

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

Before Commissioners:

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

Service Performance Measurement
Systems For Market Dominant Products

Docket No. PI2015-1

ORDER APPROVING USE OF INTERNAL MEASUREMENT SYSTEMS

(Issued July 5, 2018)

I. INTRODUCTION

On January 29, 2015, the Commission established Docket No. PI2015-1 to consider a Postal Service proposal concerning new internal service performance measurement systems for several of its market dominant products, including products within domestic First-Class Mail, Periodicals, Marketing Mail and Package Services.¹ Over the duration of this docket, the Postal Service has progressed from presenting an “idea” for new measurement systems, to developing and implementing systems that report service performance for a variety of market dominant products.

The Postal Service has proceeded with the development and implementation of these new measurement systems for its own internal purposes. The Postal Service did

¹ Notice of Request for Comments and Scheduling of Technical Conference Concerning Service Performance Measurement Systems for Market Dominant Products, January 29, 2015 (Order No. 2336).

not base its proposals on costs. However, the increase in costs due to implementing and operating the internal service performance measurement system will be offset by the retirement of the legacy External First-Class (EXFC) measurement system. This includes the EXFC end-to-end measurement system applicable to First-Class Mail, single-piece letters and flats. It also includes the use of EXFC reporters for generating Last Mile data for other mail products.²

In this docket, the Postal Service asks the Commission to consider whether or not the Commission will accept data generated by these systems for the purpose of service performance measurement reporting as required by regulation and statute. 39 U.S.C. § 3652 requires that the Postal Service provide an annual report to the Commission analyzing the quality of service “for each market dominant product provided in such year” by providing “(B) measures of the quality of service afforded by the Postal Service in connection with such product, including— (i) the level of service (described in terms of speed of delivery and reliability) provided; and (ii) the degree of customer satisfaction with the service provided.”

In making its determination in this docket, the Commission considered whether or not the proposed internal systems are capable of developing “objective” service performance measurements; whether or not the proposed systems are capable of reporting accurate, reliable, and representative service performance data; and whether or not the proposed systems are capable of providing data in the nature and form required by the Commission.

The Commission starts with the presumption that an internal system may be less objective than an external measurement system due to the design, or due to operator interference (either intentional or unintentional). To determine whether the proposed systems are objective, the Commission will look at the systems’ overall design. It will

² Last Mile is a measure of the time difference between scans at the last mail processing operation and final delivery.

also look at features, such as third-party auditing, which may limit interference with the system and the ability to achieve “objective service performance measurements.”

The Commission finds no evidence that the proposed measurement systems, by design, are inherently biased in favor of the Postal Service. In addition, the Postal Service has contracted a third party to audit its proposed systems as part of its systems development. The continuation of this third-party auditing process is essential for an objective measurement system. In addition, by statute, the U.S. Postal Service Office of Inspector General is required to periodically audit the Postal Service’s data collection systems and file its reports with the Postal Service and the Commission. These audits can provide an additional level of protection to ensure that the measurement systems remain objective. Accordingly, the Commission finds that the proposed measurement systems are capable of reporting “objective” service performance measurements. This finding is conditioned upon continuing third-party audits of the measurement systems.

The Commission reviews whether or not the proposed systems are capable of reporting accurate, reliable, and representative service performance data. The Commission has reviewed the Postal Service’s Service Performance Measurement Plan, its Statistical Design Plan, several quarters of service performance data, and the associated audit reports. From this review, the Commission finds that the proposed systems are capable of reporting accurate, reliable, and representative service performance data. If, in the future, this is determined not to be the case, the Commission may, by statute, take steps to correct any problems.

Finally, the Commission reviews whether or not the proposed systems are capable of providing data in the nature and form required by the Commission. As evident by the Postal Service’s recent service performance measurement reports filed with the Commission, the Commission finds that the proposed systems are capable of providing data in the nature and form required by the Commission.

Several issues remain unresolved with the proposed measurement systems. The Commission understands that the Postal Service is working on the resolution of these issues. At this point, the Commission does not find the current issues rise to the

level of preventing the approval (and further development) of the proposed systems. If current issues worsen or new issues arise, the Postal Service is to inform the Commission as soon as possible. The Postal Service also is reminded that, by regulation, it must notify the Commission of any changes to its service performance measurement systems.

As a separate issue, the Postal Service has stated that service performance results generated by the proposed systems may not produce the same results as those produced by the legacy systems. For the first complete fiscal year (FY) in which the Postal Service provides annual service performance measurements using the new measurement systems, the Postal Service shall provide detailed explanations for any significant differences in its annual report to the Commission.³

The Commission approves the use of the Postal Service's new service performance measurement systems for the generation of data for the purpose of service performance measurement reporting as required by regulation and statute. This approval is conditioned upon the continued third-party auditing of the service performance measurement systems.

II. PROCEDURAL HISTORY

On October 17, 2014, the Postal Service began discussions with the Commission on proposals to develop new internal service performance measurement systems for several of its market dominant products, including products within domestic First-Class Mail, Periodicals, Marketing Mail and Package Services.⁴ The Postal Service stated it was developing these systems both for internal use and, with the approval of the Commission, to generate data to fulfil statutory periodic reporting requirements. In

³ The Postal Service may base its explanations on FY 2017 data. The Commission is not requiring the Postal Service to continue the use of EXFC for an additional year.

⁴ See Library Reference PRC-LR-PI2015-1/2 - Postal Service Letters dated October 17, 2014 and December 22, 2014, PDF File "Letter 10172014," May 7, 2018.

general, the proposals would modify the June 2008 Service Performance Measurement plan as previously approved by the Commission in Docket No. PI2008-1.⁵

On January 29, 2015, the Commission issued Order No. 2336 to establish Docket No. PI2015-1 for consideration of the Postal Service's service performance measurement system proposals.⁶ This Order also scheduled the first (of four) technical conferences, established deadlines for comments and reply comments, and appointed an officer of the Commission to represent the interests of the general public, pursuant to 39 U.S.C. § 505 (Public Representative).⁷ The Commission concomitantly filed a copy of the Postal Service's written proposals as a library reference.⁸

Comments were filed by the American Postal Workers Union AFL-CIO (APWU), the Association for Postal Commerce, Idealliance and National Association of Presort Mailers (Joint Commenters), Douglas F. Carlson (Carlson), the Greeting Card Association (GCA), the National Newspaper Association (NNA), David B. Popkin (Popkin), and the Public Representative (PR).⁹ Reply comments were filed by Carlson,

⁵ See Docket No. PI2008-1, Order Concerning Proposals for Internal Service Standards Measurement Systems, November 25, 2008 (Order No. 140).

⁶ Notice of Request for Comments and Scheduling of Technical Conference Concerning Service Performance Measurement Systems for Market Dominant Products, January 29, 2015 (Order No. 2336).

⁷ See *also* Notice and Order Rescheduling Technical Conference and Comment Due Dates, March 9, 2015 (Order No. 2385); Order Granting Postal Service Motion for Extension of Time to File Reply Comments, April 21, 2015 (Order No. 2448); Order Granting Postal Service Motion for Second Extension of Time to File Reply Comments, May 5, 2015 (Order No. 2469).

⁸ Library Reference PRC-LR-PI2015-1/1 - United States Postal Service, Service Performance Measurement, January 2015, January 29, 2015. The Postal Service's proposals underwent several revisions during this docket. This Order evaluates the Postal Service's latest proposals presented in Library Reference USPS-LR-PI2015-1/8 - USPS Service Performance Measurement Plan, February 23, 2017 (Service Performance Measurement Plan).

⁹ Initial Comments of American Postal Workers Union, AFL-CIO, April 8, 2015 (APWU Comments); Comments of the Association for Postal Commerce, Idealliance, and National Association of Presort Mailers, April 8, 2015 (Joint Commenters Comments); Opening Comments of Douglas F. Carlson, April 1, 2015 (Carlson Comments); Supplemental Opening Comments of Douglas F. Carlson, April 8, 2015 (Carlson Supplemental Comments); Initial Comments of the Greeting Card Association, April 8, 2015 (GCA Comments); Comments of National Newspaper Association, March 26, 2015 (NNA Comments); Comments of David B. Popkin, April 8, 2015 (Popkin Comments); Public Representative Comments Concerning Service Performance Measurement Systems for Market Dominant Products, April 8, 2015 (PR Comments).

the National Postal Policy Council (NPPC), the Postal Service, and the Public Representative.¹⁰

After initial review of the Postal Service's proposals and the comments filed by interested persons, it was evident that the Postal Service's performance measurement systems were in an early stage of development, and that insufficient information existed upon which the Commission could effectively evaluate the Postal Service's proposals.

On June 17, 2015, the Commission issued an interim order summarizing the current state of the docket and providing direction for moving forward.¹¹ The Commission noted that the latest descriptions of the proposed measurement systems were filed on March 24, 2015.¹² The Commission also noted that the Postal Service anticipated filing the systems' statistical/operational plans sometime in June of 2015, and the systems' auditing plans sometime in July of 2015. Order No. 2544 at 2. This order further directed the Postal Service to run the existing External First-Class and the proposed internal measurement systems in parallel for sufficient time to ensure that the internal systems are operational and verifiable. *Id.* at 4. The Commission requested four consecutive fiscal quarters of operational data generated by the proposed systems suitable for comparison with data generated by the legacy systems.

¹⁰ Reply Comments of Douglas F. Carlson, May 15, 2015 (Carlson Reply Comments); Reply Comments of the National Postal Policy Council, May 5, 2015 (NPPC Reply Comments); Reply Comments of the United States Postal Service, May 18, 2015 (Postal Service Reply Comments); Public Representative Reply Comments, May 5, 2015 (PR Reply Comments).

¹¹ Interim Order Concerning Service Performance Measurement Systems for Market Dominant Products, June 17, 2015 (Order No. 2544).

¹² United States Postal Service, Service Performance Measurement, Revised March 24, 2015, filed March 24, 2015.

On August 25, 2015, the Postal Service filed its statistical design plan.¹³ A second technical conference was convened on October 28, 2015, to discuss this plan.¹⁴

As systems development progressed, the Postal Service began providing quarterly data reports generated by the new systems. The first report was filed on August 10, 2016, providing FY 2016, Quarter 2 and Quarter 3 service performance data.¹⁵ A third technical conference was convened on August 26, 2016, to review the first two data reports (FY 2016, Quarter 2 and Quarter 3) generated by the proposed measurement systems.¹⁶

On February 17, 2017, the Postal Service filed its audit plan: “USPS Performance Audit Plan – Internal Service Performance Measurement.”¹⁷ A fourth technical conference was convened on April 19, 2017, to review the audit plan.¹⁸

On July 14, 2017, the Commission issued a second interim order which again summarized the current state of the docket and provided further direction for moving

¹³ Notice of the United States Postal Service Concerning the Filing of the Statistical Design Plan for Internal Service Performance Measurement, August 25, 2015 (Statistical Design Plan).

¹⁴ Order Scheduling Technical Conference Concerning the Statistical Design Plan, September 28, 2015 (Order No. 2733). For informational purposes, the Postal Service filed a copy of the PowerPoint slides presented at the technical conference. Notice of the United States Postal Service Concerning the Filing of Library Reference USPS-LR-PI2015-1/1, October 29, 2015.

¹⁵ Attachment 2 provides references to the service performance reports provided by the Postal Service.

¹⁶ Order Scheduling Technical Conference to Review Internal Service Performance Data, August 11, 2016 (Order No. 3459). For informational purposes, the Postal Service filed a copy of the PowerPoint slides presented at the technical conference. Library Reference USPS-LR-PI2015-1/4 - USPS Proposed Internal Service Performance Measurement System: PowerPoint Slides Presented at August 26, 2016 Technical Conference, August 26, 2016.

¹⁷ Library Reference USPS-LR-PI2015-1/7 - USPS Performance Audit Plan – Internal Service Performance Measurement, February 17, 2017. The Postal Service later filed an updated version. See Notice of Filing of FY 2017 Quarter 4 Audit Report, USPS Response to Audit Report, and Updated Audit Plan, January 26, 2018 (Audit Plan).

¹⁸ Order Scheduling Technical Conference to Review the Audit Plan, March 2, 2017 (Order No. 3813). For informational purposes, the Postal Service filed a copy of the PowerPoint slides presented at the technical conference. Library Reference USPS-LR-PI2015-1/9 - USPS Audit Plan PowerPoint Slides, April 26, 2017.

forward.¹⁹ The Commission concluded that the audit plan merely “outlined the Postal Service’s approach to auditing its proposed service performance measurement system. It did not provide detail of how an actual audit would be conducted.” Order No. 4002 at 2. Thus, for the purpose of moving forward with the review of the audit plan, the Commission specifically requested: (1) the contractual statement of work describing the auditing and reporting tasks required by the contractor; (2) all documentation developed by the contractor explaining how it intends to perform audits and develop reports; (3) the “trial run” audit report provided by the contractor; and (4) the first official audit report encompassing at least one quarter’s data provided by the contractor. At that time, an independent auditor had not been selected.

The Commission reiterated its position that test results comparing the EXFC based systems with the proposed systems over a period of four consecutive fiscal quarters, would be useful to demonstrate that the proposed systems are capable of generating objective and reliable performance measurements for all affected products and for all applicable standards. *Id.* at 3. Although the Postal Service had been providing data for some time, given the limitations of this data, it was anticipated that FY 2017, Quarter 3 data might be the first quarter of data suitable for this purpose.

The Commission also noted that none of the data provided thus far had been audited. Thus, the Commission asked that of the four quarters of data, at least two quarters of data (ideally with one quarter being from Quarter 1) be deemed acceptable by the Postal Service’s external auditor. *Id.* at 4.

Finally, the Commission expressed concern about the representativeness of the proposed systems’ measurements given significant differences in service performance results obtained using the proposed versus the legacy systems for a number of measurements. *Id.*

¹⁹ Second Interim Order Concerning Service Performance Measurement Systems for Market Dominant Products, July 14, 2017 (Order No. 4002); United States Postal Service Motion for Partial Reconsideration and Partial Clarification of Order No. 4002, August 11, 2017; Response to Postal Service Motion for Partial Reconsideration of Order No. 4002, August 22, 2017 (Order No. 4058).

Over the course of the docket, the Commission issued, and the Postal Service responded to, six Chairman's Information Requests.²⁰ The Commission also issued, and the Postal Service responded to, one Commission Information Request. See Attachment 1. Along with the quarterly data reports cited above, the Postal Service filed independent audit reports covering three fiscal quarters of data.²¹

On April 2, 2018, the Commission issued its third and final interim order.²² In this order, the Commission stated its opinion that the proposed systems are generating sufficient service performance data for the Commission to make a decision on the Postal Service's initial request. Order No. 4562 at 2. As previously announced, interested persons were provided with a final opportunity to comment on the Postal Service's proposals. *Id.* See Order No. 2544 at 3.

