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

PERIODIC REPORTING (PROPOSAL SEVEN)	Docket No. RM2021-1

PETITION OF THE UNITED STATES POSTAL SERVICE FOR THE INITIATION OF A PROCEEDING TO CONSIDER PROPOSED CHANGES IN ANALYTICAL PRINCIPLES (PROPOSAL SEVEN)
(November 9, 2020)

Pursuant to 39 C.F.R. § 3050.11, the Postal Service requests that the Commission initiate a rulemaking proceeding to consider a proposal to change analytical principles relating to the Postal Service's periodic reports. The proposal, relating to updating the volume variability factors (variabilities) for certain types of purchased highway transportation contracts, is labeled Proposal Seven and is discussed in detail in the attached text.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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Proposal Seven: Updating Transportation Variabilities to Account for Operational Changes

Objective:

The objective of this proposal is to update and improve the variabilities for purchased highway transportation to reflect recent operational changes. This is accomplished through an analysis of the operational changes and through the estimation or re-estimation of the affected highway transportation variability equations.

Background

In recent years, there have been two major operational changes in the Postal Service's highway transportation network. First, the Postal Service has increased its reliance on additional highway transportation during the seasonal volume peak. Second, the Postal Service has introduced a new type of highway contract, called a Dynamic Route Optimization contract. This new type of contract changes both the way highway transportation capacities are specified and how contractors are compensated. Both of these operational changes are large enough to qualify as what the Commission has termed "major structural reorganizations," and in that sense, they are sufficient to justify investigation of possible change in highway variabilities:[1]

> Finally, to ensure that variabilities of purchased highway transportation cost reflect the current Postal Service transportation network structure, the Commission suggests the Postal Service update its variabilities the earlier of every 10 to 15 years or following completion of any major structural reorganization.

[1] *See*, Postal Regulatory Commission, Order No. 3973, Docket No. RM2016-12, June 22, 2017, at 40.

Proposal

The proposal is summarized below, but a full discussion of the research supporting the proposal is provided in a report by Professor Michael D. Bradley, electronically attached to this Petition as a separate pdf file. Also provided separately, in USPS-RM2021-1-1, are the operational data, the SAS programs and Excel files employed, and the econometric results. Further materials providing additional detail on competitive products are provided under seal in USPS-RM2021-1-NP1.

In recent years, the cost incurred for Christmas contracts has increased substantially. In Fiscal Year 2014, the cost of Christmas highway transportation was just $83 million, but in Fiscal Year 2019, total Christmas highway transportation cost had increased to $285.6 million. This increase in accrued cost suggests that it is appropriate to investigate whether the current variabilities applied to accrued Christmas account costs should be revised.

The data required to estimate cost-to-capacity variabilities for Christmas transportation are available from the same source that was used to estimate the established cost-to-capacity variabilities for regular transportation, the Transportation Contract Support System (TCSS). The structure of Christmas transportation contracts supports estimation of four variability equations: one for Christmas Intra SCF van transportation, one for Christmas Intra SCF tractor trailer transportation, one for Christmas Inter SCF transportation, and one for Christmas NDC transportation. All of the estimated Christmas variability equations followed the established methodology, including correction for heteroscedasticity and identification and removal of a very small number of anomalous and unduly influential observations. The variabilities estimated

for Christmas transportation are provided in Table 1. In all instances, the proposed new variabilities are above the current established variabilities.

Table 1
Final Estimates of Christmas Purchased Highway Transportation Variabilities

Account Category	Type	Estimated Variability	Heteroscedastic Consistent t-statistic	Equation R^2	# of Obs.
Intra SCF	Van	0.953	47.98	0.926	416
Intra SCF	TT	0.964	44.15	0.935	501
Inter SCF	Both	0.953	49.30	0.979	541
Intra and Inter NDC	Both	0.952	28.53	0.984	88

Additionally, in Fiscal Year 2018, the Postal Service began replacing traditional Intra P&DC highway contracts with a new type of transportation contract at a substantial number of sites. These new contracts, called Dynamic Route Optimization (DRO) contracts have important differences from the traditional purchased highway transportation contracts. First, unlike regular contracts, DRO contracts do not have fixed routes. The routes travelled and number of stops made by a truck can change, depending upon the dynamics of volume flows. DRO contracts can experience varying departure times, lines of travel, and types of mail transported. Second, DRO contracts do not have fixed annual contract awards, but rather are paid on a per-mile rate. The per-mile rate is the same for all trips within a given contract cost segment.

In addition, the accrued costs of DRO contracts have risen substantially in a short period of time. In FY 2018, the Postal Service incurred $140 million in DRO

transportation costs, but in FY 2019, that amount increased to $391 million. Because DRO contracts have important differences from regular contracts, and the cost for DRO contracts has become material, it is appropriate to investigate whether DRO contracts have a variability that is similar to traditional contracts.

DRO variability equations were estimated on FY 2019 TCSS data. For all equations the established methodology was followed including correction for heteroscedasticity and identification and removal of a very small number of anomalous and unduly influential observations. The variabilities estimated for DRO transportation are provided in Table 2. The results indicate that DRO costs change in proportion to changes in DRO capacity and have a cost-to-capacity variability equal to 1.0.

