

ORDER NO. 3490

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Before Commissioners:

Robert G. Taub, Acting Chairman;
Nanci E. Langley, Vice Chairman;
Mark Acton; and
Tony Hammond

Inquiry Concerning Service Performance
Measurement Data

Docket No. PI2016-1

ORDER ENHANCING
SERVICE PERFORMANCE REPORTING REQUIREMENTS
AND CLOSING DOCKET

(Issued August 26, 2016)

I. INTRODUCTION

On September 30, 2015, the Government Accountability Office (GAO) published a report recommending that the Commission hold a public proceeding to address how the Postal Service may improve the completeness of its service performance data. Accordingly, Docket No. PI2016-1 was established to invite public comments on potential issues related to the quality and completeness of service performance data measured by the Postal Service. This proceeding is part of the Commission's continued commitment to data quality in accordance with its responsibility to annually review the Postal Service's service performance. See 39 U.S.C. §§ 3653, 3691.

This Order enhances reporting of service performance measurement data by requiring the Postal Service to regularly provide descriptions of the current

methodologies used to verify the accuracy, reliability, and representativeness of service performance data for each service performance measurement system. This Order also requires the Postal Service to provide regular, detailed information concerning mailpieces included and excluded from measurement, as well as the reasons mailpieces are excluded from measurement.

II. BACKGROUND

The Postal Accountability and Enhancement Act of 2006 (PAEA) created a new system of postal rate regulation and included a complementary provision for service performance measurement. In the PAEA, Congress delegated authority to the Commission to prescribe, by regulation, how the Postal Service would report on the newly created service performance standards.¹

The PAEA mandates that the Commission annually review service performance.² 39 U.S.C. § 3653. Service performance reporting is required by 39 U.S.C. § 3652(a)(2)(B) as part of the Postal Service's annual report to the Commission; is a necessary part of the modern system of rate regulation for market dominant products as required by 39 U.S.C. § 3622; and supports the Commission's responsibility to report on universal service as required by 39 U.S.C. § 3651(b)(1)(A).³ The PAEA also charged the Commission with establishing the methodologies by which service performance is

¹ In addition, when Congress enacted the PAEA, it mandated that the United States Postal Service Office of Inspector General (USPS OIG) perform the critical task of "regularly audit[ing] the data collection systems and procedures utilized in collecting information and preparing such report [on measures of the quality of service]" and required those audits to be submitted to the Commission. 39 U.S.C. § 3652(a). When the USPS OIG audited the service performance measurement data for mail measured with Full Service Intelligent Mail barcode (IMb) in 2012, it found the data to be "generally reliable." Office of Inspector General, United States Postal Service, Service Performance Measurement Data – Commercial Mail Audit Report, CRR-AR-12-005, June 25, 2012, at 3.

² The Commission has consistently reported in Annual Compliance Determinations (ACDs) whether any service standard targets, on a nationwide basis, in effect during the year under review were not met. The Commission's reporting, review, and oversight since enactment of the PAEA provides a publicly available analysis of whether or not the Postal Service has been meeting its delivery standards on a national basis for market dominant products.

³ See Docket No. RM2009-11, Order Establishing Final Rules Concerning Periodic Reporting of Service Performance Measurements and Customer Satisfaction, May 25, 2010, at 1 (Order No. 465).

analyzed. See 39 U.S.C. § 3652(e). Rules regarding service performance reporting were finalized on May 25, 2010. See Order No. 465 at 61. These reporting requirements were drafted to allow the Commission to perform its regulatory functions under the PAEA with the understanding that the capabilities of the measurement systems would continue to evolve. See *id.* at 25-26. The Commission recognized that total compliance with the reporting requirements would not be possible until the measurement systems provided accurate, reliable, and representative data.⁴ Thus, in monitoring service performance, the Commission assesses the accuracy, reliability, and representativeness of the data.

The Postal Service utilizes several systems to measure service performance, as identified in Table II.

Table II
Service Performance Measurement Systems

Product	Single-Piece			Presort		
	Letters	Flats	Parcels	Letters	Flats	Parcels
First-Class Mail	EXFC	EXFC	PTS	iMAPS	iMAPS	PTS
Standard Mail	SASP	SASP		iMAPS	iMAPS	PTS
Periodicals				iMAPS	iMAPS	
Package Services		PTS	PTS		iMAPS	PTS
International Mail	IMMS	IMMS				
Special Services	Custom designed internally based measurement system					

Source: Docket No. PI2008-1, Order No. 48, Notice of Request for Comments on Service Performance Measurement Systems for Market Dominant Products, December 4, 2007, Attachment at 6.

External First-Class Measurement System (EXFC). EXFC is a sampling system managed by an independent contractor. Delivery performance is measured from the street collection box to the delivery mailbox. When evaluating delivery performance,

⁴ See Docket No. RM2009-11, Order No. 292, Notice of Proposed Rulemaking on Periodic Reporting of Service Performance Measurements and Customer Satisfaction, September 2, 2009, at 2.

test mailers record the time they place First-Class Mail in the collection box. The pieces are deposited before the last collection-time for the collection box. Those test mailpieces are sent to a nationwide panel of receivers who record when each is delivered to their mailboxes.⁵ Actual transit time is then compared against First-Class Mail service standards.

Intelligent Mail Accuracy and Performance System (iMAPS). iMAPS provides an end-to-end service performance measurement by using documented mail arrival time at a designated postal facility to start a measurement clock and an IMb scan by an external, third-party reporter to stop-the-clock.⁶ The Full Service IMb feature allows identification of unique mailpieces throughout the mailstream.⁷ The measurement involves two distinct steps. The Postal Service obtains processing times based on IMb scans reported through the Seamless Acceptance and Service Performance (SASP) system. This is combined with a “last mile” factor that is developed through scans by third-party reporters upon receipt of the mail. Service performance is measured by comparing the overall transit time to the service standards to determine the percentage of mail delivered on-time.⁸

Seamless Acceptance and Service Performance (SASP). SASP uses data provided by commercial mailers with Full Service IMb, such as acceptance time, payment, and verification, to enable the Postal Service to monitor service delivery and overall performance. Information collected also helps to determine address accuracy,

⁵ Receivers and droppers are a group of volunteers, recruited by the contractor, who are responsible for mailing, receiving, and reporting on EXFC test pieces. The volunteers receive incentives, such as commemorative stamps and desk calendars, as remuneration for their time and effort. See Office of Inspector General United States Postal Service, Evaluation of the External First-Class Measurement System Audit Report, Report No. FF-AR-12-006, September 18, 2012, at 2.

⁶ Currently, stop-the-clock measurement for commercial mail utilizes the same receivers used in the EXFC measurement system.

⁷ Only the Full Service feature provides data needed to report service performance. Mailers are required to prepare mail with IMbs and submit electronic mailing information listing the IMbs used.

⁸ In FY 2015, presorted First-Class Mail Flats were measured with the Intelligent Mail Accuracy and Performance System (iMAPS) for the first time. Docket No. ACR2015, Annual Compliance Determination Report, March 28, 2016, at 96 (FY 2015 ACD).

verify the quality of mail preparation, and track individual pieces as they move through the mail system.

Product Tracking System (PTS). PTS is an internal measurement system that measures transit time from the time of mailing until the time of delivery. It is only for use with parcels. Measurements are based on over-the-counter and delivery confirmation scans. Service performance is measured by comparing actual transit time with service standards.

International Mail Measurement System (IMMS). IMMS measures the domestic leg of transit time for international mail. It measures the time between the domestic collection point and the outbound international service center for outbound letters, and between the inbound international service center and the domestic delivery point of inbound letters.

Proposed new service performance measurement system. In addition to the measurement systems described above, the Postal Service has proposed a new service performance measurement system. See *generally*, Docket No. PI2015-1. The Commission is comparing and evaluating data from current measurement systems with data from the newly proposed service performance measurement system in its continued commitment to the quality of service performance data. The newly proposed service performance measurement system is designed to survey more pieces at each step of the process than either EXFC or the hybrid system used to measure commercial mail (*i.e.*, iMAPS, IMb, and SASP). The Postal Service recently filed data from the new system for Quarter 2 and Quarter 3 of FY 2016.⁹

⁹ See Docket No. PI2015-1, Library Reference USPS-LR-PI2015-1/2, August 10, 2016. Based on this filing, it appears that statistically significant differences in mean on-time performance may exist between the two systems. The Commission continues to review the quality of service performance data in Docket No. PI2015-1.

III. PROCEDURAL HISTORY

On September 30, 2015, the GAO published a report titled *Actions Needed to Make Delivery Performance Information More Complete, Useful, and Transparent*.¹⁰ The Report was publicly released on October 5, 2015.

In the Report, the GAO recommended that the Commission hold a public proceeding involving the Postal Service, the mailing industry, and other interested parties to address how the Postal Service may improve the completeness of its service performance data.¹¹ *Id.* at 31. The instant docket responds to that recommendation.