The Association for Postal Commerce and National Association of Presort Mailers (PostCom/NAPM), the NNA, the Postal Service, and the Public Representative filed comments in response to Order No. 4562.²³

²⁰ Cites to the information requests, the responses and revisions to the information requests, and associated motion practice are summarized in Attachment 1.

²¹ See Notice of Filing of FY 2017 Quarter 4 Audit Report USPS Response to Audit Report and Updated Audit Plan, January 26, 2018; Notice of Filing of FY 2018 Quarter 1 Audit Report and USPS Response to Audit Report, March 16, 2018. Second Updated Response of the United States Postal Service to Question 1 of Commission Information Request No. 1, October 27, 2017.

²² Procedural Order, April 2, 2018 (Order No. 4562).

²³ Comments of the Association for Postal Commerce and National Association of Presort Mailers, April 30, 2018 (PostCom/NAPM Final Comments); Comments of National Newspaper Association Pursuant to Commission Order 4562, April 30, 2018 (NNA Final Comments); Comments of the United States Postal Service in Response to Order No. 4562, April 30, 2018 (Postal Service Final Comments); Public Representative Comments in Response to Procedural Order, April 30, 2018 (PR Final Comments).

III. STATUTORY REQUIREMENTS

An objective of the modern system for regulating rates and classes for market dominant mail is “to maintain high quality service standards established under section 3691.”²⁴

Section 3691 directs the Postal Service, in consultation with the Commission, to enact (and from time to time revise) a set of modern service standards for market dominant products.²⁵ The service standards are to be designed to achieve four objectives (§ 3691(b)(1)), taking into account eight factors (§ 3691(c)). The service standard objectives encompass both objectives for the service standards themselves, and an objective: “[t]o provide a system of objective external performance measurements for each market-dominant product as a basis for measurement of Postal Service performance.” 39 U.S.C. § 3691(b)(1)(D). However, “with the approval of the Postal Regulatory Commission an internal measurement system may be implemented instead of an external measurement system.” 39 U.S.C. § 3691(b)(2). The Commission’s approval of an internal measurement system is the subject of this docket.

The primary regulatory purpose for the service performance measurement systems is to produce data for use in the annual compliance process. Therein, the Postal Service reports service performance measurements for each market dominant product.²⁶ The Postal Service is required to provide the Commission with:

(B) measures of the quality of service afforded by the Postal Service in connection with such product, including—

(i) the level of service (described in terms of speed of delivery and reliability) provided; and

²⁴ 39 U.S.C. § 3622(b)(3). Section 3622 directs the Commission to establish a modern system for regulating rates and classes for market dominant mail designed to achieve nine objectives (§ 3622(b)), taking into account 14 factors (§ 3622(c)), along with other requirements (§ 3622(d), (e)).

²⁵ 39 U.S.C. § 3691(a). Additional service standard requirements are placed upon the Postal Service by uncodified Pub. L. 109-435, Title III, § 302, Dec. 20, 2006, 120 Stat. 3219.

²⁶ See § 3652, § 3653. Annual service performance reporting requirements are prescribed by 39 C.F.R. § 3055, subpart A.

* * *

39 U.S.C. § 3652(a)(2).

The Commission uses the service performance measurement data to determine whether or not service performance is in compliance with applicable standards.

Not later than 90 days after receiving the submissions required under section 3652 with respect to a year, the Postal Regulatory Commission shall make a written determination as to—

* * *

(2) whether any service standards in effect during such year were not met.

* * *

39 U.S.C. § 3653(b).

If service performance is found out of compliance, the Commission shall prescribe remedial action.

If, for a year, a timely written determination of noncompliance is made under subsection (b), the Postal Regulatory Commission shall take appropriate action in accordance with subsections (c) and (e) of section 3662 (as if a complaint averring such noncompliance had been duly filed and found under such section to be justified).

39 U.S.C. § 3653(c).

The service performance measurement systems (and the data produced thereby) are subject to review by the Postal Service's Inspector General, the Commission, and others. The Postal Service's Inspector General is required to audit the Postal Service's data collection systems and procedures, including those related to service performance.

The Inspector General shall regularly audit the data collection systems and procedures utilized in collecting information and preparing such report (including any annex thereto and the information required under subsection (b)). The results of any such audit shall be submitted to the Postal Service and the Postal Regulatory Commission.

39 U.S.C. § 3652(a)(2).

Additionally, the Commission may require the Postal Service to submit materials in support of the service performance data that it provides.

The Postal Regulatory Commission shall have access, in accordance with such regulations as the Commission shall prescribe, to the working papers and any other supporting matter of the Postal Service and the Inspector General in connection with any information submitted under this section.

39 U.S.C. § 3652(d).

If necessary, the Commission may take steps to improve the quality, accuracy, or completeness of the service performance data provided by the Postal Service.

The Commission may, on its own motion or on request of an interested party, initiate proceedings (to be conducted in accordance with regulations that the Commission shall prescribe) to improve the quality, accuracy, or completeness of Postal Service data required by the Commission under this subsection whenever it shall appear that—

* * *

(B) the quality of service data has become significantly inaccurate or can be significantly improved; or

(C) such revisions are, in the judgment of the Commission, otherwise necessitated by the public interest.

39 U.S.C. § 3652(e)(2).

In Docket No. PI2008-1, the Commission undertook a comprehensive review of the Postal Service's proposals for service performance measurement systems.²⁷ At that time, EXFC was already being used to publicly report the service performance of First-Class Mail single-piece letters and flats.²⁸ In Docket No. PI2008-1, the Commission provided approval to proceed with the development (and eventual use) of internal service measurements based on Intelligent Mail Barcode (IMb) data to track service performance of bulk letters and flats. In most instances, these measurements would be

²⁷ See Docket No. PI2008-1, Order Concerning Proposals for Internal Service Standards Measurement Systems, November 25, 2008 (Order No. 140).

²⁸ From time-to-time, the Postal Service implemented other service performance measurement systems for its own purposes. Data from these other systems were not generally publicly available.

combined with externally generated Last Mile measurements to determine service performance for bulk products (hybrid internal/external system). With this approval, the Postal Service would continue to use EXFC for First-Class Mail single-piece letters and flats, and begin using a hybrid system for mail entered in bulk. These two systems allowed the Postal Service to measure service performance for a majority of its mail volume.

Three predominant factors influenced the Commission's approval of these hybrid measurement systems. The first was necessity, *i.e.*, no external systems existed at that time to measure the service performance of bulk mail as newly required by the Postal Accountability and Enhancement Act (PAEA). The second was the potential for the internal measurements to produce reliable data. Order No. 140 at 2, 19. The third, as expressed by the Postal Service and various mailers, was a desire to avoid requiring the costly development of new external measurement systems. *Id.* at 1.

Currently, the Postal Service has service performance measurement systems in place for the vast majority of market dominant products.²⁹ These systems are categorized as external, hybrid (exhibiting both internal and external components), and internal measurement systems.³⁰ The Postal Service has successfully used these systems to generate and provide data for the annual compliance determination. The Commission generally finds that recently provided data are sufficient for the purpose of undertaking its annual compliance determination.³¹ Where the data are insufficient, the Commission has provided guidance for improvement.³²

²⁹ Exceptions to the reporting requirement have been provided in a few instances. See 39 C.F.R. § 3055.3.

³⁰ Internal measurement systems are under the direct control of the Postal Service, whereas external measurement systems are under the direct control of a third party (a party other than the Postal Service).

³¹ It has taken a number of years to get to this point. The only reliable system in existence upon passage of the PAEA was the EXFC system which was limited to the performance measurement of First-Class Mail single-piece letters and flats.

³² For example, see Docket No. PI2016-1, Inquiry Concerning Service Performance Measurement Data.

In the instant request, the Postal Service proposes to replace various external components of its existing service performance measurement systems with internal components. This includes the total replacement of its EXFC system used to measure the service performance of First-Class Mail single-piece letters and flats. The Commission may approve this request pursuant to the exception to requiring external service performance measurement systems provided by 39 U.S.C. § 3691(b)(2).

The statute provides no guidance as to the application of the 39 U.S.C. § 3691(b)(2) exception, which allows the use of internal measurement systems. Because Congress did not provide direction, the Commission has discretion to define the instances where internal systems may be permitted.

In 2008, when the Commission first considered the exception, it implicitly based its decision on necessity, the potential to produce reliable data, and cost. However, these factors do not exist to the same extent with the instant proposal. There is no necessity because there is a system currently in place that, for the most part, meets the regulatory needs of the Commission. The current system is also, for the most part, producing reliable data. The Postal Service did not, nor has it provided sufficient information to, base its proposed systems on cost.

In the instant docket, the Commission begins with the basic requirement “[t]o provide a system of objective external performance measurements for each market-dominant product as a basis for measurement of Postal Service performance.” 39 U.S.C. § 3691(b)(1)(D). The Commission’s focus is on the requirement for an “objective” performance measurement system. The Commission finds that this requirement exists whether an external system is used, or an internal system, as allowed by the exception, is used.

The Commission’s reading of the statute contains a presumption that it is more likely than not that an external measurement system will be objective when compared with an internal measurement system. To overcome this presumption, the Commission looks for evidence that promotes the objectivity of an internal measurement system.

The next area the Commission examines is whether or not the proposed system is capable of reporting accurate, reliable, and representative service performance data. This standard is not new, and has been discussed in one form or another since the enactment of the PAEA.³³ The Commission has authority to enforce this standard pursuant to 39 U.S.C. § 3652(e)(2).

The final area the Commission examines is whether or not the proposed systems are capable of providing data in the nature and form required by the Commission. See 39 C.F.R. § 3055. This requirement stems from the Commission's responsibility to annually evaluate service performance during its annual compliance review. See 39 U.S.C. § 3653(b).

IV. LEGACY AND PROPOSED SYSTEMS COMPARISONS

A. General

The Postal Service proposes to develop new internal service performance measurement systems for several of its market dominant products, including products within domestic First-Class Mail, Periodicals, Marketing Mail and Package Services.³⁴ The proposals only affect the service performance measurements of letter- and flat-shaped mail. The proposals do not affect the service performance measurements of parcel-shaped mail, international mail, any of the Special Services, or any competitive product.³⁵

The proposals affect service performance measurements in two ways. Currently, the Postal Service uses the EXFC measurement system to measure service

³³ For a recent discussion of accurate, reliable, and representative service performance data, see Docket No. PI2016-1, Order Enhancing Service Performance Reporting Requirements and Closing Docket, August 26, 2016 (Order No. 3490).

³⁴ For a detailed comparison of the legacy and proposed systems, please refer to Library Reference USPS-LR-PI2015-1/8 - USPS Service Performance Measurement Plan, February 23, 2017.

³⁵ Competitive products do not have a statutory requirement for service performance measurement reporting.

performance for First-Class Mail single-piece letters and flats. The Postal Service proposes to completely replace the external EXFC system with a new internal measurement system. Additionally, the same personnel carrying out EXFC measurements for First-Class Mail record final delivery times to stop the clock on service performance measurement for several other mail products. For these affected mail products, the Postal Service proposes to replace the EXFC personnel with Postal Service mail carriers. This affects the Last Mile measurement, and requires the development of new measurement systems.

B. First-Class Mail Single-Piece Letters and Flats

1. The Legacy EXFC Measurement System

EXFC is an external measurement system in that it is operated by a third party independent of the Postal Service primarily used for the service performance measurement of First-Class Mail single-piece letters and flats. It is a true end-to-end measurement system based on statistical sampling, which measures the transit time of sample mailpieces from induction into the postal system to final delivery.

The third-party operator is responsible for the statistical design of the system, which is the key to ensuring that the system is representative of the mail population being measured and for achieving the desired precision of results. Based on the design plan, the third-party operator creates sample mailpieces, which are then provided to a group of panelists referred to as droppers. The droppers are instructed to induct these mailpieces into the postal system at eligible locations (collection points) throughout the United States and U.S. Territories.³⁶ They then report the induction date, time, and location information to the third-party operator. This information is used to start the clock for the measurement of First-Class Mail single-piece letters and flats.

³⁶ Individual mail receptacles (home mail boxes) are not considered eligible locations.

The sample mailpieces then make their way through the postal system to their point of final delivery. At the final points of delivery, which are known to the third-party operator but not the Postal Service, the operator has arranged for another set of panelist referred to as reporters. Upon delivery of a mailpiece, the reporters report the dates of delivery to the third-party operator. This information is used to stop the clock for the measurement of these mailpieces. Both the droppers and the reporters are screened to ensure that they have no ties to the Postal Service or its major competitors. The identities and delivery addresses are not disclosed to the Postal Service.

The third-party operator uses the start-the-clock and stop-the-clock information provided by the panelists to determine transit times for the sample mailpieces. This information is compared against applicable service standards to derive service performance estimates. The third-party operator also monitors and corrects any data quality issues that may arise. These performance estimates are used to develop service performance reports for the Commission.

2. The Proposed Measurement System

The proposed measurement system measures live mail entered by actual customers, in contrast to seeded mail as with EXFC. It measures service performance in three independent steps. The three steps of measurement are referred to as First Mile, Processing Duration, and Last Mile. The three measurements are then combined to determine an overall service performance result. Unlike EXFC, the system does not rely on the measurement of a single mailpiece from induction to delivery. Unlike EXFC, all measurements are made by Postal Service employees and not by an independent third party.

The First Mile measures the time from collection of the mailpiece to the first mail processing operation. Only mail that has indicia which uniquely identify an individual mailpiece may be measured. Only mail entered through collection boxes and office building chutes (collection point mail), and retail facilities may be measured. Mail left for

carrier pickup at individual mail receptacles (home mail boxes) is not included in measurement.

For collection point mail, a statistically defined sample of the mail is measured. The selection of sampled mail is done by a Postal Service mail carrier using a hand-held scanning device. Upon arrival at a collection point that is to be included in the sample, the computer controlling the measurement system sends a prompt to the carrier through the carrier's scanning device directing the carrier to scan a set number of mailpieces with specified characteristics.³⁷ Carriers have no advance warning as to where or when they will be prompted to scan mailpieces. The scan times from the sampled mailpieces start the clock of the First Mile measurement.

Additional information about the collection point is also gathered. A comparison of the actual collection point scan times with the latest posted collection time is used to determine the percentage of mail picked up on time.³⁸ Collection point density test information is factored in to determine the percentage of mail potentially impacted by early or late pickup.³⁹

For mail entered at retail facilities, the Postal Service scans mailpieces that include Special Services such as Registered or Certified Mail. These mailpieces include unique mailpiece identifiers that may be used to start the clock for the First Mile measurement.

