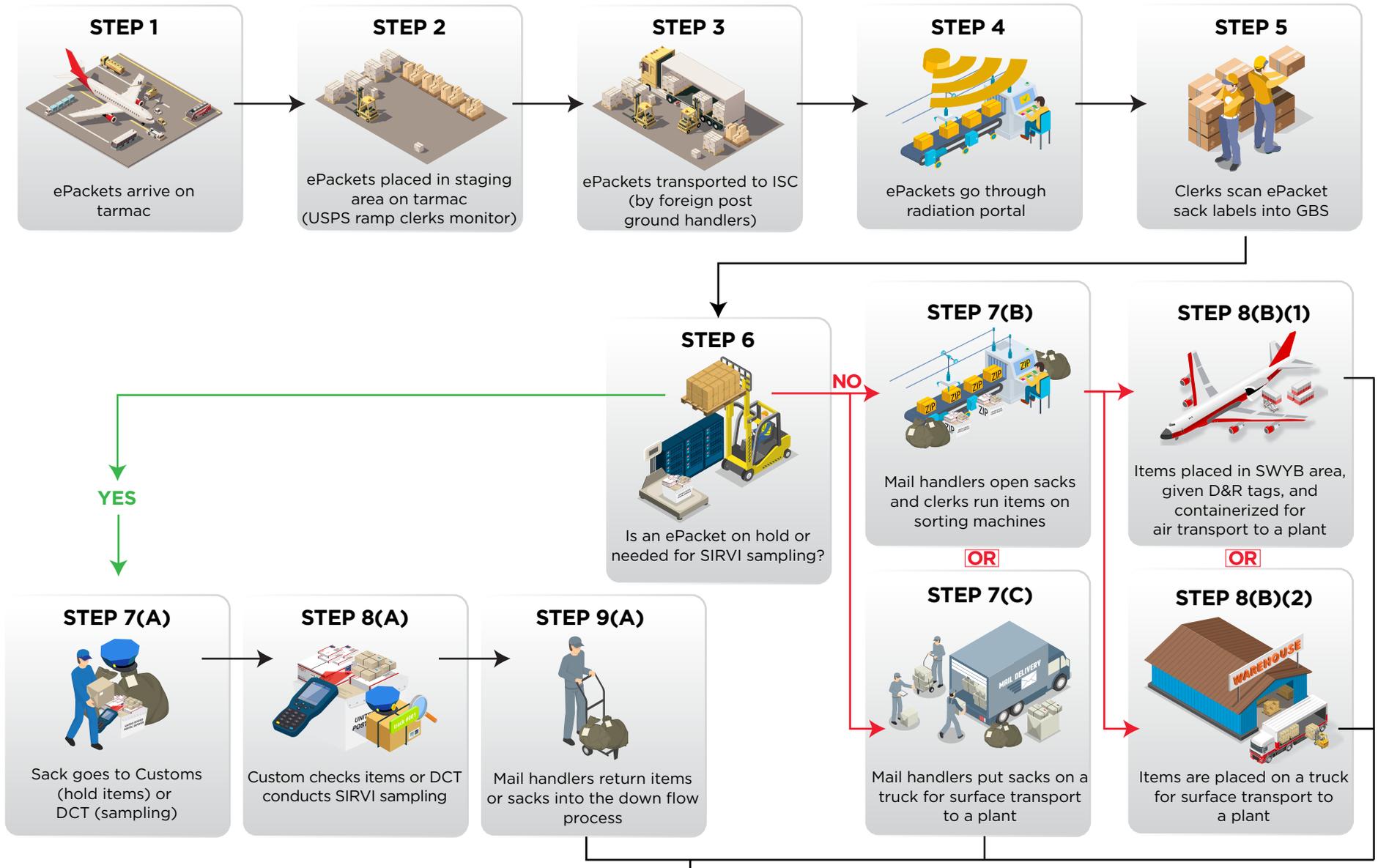
We assessed the reliability of computer-generated data from GBS, FPS, and the Postal Service’s ePackets financial model workbooks by conducting substantive testing on the data, comparing GBS data to FPS data, and recomputing calculations and tracing inputs in the ePacket financial model workbook to source documents, such as Postal Service regulatory reports. Based on our assessment, we determined the data were sufficiently reliable for the purposes of this report.