In Order No. 2791, the Commission established the instant docket, provided public notice, and appointed a Public Representative.¹² The Commission invited public comments on potential issues related to the quality and completeness of service performance data provided by the Postal Service. Order No. 2791 at 1. Specifically, the Commission requested comments on: (1) potential deficiencies with respect to the accuracy, reliability, and representativeness of the current service performance measurement data; (2) mail not included in measurement; and (3) mailer participation in the Full Service IMb program. *Id.* at 2-3.

In addition, three Chairman's information requests were issued. Chairman's Information Request No. 1 was issued on April 25, 2016, to clarify issues raised by commenters in response to Order No. 2791 and issues interrelated with Docket No. ACR2015.¹³ The information request focused on mail not in measurement and on the current methodologies used to verify data accuracy, reliability, and

¹⁰ United States Government Accountability Office, U.S. Postal Service: *Actions Needed to Make Delivery Performance Information More Complete, Useful, and Transparent*, GAO-15-756 (2015) (Report).

¹¹ The GAO separately recommended that the Commission provide service performance data and analyses in a more readily available format. See *id.* at 26, 31. In response, the Commission updated its website to allow instantaneous access to service performance related reports and dockets under a tab titled Reports/Data Service Reports.

¹² Notice Establishing Docket Concerning Service Performance Measurement Data, October 29, 2015 (Order No. 2791).

¹³ Chairman's Information Request No. 1, April 25, 2016 (CHIR No. 1).

representativeness. See CHIR No. 1, questions 1-5. The Postal Service filed its response on May 3, 2016.¹⁴

Chairman's Information Request No. 2 was issued on May 13, 2016, to clarify issues raised by the Responses to CHIR No. 1.¹⁵ The Postal Service filed a timely response on May 18, 2016.¹⁶

Chairman's Information Request No. 3 was issued on May 26, 2016, to clarify issues raised by the Responses to CHIR No. 1 and the Responses to CHIR No. 2.¹⁷ The Postal Service filed its response on June 8, 2016.¹⁸

¹⁴ Responses of the United States Postal Service to Questions 1 through 5 of Chairman's Information Request No. 1, May 3, 2016 (Responses to CHIR No. 1). The Postal Service also filed a motion for late acceptance of its Responses to CHIR No. 1. Motion of the United States Postal Service for Late Acceptance of Filing of Response to Chairman's Information Request No. 1, May 3, 2016 (First Motion). The Postal Service's First Motion is granted.

¹⁵ Chairman's Information Request No. 2, May 13, 2016 (CHIR No. 2).

¹⁶ Responses of the United States Postal Service to Questions 1 through 3 of Chairman's Information Request No. 2, May 18, 2016 (Responses to CHIR No. 2).

¹⁷ Chairman's Information Request No. 3, May 26, 2016 (CHIR No. 3).

¹⁸ Responses of the United States Postal Service to Questions 1 and 2 of Chairman's Information Request No. 3, June 8, 2016 (Responses to CHIR No. 3). The Postal Service also filed a motion for an extension of time to answer CHIR No. 3 to June 9, 2016. Motion for Extension of Time to Submit Postal Service Responses to Chairman's Information Request No. 3, June 6, 2016 (Second Motion). The Postal Service's Second Motion is granted.

IV. COMMENTS AND REPLY COMMENTS

Comments were filed by the Association for Postal Commerce and the Major Mailers Association (together, Joint Commenters)¹⁹ and the Public Representative.²⁰ Reply comments were filed by John Haldi, Ph.D.,²¹ the Postal Service,²² and the Public Representative.²³ The comments are summarized below and are organized to align with the request for comments in the Commission's notice establishing this docket. See Order No. 2791 at 2-3. Reply comments are summarized following the comments to which the reply relates. Additional comments on topics outside the scope of this request are also summarized below. See *infra* section IV.D.

A. Potential Deficiencies in the Accuracy, Reliability, and Representativeness of Service Performance Measurement Data

First, the Commission asked commenters to “[d]escribe any potential deficiencies with respect to the accuracy, reliability, and representativeness of the current service performance measurement data.” Order No. 2791 at 2. In addition, the Commission requested that “[i]f data are limited in a specific area, discuss how the Postal Service could improve that data.” *Id.*

¹⁹ Comments of the Association for Postal Commerce and Major Mailers Association, December 14, 2015 (Joint Comments). On December 16, 2015, the Joint Commenters filed an attachment to their comments that was not included with the Joint Comments. See Errata Notice of the Association for Postal Commerce and Major Mailers Association, December 16, 2015.

²⁰ Comments of the Public Representative, December 14, 2015 (PR Comments).

²¹ Reply Comments of John Haldi, Ph.D., February 9, 2016 (Haldi Reply Comments). Dr. Haldi also filed a motion for late acceptance of his comments. Motion of John Haldi, Ph.D. for Late Acceptance of Reply Comments, February 9, 2016 (Haldi Motion). The Haldi Motion is granted.

²² Reply Comments of the United States Postal Service, February 8, 2016 (USPS Reply Comments).

²³ Reply Comments of the Public Representative, February 8, 2016 (PR Reply Comments).

1. Comments from the Public Representative and Related Reply Comments

The Public Representative states that accuracy, reliability, and representativeness characterize different aspects of evaluating data quality. PR Comments at 8.

- a. Accuracy

The Public Representative explains that accuracy “denotes the closeness of computations or estimates to the (unknown) exact or true values.”²⁴ He explains that statistical estimates may differ from true values due to random effects (variability) or systematic effects (bias). *Id.* at 8. In addition, he notes that some organizations use special indicators to evaluate data accuracy, explaining that Eurostat includes coefficient of variation, geographical under-coverage ratio, and average size of revisions. *Id.* He emphasizes the importance of accuracy tests, including third party checks, and recommends that the Postal Service provide the methodologies it uses to verify and ensure accuracy with regard to service performance data, “including its own accuracy-related indicators.” *Id.* at 8-9.

In response, the Postal Service asserts that the recommendations are beyond the scope of the docket because the Public Representative does not allege a failure of the Postal Service to provide data or explanatory information as required, but instead cites a “failure to provide additional information that the Public Representative would find useful” USPS Reply Comments at 13-14.

- b. Reliability

The Public Representative defines reliability as “reproducibility and stability (consistency) of the obtained measurement estimates and/or scores.” PR Comments

²⁴ *Id.*, quoting Manfred Ehling and Thomas Körner (eds.), Handbook on Data Quality Assessment Methods and Tools, at 9 (Eurostat, 2007).

at 9. He explains that although the Postal Service does supply some supporting documentation relevant to reliability, the comprehensive descriptions needed to better understand data quality are lacking. *Id.* For example, he explains that margins of error vary by district and delivery standard, yet the Postal Service does not provide explanations for those differences. *Id.* He recommends that the Postal Service provide “more transparent information in regards to the reported service performance measurement data.” *Id.* He also asserts that a reliable measurement system “should allow for periodic monitoring and comparison” of service performance measurement results. *Id.* Specifically, he is concerned with the reliability of the Postal Service’s quarterly reports because they do not always permit such a comparison. *Id.*

In response, the Postal Service explains that “[c]are is taken to keep measurement methods and rules consistent during a measurement period so that [measurements] . . . are reliable.” USPS Reply Comments at 3. The Postal Service also stresses that it provides pertinent information when changes in measurement methods or rules occur. *Id.*

c. Representativeness

The Public Representative defines representativeness as “how well the sampled data reflects the overall population.” PR Comments at 10. He disagrees with the GAO’s concern that service performance data may not be representative because only 55 percent of market dominant mail volume is measured. *Id.* He asserts that rather than looking at the percentage of mail that is measured, representativeness means the extent to which data are not missing and are of sufficient depth and breadth. *See id.* at 10-11. He further explains that the data are not representative if mail excluded from measurement does not have the same service performance as mail included in measurement for each geographic area-, district-, and service standard-level of reporting. *Id.* at 11. He also states that “[t]he representativeness issue is mitigated to some extent” due to the fact that the Postal Service currently uses multiple

measurement systems and each measurement system applies different methods to ensure representativeness. *Id.* at 12.

2. Comments from the Joint Commenters and Related Reply Comments

a. Accuracy

The Joint Commenters state that “there is no way to definitively determine the accuracy of the service performance measurement data.” Joint Comments at 2. They recommend that the Commission examine ways to periodically compare service performance measurement compiled by mailers with service performance results of the same time period, product/class, and geography. *Id.* at 2.

In addition, the Joint Commenters identify several specific areas where the service performance data “[are] not as accurate as [they] could be” and assert that such data limitations are created by the existing business rules. *Id.* at 3. They explain that limitations created by the existing business rules concerning how start-the-clock and stop-the-clock are determined could result in inaccurate service performance data. *Id.* They suggest the Postal Service and stakeholder industries review the existing business rules. *Id.* at 3-4.

