

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

PERIODIC REPORTING
(PROPOSAL THREE)

Docket No. RM2015-11

PETITION OF THE UNITED STATES POSTAL SERVICE REQUESTING
INITIATION OF A PROCEEDING TO CONSIDER A PROPOSED CHANGE
IN ANALYTICAL PRINCIPLES (PROPOSAL THREE)
(July 14, 2015)

Pursuant to 39 C.F.R. § 3050.11, the Postal Service requests that the Commission initiate a proceeding to consider a proposal to change analytical principles relating to the Postal Service's periodic reports. The proposal, labeled Proposal Three, is discussed below, and in greater detail in the attached text.

Proposal Three seeks authorization to change the methodology for estimating shape and weight for a portion of the Origin-Destination Information System - Revenue, Pieces and Weight (ODIS-RPW) sampling frame relating to sampling of letters and cards. Beginning Q2 FY2016, the Postal Service proposes to replace ODIS-RPW system manual data collection at some letter Mail Exit Points (MEPs) with an automated selection of digital images selected from the incoming secondary Delivery Barcode Sequencing (DBCS) second pass operation. Mail processed on the second pass is termed Delivery Point Sequenced, or DPS mail. The digital images captured would provide much necessary data, but would not have information on the shape (letter or card) or the weight of the sampled mailpieces. The proposed RPW methodology would use the weight and shape information from DPS mail that is captured at remaining letter

Mail Exit Points where manual data collection will continue as a distribution key for the mail that is captured digitally. Three mail categories would be affected for RPW reporting: First-Class Mail single-piece cards, First-Class Mail single-piece stamped letters, and First-Class Mail single-piece metered letters. Nine rate cells would be affected for special weight volume reporting.

The Postal Service requests that the Commission initiate a rulemaking proceeding pursuant to 39 C.F.R. § 3050.11 to consider this proposal.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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PROPOSAL THREE

PROPOSED CHANGE IN RPW METHODOLOGY FOR SHAPE AND WEIGHT ON DIGITALLY-COLLECTED ODIS-RPW MAILPIECES

OBJECTIVE:

This proposal seeks a change in the methodology in the “Revenue, Pieces and Weight By Class and Special Services” (RPW) report for estimating the shape and weight of letter and card mailpieces that would be sampled digitally from the Origin-Destination Information System - Revenue, Pieces and Weight (ODIS-RPW) system. Under this proposal, beginning Q2 FY2016 (January 1, 2016), a portion of the letter Mail Exit Points (MEPs) would be identified as eligible for sampling digitally (digital images). These images would be selected during the incoming second-pass delivery barcode sequence (DBCS) mail processing operation and transmitted to a central server for data recording. This process would replace manual data collection, which currently requires a data collector to travel to the test site and then randomly sample the mail from containers. Manual data collection by a data collector can be referred to as “live” ODIS-RPW testing. All characteristics of a live mailpiece can be collected from an image of that mailpiece except for weight and letter and card shape. The Postal Service proposes to apply a distribution key from the machinable letters tested live to the letters tested digitally.

BACKGROUND:

RPW Reporting

Regulatory reporting of revenue, pieces and weight is presented in the RPW report filed quarterly with the Postal Regulatory Commission (Commission), in

PROPOSAL THREE

accordance with Commission Rule 3050.25. The RPW system used to develop this report was discussed in detail in witness Pafford's testimony (USPS-T-3) in Docket No. R2006-1. Revenue, pieces and weight data for Postal Service products are obtained through various source systems, one of which is the ODIS-RPW probability sampling system (Docket No. R2006-1, Library References USPS-LR-L-16 and USPS-LR-L-17).

ODIS-RPW Probability Sampling System

The ODIS-RPW system is a probability-based destinating mail sampling system used to support the Postal Service's many and varied business needs for mail revenue and volume information. ODIS-RPW primarily supplies official RPW estimates of revenue, volume and weight for single-piece stamped and metered indicia mail.

ODIS-RPW data collectors travel to randomly-selected Mail Exit Points (MEPs) on randomly-selected days, and randomly sample mail as it arrives at the delivery units. Container and mailpiece skip sampling procedures are applied to the mail containers. Data collectors record mail characteristics from sampled mailpieces, including revenue, pieces, weight, mail class, subclass, and indicia. One of the characteristics recorded is whether the mailpiece was found in a letter tray marked as processed on the delivery point sequencing (DPS) second-pass DBCS operation. These mailpieces are termed DPS mail.