Prior Audit Coverage

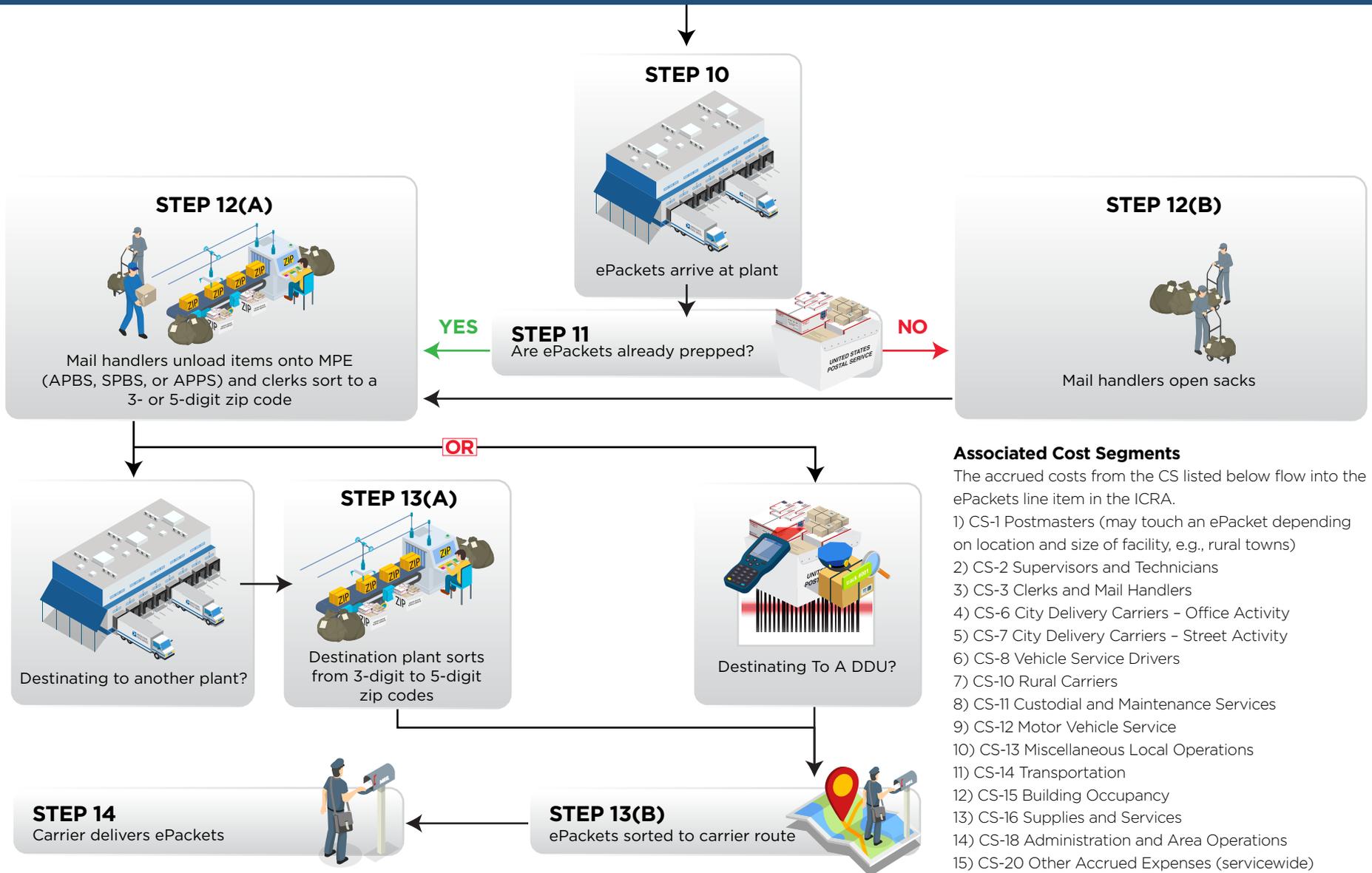
Report Title	Objective	Report Number	Final Report Date	Monetary Impact
<i>Inbound China ePacket Costing Methodology</i>	To assess whether the Postal Service accurately determines the cost of inbound China ePackets.	MS-AR-14-002	2/25/14	\$38,992,645

Appendix B: ePackets Process Flowchart

EPACKET FLOWCHART ISC



EPACKET FLOWCHART PLANT



Associated Cost Segments

The accrued costs from the CS listed below flow into the ePackets line item in the ICRA.