The Public Representative replies that it is unclear whether making periodic comparisons of Postal Service and mailer measurements of service performance is feasible. PR Reply Comments at 1-2. He states that the meaning of “mailer measurement” would need clarification and the measurement metrics would have to be consistent. *Id.* at 2. He does not take a position on the Joint Commenters’ recommendation that the Postal Service and mailers review existing business rules and policies that may create data limitations. *Id.*

The Postal Service responds that the Postal Service’s and Commission’s responsibilities under 39 U.S.C. §§ 3652 and 3653 do not require the data to be “definitive,” nor is it possible for data to reflect “the experience of each and every mailpiece within a product grouping being measured.” USPS Reply Comments at 10.

The Postal Service recommends that the Commission decline the suggestion to compare the Postal Service's results with those compiled by individual mailers, as there would likely be differences between the measurement systems and results. *Id.* at 12. Rather, the Postal Service suggests that interested parties "work together to explore opportunities for feasible improvements in . . . service performance data." *Id.*

Regarding its existing business rules, the Postal Service responds that it constantly reviews the service measurement business rules to assure that they are reasonably aligned with current technology and mail preparation requirements. *Id.* at 5. The Postal Service also responds that none of the changes to the business rules suggested by the Joint Commenters relate to the technological and mail preparation/entry changes that have emerged since 2008. *Id.* The Postal Service states that it is receptive to the prospect of continuing to discuss via the Mailers Technical Advisory Committee (MTAC) any specific concerns that the mailing industry might have with the current measurement system or the proposed system. *Id.* at 6.

In addition, the Postal Service states that efforts are underway to develop a mobile application that will allow mailers to capture nesting information and will allow the Postal Service to use global positioning system technology to record and transmit data regarding the departure of postal truckloads of mail from Detached Mail Units (DMU). *Id.* at 7.

b. Representativeness

With respect to representativeness, the Joint Commenters argue that because service performance data are aggregated at a high level, the data may not be representative of "either mail in a specific geographic area or mail entered in specific ways." Joint Comments at 4. They recommend an analysis of measured mail volume at a geographic level that would allow the Commission to determine if results are sufficiently representative. *Id.* They also suggest that additional analysis for geographic areas and facilities that are consistently low-performing would be helpful to "better understand the data and what it means for on-time delivery . . ." *Id.*

The Public Representative agrees with the Joint Commenters' concern regarding the non-representativeness of the reported data and argues that the Postal Service should include more detailed information regarding representativeness. PR Reply Comments at 2-3. In particular, he suggests that the overview and performance highlights sections of the quarterly service performance reports include more detailed information regarding reported scores. *Id.* at 3.

In response, the Postal Service explains that although service performance data may be helpful, it only "comprise[s] a sliver of the vast array of operational data" that helps inform postal management. USPS Reply Comments at 15. The Postal Service also acknowledges that "[p]erfectly representative data for each product would be ideal," but states that mandating such data should only be considered within the statute and the need to avoid "unnecessary or unwarranted administrative effort and expense." *Id.* at 16, *quoting* 39 U.S.C. § 3652(e)(1)(B). With respect to geographic representation, the Postal Service states that its measurement results are generated from acceptance and delivery scans from "nearly every 3-digit ZIP Code area." *Id.* at 17. The Postal Service also disagrees with the Joint Commenters' suggestion that additional service performance data should be generated for geographical areas and facilities that are consistently low-performing, stating that local operational performance is the responsibility of postal management and is not within the jurisdiction of the Commission. *Id.* at 18-19.

B. Differences between Mail in Measurement and Mail Not in Measurement

Second, the Commission asked commenters to "discuss any systematic differences between mail in measurement and mail not in measurement that are likely to impact service performance." Order No. 2791 at 3. The Commission also requested that commenters "[d]iscuss whether and how non-sampling error might have a material impact on service performance results and actions the Postal Service could take to minimize non-sampling error." *Id.*

1. Comments from the Public Representative and Related Reply Comments

The Public Representative lists several reasons why certain groups of mail are currently, and will continue to be, excluded from measurement: geographic under-coverage (*i.e.*, a low number of collection and delivery points in certain 3-Digit ZIP Codes), lack of scannable barcodes, exclusion of mail left at customer mail receptacles, and other issues. PR Comments at 14-17.

The Public Representative suggests that the Postal Service provide a list of districts particularly impacted by a lack of measurement coverage (*i.e.*, districts where 3-Digit ZIP Code data are limited) and describe the measures taken to ensure the representativeness of the reported scores. *Id.* at 15. He also recommends that the Postal Service include the measurement of mail collected from customer mail receptacles. *Id.* at 15-17. He further recommends special studies to ensure representativeness of the reported scores. *Id.* at 17.

The Postal Service replies that “[b]eginning in fiscal year FY 2009, [it] expanded the service measurement systems to virtually all 3-digit ZIP Code areas.” USPS Reply Comments at 26. The Postal Service explains that decisions to exclude any 3-Digit ZIP Code areas were based on the “characteristics of the mail collection and delivery within each of those ZIP Code areas and in consideration of the capabilities of the measurement system.” *Id.* Moreover, the Postal Service contends that although “measuring mail to every ZIP Code area would be ideal, the additional costs involved in such an effort exceed [] the value, given the complexity of measurement to these locations and compounded by limited delivery points and small mail volumes.” *Id.* at 25-26. Nonetheless, the Postal Service states that the lack of representativeness of certain ZIP Code areas has a very limited impact on the accuracy of measurement overall given the very small proportion of the total population specifically excluded from measurement. *Id.* at 27. The Postal Service also states that it monitors geographic statistics to identify gaps in coverage during each fiscal quarter that could have an impact on the representativeness of the results. *Id.*

2. Comments from the Joint Commenters and Related Reply Comments

The Joint Commenters argue that differences exist between service performance results from mail in measurement and mail not in measurement. Joint Comments at 7. They explain that these potential differences in service performance are based on mail preparation, entry, and physical mail characteristics. *Id.* They suggest periodically measuring the service performance of the mail that is currently in the non-measured mailstream (e.g., non-barcoded or non-machinable mail). *Id.* at 7-8.

The Public Representative expresses agreement with the Joint Commenters that “it would be helpful [to] periodically [] measure the otherwise non-measured mailstream.” PR Reply Comments at 3. He warns, however, that the proportion of mail excluded from measurement must be substantial enough “to endanger the representativeness of the mail being measured” to warrant the time and money spent on periodic studies. *Id.*

The Postal Service responds that measuring this source would involve additional costs that would exceed the value provided. USPS Reply Comments at 28. Consequently, it recommends identifying and quantifying non-measured mail types so that it may identify cost effective methods of measurement. *Id.*

C. Participation in the Full Service IMb Program and Mail Excluded from Measurement

Third, the Commission asked commenters to “[d]iscuss specific actions the Postal Service should take to increase participation in the full-service IMb program.” Order No. 2791 at 3. The Commission also asked commenters to “[d]iscuss specific actions the Postal Service needs to take to decrease the amount of mail excluded from measurement.” *Id.*

1. Comments from the Public Representative

The Public Representative states that the Postal Service and its mailer stakeholders are “in the best position to identify ways of increasing participation in full-service IMb and to further decrease the amount of mail excluded from measurement.” PR Comments at 18. He suggests “that the Postal Service periodically provide the Commission with information regarding its efforts to increase the measurement of bulk mail.” *Id.* Additionally, he cautions that the Commission should carefully consider any cost to increase the measurement of bulk mail that could be unduly burdensome to the Postal Service. *Id.*

2. Comments from the Joint Commenters and Related Reply Comments

The Joint Commenters state that mail excluded from measurement falls mainly into three categories: (1) pieces eligible for Full Service IMb, but not mailed as Full Service IMb; (2) pieces mailed as Full Service IMb, but excluded from measurement; and (3) pieces ineligible to be mailed as Full Service IMb. Joint Comments at 9.

- a. Pieces eligible for Full Service IMb, but not mailed as Full Service IMb

The Joint Commenters state that the Postal Service reported that “about 88 [percent] of commercial mail *eligible* to be mailed as IMb Full-Service *is* being mailed as IMb Full-Service.” *Id.* (emphasis in original). Despite characterizing this percentage as “strong,” they contend that data at both broad and granular levels are necessary to determine how to increase the adoption rate of the Full Service IMb program. *Id.* Specifically, they suggest that data are needed to: (1) determine the total universe of mail eligible for Full Service IMb; (2) measure the volume of the 12 percent of mail that is eligible for Full Service IMb, but not mailed as such; and (3) identify which mail products do not use Full Service IMb. *Id.* They also recommend that the Postal Service report on the percentage of Full Service IMb adoption for each mail category. *Id.* at 10.

In his reply comments, the Public Representative supports the Joint Commenters' suggestion that more detailed information would be desirable. PR Reply Comments at 4.