The Postal Service then matches the mailpieces previously scanned by mail carriers, or entered at retail with identifying indicia with the first scan these same

³⁷ The scanning devices have geo-location capabilities such that the location of the scanner is known to the Postal Service essentially in real time.

³⁸ The carrier also scans the Collection Box Management System barcode when making collection box pickups. This is used to compare actual pickup times with expected pickup times to determine early and late pickups from collection boxes.

³⁹ Postal Service Delivery Operations conducts periodic density tests of collection boxes. Density tests are performed for a continuous two-week period. This density information will be used to determine the percentage of mail potentially impacted if a collection point is scanned earlier than the posted collection times. Service Performance Measurement Plan at 18.

mailpieces receive on mail processing equipment. The mail processing equipment scan concludes the First Mile measurement. This final measurement is compared against the start-the-clock scan-times, factoring in the additional collection point information to determine the First Mile factor.

The Processing Duration measures the time between the first processing operation and the last processing operation. Mailpieces require at least one mail processing scan to be included in measurement.⁴⁰ Unbarcoded mailpieces may receive a Postal Service applied barcode upon the first processing operation. This vastly increases the number of mailpieces that may be included in measurement from the first processing operation forward.

The Last Mile measures the time between the last processing operation and final delivery.⁴¹ The date of final delivery is recorded when a carrier is prompted by the carrier's scanning device to scan mailpieces upon arrival at a delivery point (including P.O. Boxes). The delivery point locations selected for scanning are determined by the systems statistical design plan.⁴² Carriers have no advance warning as to where or when they will be prompted to scan mailpieces.

The total service performance measurement is obtained by applying the First Mile and Last Mile factors to the Processing Duration measurement to obtain an overall service performance measurement. This estimate is compared against applicable service standards to derive the level of service performance reported to the Commission.

⁴⁰ It is possible that the first processing scan and the last processing scan will be the same event. These pieces may be included in measurement.

⁴¹ The last processing operation is equivalent to the Anticipated Delivery Date as further described below.

⁴² Instead of the fixed number of delivery locations available based on the location of EXFC reporters, any and every delivery location may potentially be included in the measurement.

C. First-Class Mail Presort Letters and Flats, Periodicals, USPS Marketing Mail, and Bound Printed Matter Flats

1. The Legacy Measurement System

There are two components to the measurement of First-Class Mail Presort letters and flats, Periodicals, USPS Marketing Mail, and Bound Printed Matter Flats; the Processing Duration and the Last Mile. This measurement system is considered a hybrid measurement system in that it has both internal (under the control of the Postal Service) and external (under the control of a third party) measurement components.

Only mailpieces that are in compliance with Full-Service Intelligent Mail requirements are measured. The Full-Service IMb uniquely identifies each mailpiece, which allows the mailpiece to be tracked throughout the system.

The Processing Duration measurement is under the control of the Postal Service. The Postal Service defines Processing Duration as the difference between the mailpiece's start-the-clock date and the mailpiece's Anticipated Delivery Date. The start-the-clock date is determined by the mailpiece's documented arrival time at the postal facility relative to the nationally standardized critical entry time (CET). If the documented arrival time is prior to that day's CET, the mailpiece has a start-the-clock date of the current day. If the documented arrival time is later than that day's CET, the mailpiece has a start-the-clock date of the following day.

The Anticipated Delivery Date is determined by the mailpiece's time of Final Processing Operation relative to the national Clearance Time. If the time of Final Processing Operation is prior to that day's Clearance Time, the mailpiece has an Anticipated Delivery Date of the current day. If the time of Final Processing Operation is later than that day's Clearance Time, the mailpiece has an Anticipated Delivery Date of the following day.

The Last Mile measurement relies upon third-party reporters to report the final delivery of mailpieces. In most instances, these are the same reporters used in the EXFC system for First-Class Mail single-piece letters and flats. The Last Mile measures

the difference between the Anticipated Delivery Date, and the final delivery date of the mailpiece at a reporter's delivery address. Upon receipt of a mailpiece, reporters report the date of delivery to the third-party operator. The date of delivery is equivalent to the final stop-the-clock for the measurement. The third-party operator uses the above information to develop Last Mile factors.

The final step is for the third-party operator to combine the Processing Duration measurement generated by the Postal Service with the Last Mile factor externally developed to estimate overall service performance. This measurement is then compared against applicable service standards to derive service performance. The third-party operator also monitors and corrects any data quality issues that may arise. The above is used to develop service performance reports for the Commission.

2. The Proposed Measurement System

As with the legacy system, there are two components to the measurement proposed for First-Class Mail Presort letters and flats, Periodicals, USPS Marketing Mail, and Bound Printed Matter Flats; the Processing Duration and the Last Mile. However, the Last Mile is determined differently. The legacy system uses EXFC reporters to provide stop-the-clock information for the Last Mile. The proposed system uses Postal Service mail carriers to record stop-the-clock information. This changes the description of the measurement system from a hybrid measurement system (segments under the control of the Postal Service and segments under the control of a third party) to an internal measurement system (under the control of the Postal Service).

The Processing Duration measurement essentially remains the same as described with the legacy system. The Last Mile is the same as the Last Mile system proposed for First-Class Mail single-piece letters and flats. The total service performance measurement is obtained by combining the Processing Duration and Last Mile factor. This is then compared against applicable service standards to derive the level of service performance reported to the Commission.

V. PARTICIPANT COMMENTS

A. Introduction

The Commission scheduled three comment periods. The first two were scheduled for shortly after the docket was initiated (initial comments and reply comments). Soon thereafter, it became evident that the Postal Service's proposals were in an early stage of development with many unknowns. In addition, no data were available to determine whether or not the proposed systems were capable of reporting accurate, reliable, and representative service performance data. Thus, the initial comments and reply comments should be read with an understanding that they are comments in regard to proposals at an early stage of development.

Nevertheless, the initial and reply comments proved extremely useful in eventually developing the internal systems considered for approval today. The commenters were provided an opportunity to identify many areas of concern. The Postal Service was then able to either address these concerns, or explain why the concerns were without merit. Throughout this process, the Postal Service was able to fill in details and better explain how its proposals would be implemented.

Once it appeared to the Commission that the Postal Service's proposed systems were sufficiently developed, operational, and providing service performance measurement data, the Commission schedule a period for final comments. Before this comment period was scheduled, the Postal Service augmented its proposals by developing a Statistical Design Plan, and an Audit Plan. The Postal Service also began providing quarterly service performance data that improved in quality over time. The most recent quarterly data underwent external auditing that was reported for all participants to examine.

The summaries of the comments that appear below, are organized into three sections. The first section includes summaries of the initial and reply comments provided by interested participants, other than the Postal Service. The second section summarizes key comments made by the Postal Service on reply. The third section

summarizes the final comments provided by interested participants, including the Postal Service.

B. Initial and Reply Comments (other than the Postal Service)

APWU opposes approval of the proposed service performance measurement systems. APWU Comments at 11. APWU contends that the proposals are not complete, and what has been presented ensures sampling bias and managerial influence over the results. *Id.* at 6, 11.

APWU contends that third-party auditing is essential to preserve public confidence in the postal system.⁴³ It states that by replacing third-party measurements with the Postal Service's own managers, the proposed systems would create an unhealthy appearance in the eyes of a skeptical public. *Id.* at 1-2. APWU draws an analogy between the external auditing required of publicly traded corporations, and the auditing of the Postal Service's service performance. It states that it would be ironic if the Postal Service would be permitted to avoid independent auditing as typically required of publicly traded corporations. *Id.* at 3. APWU also states that the Postal Service has not provided any justification, such as cost savings, improvements in efficiency, or increased reliability, for abandoning the independent measurement process. *Id.* at 4. Thus, APWU states public perception would be that of "the fox is guarding the chicken coop." *Id.*

APWU discusses several areas where sampling bias may be introduced into the measurements such as only measuring mail that has been successfully collected, and measuring automated, but not stamped mail. *Id.* at 6. APWU also discusses potential problems with a non-objective measurement system being operated by interested Postal Service personnel. *Id.* at 8-9. In contrast, APWU states that the anonymity of

⁴³ It appears that APWU uses the term "auditing" in this section to mean measurement, and not auditing of the actual measurements.

EXFC mail creates incentives to ensure that all mail is collected and sent to mail processing on the same day. *Id.* at 10.

The Joint Commenters provide a brief, but important, comment on First-Class Mail single-piece letters and flats, then turn their attention to commercial mail. For First-Class Mail single-piece letters and flats, the Joint Commenters suggest running both the legacy and the proposed systems in parallel for a sufficient period of time to ensure the proposed systems produce acceptable results. Joint Commenters Comments at 2.

The Joint Commenters then focus on the business rules that apply to commercial mail. They suggested that the business rules should use consistent terms in regard to the definitions for “start-the-clock.” *Id.* 4. The Joint Commenters request further definition as to whether and how Customer/Supplier Agreements determine CET and start-the-clock. *Id.* They discuss various issues concerning the determination of start-the-clock based on container scans and the Facility Access and Shipment Tracking system. *Id.* at 5-9. They discuss various stop-the-clock issues, but conclude that until exact methodologies are known, it is difficult to comment further. *Id.* at 5-10.

The Joint Commenters state that the plans for validating the accuracy and integrity of data are outlined for EXFC, but are unclear for the proposed systems. *Id.* at 11-12. They recommend that some form of accuracy and data integrity analysis be performed independently of Postal Service personnel responsible for undertaking the measurements. *Id.* at 12. Additionally, they object to certain data exclusion rules that exclude mail that has not been delivered for more than 30 days (or 45 days depending upon the class of mail), or certain mail where start-the-clock rules have not been established. *Id.* at 12-13. Finally, the Joint Commenters recommend that the Postal Service be subject to periodic independent audits of the internal measurement systems to ensure data accuracy and completeness.⁴⁴

⁴⁴ *Id.* at 13. While recognizing that the following topics are not the immediate subject of this docket, the Joint Commenters conclude with a discussion of potential improvements to service standards and service performance measurement reporting. *Id.* at 13-18.

Carlson contends that the proposed measurement systems will not provide a system of objective external performance measurements for each market dominant product as required by 39 U.S.C. § 3691(b)(1)(D). Carlson Comments at 10. His primary focus is on mail entered through a collection box and currently measured using the EXFC system. He notes that EXFC provides a true end-to-end measurement where postal employees are not aware of which mailpieces are being measured. *Id.* at 3. He contrasts this against the proposed three part measurement system: First Mile, Mail Processing, and Last Mile. He states that Mail Processing measurements may capture accurate data on the processing duration of First-Class Mail by measuring a substantial portion of the mail volume, rather than a representative sample. *Id.* at 2. However, he finds the First Mile and Last Mile measurement systems problematic. *Id.* He states that bias could be introduced because postal employees will be aware of the mailpieces being measured. Also, he states that the proposed systems appear to exclude circumstances where postal employees fail to properly perform their duties, and do not detect discrepancies between posted collection times and collection times listed in the Collection Box Management System. *Id.* at 7-9. Finally, he expresses concern with accurately recording delivery times to post office boxes.⁴⁵

In Carlson's supplemental comments, he expresses concern that lobby drop mail is not being measured. *Id.* at 2-3. He notes that mail using this induction method is not measured by EXFC either. He also expresses concern that the mail that carriers collect on their routes is not being measured. He notes that this excludes 38 percent of the collection mail stream from measurement. *Id.* at 3-4.

In his reply comments, Carlson agrees with the Joint Commenters and NPPC who suggest running the proposed and legacy systems in parallel for a period of time. He states that this would be useful for validating the statistical and sampling methodologies of the proposed systems. However, this does not cure his objectivity concerns because once the proposed systems are in operation by themselves, postal

⁴⁵ *Id.* at 9. Carlson Supplemental Comments at 1-2.

employees will know which mail is potential test mail. Carlson Reply Comments at 1-2. Carlson also agrees with APWU that independent third-party auditing is critical to the public trust. *Id.* at 2.

Popkin shares similar concerns regarding the ability of postal employees to identify the mail being measured. Popkin Comments at 2. Additionally, he questions the potential limitations of the hand-held scanning devices that postal employees will use to scan mailpieces. *Id.* at 3-4. He opines on many potential problems that may arise under the proposed systems. *Id.* at 4-6. He concludes by stating that even if the proposed and legacy systems produce comparable results, “there is still the perception by the public that the results are not independent of the Postal Service.” *Id.* at 6.

GCA focuses on First-Class Mail single-piece letters and flats and potential representativeness issues. It reports that mail left for pickup by carriers constitutes 38 percent of First-Class Mail. GCA Comments at 1. However, GCA notes that this mail (just as with EXFC mail) will not be included in First Mile measurements. GCA then challenges the Postal Service’s position that collection point and retail facility entered mail will serve as a reasonable proxy for mail left in customer mail receptacles by arguing that there are many differences in the handling of collection point and customer receptacle mail. *Id.* at 2-4.

GCA observes that collection box mail included in First Mile measurements under the proposed systems will only be mail that includes indicia providing a unique identity. GCA Comments at 4-5. GCA argues that this would appear to exclude typical stamped mail from First Mile measurements.⁴⁶ Thus, GCA questions whether uniquely identified indicia mail is representative of all (importantly, stamped) collection box mail. *Id.*

GCA states that if the collection point/customer receptacle proxy is found to be satisfactory, then the stamped/unique indicia issue becomes less of a problem. *Id.* at 6.

⁴⁶ *Id.* 4. GCA reports that stamped pieces accounted for 55 percent of the First-Class Mail, single-piece letter mailstream in FY 2014. *Id.* at 5.

Thus, GCA contends that adoption of the proposed systems should not be approved without validation of the proxy under which service performance for mail left for carrier pickup is presumed identical with that for collection-point mail. *Id.*

NNA's comments focus on Periodicals (*i.e.*, newspapers). NNA contends that the "existing system of outside-party measurement provides no useful data for Within County newspaper mail and no data specific to newspapers from the Outside County measurements." NNA Comments at 7. While NNA is supportive of the Postal Service's proposals, it also does not believe that the proposed systems will provide any useful service performance information on the transit of newspapers. *Id.* at 1. However, NNA believes that the proposed systems may permit more precise measurement of service to rural areas. *Id.* at 2.

The Public Representative focuses most of her comments on First-Class Mail single-piece letters and flats. She states that the proposed systems are a step in the right direction. However, she contends that the plans are still under development with many aspects still unclear. PR Comments at 6. The Public Representative argues that because of differences in how start-the-clock and stop-the-clock are measured between the legacy and proposed measurement systems, it may not be possible for the two systems to measure the same end-to-end delivery times. *Id.* at 7. She suggests testing to ensure consistency between systems. *Id.* at 8. Otherwise, she states that service performance results may not be comparable between the two systems. *Id.*

The Public Representative discusses additional differences between the legacy and the proposed systems. *Id.* The legacy system measures an actual mailpiece from induction to delivery. The proposed systems measure a "virtual" mailpiece based on a statistical measurement of each of three different stages of delivery. She states that until the statistical documentation is provided by the Postal Service, it is not possible to reach any valid conclusions regarding the accuracy and reliability of the proposed measurement systems. *Id.* at 10.

