

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

PERIODIC REPORTING
(PROPOSALS THREE THROUGH EIGHT)

Docket No. RM2014-6

**RESPONSES OF THE UNITED STATES POSTAL SERVICE
TO QUESTIONS 1-8 OF CHAIRMAN'S
INFORMATION REQUEST NO. 1
(July 21, 2014)**

The United States Postal Service hereby provides its responses to Questions 1-8 of Chairman's Information Request No. 1, issued July 14 and revised July 15, 2014.

The questions are stated verbatim and followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorney:

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July 21, 2014

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1. In the original workpapers for Parcel Return Service Contract 4, the contract's costs were compared to the Return Network Distribution Center price category. See Docket Nos. MC2013-46/CP2013-60, Excel file "PRS4_Analysis_public.xlsx," tab 'Analysis,' column B. However, under Proposal 3, the workpapers compare the contract's costs with the Parcel Select Nonpresort price category. Please explain this discrepancy.

RESPONSE:

When the (PRS FullNetwork) NSA was originally filed, the contract costs were actually developed using specific cost components from two different sources. The cost model was based partially on the Parcel Select Nonpresort product for mail processing and transportation costs, and partially on the Return Network Distribution Center (RNDC) product for carrier pickup and Other costs. The reliance on Parcel Select Nonpresort for mail processing and transportation costs can be seen in the 'Input' tab in the nonpublic version of the Excel file referenced in the question. In the 'Analysis' tab, however, a single benchmark was used for illustrative comparison purposes, and at that time, the RNDC product, an existing Return product, was chosen. The choice of that benchmark for Column B, though, did not affect the actual calculation of the mail processing and transportation costs in Column D, which still were pulled from the 'Input' tab and based on the Parcel Select Nonpresort costs.

In current Proposal Three, the sources for each component of the cost model in Column D are unchanged, and so it is still the same combination of some costs from RDNC and some costs from Parcel Select Nonpresort. The only change in the proposed model is to add a further proportional adjustment of the transportation costs in order to recognize the smaller size of the contract pieces relative to current Parcel Select Nonpresort pieces. Since that proposed change was made in the transportation costs based on Parcel Select Nonpresort transportation costs, and since the most material

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inputs to the overall cost model are those transportation costs and the mail processing costs, which are also based on Parcel Select Nonpresort, it seemed more appropriate to change the illustrative benchmark in Column B to Parcel Select Nonpresort. As in the original model, however, the choice of the comparison benchmark in Column B had no effect on the actual model calculations (as reflected in Column D).

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2. [Please refer to the Library Reference USPS-RM2014-6/1.] Page 6 of the Report states: "the dataset for econometric analysis was drawn in the fourth quarter of FY2013."
- a. Please explain the reason for using the data particular for the fourth quarter of FY 2013.
 - b. Would the results be different if the Postal Service developed the dataset for an econometric analysis using data from any other quarter of the same year?
 - c. Has the Postal Service made any comparative econometric analyses using data from multiple quarters? If so, please provide such results. If the Postal Service has not performed any analysis of this kind, please explain why.

RESPONSE:

- a. The analysis does not use data for the fourth quarter of FY2013. As with previous analyses of purchased highway transportation costs, the contract cost segments used in the current analysis cover annual costs and annual transportation. They were extracted from the Postal Service's Transportation Cost Support System (TCSS) database in the fourth quarter of FY2013 because that was when the analysis was initiated.
- b. No. The data are at an annual frequency, not a quarterly frequency.
- c. There is no reason to do a comparative econometric analysis across quarters as the data are at an annual frequency.

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3. [Please refer to the Library Reference USPS-RM2014-6/1.] Table 1 on page 9 of the Report provides a comparison between the number of box contracts and transportation contracts from the FY 2013 dataset and Docket No. R2000-1.