The Postal Service responds that it is increasing Full Service IMb participation and attaches a document that it states reflects a graphic depiction of the steady increase in eligible commercial mail volume participation in the program since the beginning of FY 2013. USPS Reply Comments at 31. The Postal Service also describes various initiatives aimed at helping mailers use IMb and become IMb users. *Id.* at 31-33.

b. Pieces mailed as Full Service IMb, but excluded from measurement

The Joint Commenters state that more analysis of mail excluded from measurement needs to be done at a finer product category level and recommend that the Postal Service report on the percentage of Full Service IMb adoption for each mail category. Joint Comments at 10-11. They explain that “[w]hile there may be justifiable reasons behind such low percentages of mail being in measurement for some product categories, there needs to be more transparency around the adequacy of measurement at the product category level, as well as an assessment of whether the percentage is statistically representative for that category.” *Id.* at 11.

The Joint Commenters would also like the Postal Service to report additional information in their quarterly service performance reports regarding exclusions. *Id.* at 12. Specifically, they recommend that the Postal Service provide a “Service Performance Mail Exclusion Report” that includes the percentage of mail excluded from measurement by mail class, product category, and reason for exclusion. *Id.* In addition, they suggest that the Postal Service consider recommendations from the MTAC Workgroup, such as implementing improved functionality in the “Mailer Scorecard” and working with the industry to continue to reduce exclusions. *Id.* at 13-15.

The Public Representative supports the Joint Commenters' recommendation to examine the adequacy of measurement at the product level to assess statistical representation. PR Reply Comments at 4. He also agrees that it would be useful to report the percentage of data excluded from measurement. *Id.* at 5. However, he explains that while the percentage of data excluded from measurement is useful in assessing representativeness, the percentage of mail included in measurement is not. *Id.*

Additionally, the Public Representative suggests that the Postal Service provide periodic reports discussing how the Postal Service ensures representative and reliable data. *Id.* He does not take a position on the Joint Commenters' suggestions based on MTAC Workgroup's recommendations, but he does state that the suggestion that the Postal Service should conduct regular customer webinars appears to be reasonable. *Id.*

The Postal Service replies that "data exclusions will always persist" because every mailpiece will not be able to meet the "physical and technical specifications necessary to generate reliable and accurate service performance measurement data." USPS Reply Comments at 34. The Postal Service provides several reasons why data recording errors exist, including inconsistencies between mailer documentation and recordation by the Postal Service. *Id.* at 34-35. As a result, the Postal Service states that it has focused its efforts on enhancing collaboration with the mailing industry. *Id.* at 36-38. In particular, the Postal Service describes a service performance measurement fact sheet, quarterly webinars, more detailed "Mailer Scorecards," and other initiatives that encourage collaboration with the bulk mailing community. *Id.*

c. Pieces ineligible to be mailed as Full Service IMb

With respect to the third category, the Joint Commenters recommend investigating other measurement solutions (*e.g.*, Radio Frequency Identification (RFID) tags) or employing periodic measurement studies to evaluate this category's service

performance. Joint Comments at 16. They also comment that the Postal Service should quantify the volumes in this category, broken out by mail class. *Id.*

The Public Representative supports the Joint Commenters' proposal, stating that it "could lead to the identification of practical measurement tools, periodic studies, and sampling methodologies or proxies" PR Reply Comments at 7.

The Postal Service responds that leaving mail out of measurement is "less than ideal," but notes that the costs involved with developing measurement approaches for every segment of mail and ensuring accuracy should be considered. USPS Reply Comments at 28. In the alternative, the Postal Service recommends identifying the ineligible mail types, quantifying the percentage of mail within the product category represented, and focusing on working to identify methods for measurement for the ineligible mail types likely to have a material impact on interpretation of the overall service performance results. *Id.*

D. Additional Reply Comments

In his reply comments, Dr. Haldi states that the Commission and the Public Representative both focus on data quality, rather than reliability of delivery. Haldi Comments at 4-5. He explains that service performance data may be accurate, but service remains inconsistent and unreliable. *Id.* at 3. He offers several recommendations regarding measurement of reliability of delivery service. *See id.* at 7, 9, 13-15.

Dr. Haldi agrees with the Public Representative that a lack of transparency and data interpretation exist with regard to "differences in the margins of error, and/or the reliability of reported scores." *Id.* at 9; *quoting* PR Comments at 9. He concludes that the lack of transparency is "consistent with a *narrow view*" (emphasis in original) of the statute; therefore, he recommends that the Commission consider opening a new docket focusing on "improved formats for reporting of service performance." *Id.*

In addition, Dr. Haldi states that the Joint Commenters are correct that "expanding and improving the performance data base is important, but is not an end in

itself.” *Id.* at 13. Rather, he asserts that “the fundamental goal should be to use the data base that underlies the performance measurement system to help drive operational improvements that will result in more consistent performance.” *Id.*

V. COMMISSION ANALYSIS

This proceeding is part of the Commission’s continued commitment to data quality in accordance with its responsibility to annually review the Postal Service’s service performance. See 39 U.S.C. §§ 3653, 3691. In the Report, the GAO encouraged the Commission to open a proceeding focusing “solely on issues of data quality and completeness.” Report at 22. In response to the GAO’s suggestion, the Commission opened this proceeding and requested comments on specific topics related to the quality and completeness of service performance data provided by the Postal Service. Order No. 2791 at 2-3.

After reviewing the Responses to CHIR Nos. 1, 2, and 3, and the comments received,²⁵ the Commission reiterates that through its, and the Postal Service’s efforts, the accuracy, reliability, and representativeness of the Postal Service’s service performance data have steadily improved. The Commission summarizes these findings in section V.A.

The Commission has also identified additional reporting from the Postal Service that will enhance transparency and increase the information available to evaluate service performance measurement data. Accordingly, in section V.B., the Commission directs the Postal Service to update the descriptions of current methodologies used to verify service performance measurement systems and to report additional information concerning mail excluded from measurement. In section V.C., the Commission addresses the suggestions from commenters that the Commission declines to adopt.

²⁵ The Commission reviewed all comments received; however, in this section, the Commission focuses specifically on the comments that fall within the scope of this proceeding as outlined in Order No. 2791.

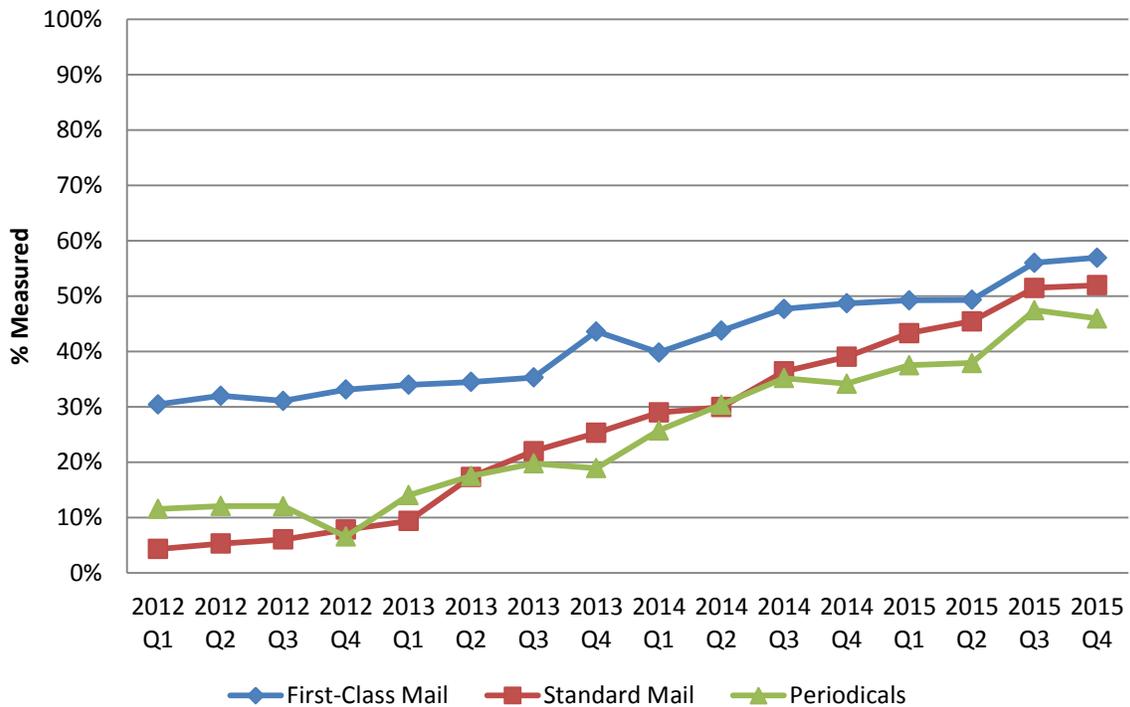
A. Quality of Postal Service service performance data

Outside of this docket, the Commission has regularly directed the Postal Service to improve the quality of its data (*i.e.*, improving data accuracy, reliability, and representativeness) by: (1) increasing Full Service IMb participation; (2) decreasing the amount of uncategorized mail; (3) decreasing the amount of mail excluded from data validation testing; and (4) increasing the number of postal districts reporting service performance results. As a result of Commission directives, factors related to the overall quality of service performance data have markedly improved.