The Public Representative is concerned about the representativeness of the First Mile measurements. *Id.* at 10-11. This is because only mailpieces containing a

barcode are measured. She suggests special testing to determine whether or not there are measurement differences between the barcoded and the excluded mailpieces. *Id.* at 11.

Finally, the Public Representative discusses the costs associated with the legacy system versus the proposed systems. *Id.* at 11-13. She states that the Postal Service has not accounted for various internal costs associated with the proposed systems. She concludes that “the Postal Service has not provided any reliable or justified estimates for the costs of the proposed internal three-stage service performance measurement system that is intended to replace EXFC.” *Id.* at 13-14.

In her reply comments, the Public Representative agrees with APWU’s position stating that the First Mile measurement will be more likely representative of business mail. PR Reply Comments at 3. She also agrees with GCA that additional steps be taken to validate that indicia mail serves as a reasonable proxy for stamped mail, and that collection point and retail facility mail serves as a reasonable proxy for mail left in customer receptacles. *Id.* at 4.

NPPC stresses the importance of the proposed system producing results that may legitimately be compared to results under the legacy system. NPPC Reply Comments at 1. Otherwise, it contends that the first year or two of data will be meaningless because there would be no way of knowing if differences reflect actual performance or merely differences between the systems. *Id.* at 2. Therefore, NPPC also suggests running the proposed and the legacy systems in parallel to discover any differences and use that data to take into account when making future comparisons. *Id.* at 2-3.

C. Postal Service Reply Comments

The Postal Service’s reply comments respond to various issues raised by interested participants, and most importantly clarify and provide details as to how the proposed measurement systems will operate. Many comments respond to specific scenarios presented by the interested participants in this docket. These responses are

important to fully understanding how the proposed systems operate, but are much too detailed for the purposes of this order and will not be discussed further. Regardless, the comments summarized below stood out when considering the Postal Service's proposals.

As suggested by the Joint Commenters and Popkin, the Postal Service states that it will operate the legacy systems and the proposed systems simultaneously for 2 fiscal quarters in 2016. Postal Service Reply Comments at 9.

The Postal Service asserts that the universe of First-Class Mail single-piece letters and flats subject to measurement will be expanded under its proposals. Postal Service Reply Comments at 10. The Postal Service explains that GCA's comment that stamped First-Class Mail single-piece letters and flats will be excluded from measurement is not completely accurate. It states that this mail includes stamped, barcoded, courtesy reply envelope mail that will be measured (in First Mile measurements). *Id.* Furthermore, unbarcoded mailpieces will be barcoded at the earliest opportunity, and will be included in measurement thereafter (in Processing Duration and Last Mile measurements). *Id.*

As suggested by Carlson, the Postal Service states that measurement of First-Class Mail, single-piece letters and flats deposited in lobby chutes will be incorporated into its data collection plan, thus expanding the universe of measured mail. *Id.* at 11-12. Furthermore, the Postal Service states that Certified Mail (and other Special Service) First-Class Mail single-piece letters and flats scanned at retail windows will provide additional data. *Id.* at 12.

However, in response to GCA's comments, the Postal Service states that the inclusion in measurement of First-Class Mail single-piece letters and flats left for carrier pickup is not yet feasible. *Id.* Nevertheless, the Postal Service contends that this mail also was excluded from EXFC measurement, which has been accepted as a reasonable measure of First-Class Mail for more than 20 years. *Id.*

The Postal Service states that there is no basis for concluding that there are any general or material differences in the dispatch, processing and delivery based on these

methods of induction into the system between carrier pickup mail and collection box mail. *Id.* at 13-15. Therefore, the Postal Service concludes that collection mail is a reasonable proxy for mail left for carrier pickup. *Id.* at 16-19.

The Postal Service addresses the lack of anonymity of mailpieces measured by the legacy systems versus the proposed systems. *Id.* at 32. The Postal Service states that “[t]o ensure sampling data integrity, the Postal Service plans to implement an auditing system that is currently being designed by a third-party contractor.” *Id.* at 33. It states that it will encourage appropriate employee behavior through recurring training, and discusses other design aspects of the proposed systems that will work to negate any potential value of expediting sample mailpieces in an effort to game the system. The Postal Service also states that the proposed systems will be subject to auditing by the U.S. Postal Service Office of Inspector General, and the Government Accountability Office (GAO). *Id.* at 41. Furthermore, the systems will be reviewed pursuant to the Commission’s annual service performance review process. *Id.*

The Postal Service addresses the Public Representative’s comments concerning the costs of implementing the proposed service performance measurement systems. The Postal Service states that it is important to understand that “the Postal Service has not justified its proposed service performance measurement system on the basis of cost savings.” *Id.* at 50.

D. Final Comments

By April of 2018, the Commission concluded that the proposed measurement systems were generating sufficient service performance data for the Commission to make a decision on the Postal Service’s request. Order No. 4562 at 2. While recognizing that all problems had not been resolved, the Commission did not expect any major changes to the Postal Service’s proposals from this point forward. *Id.* Thus, the Commission provided interested persons a final opportunity to comment in light of the Postal Service’s ongoing systems development and additional information not previously available.

The Commission asked interested persons to consider three questions, in addition to any other comments that they would like to make. The questions are stated verbatim below. Each question is followed by a summary of the applicable comments. This is followed by a summary of relevant additional comments.

1. Reporting Accurate, Reliable, and Representative Service Performance Data

The Commission asked interested persons to:

- Please discuss whether or not the proposed systems are capable of reporting accurate, reliable, and representative service performance data.

Order No. 4562 at 3.

PostCom/NAPM state that “[g]iven the massive increase in available data points, service performance information collected in this fashion could be richer, more complete, and more timely than had been available through sample based measurement.” PostCom/NAPM Final Comments at 2.

NNA states that the proposed systems are now “clearly more reliable than in 2015 when this docket was opened and it is at least as capable of providing data for service measurement as EXFC has been.” NNA Final Comments at 1.

The Public Representative concludes that the proposed systems generate at least as accurate, reliable, and representative data as the legacy systems. PR Final Comments at 21. She also separately identifies issues with the accuracy, reliability, and representativeness of data and reporting.

The Public Representative compared three recent data reports (FY 2017, Quarter 3; FY 2017, Quarter 4; and FY 2018, Quarter 1) and observed that the margins of error have improved over time, with the margins of errors for the proposed systems either the same or smaller than in the legacy systems. *Id.* at 10. She asserts that this provides evidence that the proposed systems generate more accurate data than the legacy systems.

She also reviewed the FY 2018, Quarter 2 audit report. She discusses the First Mile sampling accuracy analysis (Measure 2) that was only partially achieved. Although she appears to agree with the corrective action proposed by the Postal Service, she suggests providing further definition of the term “carrier sampling compliance rate” to improve the transparency of the auditing process and compliance review. *Id.* at 11.

The Public Representative notes that the Postal Service does not expect on-time performance scores generated by the proposed and legacy systems to be identical. *Id.* at 12. She concludes, after review of the Postal Service’s reports, that the relevant performance scores are almost consistently different. Specifically for First-Class Mail single-piece flats, the Public Representative states she cannot conclude that the proposed systems produce fully reliable data. *Id.*

Finally, the Public Representative focuses on areas of the audit reports that indicate issues with First Mile, Processing Duration, and Last Mile representativeness. *Id.* at 13-19. She concludes that in spite of the remaining issues with representativeness, the proposed systems tend to generate more representative data than the legacy systems. *Id.* at 18.

The Postal Service contends that as evidenced by the quarterly data filings and audits, the proposed systems are fully capable of reporting accurate, reliable, and representative service performance data. Postal Service Final Comments at 7. The Postal Service attributes this to technological advances that previously were unavailable, a higher number of mailpieces now under measurement, and improvements driven by its audit plan. *Id.* at 3-6.

2. Reporting Service Performance Data Consistent with the Postal Service’s Annual Reporting Requirements

The Commission asked interested persons to:

- Please discuss whether or not the proposed systems are capable of reporting service performance data consistent with the Postal Service’s annual reporting requirements pursuant to 39 U.S.C. § 3652(a)(2)(B)(i), such that the Commission can make its annual

determination of compliance pursuant to 39 U.S.C. § 3653(b)(2).

Order No. 4562 at 3.

PostCom/NAPM believe that the proposed systems are capable of reporting in a way that is consistent with 39 U.S.C. § 3652(a)(2)(B)(i). PostCom/NAPM Final Comments at 2.

The Public Representative concludes that based upon the quarterly reports that have been provided, the Postal Service should be able to prepare the annual service performance reports as required by the Annual Compliance Report (ACR). PR Final Comments at 19. Furthermore, the documentation describing the proposed systems (*i.e.*, the service performance measurement plan and the statistical design plan) should provide the information for the methodology sub-report required by regulation. *Id.* at 19-20. Thus, the proposed systems are capable of reporting data consistent with the requirements of 39 U.S.C. § 3652(a)(2)(B)(i) and 39 U.S.C. § 3653(b)(2). *Id.* at 20.

The Postal Service contends that by providing over eight consecutive quarters of data, the proposed systems are capable of reporting service performance data consistent with its annual reporting requirements. Postal Service Final Comments at 7.

3. Consistent with the Service Standard Objectives and Factors (39 U.S.C. § 3691)

The Commission asked interested persons to:

- Please discuss whether or not the proposed systems are consistent with the service standard objectives and factors specified in 39 U.S.C. § 3691. Specifically, do the proposed systems ‘provide a system of objective external performance measurements for each market-dominant product as a basis for measurement of Postal Service performance’ in consideration of the exception that ‘with the approval of the Postal Regulatory Commission an internal measurement system may be implemented instead of an external measurement system?’ See 39 U.S.C. § 3691(b)(1)(D) and (b)(2).

Order No. 4562 at 3.

PostCom/NAPM contend that as implied by the question, and by definition, an internal system operated wholly by the Postal Service will not provide an “objective” service measurement as specified by statute. PostCom/NAPM Final Comments at 2. While it states that there is no indication of bad faith on the part of the Postal Service, PostCom/NAPM state that the reporting of information requires interpretations and choices that could influence service performance reporting. *Id.* PostCom/NAPM suggest third-party auditing to help maintain objectivity. *Id.* at 3. PostCom/NAPM also make the important distinction of auditing the design of the systems versus auditing the results as reported by the Postal Service. *Id.*

The Public Representative concludes that the proposed systems show a capability to generate objective service performance measurements that may be reported to the Commission as required by 39 U.S.C. § 3691. PR Final Comments at 20-21.

The Postal Service concludes that the proposed systems provide objective performance measurements consistent with the objectives and factors specified in 39 U.S.C. § 3691. Postal Service Final Comments at 8. It bases this conclusion on the systems’ robust sampling methodology, and the fact that a much greater number of pieces will now be in measurement. *Id.* at 9. Furthermore, the Postal Service states that it “will continue the external audit of the internal SPM system to ensue objectivity, accuracy, reliability, and representativeness of service performance data.” *Id.* at 9-10.

4. Other Comments

The Commission asked interested persons to provide any additional comments that they would like to make. Order No. 4562 at 3.

PostCom/NAPM state that the proposed systems are now providing quarterly service performance information that is much improved presumably when compared

with the performance information initially provided using the proposed systems.⁴⁷

However, it notes that there is still room for improvement.

NNA asserts that the Commission should grant the Postal Service's request, but contends that much work is needed in the area of service performance reporting for newspapers in the Periodicals mailstream.⁴⁸

VI. COMMISSION ANALYSIS

A. General

The Commission's analysis is divided into 5 subsections. Subsection B discusses whether or not the proposed systems are capable of developing "objective" service performance measurements. Subsection C discusses whether or not the proposed systems are capable of reporting accurate, reliable, and representative service performance data. Subsection D discusses whether or not the proposed systems are capable of providing data in the nature and form required by the Commission. Subsection E discusses the financial aspects of the Postal Service's proposals. Subsection F discusses issues that remain unresolved.

B. Are the Proposed Systems Capable of Developing "Objective" Service Performance Measurements

1. Objectivity

The Commission starts with the presumption that an internal measurement system may be less objective than an external system due to the design of the

⁴⁷ PostCom/NAPM Final Comments at 1. PostCom/NAPM also comment on potential improvements to service performance reporting that are beyond the scope of this docket. These comments address the aggregation level of data presentation, the completeness of data in regard to mailpieces excluded from measurement, accounting for natural disasters in reported data, and periodic review of performance measurement systems. *Id.* at 4-6.

⁴⁸ NNA Final Comments at 2, 6. NNA also comment on potential improvements to service performance reporting in the area of rural reporting that are beyond the scope of this docket. *Id.* at 4-6.

measurement system, or due to operator interference (either intentional or unintentional) with the measurement system. Even where measurement systems are in fact objective, there remains the potential for a perception that the system is not objective just by being internally operated.

This presumption is supported in comments. PostCom/NAPM conclude that by definition, an internal system operated by the Postal Service will not provide an objective service measurement. PostCom/NAPM Final Comment at 2. APWU discusses how the proposed systems would create an unhealthy appearance in the eyes of the public with a perception of “the fox is guarding the chicken coop.” APWU Comments at 1-4. Carlson contends that the proposed First-Class Mail, letters and flats systems will not be objective because the Postal Service is aware of which mailpieces are in measurement (First Mile and Last Mile segments). Carlson at 2. Popkin shares many of Carlson’s concerns with the ability of the Postal Service to identify the mailpieces in measurement. Popkin Comments at 2. Popkin also discusses the public perception issue. *Id.* at 6.

One approach to overcoming this presumption and ensure an objective measurement system is to provide an acceptable level of external (non-Postal Service) monitoring and verification (auditing) of the operator and the measurement systems. The Joint Commenters suggest periodic audits to ensure data accuracy and completeness. Joint Commenters Comments at 13. Carlson agrees with APWU that independent third-party auditing is critical to public trust. Carlson Reply Comments at 1-2. PostCom/NAPM suggest third-party auditing to help maintain objectivity. PostCom/NAPM Final Comment at 3. The Postal Service also recognizes the necessity for third-party auditing. It states that it “will continue the external audit of the internal SPM system to ensue objectivity, accuracy, reliability, and representativeness of service performance data.” Postal Service Final Comments at 9-10.