- a. Please provide the exact source and methodology for the FY 2013 calculations of the number of box contracts and transportation contracts.
- b. In the SAS dataset tcss_fy13.sas there are five different route type codes and corresponding five different route type descriptions: (1) "box route", (2) "transportation", (3) "combination (transportation/box delivery)", (4) "combination (box delivery/transportation)", and (5) "trailer lease". (See a/so Technical Appendix, p. 68). Based on this information, the number of contract cost segments by each route type code/description is as shown in the following table:

Route Type Code	Route Type Description	# Contract Cost Segments
1	Box Route	6,393
2	Transportation	8,007
3	Combination (transportation/box delivery)	774
4	Combination (box delivery/transportation)	560
5	Trailer Lease	135
All	Total	15,869

Please explain the connection, if any, between the number of contract cost segments shown in the above table and the number of box/transportation contracts presented in Table 1 on page 9 of the Report.

RESPONSE:

- a. The source of the data is the Transportation Contract Support System (TCSS). For the highway transportation cost analysis, a box contract cost segment is defined as a contact cost segment that (1) has route type description of box route, combination(transportation/box delivery), or combination(box delivery/transportation), (2) it has a positive number of boxes, and (3) has a vehicle cube less than 300 cubic feet. This definition is implemented in the SAS code provided in the technical appendix. For example, the following code appears on pages 70 and 71 of that appendix:

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```
boxdum=0;
if routetypedesc = "BOX ROUTE" then boxdum=1;
if routetypedesc = "COMBINATION (TRANSPORTATION/BOX DELIVERY" then
boxdum=1;
if routetypedesc = "COMBINATION (BOX DELIVERY/TRANSPORTATION" then
boxdum=1;
if boxdum=1 and box > 0 then boxdum=1;
if boxdum=1 and box LE 0 then boxdum=0;
if boxdum=1 and avcube > 300 then boxdum=0;