Under our proposal, beginning in fiscal year 2016 quarter 2 (January 1, 2016), a portion of the letter MEPs would be assigned to continue with the procedures described

PROPOSAL THREE

above, which for the purposes of this filing will be called “live” mail testing. The remaining portion of letter MEPs would be assigned to digital sampling.¹

PROPOSAL:

The proposed RPW methodology would use the DPS mail weight and shape information from live mail ODIS-RPW tests as a distribution key for the mail that is captured digitally which is missing shape and weight information. The proposed methodology would isolate mailpieces from live testing, and then apply their characteristics to the digitally-sampled mailpieces.

RATIONALE:

The letter and card population that runs on the DBCS machine is relatively homogenous. By machine design, mailpieces that weigh more than 3.5 ounces cannot run on these machines and therefore are excluded from this population. Three mail categories will be affected for RPW reporting: First-Class Mail single piece cards, First-Class Mail single piece stamped letters, and First-Class Mail single piece metered letters. Nine rate cells will be affected for special weight reports that break out mail volume by weight increments.

¹ Digital sampling methodology sends images of mailpieces processed on the second pass DBCS operation for selected 5-digit zones at predefined sampling intervals to a central server. ODIS-RPW data collectors will view these images from a new software application called SP VIEW software and enter their mail piece characteristics into their CODES data collection software as they do for live mail. Cost savings can be obtained, as travel time and on-site time for the data collectors are eliminated. In addition, potential data quality issues having to do with mail isolation and mail piece skipping issues can be improved or eliminated.

PROPOSAL THREE

IMPACT:

The impact of the proposed methodology change was measured by analyzing ODIS-RPW product category and weight distribution estimates for the last nine months of data (Q4 FY2014 through Q2 FY2015). Distribution keys for shape and weight were first calculated using sampled pieces from MEPs that will continue to be tested live after digital implementation for the nine month period, and then those distribution keys were applied to pieces sampled at MEPs that would have used the digital sampling method, had that been in effect. National estimates were compared under the proposal against the current ODIS-RPW estimates.

Building the Distribution Keys for the Impact Analysis

First, all DPS mailpieces identified in the sample were isolated. Next, ODIS-RPW estimates were constructed for two groups: those tests that would have been digital, and those tests that would have been conducted live. Finally, several metrics were calculated for the two groups by indicia, shape, and weight, which are shown in Tables 1 through 3, below. These metrics include a shape percentage distribution key (Tables 1 and 2), and average weight per piece (Table 3) for the live mail tests. These live mail test distributions are used to model the impacts. Also shown for comparison purposes are the metrics for the digital tests, although they are not directly used in the analysis except to the extent that they are implicitly reflected in the current methodology.

PROPOSAL THREE

Table 1

Percent of Revenue by Shape, Indicia, and Live vs. Digital Split – Quarter 4 FY14 through Quarter 2 FY15

	Stamps Indicia		Meter Indicia	
	Live	Digital	Live	Digital
Card	3.9%	4.1%	2.5%	2.3%
Letter	96.1%	95.9%	97.5%	97.7%
Total	100.0%	100.0%	100.0%	100.0%

Table 2

Percent of Volume by Shape, Indicia, and Live vs. Digital Split – Quarter 4 FY14 through Quarter 2 FY15

	Stamps Indicia		Meter Indicia	
	Live	Digital	Live	Digital
Card	5.3%	5.7%	3.5%	3.3%
Letter	94.7%	94.3%	96.5%	96.7%
Total	100.00%	100.00%	100.0%	100.0%

Table 3

Ounces/Piece by Shape, Indicia, and Live vs. Digital Split – FY14 Quarter 4 FY14 through Quarter 2 FY15

	Stamps Indicia		Meter Indicia	
	Live	Digital	Live	Digital
Card	0.10	0.10	0.10	0.10
Letter	0.48	0.50	0.54	0.55
Total	0.46	0.48	0.53	0.53

Note that the distributions by shape and the average weight per piece vary slightly by indicia; that is, stamped mail versus metered mail. Therefore, these are considered separately in the analysis below. Also, Table 3 includes the weight per piece comparison for cards; however, cards are not currently weighed in ODIS-RPW sampling. Cards are assigned 0.10 ounces per piece during data processing, and this would continue once digital sampling is implemented.

