

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

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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 1997

Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS LION TO INTERROGATORY OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS-T24-59)

The United States Postal Service hereby provides the response of witness Lion to the following interrogatory of the Office of the Consumer Advocate: OCA/USPS-T24-59, filed on August 15, 1997. Interrogatories OCA/USPS-T24-48-58 were redirected to the Postal Service.

The interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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August 29, 1997

OCA/USPS T-24-59. Please refer to your response to OCA/USPS-T24-21, Table 13 of your testimony, and to LR-H-216.

- a. Please provide post office box [S]pace [S]upport, [S]pace [P]rovision and [A]ll [O]ther costs by CAG.
- b. Please confirm that file RENT.DATA of H-216 contains neither post office box space support costs nor all other attributable costs for post office boxes by CAG. If you do not confirm, please list the variables that provide these costs on the file RENT.DATA.
- c. Please confirm that file BOXES.DATA of H-216 contains neither post office box space support costs nor all other attributable costs for post office boxes by CAG. If you do not confirm, please list the variables that provide these costs on the file RENT.DATA.
- d. Your response to OCA/USPS-T24-21a states that the Table 13 attributable costs by CAG can be developed from the data in library reference H-216.
 - i. Please explain how to develop the FY98 TYBR space support costs for post office boxes by CAG from the data contained in library reference H-216. If these costs cannot be produced from data in library reference H-216, please provide all necessary data to produce these cost estimates. Please include an explanation of how to use any data provided to produce these cost estimates.
 - ii. Please explain how to develop the FY98 TYBR space provision costs for post office boxes by CAG from the data contained in library reference H-216. If these costs cannot be produced from data in library reference H-216, please provide all necessary data to produce these cost estimates. Please include an explanation of how to use any data provided to produce these cost estimates.
 - iii. Please provide the attributable costs by Cost Segment that would be included in the cost category of "All Other" costs for the FY98 TYBR. Please explain how the attributable costs by Cost Segment in the "All Other" cost category can be developed for post office boxes by CAG from the H-216 data. If these costs cannot be produced from data in library reference H-216, please provide all necessary data to produce these cost estimates. Please include an explanation of how to use any data provided to produce these cost estimates.

RESPONSE:

(a) As stated in the Response to OCA/USPS-T-24-21, the data to perform this calculation are available in USPS LR-H-216. See detailed instructions in part d.

(b) Confirmed. It also does not contain Space Provision costs.

(c) Confirmed. It also does not contain Space Provision costs.

(d) *An estimate of post office box costs by any set of subgroups requires first an estimation of the TYBR number of boxes in those subgroups (by box size). The starting point for any such estimate is the number of boxes in use, by box size and by 5-digit ZIP Code, in the PO Box survey (the most recent source of such data). To estimate the TYBR boxes, four sets of assumptions, or factors to be estimated, are required:*

- (1) Expansion factors, to account for the fact that the PO Box Survey covered only about 72% of boxes (according to the DSF).
- (2) Allocation factors, to estimate the number of "free" boxes (Group E) in each subgroup.
- (3) Elasticities, to estimate the effects of the rate increases in Docket No. MC96-3.
- (4) Growth factor, to estimate the growth in numbers of boxes from 1997 to the test year.

The file BOX.DATA in LR-H-216 contains data on CAG, Delivery Group, and boxes in use by box size.

Step 1 As an expansion factor, one could use the overall factor (1.38), as we did in Docket No. MC96-3. Or, one could use subgroup expansion factors as we did for delivery groups in this proceeding. See Table 3 of USPS-T-24.

To translate these factors into equivalent factors by CAG, Table A below could be constructed for each CAG:

TABLE A

Delivery Group	Survey Boxes for CAG X	Expansion Factor	Pre 96-3 Boxes for CAG X
	[1]	[2]	[3]
City-A	from BOX.DATA	2.69	[1] X [2]
City-B	"	2.45	"
City-Other	"	1.50	"
Non-city	"	1.26	"
Nondelivery	"	1.20	"
Total			

The ratio of Total Pre 96-3 Boxes to Total PO Box Survey Boxes gives the expansion factor for CAG X. This must be done for each CAG.