Participation in Full Service IMb. In FY 2011, the Commission noted that the pieces in measurement had almost doubled over the previous year but that some concerns about the reliability of data for specific products remained.²⁶ The Commission warned that “[i]t [was] imperative for the Postal Service to find a reliable way to measure service performance” and the Commission would continue to monitor progress. *Id.* Graph V shows that in each of the subsequent four fiscal years, the percentage of most market dominant mailpieces in measurement increased.

²⁶ Docket No. ACR2011, Annual Compliance Determination Report, March 28, 2012, at 64-65 (FY 2011 ACD).

Graph V
Percent of First-Class Mail, Standard Mail, and Periodicals
Measured by Full Service IMb
FY 2012 – FY 2015



Source: FY 2015 ACD at 98.

Uncategorized mail. Mailpieces are uncategorized if the specific product cannot be identified. These pieces are captured in either Mixed Product Letters or Mixed Product Flats categories. In FY 2011, 61 percent of Standard Mail letters in measurement and 91 percent of Standard Mail flats in measurement fell into a mixed product category. FY 2011 ACD at 72. In the FY 2011 ACD, the Commission found that the large quantity of mailpieces categorized as a Mixed Product hindered proper service performance measurement. The Commission directed the Postal Service to “work with mailers to obtain the data necessary to accomplish product level reporting.” *Id.* at 73. In FY 2012, the percent of mail in measurement categorized as Mixed Product Letters or Mixed Product Flats had fallen to 57 percent and 70 percent

respectively.²⁷ By FY 2015, the Postal Service reported that only 0.05 percent of measured letter volume and 0.2 percent of measured flat volume fell into the mixed product categories.²⁸

Data validation. In FY 2013, the Commission asked the Postal Service to provide an updated description of the parameters used to determine the accuracy, reliability, and representativeness of IMb data.²⁹ The Postal Service validates results using a series of validation reviews which test for start-the-clock accuracy, address quality, mail preparation, receipt date accuracy, and assurance that the piece originated from and destined to a ZIP Code. *Id.* IMb data passing these validation tests are then assessed to determine whether there are sufficient data to meet the Postal Service's minimum requirements. *Id.* The Commission has observed continuous, steady declines in the amount of measured mailpieces excluded during this process.³⁰

The Commission observes that the reliability of data for market dominant products in most districts continues to improve. For instance, the Postal Service uses margin of error and confidence intervals to measure the statistical reliability of its data. The iMAPS system is designed to generate service performance estimates with a margin of error of not greater than +/- 1.0 percent with a 95 percent confidence level at the district, shape, and entry type level.³¹ For example, in the Nevada-Sierra District,

²⁷ Docket No. ACR2012, Annual Compliance Determination Report, March 28, 2013, at 54 (FY 2012 ACD).

²⁸ Docket No. ACR2015, Library Reference USPS-FY15-29, December 29, 2015, file "Service Performance ACR FY15.pdf" at 12.

²⁹ Docket No. ACR2013, Responses of the United States Postal Service to Questions 1-11 of Chairman's Information Request No. 2, January 23, 2014, question 8.

³⁰ See FY 2015 ACD at 98-99; see also Docket No. ACR2014, Annual Compliance Determination Report, March 27, 2015, at 107.

³¹ See e.g., Docket No. ACR2015, Library Reference USPS-FY15-29, file "Service Performance ACR FY15.pdf" at 12. A margin of error of +/- 1 percent at a 95 percent level of confidence means that if the same service performance measurement were conducted, the result would be within +/- 3 percent of the reported result in 95 out of 100 measurements.

the margin of error for Standard Mail Carrier Route in Quarter 1 of FY 2012 was 9.5.³² The margin of error for Standard Mail Carrier Route fell to 1.5 in Quarter 1 of FY 2015.³³

District-level volume. Another critical step in assessing whether data are reliable and representative is to evaluate the number of districts that report reliable data.³⁴ The Commission continuously monitors the number of districts that report service performance results and has noted that for certain mail categories the number was low. For example, the Commission found that none of the 67 districts reported service performance results for End-to-End Bound Printed Matter Flats in several quarters of FY 2012 and FY 2013.³⁵

As a result, the Commission directed the Postal Service to “develop strategies to enhance Full Service mailer participation and increase service performance results.” FY 2013 ACD at 115. In FY 2014, the Postal Service reported results in nearly all 67 districts for reportable market dominant products, standards, and categories, including End-to-End Bound Printed Matter Flats.

B. Additional Reporting

After reviewing the comments and the Postal Service’s responses to Chairman’s information requests in this docket, the Commission finds that additional reporting by the Postal Service is necessary to enhance the quality and completeness of service performance data. Accordingly, as described below, the Commission first directs the Postal Service to provide current descriptions of the methodologies used to verify the accuracy, reliability, and representativeness of all current service performance

³² USPS *Quarterly Performance Reports* for Quarter 1 of Fiscal Year 2012, February 16, 2012, Excel file “Standard Mail-Carrier Route 121 Scores Report,” tab “SM Quarter,” cell G78.

³³ USPS *Quarterly Performance Reports* for Quarter 1 of Fiscal Year 2015, February 9, 2015, Excel file “Standard Mail-Carrier Route 151 Scores Report,” tab “SM Quarter,” cell G78.

³⁴ When volumes (samples) are too low, it means that the margins of errors or range of estimated results is too wide to produce a reliable score.

³⁵ Docket No. ACR2013, Annual Compliance Determination Report, March 27, 2014, at 114 (FY 2013 ACD).

measurement systems. Second, the Commission directs the Postal Service to regularly report: (a) mail excluded from measurement, disaggregated by reason(s) for exclusion; and (b) mail volumes measured and unmeasured by Full Service IMb.

1. Methodologies used to verify accuracy, reliability, and representativeness

The Public Representative comments that the current service performance reports provided by the Postal Service lack comprehensive descriptions of the methodologies used, which are needed to understand the actual quality of the reported data. PR Comments at 8-9. For more transparent information about the data, he recommends that the Postal Service provide up-to-date descriptions of the methodologies it uses to ensure accuracy and reliability of the service performance data. *See id.*

In response to the Public Representative's comments, the Postal Service was asked to provide updated methodologies used to verify accuracy, reliability, and representativeness for all current service performance measurement systems in CHIR No. 1.³⁶ Table V-1 summarizes the information provided by the Postal Service with respect to each measurement system.

**Table V-1
Methodologies Used to Verify Quality of
Service Performance Measurement Data**

Measurement System	Data Characteristic	Methodology/Process	Discussed in ACR	Performed by a 3rd party or Internal
EXFC³⁷	Accuracy	<ul style="list-style-type: none"> Data is reviewed for inaccuracies Data may be corrected, verified, or excluded 	No	Not Stated

³⁶ See Responses to CHIR No. 1, question 5.

³⁷ The Postal Service states that IMMS is designed and operated similarly to EXFC, using the same design methods and measurement process. See Responses to CHIR No. 1, question 5.

		<ul style="list-style-type: none"> • Monitor each phase of measurement process • Ensure collected data follow sample plan, adjust as needed 		
	Reliability	<ul style="list-style-type: none"> • Indistinguishable test pieces • Uses estimates from historical ODIS/RPW mail population • Anonymous deposit of test pieces • Designed to be +/- 2 percent at the 95 percent confidence interval • Consistent measurement methods and rules 	Yes	Not Stated
	Representativeness	<ul style="list-style-type: none"> • Includes all 3-Digit ZIP Codes 	Yes	Not Stated
iMAPS	Accuracy	<ul style="list-style-type: none"> • Random sampling of data records • Weekly monitoring of key metrics • Monitor receiver performance 	No	3rd party
	Reliability	<ul style="list-style-type: none"> • Margins of error at +/- 1 percent at 95 percent confidence interval for Presort First-Class Mail and Standard Mail • Margins of error at +/- 2 percent at 95 percent confidence interval for Periodicals and Bound Printed Matter Flats 	Yes	3rd party
	Representativeness	<ul style="list-style-type: none"> • Receivers have been selected to represent ZIP Codes within each postal district 	Yes	3rd party
PTS	Accuracy	<ul style="list-style-type: none"> • EDW system verifies the extracts sent from PTS system are complete 	Yes	Internal
	Reliability	<ul style="list-style-type: none"> • Data captured are replicated event for event 	Yes	Not Stated
	Representativeness	<ul style="list-style-type: none"> • Records all scan events captured on First-Class Mail Parcels and Standard Mail Parcels with a trackable service feature 	Yes	Internal
SASP	Accuracy	<ul style="list-style-type: none"> • Manual verification processes 	No	3rd party

		<ul style="list-style-type: none"> Quality checks Verifying volume and percent of mailpieces in measurement by class 		
	Reliability	<ul style="list-style-type: none"> Compare current data to SPLY data 	No	3rd party
	Representativeness	<ul style="list-style-type: none"> Verifying volume and percent of mailpieces in measurement by class Review mail volume exclusion 	No	3rd party

In reviewing the Postal Service's CHIR responses, the Commission finds that detailed information regarding the methodologies used to verify all three measures of data quality are not regularly included in the Annual Compliance Report (ACR). Currently, the Postal Service provides information on each measurement system in its ACR. The ACR includes individual sections that provide: (1) a general description of each measurement system; (2) representativeness (sample/system coverage); (3) statistical validity of measurement results; and (4) justifications for proxies.³⁸ Within the section describing each measurement system, the Postal Service includes how the system works, if the compilation is conducted internally or by a third party and how different products are measured based on entry or mail characteristic.³⁹ Its description of sample representation clarifies the number of 3-Digit ZIP Code areas covered and the total mail volume available for measurement typically disaggregated by product or shape.⁴⁰ The section entitled "statistical validity of measurement results" includes the system's intended and actual statistical margin of error and confidence intervals for each product measured. It also discusses the range of the margin of errors at district

³⁸ See 39 C.F.R. § 3055.2(e), (f); see also Docket No. ACR2015, Library Reference USPS-FY15-29 at 4-7, 9-12, 14-16, 17-19, 21-24.