PROPOSAL THREE

Impact Analysis on ODIS-RPW Estimates used in RPW

The next analysis was to re-compute the estimates for the three ODIS-RPW mail categories that are used in the RPW report using the live mail characteristics as a distribution key. The methodology for splitting the revenue and pieces was to use the percent splits from the mail tested live and apply those to the mail that would be tested digitally. For example, as seen in Table 1, in the past nine months, 2.5 percent of the revenue for metered pieces tested live came from cards; therefore, 2.5 percent of the revenue for metered pieces that would be tested digitally was assigned to cards and the rest to letters. The same calculation was done for stamped letters versus cards. Then the two card estimates are added together to get the final card revenue.

In the same time period, according to Table 2, 3.5 percent of the volume for metered pieces tested live came from cards. This split was then applied to the total number of metered pieces that would be tested digitally to get the volume shares for metered letters and cards. The same was done for stamped pieces, and the metered and stamped card estimates were added to come up with the total card volume.

For weight, the methodology was slightly different, since there will be no total weight in the digital environment. Instead, the average weights per piece from the mail tested live, seen in Table 3, was multiplied by the number of pieces that were tested digitally to come up with total weight estimates for the digital mail.

Table 4 displays the percent difference of revenue, pieces, and weight by product resulting from use of the new methodology versus the current methodology. The first thing to notice in this table is the estimated revenue and piece totals do not change using the proposed methodology; the percent difference between the proposed and

PROPOSAL THREE

current estimates is zero. This is because the total revenue and pieces are known with both methodologies; the only change is the distribution among product categories affected by the use of the live mail testing distribution keys. However, the overall weight does decline because there is no control total for weight. Nevertheless; the total change is small, at less than 1 percent of the original weight estimate.

A comparison of the impact on the product estimates at the national level for all mail, the level which is used in the RPW report, shows differences of less than 1 percent, except for weight for First-Class Mail single-piece stamped letters of 1.1 percent. The impact to the RPW report revenue, pieces and weight for these categories is minimal.

Table 4

Estimated percent difference between current and proposed methodology – Q4 FY14 through Q2 FY2015

	Total Quarterly Estimates		
	Revenue 1/	Pieces	Weight
First-Class Mail single-piece cards	-0.6%	-0.8%	-0.8%
First-Class Mail single-piece stamped letters	0.1%	0.1%	-1.1%
First-Class Mail single-piece metered letters	-0.1%	-0.1%	-0.4%
Total	0.0%	0.0%	-0.8%

1/ DCT cannot read the revenue on less than 0.5% of pieces. In these instances, the average revenue per piece from the non-digital population will be assigned to that piece.

Impact Analysis on ODIS-RPW Estimates used in Special Weight Volume Reporting

The final analysis performed was to see how the Special Weight Volume Report would be affected by this change in methodology. For this analysis, the volume data were broken down further into the volume by each weight step. Table 5 shows the original split of sampled volume by weight step for this mail, and the split under the proposed methodology using the distribution key from the live letter tests. As in the

PROPOSAL THREE

previous analysis, the total number of pieces is the same for both methodologies. The only difference is the split among the different weight steps. The overall impact is small; the largest categories (0 to 1 oz) are minimally affected.

Table 5

Volume Estimates for Digital by Shape, Indicia, and Methodology – Quarter 4 FY14 through Quarter 2 FY15

	Stamps Indicia		Meter Indicia	
	ODIS-RPW	Proposed	ODIS-RPW	Proposed
Card				
0 to 1 oz	5.7%	5.3%	3.3%	3.5%
Letter				
0 to 1 oz	91.1%	91.7%	90.6%	90.5%
1 to 2 oz	3.1%	2.8%	5.4%	5.3%
2 to 3 oz	0.2%	0.2%	0.7%	0.6%
3 to 3.5 oz	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Overall, we believe this proposed change in methodology would have very little impact on the varied business needs the ODIS-RPW system supports; particularly, for the two needs described in detail in this report: the RPW report and Special Weight Report. The overall impact for these two reports is negligible, and the small differences noted do not outweigh the benefits of using digital sampling.