title "Intra-District BOX";
data IntraDistrictBox; set IntraDistrict;
if boxdum=1;
```

b. The table provided in this question lists 15,869 contract cost segments.

Table 1 has 7,565 box contract cost segments and 8,304 transportation cost segments. The sum of those two numbers is 15,869 contract cost segments.

Table 1 represents the application of the box route definition provided in response to question 3.a. to the 15,869 contract cost segments.

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4. [Please refer to the Library Reference USPS-RM2014-6/1.] Pages 17, 25, and 26 of the Report provide the number of observations in the original/initial estimation (right column of Table 3 on page 17 and second column from the right of Table 4 on page 25), and remove the number of observations after unusual observations (right column of Table 5 on page 26).

- a. For some account sub-categories, the number of initial observations provided in Table 3 and Table 4 do not match. Thus, for Intra P&DC account category, type "VAN", the number of initial observations presented in Table 3 is 4,103, while the corresponding number presented in Table 4 is 4,098. Please explain the reason for the discrepancy and provide corrected tables, if applicable.
- b. For some account sub-categories, the number of observations left after unusual observations were removed (right column of Table 5) are not equal to the number of initial observations (either from Table 3 or Table 4) minus the number of unusual observations (right column of Table 4). Thus, for Intra P&DC account category, type "TT", the number of final observations shown in Table 5, is 767. The number of observations that were removed is 6 (see right column of Table 4). The number of initial observations should have been 773 (767+6). However, the number of the initial observations for Intra P&DC, type "VAN" shown in Table 3 is 774, and the corresponding number shown in Table 4 is 778. Please confirm which numbers are correct, explain the reason for the discrepancy, and provide corrected tables, if applicable.

RESPONSE:

- a&b. Essentially, Tables 3 and 5 are correct and consistent. The apparent discrepancy of one contract cost segment for the Intra P&DC TT account category between Table 3 and Table 5 arises because there is one observation in that category's data that has missing data. The issue is whether or not one counts that contract cost segment in the original dataset. There were also a few small typographical errors made in the production of Table 4 which leads to the apparent discrepancy. Please note that all of the numbers of observations for both the original regressions and the regression after unusual observations are removed are provided in the Program Output section in the Technical Appendix.

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Below is the correct set of Tables 3, 4, and 5.

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Table 3
Initial Estimates of Purchased Highway Contract Variabilities

Account Category	Type	Estimated Variability	Heteroscedastic Consistent t-statistic	Equation R2	# of Obs.
Intra P&DC	Box	0.245	6.81	0.418	216
Intra P&DC	City	0.617	18.46	0.865	359
Intra P&DC	Van	0.667	40.46	0.859	4,103
Intra P&DC	TT	0.880	49.82	0.852	773
 					
Intra District	Box	0.314	23.74	0.469	7,348
Intra District	City	0.714	11.17	0.728	105
Intra District	Van	0.621	34.87	0.856	550
Intra District	TT	0.866	9.74	0.968	30
 					
Inter P&DC	Van	0.544	8.25	0.744	174
Inter P&DC	TT	0.905	22.19	0.893	121
 					
Inter Cluster	Van	0.622	16.35	0.708	152
Inter Cluster	TT	0.892	33.31	0.945	222
 					
Inter Area	Van	0.448	6.02	0.689	162
Inter Area	TT	0.875	34.18	0.975	590
 					
Intra NDC	TT	0.972	17.19	0.896	305
Inter NDC	TT	0.922	26.56	0.982	121
Plant Load	TT	1.045	23.38	0.745	261

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Table 4
Unusual Observations By Account Category

Account Category	Type	Observations In Original Estimation	Identified Unusual Observations.
Intra P&DC	Box	216	3
Intra P&DC	City	359	3
Intra P&DC	Van	4,103	13
Intra P&DC	TT	773	6
 			
Intra District	Box	7,348	3
Intra District	City	105	5
Intra District	Van	550	1
Intra District	TT	30	3
 			
Inter P&DC	Van	174	5
Inter P&DC	TT	121	4
 			
Inter Cluster	Van	152	2
Inter Cluster	TT	222	5
 			
Inter Area	Van	162	6
Inter Area	TT	590	5
 			
Intra NDC	TT	305	9
Inter NDC	TT	121	5
Plant Load	TT	261	2

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Table 5
Estimates of Purchased Highway Contract Variabilities With Unusual
Observations Removed

Account Category	Type	Estimated Variability	Heteroscedastic Consistent t-statistic	Equation R2	# of Obs
Intra P&DC	Box	0.242	6.59	0.411	213
Intra P&DC	City	0.667	37.33	0.886	356
Intra P&DC	Van	0.709	118.37	0.901	4,090
Intra P&DC	TT	0.890	61.36	0.911	767
 					
Intra District	Box	0.309	28.26	0.493	7,345
Intra District	City	0.724	17.21	0.806	100
Intra District	Van	0.635	44.99	0.862	549
Intra District	TT	0.856	10.04	0.860	27
 					
Inter P&DC	Van	0.611	18.15	0.846	169
Inter P&DC	TT	0.938	25.80	0.927	117
 					
Inter Cluster	Van	0.659	28.71	0.891	150
Inter Cluster	TT	0.933	40.56	0.946	217
 					
Inter Area	Van	0.466	9.51	0.673	156
Inter Area	TT	0.918	62.77	0.983	585
 					
Intra NDC	TT	0.949	57.01	0.951	296
Inter NDC	TT	0.947	35.62	0.985	116
Plant Load	TT	1.013	25.58	0.772	259