The Commission agrees with the commenters and the Postal Service that an acceptable level of external (non-Postal Service) monitoring and verification of the operator and the measurement systems is necessary to overcome any presumption that

an internally operated measurement system may not be objective. Therefore, the Commission finds that a system of monitoring and verification (auditing) must be in place for the proposed measurement systems to be considered objective.

There is a difference, however, between auditing of procedures and auditing of data. Procedural auditing generally reviews the processes and controls of a system and verifies that the operator is adhering to those processes and controls. The auditing plan that the Postal Service has implemented is, for the most part, an example of a procedural audit performed by an external third party.⁴⁹ The Commission conditions its approval of providing service performance measurement based upon the proposed measurement systems on continuation of this third-party audit. Over time, experience should be gained to inform the design of future audits. The Commission expects that the audit process will evolve over time as new issues are uncovered.

The Commission is not aware of any Postal Service plan to externally audit the data. The Commission suggests that the Postal Service consider employing the services of a third party to audit the data generated by its measurement systems. Another approach might be to develop economical, independent, measurement systems solely for the purpose of verifying data generated by the proposed systems.⁵⁰ The results of these audits should be made publicly available.

In the interim, several other avenues for auditing of data produced by the proposed service performance measurement systems are available. They are not as direct as a specifically designed data audit, but they do provide a level of assurance.

First, the Postal Service's Inspector General is tasked with regularly auditing the Postal Service's data collection systems and procedures. See 39 U.S.C. § 3652(a)(2). The Commission would encourage the Inspector General to consider examining the accuracy and validity of Postal Service data as part of any audit it chooses to undertake.

⁴⁹ The Postal Service's audit plan is reviewed in the next section of this Order.

⁵⁰ One approach might be external systems based on mail seeding that are only run periodically.

Second, of its own accord, the GAO has audited various aspects of the Postal Service's performance measurement systems. The Commission would also encourage the GAO to consider examining the accuracy and validity of Postal Service data as part of any audit it chooses to undertake.

Third, as part of the annual compliance determination process, the Commission annually reviews the service performance reports provided by the Postal Service. At that time (or any other time determined necessary), the Commission may on its own, or by motion, initiate proceedings to improve the quality, accuracy, or completeness of Postal Service data. See 39 U.S.C. § 3652(e)(2). Thus, the Commission may direct changes whenever the quality of service data has become significantly inaccurate or can be significantly improved, or such revisions are otherwise necessitated by the public interest. *Id.*

Based on the above, the Commission finds that proposed systems are capable of developing "objective" service performance measurements. This finding is conditioned on continuation of the third-party auditing process. The remainder of this section discusses the third-party auditing system implemented by the Postal Service.

2. Review of the Postal Service's Auditing System

In response to a GAO report regarding the quality and completeness of service performance data, the Commission required the Postal Service to provide regular descriptions of its methodologies used to produce service performance results and verify its accuracy, reliability, and representativeness. For the proposed internal measurement system, the Postal Service contracted a third-party vendor to develop an audit approach for reviewing, verifying, and ensuring that the proposed service performance measurement system and its processes produce accurate, reliable, and representative results.⁵¹ The Postal Service outlined four major tasks for the auditor to

⁵¹ The Postal Service contracted the advisory firm ICF to design and implement independent quarterly audits on its proposed internal service performance measurement system.

conduct: define scope and objectives, determine metrics to be measured, obtain information and review results, and report findings and recommendations. Audit Plan at 2. The following discussion describes the auditor's four major tasks and reviews the recent findings of the audit reports.

a. Scope and objectives

The scope of the audit includes specific market dominant products, how they are measured, and the methodologies used for measurement. The objectives are to "evaluate the accuracy, reliability, and representativeness of the internal service performance measurement system results." *Id.* Tables 1 through 4 explain the evaluation approach and methodologies used in the audit based on its scope and focus.

**Table 1
Audit Scope - Product Results**

Focus	Description of Focus	Methodology Used to Measure Audit Focus
Domestic First-Class Mail - Single-Piece Letters and Cards - Single-Piece Flats	Single-Piece mail products whose measurement will be impacted by proposed system.	1. Frames audit purpose: to ensure the accuracy, reliability, and representativeness of results. 2. Measures three (3) components of single-piece mail transit: First Mile, Processing Duration, and Last Mile.
Domestic First-Class Mail - Presorted Letters and Cards - Presorted Flats USPS Marketing Mail - High Density and Saturation letters - High Density and Saturation flats - Carrier Route - Letters - Flats - Every Door Direct Mail-Retail Flats Periodicals Package Services - Bound Printed Matter Flats	Presorted mail products whose measurement will be amended by proposed system.	1. Frames audit purpose: to ensure the accuracy, reliability, and representativeness of results 2. Measures two (2) components of presorted mail transit: Processing Duration and Last Mile.

Table 2
Audit Scope - Transit Phases

Focus	Description of Focus	Methodology Used to Measure Audit Focus
First Mile	The time between the deposit of mail into a collection box or at a retail unit, for instance, and the first processing on postal equipment.	Uses secondary and tertiary questions about specific internal SPM processes to determine appropriate sampling volumes.
Processing Duration	The time between initial processing and final processing for single-piece mail, and the time from the start-the-clock event (<i>e.g.</i> , acceptance at a business mail entry unit) through final processing for commercial mail.	
Last Mile	The time between final processing and delivery for both single-piece and commercial mail.	

Table 3
Audit Scope - Scoring and Reporting

Focus	Description of Focus	Methodology Used to Measure Audit Focus
Performance estimates	Final service performance results submitted to the Commission for evaluation.	Review of Internal SPM processes for calculating service performance estimates and producing reports of market dominant product performance scores. The audit will assess whether appropriate processes have been established to produce accurate and reliable data for use in reports. Similarly, by reviewing rules and processes for data exclusions, documentation, and coverage, the audit will assess the representativeness of the data.

Table 4
Audit Scope - System Controls

Focus	Description of Focus	Methodology Used to Measure Audit Focus
Rules and Processes	Postal business rules, operating procedures, and processes used to produce accurate, reliable, and representative service performance results.	Review of business rules and administrative rights within the Internal SPM measurement processes and data recording and operating procedures for Postal personnel executing measurement processes. The audit will evaluate if there are potential risks of manipulation or error due to insufficient restrictions or inadequate controls and/or procedures.

b. Determine metrics

Overall, the auditor was tasked with ensuring the proposed system produces accurate, reliable, and representative results. It applies the Minto Pyramid Principle⁵² and the International Organization of Supreme Audit Institutions (INTOSAI)⁵³ to determine the various metrics for auditing service performance results and processes associated with the proposed system. The metrics, derived from several levels of inquiries and sub-inquiries and presented in INTOSAI's basic design matrix model, identifies the audit's criteria or yardstick, specific data or report to review, and methods used to review data or report.⁵⁴

⁵² The Pyramid Principle is intended to add rigid logic, and presentation structure to a large task (*i.e.*, report, recommendations, etc.) See Minto, Barbara, *The Pyramid Principle: Logic in Writing and Thinking*, Pearson Education, 2009.

⁵³ The INTOSAI is an international organization that provides an institutionalized framework for audit institutions to promote development and transfer knowledge, improve government auditing, and enhance professional capacities. The institution claims to be an autonomous, independent and non-political organization with special consultative status with the Economic and Social Council (ECOSOC) of the United Nations. See <http://www.intosai.org/about-us.html>.

⁵⁴ See Audit Plan at 6.

c. Information and results

The Postal Service provided the auditor with “snapshots of key system tables,” data samples from Postal systems, and reports. These data were reviewed, compiled, analyzed, and compared to audit criteria. This phase of the audit allowed for the vendor to identify potential issues or problems with data accuracy, reliability, or representativeness.

d. Findings and recommendations

The auditor’s recommendations and findings were presented quarterly as a summary of the metrics that were achieved, partially achieved, or not achieved. The auditor explains that a more detailed report of the findings will “provide information about what was measured and what the results were.”⁵⁵ These quarterly audit reports were compiled to produce an annual audit summary report for the Postal Service’s leadership. In addition, information from the annual audit reports may also be used “to support reporting requirements” required in the ACR.

e. Summary of audit findings

For several quarters, the auditor conducted evaluations of the accuracy, reliability, and representativeness of data from the proposed service performance measurement system.⁵⁶ The Commission has reviewed each report for its audit criteria, findings, and recommendations. It finds that the audits were conducted according to industry best practices and include useful recommendations for the Postal Service to maintain or improve data accuracy, reliability, and representativeness.

⁵⁵ See Audit Plan at 8.

⁵⁶ ICF conducted four evaluations of the internal service performance measurement system. Three of four analyses were submitted to the Commission for its review (FY 2018, Quarter 1; FY 2017, Quarter 4; and FY 2017, Quarter 3). The evaluation of results from FY 2017 Quarter 1 was not submitted to the Commission.

The Commission also determines that the auditor's findings and recommendations have led to improvements within certain areas of measurement. Tables 5 and 6 list audit criteria that was initially characterized as *partially achieved* or *not achieved* in the FY 2017, Quarter 3 audit report. In addition, the table shows how, if at all, the audit results have changed for subsequent audits.

Table 5
Audit Findings – Selected Measures 2-20

Measure	Phase	Audit Subject	Audit Criteria	FY 2017 Q3	FY 2017 Q4	FY 2018 Q1
2	First Mile	Is First Mile sampling accurately completed by carriers?	There should be processes to identify anomalies between expected and actual number of scans based on the collection box density.	Partially Achieved	Partially Achieved	Partially Achieved
6	Reporting	Are reporting procedures and requirements established and being executed per design to produce accurate results?	Reporting requirements should be documented and align with regulatory reporting requirements.	Partially Achieved	Partially Achieved	Achieved
11	Last Mile	Is use of imputations for LM Profile results limited to provide LM measurement that represents the district's performance?	Most districts should have a limited amount of volume for which imputed results are used within the quarter.	Not Achieved	Achieved	Achieved
18	First Mile	Do the sampling results indicate that all collection points were included (districts, ZIP Codes, box types, box locations)?	Across the year, more than 90 percent of boxes should be selected for sampling at least one time.	Partially Achieved	Achieved	Achieved
19	First Mile	Are the sampling response rates sufficient to indicate that nonresponse biases are immaterial? If not, does the data indicate differences in performance for underrepresented groups?	Most response rates should exceed 80 percent at a district level.	Partially Achieved	Partially Achieved	Partially Achieved
20	First Mile	If the sampling response rates do not meet the district threshold, does the data indicate differences in performance for under-represented groups?	Coverage ratios should meet acceptable thresholds at the 3-digit ZIP Code levels for districts with poor coverage.	Partially Achieved	Partially Achieved	Partially Achieved

Table 6
Audit Findings – Selected Measures 22-26

Measure	Phase	Audit Subject	Audit Criteria	FY 2017 Q3	FY 2017 Q4	FY 2018 Q1
22	First Mile	Are all valid collection points included in the collection profile (collection points, ZIP Codes and collection dates)?	Most eligible retail locations should contribute data to the profile for some dates and mail types in the quarter.	Partially Achieved	Achieved	Achieved
23	Processing Duration	How much of the volume is included in measurement for each measured product?	At least 70 percent of the volume is measured for each product.	Partially Achieved	Partially Achieved	Partially Achieved
24	Processing Duration	Are all destinating ZIP Codes and dates represented in the final data?	Most active ZIP Codes should have mail receipts for all products during the quarter.	Partially Achieved	Achieved	Achieved
25	Last Mile	Are the sampling response rates sufficiently high to indicate that non-response biases are immaterial?	Most response rates should exceed 80 percent at a district level.	Partially Achieved	Partially Achieved	Partially Achieved
26	Last Mile	If the sampling response rates do not meet the district threshold, does the data indicate differences in performance for underrepresented groups?	Coverage ratios should meet acceptable thresholds at the 3-digit ZIP Code levels for districts with poor coverage.	Partially Achieved	Partially Achieved	Partially Achieved

Six audit measures, initially evaluated as partially achieved remained at that same level in the most recent audit report. The auditor provided recommendations intended to help the Postal Service fully achieve measurement compliance. The Postal Service recognizes that the proposed system and its methodologies is not infallible and has room for improvement in multiple areas. In response, it has provided mitigation plans for measures that have not been fully achieved. Table 7 shows that the Postal Service's general response has been to combine administrative strategy with delivery operations.

Table 7
Audit Recommendations and Postal Service Response

Measure	Audit Criteria	Current Compliance Status	Recommendation	Postal Service Response
2	There should be processes to identify anomalies between expected and actual number of scans based on the collection box density.	Partially Achieved	Provide transparent or supported explanations for cases of low compliance.	Headquarters (HQ) is partnering with Delivery Operations to implement a certification process to assess whether First Mile sampling procedures are being correctly performed by carriers and to identify opportunities for operational improvements. The certification process is planned for implementation during Q3.
19	Most response rates should exceed 80 percent at a district level.	Partially Achieved	Ensure that response rates exceed 80 percent for most districts.	HQ is partnering with Delivery Operations to implement a certification process to assess whether First Mile sampling procedures are being correctly performed by carriers and to identify opportunities for operational improvements. The certification process is planned for implementation during Q3.
20	Coverage ratios should meet acceptable thresholds at the 3-digit ZIP Code levels for districts with poor coverage.	Partially Achieved	Adjust sampling method to increase First Mile response rates or provide reasons for low response rates.	HQ is partnering with Delivery Operations to implement a certification process to assess whether First Mile sampling procedures are being correctly performed by carriers and to identify opportunities for operational improvements. The certification process is planned for implementation during Q3.
23	At least 70 percent of the volume is measured for each product.	Partially Achieved	Achieve 70 percent coverage for most products.	USPS has launched a comprehensive effort across HQ, Field Operations (Areas and Districts), and Mail Entry to develop a mitigation plan for each exclusion reason.
25	Most response rates should exceed 80 percent at a district level.	Partially Achieved	Ensure that response rates exceed 80 percent for most districts.	HQ is partnering with Delivery Operations to implement a certification process to assess whether Last Mile sampling procedures are being correctly performed by carriers and to identify opportunities for operational improvements. The certification process is planned for implementation during Q3.
26	Coverage ratios should meet acceptable thresholds at the 3-digit ZIP Code levels for districts with poor coverage.	Partially Achieved	Adjust sampling method to increase Last Mile response rates or provide reasons for low response rates.	HQ is partnering with Delivery Operations to implement a certification process to assess whether Last Mile sampling procedures are being correctly performed by carriers and to identify opportunities for operational improvements. The certification process is planned for implementation during Q3.

The Commission determines that this is a reasonable approach, due to the relative novelty of the proposed service performance measurement system. It will continue to monitor results from the audit reports and the impact of the Postal Service's ongoing mitigation plans.

