

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

Periodic Reporting
(Proposal Eleven)

Docket No. RM2016-1

CHAIRMAN'S INFORMATION REQUEST NO. 1

(Issued October 30, 2015)

To clarify the Postal Service's petition to consider a change in analytical principles, filed October 7, 2015,¹ the Postal Service is requested to provide written responses to the following questions. Answers to each question should be provided as soon as they are developed, but no later than November 9, 2015.

1. The Postal Service states that "digital letter mail estimates utilizing the ratio estimator applied to the digital letter mail sampling frame would be combined with direct expansion estimates from the non-digital sampling frame." Petition at 2.
 - a. Please confirm that the proposed ratio estimator will be applied only to the Mail Exit Points (MEPs) transitioned to digital sampling.² If not confirmed, please explain how the ratio estimator will be applied to MEPs, and the rationale for the change.
 - b. Please provide a detailed description or an illustrative example of the proposed procedure for combining the estimates from digital and non-digital sampling frames.

¹ Petition of the United States Postal Service Requesting Initiation of a Proceeding to Consider a Proposed Change in Analytical Principles (Proposal Eleven), October 7, 2015 (Petition).

² See Docket No. RM2015-11, Order No. 2739, Order on Analytical Principles Used in Periodic Reporting (Proposal Three), September 30, 2015, at 3.

2. The Postal Service states that “[f]or each MEP assigned to the digital letter mail sampling frame, auxiliary information was obtained as to what portion of its delivery points were business related. The auxiliary information is maintained by Delivery Operations by route and zone. Five strata were defined based on this proportion.” Petition at 7.
 - a. Please provide the proportions for each of the five defined strata and the number of sample areas.
 - b. Please provide the methodology for the stratification of Delivery Operations by routes and zones.
3. The Postal Service states that “[p]roportions of business delivery points (BDP) to total delivery points are computed for all digital MEPs and divided into 5 groups based on BDP values.” *Id.* Appendix A at 2. Please define the term “BDP values.” *Id.*
4. For each digital MEP, the Postal Service categorizes a delivery point as “residential or business.” *Id.*
 - a. Please identify the source (*e.g.*, Address Management System or special study) used to distinguish between business and residential delivery points in the proposed stratification.
 - b. Please provide the rationale for not breaking down delivery points further into additional groups (*e.g.*, City Carrier delivery, Rural Carrier delivery, PO Boxes, and Highway contract routes).
5. Based on coefficient of variation (CV), the Postal Service forecasts a reduction of 15-20 percent in volume and 5-10 percent in revenue for First-Class Single-Piece. *Id.* at 10.

- a. Please provide the data and calculations underlying the development of these CVs and conclusions.
- b. Please provide a numerical example of the calculation of the ratio estimator.

6. The Postal Service provides estimates for the “critical correlation” and “actual correlation” calculated by period in FY 2015. It states “that the ratio estimator will have a lower variance than the expansion estimator if and only if

$$\rho \geq \frac{1}{2} \frac{(\text{CV of average EOR count})}{(\text{CV of average revenue of 1-C SP})} \quad (3.10),”$$

where, “CV” is a coefficient of variation; “EOR” means End-of-Run, “1-C SP” represents First-Class Single-Piece [Mail], and “ ρ ” is the actual correlation between “EOR count” and “1-C SP revenue.” *Id.* The Postal Service explains that “we respectively call the left-hand and the right-hand sides of the inequality [3.10] ‘actual correlation’ and ‘critical correlation’ [between ‘EOR count’ and ‘1-C SP’ revenue].” *Id.*

- a. Has the Postal Service conducted any type of sensitivity analysis to determine the scale of potential variation in the correlation estimates using different postal quarters and/or fiscal years? Please provide the results of such analysis, if available.
 - b. Please confirm whether the Postal Service has considered the possibility that the inequality (3.10) may be invalid under certain conditions and/or in a certain period. Please explain the rationale for your response.
7. The Postal Service expects “some reduction in variance through stratification based on BDP.” *Id.* Please provide the rationale for this statement.

8. Please provide a table with coefficients of variation, critical correlations, and actual correlations for the prior three quarters for “US Postal Service mail” and “Free Mail” included in second-pass operations.

9. The Postal Service states that the proposed estimator is asymptotically unbiased. *Id.* at 6.
 - a. Please provide the expected number of pieces to be sampled at an MEP by strata by day.
 - b. Please provide the number of tests to be allotted for a stratum.

By the Acting Chairman.

Robert G. Taub