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5. [Please refer to the Library Reference USPS-RM2014-6/1.] Please refer to the file entitled "Tech.Append.Hwy.Variab.Updat." This file shows that many of the regressions produce significant, negative coefficients for the route length variables— $\ln RL$, $\ln RL^2$, or $\ln CFM \ln RL$.
- a. Please explain why route length variables are negatively related to highway transportation cost. If the negative coefficients reflect line-haul taper, what types of costs, e.g., load/unload or billing, are being spread over more and more miles?
 - b. Please explain why the coefficients for route length are sometimes negative and sometimes positive, depending on the regression.
 - c. Please explain whether the inconsistency of coefficient signs for route length variables across regressions suggests that a production function other than the translog might yield more consistent results across regressions.
 - i. If so, please explain whether other production functions were tested, provide the SAS programs for them, and explain why they were rejected.
 - ii. If other production functions were not tested, please explain why not.

RESPONSE:

- a. The route length variable was first included by the Commission in its Opinion and Recommended Decision in Docket No R87-1 to account for the distance taper. The types of costs that are spread over additional miles are any contractor costs which are relatively fixed with respect to distance. Examples include the waiting time for the driver as the vehicle is loaded and unloaded, and administrative costs associated with operating the contract.
- b. First, it is important to recognize that in a mean-centered translog function, the sign of the impact of a right-hand-side variable on the dependent variable is entirely captured by the sign on the first-order term for that variable. The following table presents the sign of the first order terms from the various regressions:

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Account Category	Type	Sign on Route Length
Intra P&DC	Box	Positive
Intra P&DC	City	Negative
Intra P&DC	Van	Negative
Intra P&DC	TT	Negative
Intra District	Box	Positive
Intra District	City	Negative
Intra District	Van	Negative
Intra District	TT	Negative
Inter P&DC	Van	Negative
Inter P&DC	TT	Negative
Inter Cluster	Van	Negative
Inter Cluster	TT	Negative
Inter Area	Van	Positive
Inter Area	TT	Negative
Intra NDC	TT	Negative
Inter NDC	TT	Negative
Plant Load	TT	Negative

Review of this table shows that there are just three instances in which route length has a positive impact on costs and two of those instances are for box contracts. This makes sense, as these are not transportation contracts but delivery contracts in which the contractor is paid for the additional miles he or she must cover when delivering the mail to roadside boxes. This means of the 15 transportation equations, only one has a potentially "inconsistent" sign. Further review of the table shows that the equation with a positive sign is for Inter Area

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Van transportation which, as demonstrated by Table 2 in the Report on Updating the Cost-to-Capacity Variabilities for Purchased Highway Transportation (page 16), is short-haul transportation. There is a much smaller, if any, distance taper for short-haul transportation so this result is not surprising or inconsistent.

c. There is no inconsistency in coefficient signs for route length, and the results indicate that the translog equation is performing well for this estimation, as it did in Docket No. R87-1, Docket No. R97-1 and Docket No. R2000-1. Also, please be aware that a translog function is a flexible functional form. That is, it is a second order approximation to the true, but unknown, underlying cost function. As a consequence of this flexibility, the translog specification is widely used for estimating cost functions, including those in the area of transportation. Because of the reasonableness of the results and because the Commission has adopted the translog specification for estimating transportation cost equation in three rate cases, no need for the use of other functional forms was identified, and no other functional forms were estimated.

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6. Please refer to Excel file "PROP.7.USPS-FY13-13.xlsx," tab 'CR Dist Key.' The Petition, Proposal 7 at 3 states that the Postal Service proposes to correct the Basic Carrier Route volume and weight data that were used in Docket No. ACR2013, Library Reference USPS-FY13-13.
- a. Please confirm that the data provided in tab 'CR Dist Key' are the same as the original data reported in Library Reference USPS-FY13-13.
 - b. If confirmed, please provide a revised Excel file PROP.7.USPS-FY13-13 that incorporates the proposed corrections to the Basic Carrier Route volume and weight data. If not confirmed, please explain.
 - c. Please refer to Excel file "PROP.7.USPS-FY13-13.xlsx," tabs 'Sack Inputs P,' 'Pallet Inputs P,' and 'Entry Profile P.' Please explain why the distribution of total Standard Mail pounds displayed in 'Entry Profile P' is used as the input percentages for both 'Sack Inputs P' and 'Pallet Inputs P.'

RESPONSE:

- a. Confirmed.