C. Are the Proposed Systems Capable of Reporting Accurate, Reliable, and Representative Service Performance Data

1. General

The Commission requested that the Postal Service provide quarterly service performance results from the proposed and legacy service performance measurement systems.⁵⁷ It received quarterly service performance results from the Postal Service's proposed system starting the second quarter of FY 2016 to the second quarter of FY 2018. See Attachment 2. This constitutes nine quarters of service performance results from the proposed service performance measurement system provided concurrently with results from the legacy systems. The Commission determines this is sufficient to evaluate the proposed internal measurement system. After reviewing the performance results produced by the Postal Service, the Commission is able to analyze the accuracy and reliability sufficiently to determine that the proposed system is consistent with the statutory objectives and Commission precedence. Additionally, because the two systems differ fundamentally in their measurement approach, the Commission will use the results from the external audit to further monitor the accuracy and reliability of the proposed measurement system.

The Commission determines that the evaluation of the proposed measurement system shall include whether it is capable of producing and maintaining accurate,

⁵⁷ CIR No. 1; Order No. 2544; Order No. 4002.

reliable, and representative service performance results.⁵⁸ For these purposes, the Commission utilizes stakeholder definitions of accuracy, reliability, and representativeness.⁵⁹

2. Accuracy

In its statistical design plan, the Postal Service states that “estimates of the accuracy of service performance estimates are calculated using standard statistical methods for estimating the variance of a ratio estimate.”⁶⁰ In addition to variance measurements, the Postal Service uses margins of error at a 95 percent confidence level to assess the accuracy of service performance estimates.⁶¹ For evaluation purposes, the Commission finds that variance and margins of error are reasonable metrics primarily because they are typically used to evaluate accuracy of statistical estimates.⁶²

The Postal Service consistently began including results with margins of error during the fourth quarter of FY 2016.⁶³ The Commission determines that the Postal

⁵⁸ The Commission also determines that, whenever possible, the evaluation of the proposed system should also include its capability of producing accurate, reliable, and representative results for each transit phase measured by the internal system.

⁵⁹ *Accuracy* denotes the closeness of computations of estimates to the ‘unknown’ exact or true values; *Reliability* reflects reproducibility and stability (consistency) of the obtained measurement estimates and/or scores; *Representativeness* indicates how well the sampled data reflects the overall population [mail volume]. See PR Final Comments; Order No. 3490; Performance Audit Plan Internal Service Performance Measurement, October 24, 2017.

⁶⁰ See Statistical Design Plan at 30.

⁶¹ With regard to calculating the variance and margins of error for service performance estimates, the Postal Service goes into extensive detail throughout the appendix of its Statistical Design Plan. *Id.* at 30-47.

⁶² The Public Representative notes that variance, margin of error, and coefficient of variation (CV) are traditionally used to determine accuracy. See PR Final Comments at 7.

⁶³ With regard to products measured by EXFC, margins of error were not provided for Single-Piece Letters and Cards but were provided for single-piece flats. See Library Reference USPS-LR-PI2015-1/5, USPS Proposed Internal Service Performance Measurement System Data for Quarter 4 of Fiscal Year 2016, February 16, 2017, folder “FY2017 Q1 Internal SPM PRC Reports_020917.”

Service has provided enough completed reports to partially evaluate the accuracy of the proposed system despite some reports missing useable data.⁶⁴ Table 8 identifies the availability of legacy and proposed quarterly service performance reports that include margins of error data.

**Table 8
Proposed Service Performance Reports
with Margins of Error and Variance Data**

Class	Product	FY16 Q2		FY16 Q3		FY16 Q4		FY17 Q1		FY17 Q2		FY17 Q3		FY17 Q4		FY18 Q1		FY18 Q2	
		L	P	L	P	L	P	L	P	L	P	L	P	L	P	L	P	L	P
First-Class Mail	<i>Single-Piece Letters and Cards</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	<i>Presorted Letters and Cards</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	<i>Flats</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
USPS Marketing Mail	<i>Letters</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	<i>Flats</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	<i>Carrier Route</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	<i>High Density and Saturation Letters</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	<i>High Density and Saturation Flats</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	<i>Every Door Direct Mail</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Periodicals	<i>Periodicals</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Package Services	<i>Bound Printed Matter Flats</i>	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

L – Legacy System.
 P – Proposed System.
 Y – The Postal Service provided both variance and margins of error data.
 N – The Postal Service provided reports did not include margins of error data.

⁶⁴ The Commission notes, however, that these data cannot be used to measure non-sampling error. In its Statistical Design Plan, the Postal Service mentions two types of errors that it cannot quantify: (1) the extent to which the exclusion of unscanned or non-measurable mail introduces error in service performance estimates, and (2) the error that may be associated with the assumption that the First Mile is the same for accountable and non-accountable mailpieces. The Postal Service explains that statistical methods “cannot be used to evaluate other types of error (‘non-sampling error’).” See Statistical Design Plan at 31.

The Commission frames its evaluation of the accuracy of the proposed measurement systems with the formulation of the standard error of measurement. The relation of accuracy to the standard error of measurement is based on a classical test theory,⁶⁵ in which a performance score, x , is made up of a “true” part, t , and an error part, e .⁶⁶ This assumption yields the following formula:

$$x = t + e.$$

Where x represents service performance scores from the proposed service performance measurement system, t is the true (unknown) score, and e is the error associated with using the proposed system.

Next, the Commission utilizes margin of error data from quarterly service performance reports as a proxy for assessing the error component (e).⁶⁷ Table 9 compares these data from select market dominant products for both the legacy and internal systems.

⁶⁵ See *Statistical Theories of Mental Test Scores*, Lord and Novick, 1968.

⁶⁶ In this theory, it is assumed that an individual test score, x , is made of a systematic or consistent part, t , that is invariant over equivalent tests, and an error part, e , that varies independently of t : $x = t + e$. *Performance Assessment for the Workplace*, Volume 1, 1991, Chapter 6: Evaluating the Quality of Performance Measures, page 117 available at <https://www.nap.edu/read/1862/chapter/8>.

⁶⁷ Margins of error are statistically defined as the radius (or half the width) of the confidence interval for a particular statistic. They can represent sampling error when sampling is random.

Table 9
Margins of Error: Comparing Legacy and Proposed System Results

Class	Product	Service Standard	Legacy System			SPM		
			FY 2016 Q4	FY 2018 Q2	Difference*	FY 2016 Q4	FY 2018 Q2	Difference*
First-Class Mail	Flats	Overnight	0.5	1.5	1.0	0.7	0.0	-0.7
		Two-Day	0.6	0.7	0.1	0.5	0.1	-0.5
		Three-to-Five Day	0.5	0.5	0.0	0.5	0.1	-0.4
USPS Marketing Mail	Letters	Destination Entry Three-to-Five Day	0.0	0.0	0.0	0.1	0.0	-0.1
		Destination Entry Five-Day-and-Above	0.0	0.0	0.0	0.1	0.0	-0.1
		End-to-End Three-to-Five Day	0.0	0.0	0.0	0.2	0.0	-0.2
		End-to-End Six-to-Ten Day	0.0	0.0	0.0	0.1	0.0	0.0
		End-to-End Eleven-Day-and-Above	0.0	0.0	0.0	0.5	0.1	-0.4
		Overall	0.0	0.0	0.0	0.1	0.0	-0.1
	Flats	Destination Entry Three-to-Five Day	0.1	0.1	0.0	0.1	0.0	-0.1
		Destination Entry Five-Day-and-Above	0.1	0.1	0.0	0.2	0.0	-0.1
		End-to-End Three-to-Five Day	0.1	0.1	0.0	0.2	0.0	-0.2
		End-to-End Six-to-Ten Day	0.0	0.0	0.0	0.1	0.0	-0.1
		End-to-End Eleven-Day-and-Above	0.2	0.7	0.5	4.1	0.5	-3.7
		Overall	0.1	0.1	0.0	0.1	0.0	-0.1

*Differences may not match due to rounding

Table 9 shows that margins of error from the proposed system have decreased over time and some have reached zero. With respect to the formula for the standard error of measurement, the performance score (x) will approach the true score (t) as the error component nears zero. The Commission interprets this trend to mean that further development of the proposed system has positively impacted its ability to produce and maintain accurate service performance results. It also determines that the proposed system, with continued development, will be at least as accurate as the legacy systems.

3. Reliability

Results have high levels of reliability if they are consistently reproduced by additional testing under similar conditions. In the instant docket, this methodology for testing reliability is not feasible. The Postal Service did, however, provide service performance results from both the legacy and proposed measurement systems. The Postal Service did not produce previous service performance results for mail products using the proposed measurement system's statistical methodology.⁶⁸

One approach to reliability analysis when reproducing results is not feasible is to compute the correlation of scores on two equivalent or "parallel" versions of a test given to a group of measured mail products, either at the same time or within a short time span. Differences between scores on two parallel forms of a measurement system provide an index of how much error is introduced.⁶⁹ The Commission determines that comparing the overall results of the proposed and legacy systems provides insight into the similarity and consistency of measurement between the systems. Therefore, the Commission compares the overall service performance results for each product generated by both the legacy and proposed system.

Figure 1 compares service performance results from the legacy and proposed systems for 3-5-Day First-Class Mail single-piece letters and cards.

⁶⁸ A regularly accepted approach to testing for levels of reliability for this proposed service performance measurement systems would be to (1) employ the exact same statistical methodologies used to produce results from the First Mile impact, Processing Duration, Last Mile impact, and overall service performance; (2) compare the results from each measurement system; and (3) test the divergence of results from each measurement. If the results of the Commission's (or external test) test were similar to those reported in the SPM, the internal measurement system would be considered *reliable*. See Quantitative Methods in Social Sciences e-Lessons, Columbia University, available at http://ccnmtl.columbia.edu/projects/qmss/measurement/validity_and_reliability.html.

⁶⁹ National Research Council. 1991. *Performance Assessment for the Workplace: Volume I*. Washington, DC: The National Academies Press available at <https://doi.org/10.17226/1862>, page 118.

Figure 1
3-5-Day First-Class Mail Single-Piece Letters and Cards
Service Performance Results from the Legacy and Proposed Systems

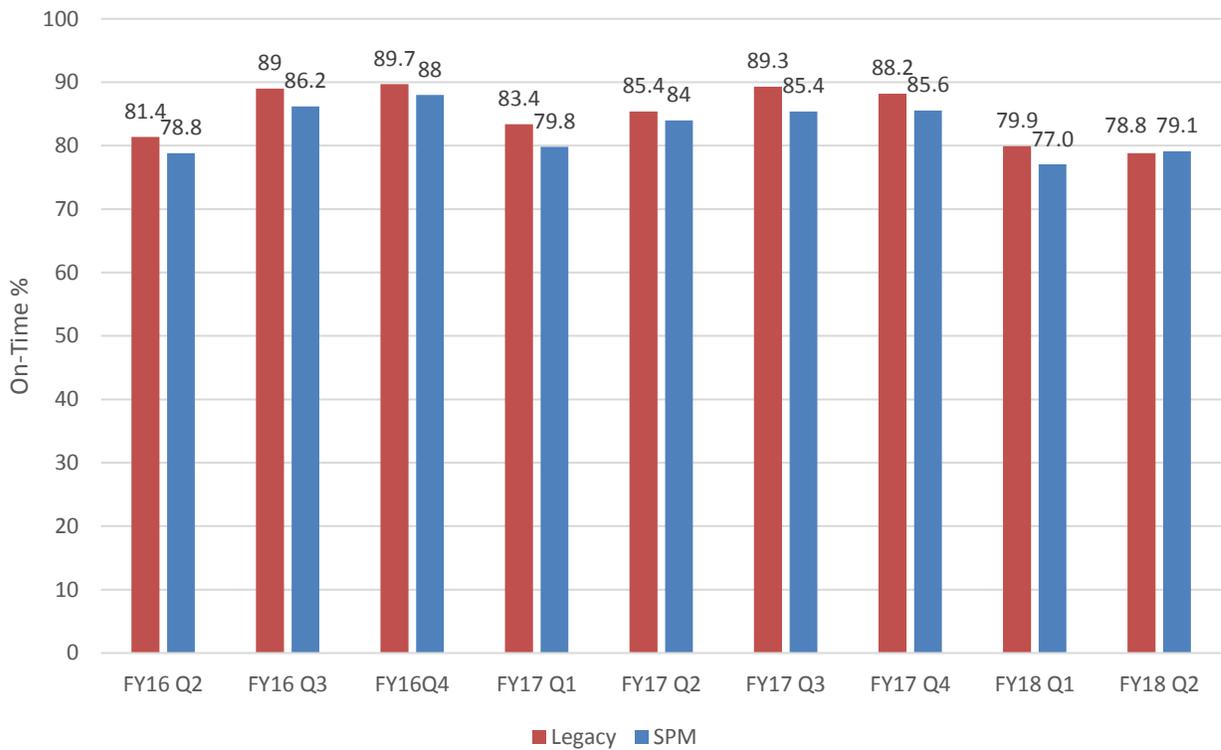


Figure 1 shows that Single-Piece Letters and Cards service performance results produced by both systems have stayed within four percentage points of each other. This suggests that service performance results for this product produced by the proposed measurement system will be at least as reliable as the legacy system. In addition to First-Class Mail single-piece letters and cards, the Commission also examined service performance results for First-Class Mail Flats with 2-Day and 3-to-5-Day service standards. Figures 2 and 3 display the comparisons of these results.