³⁹ See e.g., Docket No. ACR2015, Library Reference USPS-FY15-29, file "Service Performance ACR FY15.pdf" at 1-4, 9-11, 17-18, 21-23.

⁴⁰ See e.g., Docket No. ACR2015, Library Reference USPS-FY15-29, file "Service Performance ACR FY15.pdf" at 4-5, 11-12, 15, 19, 23.

and service standard levels for each product.⁴¹ In its final section on measurement, the Postal Service explains the use of any proxies used to measure a product's service performance.⁴²

The Commission determines that additional information regarding the methodologies used to verify data quality would provide more insight into how service performance data are produced, maintained, and verified. Moreover, the Commission finds that providing the additional information would not be unduly burdensome to the Postal Service because the Postal Service has shown by its Responses to CHIR No. 1 that it is able to provide this information.

For the reasons stated above, the Commission directs the Postal Service to provide current descriptions of the methodologies used to verify the accuracy, reliability, and representativeness of data for all current service performance measurement systems 90 days after the close of each fiscal year.

2. Enhanced Reporting of Mail Excluded from Measurement

Mail excluded from Full Service IMb measurement generally falls into one of three categories: (1) pieces mailed as Full Service IMb, but excluded from measurement; (2) pieces eligible for Full Service IMb, but not mailed as Full Service IMb; and (3) pieces not eligible to be mailed as Full Service IMb. See Joint Comments at 9. The first two categories of mail excluded from measurement are discussed below. The third category of mail is discussed in section V.C.1.a.

⁴¹ See *e.g.*, Docket No. ACR2015, Library Reference USPS-FY15-29, file "Service Performance ACR FY15.pdf" at 5-6, 12, 15, 19, 24.

⁴² See *e.g.*, Docket No. ACR2015, Library Reference USPS-FY15-29, file "Service Performance ACR FY15.pdf" at 6-7, 12, 15-16, 19, 24.

- a. Pieces mailed as Full Service IMb, but excluded from measurement

With respect to the first category, the Joint Commenters assert that it is necessary to review mail excluded from measurement at a finer product category level in order to assess whether “there is sufficient data for statistically representative service performance measurement.” Joint Comments at 10. They recommend that the Postal Service provide a mail exclusion report in its quarterly service performance reports that disaggregates the mail volume excluded from measurement by mail class, product category, and reason for exclusion. *Id.* at 12. They also recommend the Postal Service report the percentage of excluded mail volume by class, product, district, and service standard. *Id.*

Mail exclusion reporting. In the FY 2015 ACD, the Commission noted that “a large percentage of mail entered at Full-Service IMb prices is excluded from service performance measurement.” FY 2015 ACD at 100. It discussed, in detail, the four broad categories of reasons this mail is excluded: (1) issues with the barcode or accompanying electronic documentation (eDoc); (2) invalid data; (3) operational failures; and (4) addressing issues. *Id.* at 100-02.

In this proceeding, the Postal Service has confirmed that it is able to quantify Full Service IMb mail excluded from measurement by quarter and reason(s) for exclusion. Responses to CHIR No. 1, question 4. Tables V-2 and V-3 show the percent of Full Service IMb mail excluded from measurement for First-Class Mail and Standard Mail respectively, as provided by the Postal Service. See Responses to CHIR No. 1, question 4. The tables track the reasons for exclusion from Quarter 4 of FY 2013 through Quarter 2 of FY 2016. This information can be used to highlight issues that need to be addressed. For example, these data show that as certain reasons for exclusion, such as mailer non-compliance or documentation mismatch, have been addressed, the proportion of excluded mail that is due to no start-the-clock has increased. Therefore, focusing attention on decreasing exclusions based on

no-start-the-clock could have a larger effect on reducing the amount of mail excluded from measurement.

Table V-2
Percent of First-Class Mail Mailed as Full Service IMb
Excluded from Measurement by Reason
FY 2013 Q4 – FY 2016 Q2

Exclusion Reason	FY13 Q4	FY14 Q1	FY14 Q2	FY 14 Q3	FY14 Q4	FY15 Q1	FY15 Q2	FY15 Q3	FY15 Q4	FY16 Q1	FY16 Q2
Unable to identify FAST appointment	31.31%	41.55%	33.00%	30.48%	40.19%	34.94%	43.86%	41.75%	46.77%	45.57%	46.41%
Mail transported to non-verified DMU	13.27%	12.18%	13.85%	14.26%	12.73%	16.14%	13.34%	16.56%	22.07%	24.21%	24.57%
Non-compliant due to inaccuracies	16.99%	15.03%	16.76%	16.03%	11.24%	11.01%	11.40%	8.48%	0.82%	1.25%	0.59%
No automation piece scan	10.52%	9.39%	10.48%	11.08%	10.27%	10.05%	7.86%	9.75%	9.61%	10.54%	9.52%
Undeliverable as addressed mail	9.99%	7.15%	8.00%	8.61%	8.46%	7.57%	8.29%	8.83%	8.31%	6.43%	6.75%
eDoc and FAST appointment mismatch	8.00%	5.22%	6.80%	8.91%	7.64%	7.40%	5.29%	2.33%	1.08%	1.36%	1.62%
Non-unique IMb	4.18%	4.85%	5.58%	5.59%	4.99%	6.11%	4.36%	4.98%	4.86%	4.81%	4.59%
Inconsistent scans when calculating service performance measurement	2.38%	1.82%	2.40%	1.95%	1.70%	1.75%	2.26%	2.67%	2.72%	2.52%	2.96%

Source: Responses to CHIR No. 1, question 4.

Note: Reasons for exclusion representing a relatively low percentage of exclusions are not included in this table.

Table V-3
Percent of Standard Mail Mailed as Full Service IMb
Excluded from Measurement by Reason
FY 2013 Q4 – FY 2016 Q2

Exclusion Reason	FY13 Q4	FY14 Q1	FY14 Q2	FY14 Q3	FY14 Q4	FY15 Q1	FY15 Q2	FY15 Q3	FY15 Q4	FY16 Q1	FY16 Q2
Unable to identify FAST appointment	44.47%	52.94%	41.67%	36.15%	40.07%	35.58%	41.29%	44.13%	44.85%	38.82%	55.13%
No automation piece scan	24.77%	18.32%	16.05%	20.30%	20.86%	23.47%	19.87%	22.85%	26.03%	31.69%	22.27%
Non-compliant due to inaccuracies	13.27%	12.37%	14.11%	18.97%	17.17%	17.66%	15.94%	8.38%	0.46%	0.36%	0.32%
Invalid entry point for discount claimed	7.18%	6.81%	8.28%	8.50%	8.34%	8.90%	8.65%	9.82%	11.80%	11.48%	7.59%
Non-unique IMb	2.51%	3.51%	3.53%	5.30%	4.60%	5.63%	5.71%	5.64%	5.58%	6.11%	5.03%
Undeliverable as addressed mail	2.18%	1.36%	1.50%	2.44%	2.69%	2.46%	2.42%	3.17%	3.80%	4.07%	3.57%
eDoc and FAST appointment mismatch	2.25%	2.03%	2.41%	3.02%	1.86%	1.70%	1.19%	1.09%	0.93%	0.96%	0.82%

Source: Responses to CHIR No. 1, question 4.

Note: Reasons for exclusion representing a relatively low percentage of exclusions are not included in this table.

Disaggregated data related to Full Service IMb excluded from measurement lend insight into why Full Service IMb volumes are excluded and allow for tracking of trends over time. Therefore, the Commission directs the Postal Service to file the attached Excel worksheet, labeled “Exclusion Reason Breakdown (Attachment A),” on a quarterly basis, on the same schedule as when it files its Quarterly Reports pursuant to 39 C.F.R. part 3055, subpart B. The Commission intends to track and analyze the trends in this data over time.