Step 2 Estimates of the number of "free" boxes (Group E) in each CAG could be done in much the same way. The percentages of Group E boxes in each delivery group are shown in Table B below (See Table 5, USPS-T-24).

TABLE B

Delivery Group	Group E Percentage
City-A	0 %
City-B	0 %
City-Other	1 %
Non-city	7.3 % = (.94)(2)+(.06)(90)
Nondelivery	30 %

The numbers of Group E boxes for each CAG could then be estimated using Table C below.

TABLE C

Delivery Group	Pre 96-3 Boxes for CAG X:	Pct Group E	Free Boxes
	[1]	[2]	[3]
City-A	Table A	0 %	$[1] \times [2] / 100$
City-B	"	0 %	"
City-Other	"	1 %	"
Non-city	"	7.3 %	"
Nondelivery	"	30 %	"

Subtracting Group E boxes from the total for the corresponding delivery group gives the total number of boxes in each fee group for CAG X. The total of the numbers in last column, of course, gives the Group E total for CAG X. This must be done for each CAG.

Step 3 This step depends upon how fees are to be applied. If new fees are to be applied by CAG group, one must estimate the elasticities. If new fees are to be applied by fee groups as specified in the DMM, then tables similar to Table D below could be constructed for each CAG:

TABLE D

Delivery Group	Pre 96-3 Boxes for CAG X	Elasticity	Post 96-3 Boxes for CAG X
City-A	Table C less Group E	-.527	Equation (1) below
City-B	"	-.516	"
City-Other	"	-.546	"
Non-city	"	-.056	"
Nondelivery	"	N.A.	"

Note: The elasticities shown are weighted averages by box size.

The Post 96-3 Boxes for each group are calculated from the following formula:

$$\text{Post 96-3 Boxes} = \text{Pre 96-3 Boxes} (1 + e \, dp/p) \quad (1)$$

where e = elasticity and dp/p = percentage fee increase.

Step 4 Finally, a growth factor must be assumed to account for general economic growth from 1997 to the Test Year. We use 1.9% for this value. See my response to OCA/USPS-T24-22.

Steps 2 and 3 must be carried out for each CAG (12), each delivery group (5) and each box size, for a total of 300 ($=12(5)(5)$) categories.

Given the numbers of boxes by subgroup (CAG) and box size, calculations to determine the unit costs for each of the three groups of costs (Space Provision, Space Support, and All Other) are straightforward.

[i] For each CAG, the total space support costs are multiplied by the percentage of "equivalent capacity" for that CAG. Equivalent capacity is defined as:

$$EC = N_1 + N_2 (1.5) + N_3 (3) + N_4 (6) + N_5 (12)$$

where N_k = number of boxes of size k.

These calculations, for fee groups, are carried out in Table 11 of USPS-T-24, and in Workbook "Cost 98" in LR-H-188.

[ii] For each CAG and box size, total space provision costs are multiplied by the percentage of the quantity

$$R_k E_{kj}$$

where R_k = the average rental costs for CAG k. and E_{kj} = the equivalent capacity for CAG k and box size j. These rental costs are contained in the file RENT.DATA in LR-H-216.

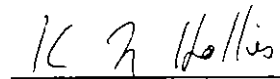
These calculations, for fee groups, are carried out in Table 12 of USPS-T-24, and in Workbook "Cost 98" in LR-H-188.

[iii] The cost segments included in attributable All Other Costs are listed, with appropriate references, in witness Patelunas' response to OCA/USPS-T24-25. Only the total is needed in this exercise.

All Other Costs in each CAG can be estimated by multiplying total All Other Costs by the percentage of boxes in that CAG. These calculations, for fee groups, are carried out in Table 10 of USPS-T-24, and in the Workbook "Cost 98" in LR-H-188.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.



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