Figure 2
2-Day First-Class Mail Single-Piece Flats
Service Performance Results from the Legacy and Proposed Systems

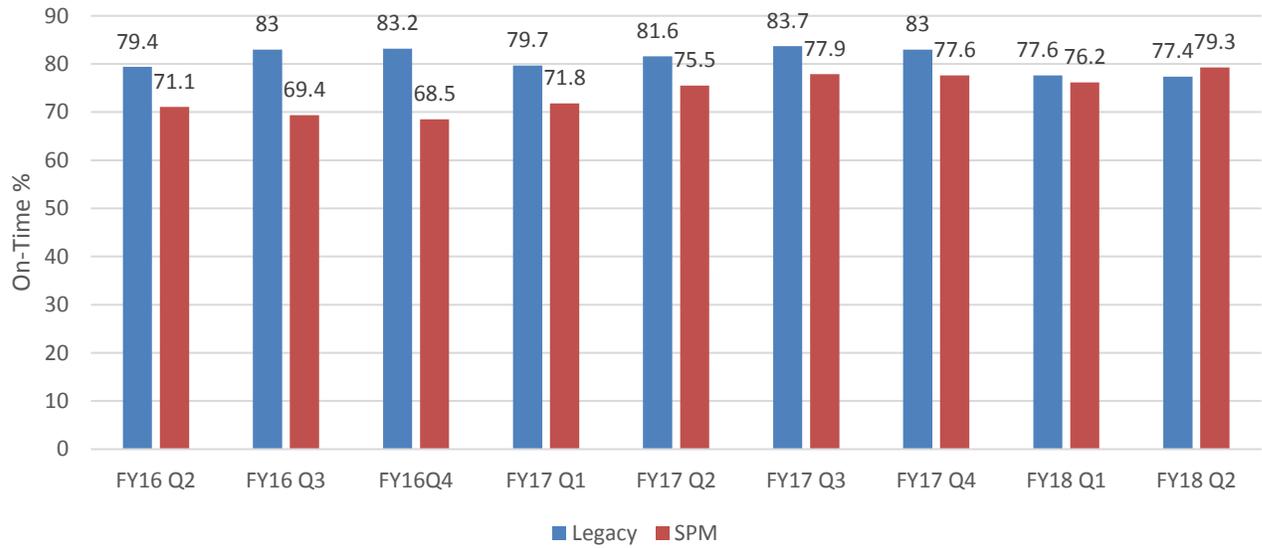


Figure 3
3-5-Day First-Class Mail Single-Piece Flats
Service Performance Results from the Legacy and Proposed Systems

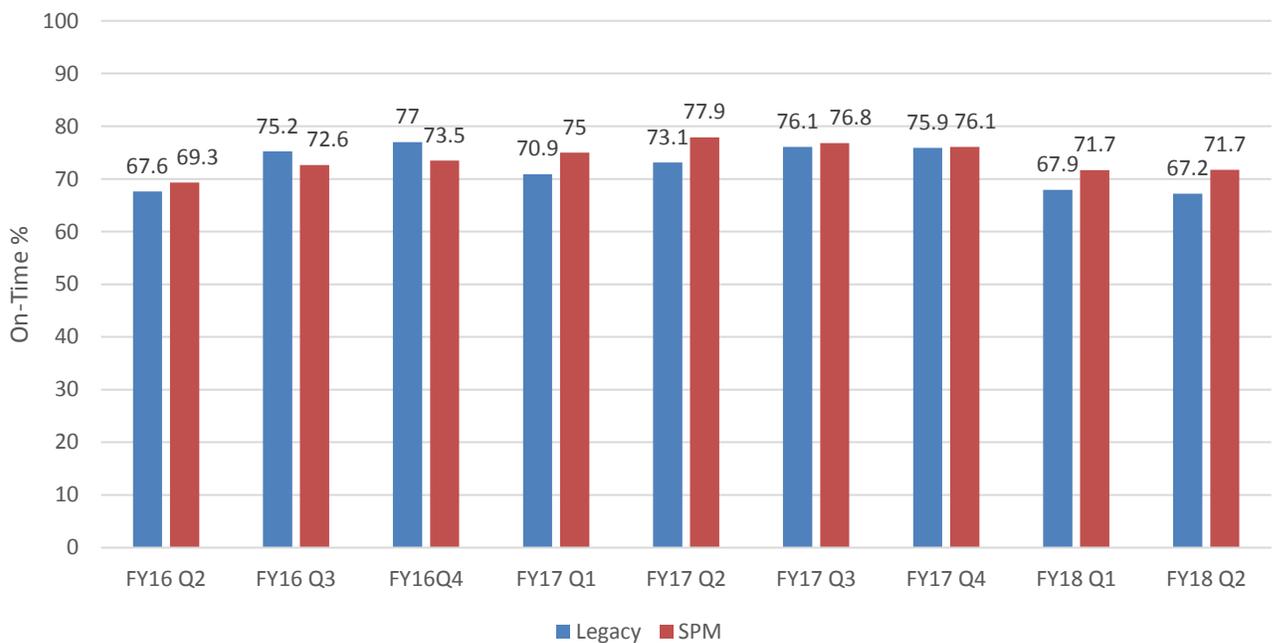


Figure 2 shows that the variation between service performance results have been wider for 2-Day First-Class Mail Flats than other products—in particular 3-5-Day First-Class Mail Single-Piece Letters and Cards and First-Class Mail Flats. With respect to 2-Day First-Class Mail Flats, the trend of variation has decreased over time, thereby suggesting that levels of reliability are becoming comparable to the legacy system.

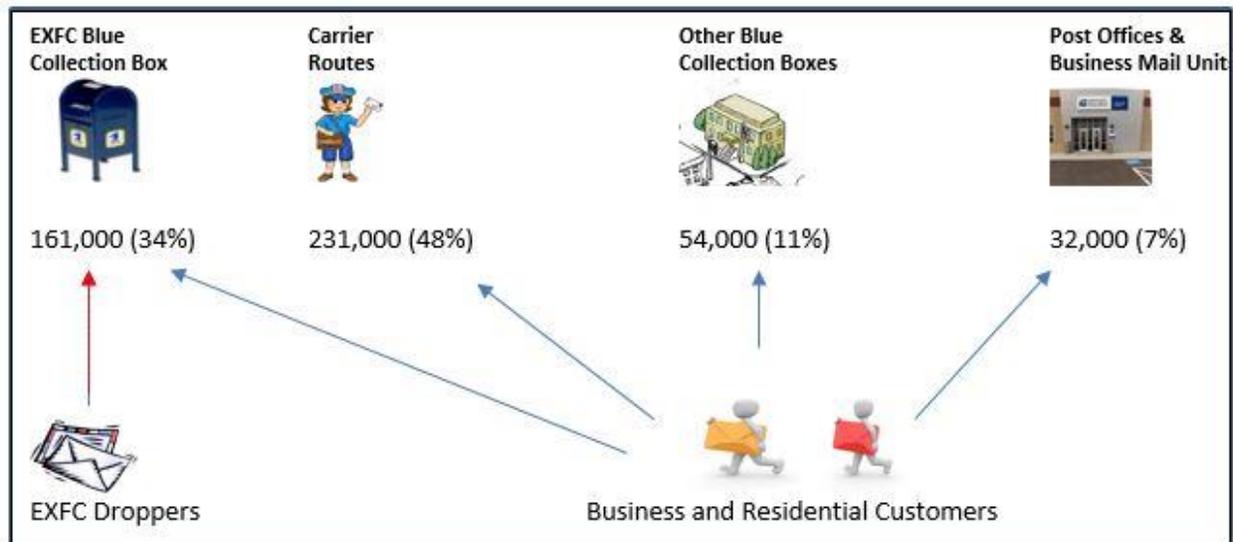
4. Representativeness

Representativeness is evaluated by the inclusion of pieces in measurement that reflect the variety of the overall and product-specific mailstream. The Commission compares the collection points of the legacy systems with those of the proposed systems and determines that the proposed measurement system should be considered more representative of the single-piece mailstream because it includes sampled mailpieces from more collection points. The Postal Service reports that in the second

quarter of FY 2018, the EXFC legacy system sampled 563,596 pieces from 17,687 induction points.⁷⁰ This compares to 9,057,427 sampled mailpieces from 102,151 induction points with the proposed service performance measurement system. *Id.* at 9. The EXFC methodology utilizes sampled mailpieces inducted into a blue collection box. These collection boxes represent 34 percent of the total amount of collection points for single-piece mail. See Figure 4, *infra*.

Figure 4 illustrates where the EXFC bundles are inducted and compares the total number and proportions of all other First-Class single-piece mail collection points.

**Figure 4
EXFC Induction**

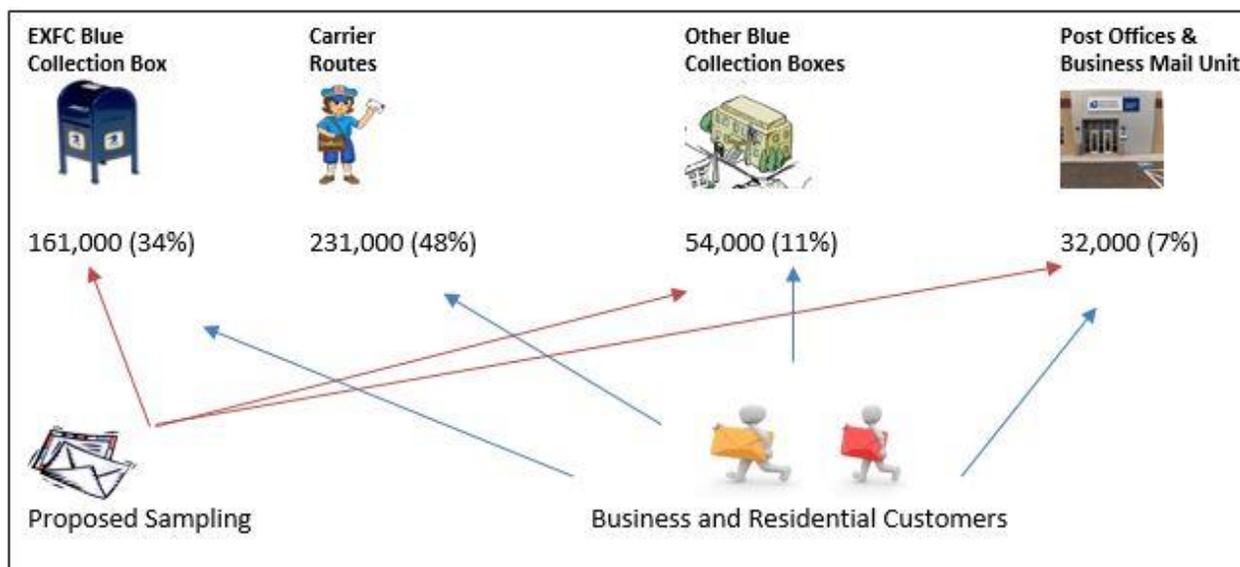


Source: Evaluation of the External First-Class Measurement System, Office of Inspector General USPS, Report Number FF-AR-12-006, September 18, 2012, at 28.

⁷⁰ Library Reference USPS-LR-PI2015-1/14 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2018, PDF File "FY18Q2 Internal vs Legacy SPM - v5.pdf," May 23, 2018, at 10.

The Postal Service explains that the internal measurement system proposes to sample mail from the blue collection boxes as well as other induction points.⁷¹ This difference in sampling methodology accounts for an increase in the percentage of single-piece collection points included. Figure 5 demonstrates that more collection points will be included in the proposed system's sampling methodology. It follows that this sampling methodology allows for increased representation of single-piece mail flow.

Figure 5
Proposed Measurement System Induction



With regard to mail that is not single-piece, the Postal Service states that the proposed measurement system measures all mail with requisite identifying information, such as an IMb, during the processing phase.⁷² In comparison, measurement during the processing phase for the legacy (hybrid) system is determined in accordance with simple random sampling where the desired sample size for each mail sub-category is

⁷¹ Response to CHIR No. 4, question 4; see also Service Performance Measurement Plan at 17-18.

⁷² Statistical Design Plan at 17.

independent of the size of the overall population within the category. Therefore, the census approach utilized with the proposed system effectively increases the number of measured mailpieces during the processing phase. In general, more pieces in measurement translates into more representativeness across mail categories.

Based on the analysis presented above, the Commission finds that proposed systems are capable of representative service performance data.

D. Are the Proposed Systems Capable of Providing Data in the Nature and Form Required by the Commission

The requirements for the reporting of service performance are specified in 39 C.F.R. part 3055. Subpart A of this part specifies the requirements for the annual reporting of service performance achievements. This is the annual service performance report used by the Commission in its annual compliance determination. For the products proposed for measurement by the new service performance measurement systems, the Postal Service reports the percentage of mail that achieves on-time service performance.

Subpart B of this part specifies the requirements for the periodic reporting of service performance achievements. These are quarterly reports that form the basis of the annual report (Subpart A). For the products proposed for measurement by the new service performance measurement systems, the Postal Service reports the percentage of mail that achieves on-time service performance. The Postal Service also reports service variance as a percentage for mail delivered within +1 day, +2 days, and +3 days of its applicable service standard.

The Postal Service has filed a series of quarterly data reports in this docket based on data generated by the proposed systems. See Attachment 2. The most recent reports provide the information required by Subpart B. The information provided in these reports should be sufficient to generate the annual report as specified in Subpart A. Therefore, the Commission finds that the Postal Service has demonstrated

that the proposed systems are capable of providing data in the nature and form required by the Commission.

E. Financial Considerations

The Postal Service states that it “has not justified its proposed service performance measurement system on the basis of cost savings.” Postal Service Reply Comments at 50. It asserts that it is pursuing the proposed service performance measurement systems “for a host of operational and customer service reasons that overshadow any cost savings that could potentially result from its adoption.”⁷³

Nevertheless, the Commission asked questions in an attempt to understand the non-recurring and recurring costs associated with the proposed systems, and any potential costs savings associated with the elimination of the measurement systems connected to EXFC.

The Postal Service estimates non-recurring costs to implement its proposed systems of \$10.75 million. Response to CHIR No. 1, question 3. This includes \$2.10 million in internal costs associated with field training and project management, and \$8.65 million associated with external vendor design and development costs. It does not include what it describes as “other” internal costs.

The Postal Service estimates recurring costs for the proposed systems to be \$12.25 million. Response to CHIR No. 1, question 4. As with the current system, \$1.17 million of this total is applicable to international mail, and \$0.57 million to Special Services. The remainder is allocated to other third-party costs. This total does not include internal Postal Service costs associated with employee scanning or internal program management.⁷⁴ The Postal Service does not disaggregate any of these costs

⁷³ See Library Reference PRC-LR-PI2015-1/2 - Postal Service Letters dated October 17, 2014 and December 22, 2014, PDF File “Letter 12222014,” May 7, 2018, at 2.

⁷⁴ *Id.*; see also Response to CHIR No. 1, questions 7 and 8.

between those required for service performance and reporting to the Commission and those required by the Postal Service for its own internal purposes.⁷⁵

The Postal Service reports that costs to comply with FY 2014 service performance measurement and reporting requirements using the legacy measurement systems were \$41 million. Response to CHIR No. 1, question 1. This includes costs associated with maintaining the systems associated with presort mail, and third-party costs associated with measurement of presort mail (Last Mile), First-Class Mail single-piece letters and flats, international mail, and Special Services (including reporting and postage costs). Of the third-party costs, \$28.07 was allocated to First-Class Mail single-piece letters and flats (*i.e.*, EXFC), \$1.17 million to international mail, and \$0.57 million to Special Services. The Postal Service did not report costs associated with internal infrastructure and personnel. Of the \$28.07 million allocated to First-Class Mail single-piece letters and flats, the Postal Service does not disaggregate costs between those required for service performance and reporting to the Commission and those required by the Postal Service for its own internal purposes. Response to CHIR No. 1, question 2c.