- b. During the development of the Proposal Seven documentation, the Basic Carrier Route volume and weight data in the model (which were intended to be and actually were the Fiscal Year 2013 Basic Carrier Route volume and weight data) were incorrectly compared to the volume and weight data for Fiscal Year 2012 (under the mistaken impression that those FY 2012 data were the FY 2013 data). When the two sets of data did not match, this led to the erroneous conclusion that the model was not using the correct FY 2013 data. In fact, the model was using the correct FY 2013 data, and it was instead the comparison data set which was wrong (in the sense that it was FY 2012 data, rather than FY 2013 data). This confusion led to the identification of an "error" where, in fact, there was no error in the model. The usage of incorrect Basic Carrier Route data should therefore not have been listed as an error in the Proposal Seven documentation, there was no need for any correction to the original data in the model, and there are no "corrected" data to be incorporated into the model.

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c. The distribution of total Standard Mail pounds was used in error in both the 'Sack Inputs P' and the 'Pallet Inputs P' tabs. The 'Sack Inputs P' tab should rely on the distribution of Standard Mail pounds for non-palletized sacks only (column E in the 'Entry Profile P' tab). The 'Pallet Inputs P' tab should rely on the distribution of Standard Mail pounds for all palletized parcels (columns B, C, and D in the 'Entry Profile P' tab). These errors have been corrected in the file 'ChIR1.Q6.Rev.PROP.7.13.xlsx,' attached to this response electronically. As shown on the 'Summary' tab of that file, however, correction of these errors does not alter the estimated cost avoidances.

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7. Regarding Proposal 8, the Postal Service proposes to convert from IOCS tallies to POS volume data for the distribution of tracking costs.
 - a. Please provide the FY 2013 IOCS tallies for tracking by class/product, and the total tallies.
 - b. Please provide the FY 2013 POS volumes with tracking by class/product, and the total volume.

RESPONSE:

- a.-b. The materials requested have been provided in two versions. The public version (showing full detail on Market Dominant products) is provided as part of USPS-RM2014-6/2. The nonpublic version (showing full detail on Market Dominant and Competitive products) is filed under seal as part of USPS-RM2014-6/NP5.

IOCS tally data at the window are on sheet pivotWIN. Column C shows the total dollar-weighted tallies by class/product from the FY2013 ACR. Column D has the tallies if there had been no encirclement to Delivery Confirmation. Column E shows tallies that were encircled to Delivery Confirmation in the FY2013 ACR¹.

POS volume data, with and without paid Delivery Confirmation / Tracking, are on sheet POSData.

¹ Comparable data are also available for mail processing (sheet pivotMP) and for carriers (pivotCARR).

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8. The following questions refer to the non-public USPS library reference titled: USPS-RM2014-6/NP4, file name - "NP4.Prop.8.Nonpublic.Materials.xls".
- a. Please provide electronic workpapers that provide the derivation of the figures contained in worksheet "IOCS Changes": column "B" rows 5 through 13, column "E" rows 5 through 13, and column "B" rows 20 through 29. Include in your response any underlying distribution keys relied upon and specific cites to the data sources.
 - b. Please provide electronic workpapers that provide the derivation of the figures contained in the worksheet "CS 7 & 10 Changes": column "D" rows 9 through 58, and columns "G and H", rows 9 through 58. Include in your response any underlying distribution keys relied upon and specific cites to the data sources.
 - c. Please provide the FY 2013 tallies for tracking by class/product, and the total tallies used to distribute costs in the current procedure.
 - d. Please explain how the shift in distribution from using IOCS tallies to POS data leads to an increase in the cost of the tracking special service.

RESPONSE:

a.-c. The materials requested have been provided in two versions. The public version is provided as part of USPS-RM2014-6/2. The nonpublic version is filed under seal as part of USPS-RM2014-6/NP5.

For part a., workbook "IOCSDelConChanges.xlsx" provides the derivation for the data in sheet "IOCS Changes".

For part b., please refer to the Preface for the listing of relevant workbooks and processes used to respond to the question.

For part c., the data are provided in sheets pivotMP, pivotWIN and pivotCARR. Column C shows the total dollar-weighted tallies by class/product from the FY2013 ACR. Column D has the tallies if there had been no encirclement to Delivery Confirmation. Column E shows tallies that were encircled to Delivery Confirmation in the FY2013 ACR.

- d. Because USPS Tracking was initially available at no additional charge, IOCS did not encircle (i.e., assign to Other Ancillary Services) the cost for pieces with just the "USPS Tracking" marking, only pieces with Delivery

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Confirmation. IOCS has continued to attempt to encircle only pieces with paid Tracking. However, as mentioned in the proposal, it is now difficult for data collectors to identify whether additional revenue for the service was received. Thus, the percentage of pieces encircled is smaller than the percentage of pieces with USPS Tracking barcodes. It is also smaller than the percentage of the volume of pieces with paid Tracking recorded by POS, leading to the increase in cost for Tracking when using POS data.