- 1) CS-1 Postmasters (may touch an ePacket depending on location and size of facility, e.g., rural towns)
- 2) CS-2 Supervisors and Technicians
- 3) CS-3 Clerks and Mail Handlers
- 4) CS-6 City Delivery Carriers - Office Activity
- 5) CS-7 City Delivery Carriers - Street Activity
- 6) CS-8 Vehicle Service Drivers
- 7) CS-10 Rural Carriers
- 8) CS-11 Custodial and Maintenance Services
- 9) CS-12 Motor Vehicle Service
- 10) CS-13 Miscellaneous Local Operations
- 11) CS-14 Transportation
- 12) CS-15 Building Occupancy
- 13) CS-16 Supplies and Services
- 14) CS-18 Administration and Area Operations
- 15) CS-20 Other Accrued Expenses (servicewide)

Appendix C: Management's Comments

SHARON OWENS
VICE PRESIDENT, PRICING AND COSTING



January 12, 2018

LORI LAU DILLARD
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Inbound ePackets Cost Attribution
Report No. CP-AR-18-DRAFT

Postal Service Headquarters has reviewed the findings and recommendations outlined in the Office of Inspector General (OIG) Inbound ePackets Cost Attribution report.

Below is one comment from the Postal Service from the contents of the report:

OIG report: Highlights Section, Page 3, Paragraph 2 A model that includes ePacket-specific statistical data from Postal Service data collection systems would produce more precise ePacket cost estimates.

USPS Comments Management disagrees with this statement. Separate estimates for ePackets from the sampling system would be less precise because there would be fewer tallies and data records for ePackets than for aggregate LC/AO. Statistically, smaller sample sizes result in less precision, i.e. higher Coefficient of Variation (CVs).

The following is the response of the Postal Service to the OIG recommendations contained in the report:

Recommendation #1

Establish procedures to track returns of undeliverable inbound ePackets.

Management Response/Action Plan

Management agrees with this recommendation. The cost systems currently capture the cost of inbound ePackets from entry into the US at ISCs to the dispatch of returns at ISCs. In FY 2018, management is pursuing separately dispatching returns to China in terminal dues exempt sacks and investigating methods to accurately assign the resulting costs to inbound products rather than outbound products. This investigation may lead to the filing of a petition to propose a change in analytical principles with the Commission.

Recommendation #2

Include return costs in inbound ePacket proxy calculations and attribute those costs to ePackets.

Management Response/Action Plan

Management agrees with this recommendation. As stated in response to Recommendation #1, the cost systems currently capture the cost of inbound ePackets from entry into the US at ISCs to the dispatch of returns at ISCs. In FY 2018, management is investigating methods to accurately assign the resulting international transportation costs and outbound terminal dues to inbound products. The

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method, likely needing Commission approval, would then be applied to the proxy for ePackets as appropriate.

Recommendation #3

Evaluate the costs of returning inbound ePackets and include a provision in future ePacket bilateral agreements that requires foreign posts to pay a service fee for ePacket returns.

Management Response/Action Plan

Management partially agrees with this recommendation. Management agrees that the costs of returning inbound ePackets should be evaluated. However, currently many ePacket returned items already avoid terminal dues because they are separated into "terminal dues" exempt sacks. In future bi-lateral agreements management, will continue to investigate various methods of recouping the transportation costs associated with returned ePackets.

Recommendation #4

Use the proxy ePacket cost estimate to report total costs and cost coverage for inbound ePackets as a separate line item in future fiscal years' Annual Compliance Report.

Management Response/Action Plan

Management agrees with this recommendation. In FY 2018, management agrees to file with the Commission a petition to consider a change in analytical principles to separately report Inbound Air Letter Post packets (the ePackets proxy) in the International Cost and Revenue Analysis (ICRA) report. If the Commission approves the request, management agrees to report total costs and cost coverage for Inbound Air Letter Post packets as a separate line item in future fiscal years' Annual Compliance Report.

Recommendation #5

Develop a method to collect more accurate and reliable ePacket-specific data in Postal Service cost systems.

Management Response/Action Plan

Management disagrees with this recommendation. Management believes the most reliable estimate is for Inbound Air Letter Post packets.


FOR
Sharon Owens



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

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