Disaggregated excluded volumes reporting. The Joint Commenters advocate that the Postal Service “should report the percentage of excluded mail volume from service performance measurement by mail class, by product category, by District, and by service standard grouping.” Joint Comments at 12.

In the FY 2015 ACD proceeding, the Postal Service was requested to provide the FY 2015 percentage of mail in measurement, the FY 2015 percentage of mail entered

at Full Service IMb prices and included in measurement, and the FY 2015 percentage of mail entered at Full Service IMb prices and excluded from measurement, disaggregated by class, product, and service standard.⁴³ In response, the Postal Service stated it did “not have data regarding the total volume of mail (measured plus unmeasured), or the total volume of Full-Service mail that was not measured, that have been disaggregated by class, product, and service standard.”⁴⁴ The Postal Service provided a table showing that it had some product level information for First-Class Mail and Package Services. *Id.* For the Standard Mail and Periodicals classes only class level data was available. *Id.*

This proceeding raised additional questions about the availability of disaggregated data concerning measured and unmeasured Full Service IMb mail. See, e.g., CHIR No. 1, questions 1, 2; CHIR No. 3, question 1. In response, the Postal Service states that it has methods for disaggregating the total volume of mail (both measured and unmeasured) by class and product and that the information required to determine the applicable service standard is not available for all mail. Responses to CHIR No. 1, question 2. The Postal Service also clarified what data it is able to provide based on currently available information: (1) for the total number of pieces, data can be provided by product breakdown, but not by service standard; (2) for the total number of pieces in measurement, the data can be provided by product and service standard; (3) for total number of Full Service IMb pieces, the data can be provided by product breakdown, but not by service standard for unmeasured volume; (4) for total number of Full Service IMb pieces in measurement, the data can be provided by product and service standard; (5) for total number of Full Service IMb pieces excluded from measurement, data can be provided by product breakdown, but not by service standard for mail volume that was excluded for “No Start-the-Clock” and “No Piece Scan” exclusions. Responses to CHIR No. 3, question 1.

⁴³ Docket No. ACR2015, Chairman’s Information Request No. 6, January 22, 2016, question 16.

⁴⁴ Docket No. ACR2015, Responses of the United States Postal Service to Questions 1-4, 8, 11, and 13-16 of Chairman’s Information Request No. 6, February 3, 2016, question 16.

The Commission agrees with the Joint Commenters that more finely disaggregated data will enhance the overall transparency and usefulness of measured volume reporting by offering a more complete picture of measured and unmeasured Full Service IMb volumes. Consequently, the Commission determines the information described in the Responses to CHIR No. 3, question 1 should be regularly reported by the Postal Service and directs the Postal Service to file the attached Excel worksheet, labeled “Total Measured and Un-Measured Volumes (Attachment B),” on a quarterly basis, 60 days after the close of each quarter. The Commission intends to track and analyze the trends in this data over time.

b. Pieces eligible for Full Service IMb, but not mailed as Full Service IMb

“Pieces eligible for Full Service IMb, but not mailed as Full Service IMb” refers to those pieces sent by mailers who do not participate in Full Service IMb despite the pieces otherwise being automation pieces eligible for participation in Full Service IMb. According to the Postal Service, “as of December 2015, 88 percent of eligible commercial volume is presented to the Postal Service as Full-Service IMb mail.” USPS Reply Comments at 31.

The Joint Commenters characterize this 88 percent participation rate as a “strong percentage.” Joint Comments at 9. They, nonetheless, suggest that three pieces of additional information about the IMb participation rate is necessary: (1) the total universe of mail that is eligible to be mailed as Full Service IMb; (2) information concerning the characteristics of eligible mailpieces that are not mailed as Full Service IMb; and (3) Full Service IMb adoption levels disaggregated to a finer product category level. *Id.* They recommend that the Postal Service include the percentage of Full Service IMb adoption for each mail category reported in measurement. *Id.* at 10; see *also* PR Reply Comments at 4.

The Commission has long been concerned about the Full Service IMb participation rate and has tracked its steady growth. Table V-4 illustrates the total IMb participation rate for First-Class Mail, Standard Mail, and Periodicals by fiscal year.

Table V-4
Total IMb Participation Rate for IMb-Eligible
First-Class Mail, Standard Mail, and Periodicals⁴⁵
FY 2012 – FY 2015

	FY 2012	FY 2013	FY 2014	FY 2015
First-Class Mail	60.47%	67.11%	81.06%	89.33%
Standard Mail	43.94%	53.09%	71.51%	85.29%
Periodicals	45.19%	63.82%	75.19%	82.02%

Sources: Docket No. ACR2012, Library Reference USPS-FY12-4, December 28, 2012; Docket No. ACR2013, Library Reference USPS-FY13-4, December 27, 2013; Docket No. ACR2014, Library Reference USPS-FY14-4, December 29, 2014; Docket No. ACR2015, Library Reference USPS-FY15-4, December 29, 2015.

Concerning the additional information that the Joint Commenters seek, the Postal Service provides information regarding Full Service IMb participation on an ongoing basis in its quarterly billing determinant reports.⁴⁶ The Full Service IMb volume is reported, in general, at the product level.⁴⁷ From these quarterly billing determinant reports, it is possible to calculate the total universe of mail eligible for Full Service IMb by adding the Full Service IMb volume with the non-Full Service IMb automation mail for each product. In order to make this information more accessible, the Commission directs the Postal Service to report on volumes that are eligible for Full Service IMb but do not participate in Full Service IMb. To facilitate this reporting, the Commission added a column to the Excel worksheet, labeled “Total Measured and Un-Measured Volumes” and described in more detail earlier in this section.

⁴⁵ Package Services is excluded from Table V-4 due to the relatively low volume of IMb-eligible mail.

⁴⁶ See e.g., International Market Dominant Products Billing Determinants, FY 2016, Quarter 2, June 28, 2016 (International Market Dominant Products).

⁴⁷ The Postal Service reports contain aggregated Full Service IMb volume for Standard Mail Carrier Route, High Density, and Saturation products. The Standard Mail reports also disaggregated Full Service IMb volume between commercial and nonprofit. See, e.g., International Market Dominant Products Excel file “Standard Mail BD Q2FY2016.xls,” tab “ECR FLATS P.C2-2.”

Concerning the request for finer disaggregation of that information, the Postal Service requires mailers to provide a postage statement with each automation mailing. These postage statements do not specifically distinguish between Full Service IMb and non-Full Service IMb volumes at the rate category level.⁴⁸ The Postal Service typically receives less mailing information about non-Full Service IMb mail. For example, for commercial mail that is not Full Service IMb mail, mailers are not required to electronically provide detailed data describing their mail volumes. Responses to CHIR No. 3, question 1. The Commission encourages the Postal Service to work towards identifying available information concerning the characteristics of non-participating eligible volumes so that it can continue to identify opportunities to increase the volume of mail in measurement.

C. Suggestions the Commission Declines to Adopt

The Commission appreciates the participation in and the quality of the comments submitted in this docket.

The Commission received several suggestions with respect to mail not in measurement. Specifically, the Commission received suggestions that it: (a) require the Postal Service to develop other measurement solutions for mail ineligible for Full Service IMb; (b) conduct a special study on mail not in measurement; and (c) require the Postal Service to increase data from areas of geographic under-coverage. The Commission also received suggestions related to comparing service performance results measured by different means, and to changing the Postal Service's "business rules."

⁴⁸ See, e.g., United States Postal Service, Postage Statement—First-Class Mail and First-Class Package Services, January 2016, https://about.usps.com/forms/ps3600r_fcm.pdf. The volume of Full Service participation is reported by shape in rows A14-A16. See also, e.g., Docket No. R2013-10, Response of the United States Postal Service to Chairman's Information Request No. 3, Questions 1-2, and 6-7, October 24, 2013, question 2, file "CHIR3.Qu2.Response.FCM.xls," tab "Calc of Non-IMb Pieces."

The Commission, declines, at this time, to adopt these suggestions, as discussed in more detail below. Although the Commission does not accept these particular suggestions, the Commission encourages the Postal Service to develop a practicable measurement process for mail ineligible for Full Service IMb.

1. Suggestions related to mail not in measurement
 - a. Develop other measurement solutions for mail ineligible for Full Service IMb

The Joint Commenters recommend investigating other measurement solutions (e.g., RFID tags) or employing periodic measurement studies to evaluate the service performance of mail ineligible for Full Service IMb. See Joint Comments at 16; see *also* PR Reply Comments at 6-7.