Table 2
Final Estimates of DRO Highway Transportation Variabilities

Account Category	Type	Estimated Variability	Heteroscedastic Consistent t-statistic	Equation R2	# of Obs.
DRO	Van	0.980	30.22	0.985	41
DRO	TT	0.999	140.49	0.998	408
DRO	Both	1.003	141.92	0.998	450

The introduction of DRO contracts has materially shifted transportation out of the regular Intra P&DC transportation account and into the DRO account. Between Fiscal Year 2014 and Fiscal Year 2019, Intra SCF transportation cost grew by 21.2 percent, but Intra P&DC transportation cost fell by 15.8 percent. Yet the combined Intra P&DC and DRO cost increased by 18.8 percent.

The characteristics of transportation removed from Intra P&DC account may not be the same as the characteristics of transportation that remains in the account. This raises the possibility that the variability of the remaining Intra P&DC transportation may differ from the currently estimated value. To investigate that possibility, new variability equations were estimated for Intra P&DC transportation, including equations for Intra City, van, and tractor trailer transportation.

For all equations the established methodology was followed, including correction for heteroscedasticity and identification and removal of a very small number of anomalous and unduly influential observations. The variabilities estimated for Intra P&DC transportation are provided in Table 3. In all instances, the proposed new variabilities are above the current established variabilities.

Table 3
Final Estimates of Intra P&DC Highway Transportation Variabilities

Account Category	Type	Estimated Variability	Heteroscedastic Consistent t-statistic	Equation R^2	# of Obs.
Intra P&DC	City	0.693	30.74	0.875	246
Intra P&DC	Van	0.781	82.17	0.869	2507
Intra P&DC	TT	0.915	54.45	0.954	577

Impact

Since the purchased highway cost-to-capacity variabilities were last estimated, there have been two material operational changes: an increase in the amount of seasonal highway transportation used and the introduction of dynamic routing optimization contracts in Intra P&DC transportation. Both of these operational changes have caused changes in certain cost-to-capacity variabilities, specifically for Christmas transportation, DRO transportation, and Intra P&DC transportation. In all three cases, estimation of these variabilities has resulted in higher overall variabilities and higher attributable costs.

Table 4

Impact of Proposed Variabilities on Market Dominant, Competitive, and International Transportation Costs (Millions of Dollars)

Product Type	Impact of Higher Christmas Variabilities	Impact of Higher DRO Variabilities	Impact of Higher Intra P&DC Variabilities	Combined
Domestic Market Dominant	$16.7	$50.7	$20.1	$87.5
Domestic Competitive	$18.4	$57.4	$22.9	$98.7
International	$1.4	$2.8	$1.1	$5.2
Total	**$36.5**	**$111.0**	**$44.1**	**$191.5**

Although the absolute dollar increase in competitive attributable cost is larger than the absolute dollar increases in market dominant attributable cost, the percentage increases are about the same, because competitive products had a somewhat higher established highway transportation cost in FY 2019. Both the DRO and Intra P&DC

variability increases affect local transportation costs, so products that have a relatively high proportion of their highway cost in local accounts, like high density and saturation products, will have a relatively high percentage increase. Products with a relatively low proportion of their highway costs in local transportation, like package services, will have smaller percentage increases.

Table 5 presents the impact of the higher variabilities on unit transportation costs.[2] Most market dominant products have relatively low transportation costs to start with, so their unit cost increases are modest. Package service unit transportation costs increase by about 0.7 cents and competitive product unit cost increases by 1.8 cents.

[2] The unit cost increases for individual competitive products are presented in the non-public folder USPS-RM2021-1-NP1.

Table 5
Impacts on Unit Transportation Costs

PRODUCT	Existing Unit Cost	New Unit Cost	Change in Unit Cost
Single-Piece Letters	$0.0146	$0.0157	$0.0010
Single-Piece Cards	$0.0124	$0.0133	$0.0008
Presort Letters	$0.0068	$0.0072	$0.0004
Presort Cards	$0.0047	$0.0049	$0.0003
Single-Piece Flats	$0.1357	$0.1459	$0.0102
Presort Flats	$0.0677	$0.0707	$0.0030
Total First-Class Mail	**$0.0113**	**$0.0120**	**$0.0008**
H.D. & Saturation Letters	$0.0009	$0.0011	$0.0001
H.D.& Saturation Flats/Parcels	$0.0010	$0.0012	$0.0001
Carrier Route	$0.0084	$0.0092	$0.0008
Letters	$0.0040	$0.0042	$0.0002
Flats	$0.0366	$0.0391	$0.0025
Parcels	$0.1591	$0.1686	$0.0095
Total USPS Marketing Mail	**$0.0053**	**$0.0057**	**$0.0004**
In County	$0.0002	$0.0002	$0.0000
Outside County	$0.0405	$0.0431	$0.0026
Total Periodicals	**$0.0361**	**$0.0385**	**$0.0023**
Bound Printed Matter Flats	$0.0402	$0.0432	$0.0030
Bound Printed Matter Parcels	$0.0571	$0.0609	$0.0038
Media/Library Mail	$1.1006	$1.1370	$0.0364
Total Package Services	**$0.1845**	**$0.1922**	**$0.0077**
US Postal Service	$0.0790	$0.0829	$0.0039
Free Mail	$0.0770	$0.0800	$0.0030
Total Domestic Market Dominant	**$0.0098**	**$0.0104**	**$0.0006**
Total Domestic Competitive	**$0.2658**	**$0.2837**	**$0.0179**
Total International Mail	**$0.7921**	**$0.8237**	**$0.0316**