The Commission finds that the information provided is not sufficient to perform a cost analysis. For this to occur, the Commission would need sufficient information to separate costs by those associated with service performance reporting as required by statute and those associated with the “host of operational and customer service reasons” the Postal Service cited as being the driver for developing the proposed systems.⁷⁶ The Commission also would need estimates of the Postal Service’s internal costs, such as the costs of administering the proposed systems and the costs associated with mail carriers scanning actual mailpieces.

⁷⁵ *Id.*; see also Response to CHIR No. 1, question 6.

⁷⁶ See Library Reference PRC-LR-PI2015-1/2 - Postal Service Letters dated October 17, 2014 and December 22, 2014, PDF File “Letter 12222014,” May 7, 2018, at 2.

Thus, from the information provided, the Commission is unable to analyze whether or not the proposed measurement systems will provide a cost effective solution for service performance reporting. The most that the Commission can conclude is that the costs of operating the proposed measurement systems will be offset by the retirement of the legacy EXFC based systems.

F. Outstanding Issues

1. General

The Commission continues to monitor the progress of the Postal Service's internal measurement systems by reviewing the quarterly descriptions of the proposed measurement systems' limitations and margins of errors, and comparing the legacy versus proposed service performance results. Although much progress has been made, the Commission has concerns regarding the comparison of service performance measurements generated by legacy systems with that generated by the proposed systems, and with several remaining methodological issues.

2. Service Performance Measurements Generated by Legacy Systems may not be Comparable with that Generated by the Proposed Systems

In many instances, service performance as reported by the legacy systems are different than those reported by the proposed systems. These differences may be attributable to methodological differences between the systems.

This raises important issues when attempting to compare service performance based on data generated by the legacy systems versus the proposed systems. Every year during the Commission's annual compliance review, the Commission evaluates whether or not each market dominant product meets its applicable service performance goal. The Commission also evaluates service performance trends for most market dominant products. The trends can forewarn of future problems or be taken into consideration when formulating directives to address underperforming products. The

analysis of trends relies on the consistency of results generated by the legacy systems and the proposed systems. With the legacy and proposed systems utilizing differing methodologies, the trend analyses become more difficult.

To facilitate a meaningful comparison for the first complete FY in which the Postal Service provides annual service performance measurements using the new measurement systems, the Postal Service shall provide explanations for any significant differences in its annual report to the Commission. The Postal Service may base its explanations on FY 2017 data. The Commission is not requiring the Postal Service to continue the use of EXFC for an additional year. The Postal Service shall also propose a methodology for comparing new versus legacy service performance data in its first ACR based on data from the proposed measurement systems.

3. Persistent Problems

The Postal Service provided narrative on the current limitations of its proposed measurement system with each quarterly report. The Commission recorded and compiled these data to track whether any measurement issues that impede the system's ability to produce accurate, reliable, and representative results persist despite the Postal Service's efforts to rectify. The Commission finds that the remaining limitations of the proposed service performance systems do not currently alter its ability to produce accurate, reliable, and representative results.

Table 10 shows the current issues that have persisted throughout the development of the proposed system.

Table 10
Persistent Limitations of Proposed Service Performance Measurement System

Mail Class	Products Under Audit Review Plan	Measurement Changes from Original SPM	Current Limitations as of FY18 Q2
First-Class Mail	1. Single-Piece Letters and Cards	(1) The proposed SPM system will measure mail entering Postal Service collection boxes and office building chutes (aka Postal Service collection points) and from postal retail units and will monitor performance through delivery.	(1) No Business or reply mail sampling (2) System Sampling outages
	2. Presort Letters and Cards	(1) The Last Mile Impact for the Commercial Mail will be calculated based on carrier sampling. For the Last Mile Impact, the Postal Service will scan barcodes from mailpieces at randomly selected delivery points to measure Last Mile.	(1) System Sampling Outages
	3. Single-Piece Flats	(1) For flats, the sampling points may also include the back office consolidation points because of the minimal volume of scannable flats found in individual collection points. (2) In addition, retail clerks will be randomly prompted to scan mailpieces coming across the retail counter, in order to incorporate those pieces into the First Mile Impact score. Single-piece First-Class Mail letters and flats accepted over the counter at retail counters which have ancillary Special Services, such as Certified Mail, will be included in the First Mile measurement to represent the segment of mail entering through the retail channel.	(1) System Sampling outages (2) Inaccurate scores
Marketing Mail	1. High Density and Saturation Letters 2. High Density and Saturation Flats 3. Carrier Route 4. Letters 5. Flats 4. Every Door Direct Mail-Retail Flats	Mail that does not receive any Postal Service processing scan is excluded from service performance measurement. The Bundle Visibility initiative provides additional scans for Standard, Periodicals, and Bound Printed Matter Flats presented to USPS in bundles which may not be processed on automated processing equipment. Prior to this initiative, many such pieces were excluded from service measurement because of the lack of a processing scan. In this initiative, manual scans of the top piece of mail within a bundle will be associated with all of the pieces within the bundle to provide visibility of the mail at the destination delivery unit. These bundle scans serve as the last processing operation to determine the anticipated date of delivery. (p. 44)	(1) System Sampling outages
Periodicals	All Periodicals		(1) System Sampling outages
Package Services	1. Bound Printed Matter Flats		(1) Marketing mail flats data was used to supplement limited Bound Printed Matter Flats data (2) System Sampling outages

The Commission finds that four issues/limitations remain at this point of the proposed system's development: no sampling from business or reply mail, system sampling outages, limited Bound Printed Matter volumes, and inaccurate First-Class Mail Flats scores. With regard to the lack of business and reply mail sampling for single-piece letters and cards, the Postal Service states that these delivery points were not enabled resulting in "very limited data available to measure overall transit time."⁷⁷ Next, the Postal Service characterizes its system sampling issues as sampling anomalies that occur due to a large reduction in the number of sampling requests generated. It states that these system sampling outages, which may occur on multiple days, are impactful to the quarterly data.⁷⁸ Third, the Commission has previously expressed concern that the low volumes for Bound Printed Matter flats may cause its service performance scores to be inaccurate and unreliable. In the proposed measurement system, the Postal Service combines data from USPS Market Mail Flats with Bound Printed Matter Flats to produce the delivery factor for Bound Printed Matter Flats. *Id.* Last, the Postal Service reports that its measurement for First-Class Mail Flats has not been accurate in most quarters due to the way flats mail is observed and

⁷⁷ Library Reference USPS-LR-PI2015-1/14 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2018, May 23, 2018, folder "FY18 Q2 Internal SPM Reports," subfolder "FY18 Q2 Internal SPM Reports," Excel file "SPFC LC 182 Scores Report."

⁷⁸ Library Reference USPS-LR-PI2015-1/14 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2018, May 23, 2018, folder "FY18 Q2 Internal SPM Reports," subfolder "FY18 Q2 Internal SPM Reports," Excel file "Package-BPMF 182 Scores Report."

categorized using the proposed measurement methodology.⁷⁹

VII. CONCLUSION

The Commission concludes that the performance measurement systems proposed by the Postal Service are capable of developing objective service performance measurements; reporting accurate, reliable, and representative service performance data; and providing data in the nature and form required by the Commission. As such, the Postal Service may begin reporting market dominant service performance based upon data from the proposed measurement systems as of the FY 2019, Quarter 1 report. This is conditioned upon the Postal Service continuing its external auditing program.

The Commission understands that all issues have not been resolved at this point in the proposed performance measurement system' development. The Postal Service shall inform the Commission of any changes to its proposed systems that are necessary due to these unresolved issues.

The Commission is aware that reported service performance based on data from the proposed performance measurement systems may differ from that reported based on the legacy systems. This may create problems when attempting to compare new versus legacy service performance results. The Postal Service shall explain the reasons for any significant discrepancies, where appropriate, in its first annual

⁷⁹ The Postal Service explains that single-piece mail that is first observed in incoming processing operations rather than the expected outgoing processing operations is referred to as First Processing Operation Type 2 mail, or FPO2. The volume of FPO2 mail as a proportion of total single-piece volume observed in processing duration in Internal SPM is significantly higher than the proportion observed for pieces sampled in collection or associated from the retail channel, particularly for flats. This is likely due to the inclusion of commercial mail that is sorted to destination and begins processing in incoming sort operations, but is not able to be identified as commercial mail. Because FPO2 mail generally experiences longer durations in First Mile than mail first observed in outgoing operations, the higher proportion of FPO2 mail led to scores which were not accurate. See Library Reference USPS-LR-PI2015-1/14 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2018, May 23, 2018, folder "FY18 Q2 Internal SPM Reports," subfolder "FY18 Q2 Internal SPM Reports," Excel file "FC Flats 182 Scores Report."

compliance report based on data from the proposed measurement systems. It shall also propose a method of comparing new versus legacy service performance data, where appropriate.

It is ordered:

1. The Postal Service may report market dominant service performance to the Commission, starting with the FY 2019, Quarter 1 report based on data generated from its service performance plan as described in Library Reference USPS-LR-PI2015-1/8, USPS Service Performance Measurement Plan, February 23, 2017.
2. The Postal Service shall continue with its program to provide third-party audits of its service performance measurement systems. The Postal Service shall file each audit report with the Commission no later than 60 days after each applicable reporting quarter.
3. The Postal Service shall explain any significant service performance discrepancies between new versus legacy systems, where appropriate, in the first annual compliance report based on data from the proposed measurement systems. It shall also propose a method of comparing new versus legacy service performance data, where appropriate.

By the Commission.

Ruth Ann Abrams
Acting Secretary

Information Requests

Document(s)	Short Cite
Chairman's Information Request No. 1, March 24, 2015	CHIR No. 1
Responses of the United States Postal Service to Questions 1-16 of Chairman's Information Request No. 1, March 31, 2015	Response to CHIR No. 1
Revised Response of the United States Postal Service to Question 10 of Chairman's Information Request No. 1, September 25, 2015	
Revised Response of the United States Postal Service to Question 9 of Chairman's Information Request No. 1 [Errata], January 8, 2016	
Chairman's Information Request No. 2, March 26, 2015	CHIR No. 2
Responses of the United States Postal Service to Questions 1-4 of Chairman's Information Request No. 2, April 2, 2015	Response to CHIR No. 2
Chairman's Information Request No. 3, May 1, 2015	CHIR No. 3.
Responses of the United States Postal Service to Questions 5 through 7 of Chairman's Information Request No. 3, May 11, 2015	Response to CHIR No. 3
Responses of the United States Postal Service to Questions 1 through 4 of Chairman's Information Request No. 3, May 14, 2015	
Revised Responses of the United States Postal Service to Questions 1 and 3 of Chairman's Information Request No. 3 [Errata], October 1, 2015	
Revised Response of the United States Postal Service to Question 4 of Chairman's Information Request No. 3 [Errata], October 7, 2015	
Second Revised Response of the United States Postal Service to Question 4 of Chairman's Information Request No. 3, February 17, 2017	
The following motions for late acceptance filed with the above are granted.	
United States Postal Service Motion for Late Acceptance of the Filing of Responses to Questions 5 through 7 of Chairman's Information Request No. 3, May 11, 2015	
United States Postal Service Motion for Late Acceptance of the Filing of Responses to Questions 1 through 4 of Chairman's Information Request No. 3, May 14, 2015	
Chairman's Information Request No. 4, November 18, 2015	CHIR No. 4
Responses of the United States Postal Service to Questions 1-14 of Chairman's Information Request No. 4, December 3, 2015	Response to CHIR No. 4
Chairman's Information Request No. 5, November 18, 2015	CHIR No. 5
Responses of the United States Postal Service to Questions 1 through 5 and 7 through 17 of Chairman's Information Request No. 5, December 7, 2015	Response to CHIR No. 5

Responses of the United States Postal Service to Question 6 of Chairman's Information Request No. 5, December 9, 2015	
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Document(s)	Short Cite
Chairman's Information Request No. 6, November 18, 2015	CHIR No. 6
Responses of the United States Postal Service to Question 1 of Chairman's Information Request No. 6, December 15, 2015.	Response to CHIR No. 6
Responses of The United States Postal Service to Questions 2 through 6 of Chairman's Information Request No. 6, December 9, 2015	
The following motions for late acceptance filed with the above are granted.	
Motion of the United States Postal Service for Late Acceptance of the Filing of its Response to Question 1 of Chairman's Information Request No. 6, December 15, 2015	
Motion of the United States Postal Service for Late Acceptance of the Filing of its Response to Question 6 of Chairman's Information Request No. 5, December 9, 2015	

Commission Information Request No. 1, May 12, 2017	CIR No. 1
Responses of the United States Postal Service to Questions 1-16 of Commission Information Request No. 1, June 12, 2017	Response to CIR No. 1
Updated Response of the United States Postal Service to Commission Information Request No. 1, September 13, 2017	
Second Updated Response of the United States Postal Service to Question 1 of Commission Information Request No. 1, October 27, 2017	

Quarterly Performance Data

FY 2016, Quarter 2 and Quarter 3
Library Reference USPS-LR-PI2015-1/2 - USPS Proposed Internal Service Performance Measurement System Data for Quarters 2 and 3 of Fiscal Year 2016, August 10, 2016
FY 2016, Quarter 3
Library Reference USPS-LR-PI2015-1/3 - USPS Proposed Internal Service Performance Measurement System: First Mile, Processing Duration and Last Mile Data for Single-Piece First-Class Mail for Quarter 3 of Fiscal Year 2016, August 11, 2016
FY 2016, Quarter 4
Library Reference USPS-LR-PI2015-1/5 USPS Proposed Internal Service Performance Measurement System Data For Quarter 4 of Fiscal Year 2016, November 21, 2016
FY 2017, Quarter 1
Library Reference USPS-LR-PI2015-1/6 - USPS Proposed Internal Service Performance Measurement System Data For Quarter 1 of Fiscal Year 2017, February 16, 2017 Notice of Errata of the United States Postal Service Concerning the Filing of Library Reference USPS-LR-PI2015-1/6, February 17, 2017
FY 2017, Quarter 2
Library Reference USPS-LR-PI2015-1/10 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2017, May 11, 2017 Notice of the United States Postal Service of Filing Revised Version of Library Reference USPS-LR-PI2015-1/10 -- Errata, June 1, 2017
FY 2017, Quarter 3
Library Reference USPS-LR-PI2015-1/11 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 3 of Fiscal Year 2017, September 29, 2017
FY 2017, Quarter 4
Library Reference USPS-LR-PI2015-1/12 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 4 of Fiscal Year 2017, December 13, 2017
FY 2018, Quarter 1
Library Reference USPS-LR-PI2015-1/13 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 1 of Fiscal Year 2018, February 21, 2018
FY 2018, Quarter 2
Library Reference USPS-LR-PI2015-1/14 - USPS Proposed Internal Service Performance Measurement System Data for Quarter 2 of Fiscal Year 2018, May 23, 2018