The Postal Service states that “[l]eaving [any] mail out of measurement is less than ideal,” but maintains that the potential costs associated with measuring all mail and ensuring accuracy of measurement could be prohibitive. USPS Reply Comments at 28. The Postal Service explains that while it would be possible to “envision [] an approach [involving RFID tags or mailing test pieces], the costs involved in designing the study to represent all relevant characteristics, engage mailers to participate, and operate the study would be very large.” *Id.*

Rather than employing RFID tags or mailing test pieces, the Postal Service recommends identifying ineligible mail types, quantifying the percentage of mail within each product category represented, and identifying methods of measurement for the ineligible mail types likely to have a material impact on nationwide service performance results. *Id.* The Postal Service contends that ineligible mail representing 1 percent or less of the overall product category cannot materially impact the overall product service performance score. See *id.* at 28-29.

The Commission agrees with the Postal Service that mail ineligible for Full Service IMb, and not otherwise measured, likely represents only a fraction of the mailstream. For example, the Postal Service has previously represented that the

volume of High Density, Saturation and Carrier Route Parcels represent only 1/1000 of the volume of Regular and Nonprofit Parcels/Non-Flat Machinables, which represented only 0.8 percent of all Standard Mail volume.⁴⁹

Developing methods to evaluate service performance for ineligible mail may cause the Postal Service an undue financial burden, when balanced against the probable limited impact on overall product service performance scores. Therefore, the Commission declines to adopt the Joint Commenters' suggestion.

However, because the Postal Service has recommended a pathway for improving the service performance measurement of mail ineligible for Full Service IMb, the Commission encourages the Postal Service to develop a measurement process for ineligible mail. See USPS Reply Comments at 28.

b. Special study on mail not in measurement

The Joint Commenters suggest that the Commission perform a special study to periodically measure the volume and performance of mail not in measurement. See Joint Comments at 8. The Commission declines to adopt this recommendation.

The Postal Service has explained that mail processing operations are designed to move mail based on class, shape, machinability, and mailer preparation. See Report at 43. As a result, mail in measurement should have comparable service performance results as mail not in measurement.

The Commission takes the view, in the absence of contradictory evidence, that mail does not receive different processing based on whether it is measured. Moreover, the Commission has no basis to conclude that mail measured for service performance

⁴⁹ Docket No. RM2010-11, United States Postal Service Response to Order No. 465 and Request for Semi-Permanent Exceptions from Periodic Reporting of Service Performance Measurement, June 25, 2010, at 5. The Postal Service presented this information when it sought a semi-permanent exception from periodic reporting of service performance measurement for various market dominant products, including High Density, Saturation and Carrier Route Parcels. The Commission ultimately denied this request, finding that providing an exception from reporting had not been justified. Docket No. RM2010-11, Order No. 531, Order Concerning Postal Service Request for Semi-Permanent Exceptions from Periodic Reporting of Service Performance Measurement, September 3, 2010, at 8-9.

has any correlation to on-time delivery. Therefore, the Commission declines to adopt the Joint Commenters suggestion that a special study to periodically measure the volume and performance of mail not in measurement be performed.

As discussed above, the Commission encourages the Postal Service to pursue its recommended pathway for improving the service performance measurement of mail not in measurement. See *supra* section V.C.1.a.

c. Increase data from areas of geographical under-coverage

The Public Representative expresses concern that some 3-Digit ZIP Codes are excluded from measurement, which he refers to as “geographical under-coverage.” PR Comments at 14-15. He suggests that the Postal Service provide a list of Districts where 3-Digit ZIP Code data are limited and that the Postal Service describe the measures it is undertaking to ensure the representativeness of reported service performance scores. *Id.* at 15. However, he states that due to the small number of excluded 3-Digit ZIP Codes he does “not expect any material impact of the related geographic under-coverage on service performance scores.” *Id.*

The Postal Service states that its measurement results are generated from acceptance and delivery scans from “nearly every 3-digit ZIP Code area.” USPS Reply Comments at 17; see also *id.* at 26. The Postal Service explains that certain 3-Digit ZIP Codes were excluded based on “the characteristics of the mail collection and delivery within each of those ZIP Code areas and in consideration of the capabilities of the measurement system.” *Id.* at 26. The Postal Service gives the following examples of 3-Digit ZIP Codes excluded from measurement: areas representing United States military operations under the direction of the Military Postal Service Agency; designated for other government agencies (*i.e.*, the Internal Revenue Service); or locations where there are few or no eligible collection boxes or so few delivery points as to make it impractical to find the requisite number of mail receiving reporters. *Id.* The Postal Service states that an accurate measurement of mail to these types of 3-Digit Zip Codes would be costly or unfeasible. See *id.*

The Commission assesses whether data are reliable and representative based on the *number of districts* that report reliable data, rather than at a sub-district level (*i.e.*, by 3-Digit ZIP Code).⁵⁰ As part of the ACD, the Commission monitors the number of districts that report service performance results. The Commission has observed that coverage has continued to improve to the point where the Postal Service is now able to report results in nearly all 67 districts for most market dominant products, standards, and categories. See FY 2015 ACD at 98-99. Consequently, the Commission's determination continues to be that service performance results are sufficiently representative of nationwide service performance.

The Commission agrees with the Postal Service that the costs involved in obtaining service performance results from every 3-Digit ZIP Code would likely exceed the value of that additional information. Furthermore, requiring sub-district level reporting is not necessary for the Commission to determine whether the Postal Service is in compliance with the requirements of title 39. See *e.g.*, 39 U.S.C. § 3653, 39 C.F.R. part 3055, subpart B. Therefore, the Commission declines to adopt these suggestions.

2. Comparing service performance results measured by Postal Service to results measured by mailers

The Joint Commenters recommend the Commission conduct periodic studies that compare performance results compiled by the Postal Service and those produced by individual mailers or service providers. Joint Comments at 2. The Public Representative, however, disagrees with this recommendation, stating that as a "practical matter" the feasibility of the proposal is "unclear." PR Reply Comments at 1-2.

In addition, both the Public Representative and the Postal Service are concerned that such a comparison would not be meaningful due to possible differences in how

⁵⁰ See 39 C.F.R. part 3055, subpart B; see also Docket No. ACR2013, Responses of the United States Postal Service to Questions 1-11 of Chairman's Information Request No. 2, January 23, 2014, question 8.

data would be collected.⁵¹ For example, the Postal Service may start measurement at a critical entry time of 15:00 versus an individual mailer initiating measurement at 18:00. The 3 hour difference in the start-the-clock times may produce measurement results that are not comparable.

The Commission agrees with the Postal Service and Public Representative that the measurement systems may not be comparable. Accordingly, the Commission declines to adopt the recommendation to periodically compare service performance results from individual mailers to results from the Postal Service.

3. Changing Postal Service “business rules”

The Joint Commenters reason that the Postal Service’s existing business rules (specifically regarding critical entry times and start-the-clock scans) create data limitations or inaccuracies in measurement. Joint Comments at 3. As a result, they strongly recommend that the Postal Service conform its existing business rules to “current [industry] practices.” Joint Comments at 3-4.

The Postal Service recognizes that “[d]isputes over actual arrival time versus unload start time do occur,” but argues there are several instances where its justification for starting/stopping-the-clock is most appropriate given the specific circumstances. USPS Reply Comments at 7-9. For example, the Postal Service asserts that relying on “FAST [Facility Access and Shipment Tracking] appointment time and secondarily on unload start time or scan time” are appropriate when alternative data are not available. *Id.* at 8.

The Postal Service also states that it regularly reviews its service measurement business rules to assure that they are reasonably aligned with current technology and mail preparation requirements. *Id.* at 5. The Postal Service further states that is

⁵¹ For example, possible differences in how data would be collected include “variations in Start/Stop-the-Clock rules, data exclusion policies, representativeness of samples collected, as well as entry and delivery characteristics of individual mailings measured by multiple imperfectly aligned mailer/service provider measurement systems.” USPS Reply Comments at 12; see *also* PR Reply Comments at 2.

receptive to the prospect of continuing to discuss via MTAC any specific concerns that the mailing industry might have with the current measurement system. *Id.* at 5-6.

The Commission declines to adopt the recommendation regarding the Postal Service's business rules in this instance, but encourages the Postal Service to continue to work with the mailing industry on this issue.

VI. CONCLUSION

In consideration of the discussion above, the Commission concludes the most appropriate action is to enhance the current service reporting requirements as described above, and to close this docket.

VII. ORDERING PARAGRAPHS

It is ordered:

1. The Postal Service shall provide descriptions of the current methodologies used to verify the accuracy, reliability, and representativeness of service performance data for each service performance measurement system 90 days after the close of each fiscal year.
2. The United States Postal Service shall file the attached Excel worksheet, labeled "Exclusion Reason Breakdown (Attachment A)," on a quarterly basis, on the same schedule as when it files its Quarterly Reports pursuant to 39 C.F.R. part 3055, subpart B.
3. The United States Postal Service shall file the attached Excel worksheet, labeled "Total Measured and Un-Measured Volumes (Attachment B)," on a quarterly basis, 60 days after the close of each quarter.

4. Docket No. PI2016-1 is closed.

By the Commission.

Stacy L. Ruble
Secretary