

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

POSTAL RATE AND FEE CHANGES
PURSUANT TO PUBLIC LAW 108-18

Docket No. R2005-1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS SMITH
(USPS-T-13) TO INTERROGATORY OF THE OFFICE OF THE CONSUMER
ADVOCATE, REDIRECTED FROM WITNESS MEEHAN (USPS-T-9)
(OCA/USPS-T9-7.d)
(July 5, 2005)

The United States Postal Service hereby provides the response of witness
Marc Smith (USPS-T-13) to the following interrogatory of the Office of the
Consumer Advocate, filed on June 24, 2005, and redirected from witness
Meehan (USPS-T-9):

OCA/USPS-T9-7.d

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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OCA/USPS-T9-7 Please refer to your response to OCA/USPS-T9-6(c). Your response calculates a unit cost change based upon a revised total BY 2004 volume variable cost for Registered Mail of \$77,999,150, citing Footnote 1, which references your testimony, USPS-T-9, at new page 14, entitled "Base Year 2004 Supplemental Information on Registered Mail."

a. Please confirm that the unit cost change between BY 2000 and BY 2004 is 65.59 percent ($(\$77,999,150 / 5,008,595) / (\$83,824,000 / 8,913,000) - 1$). If you do not confirm, please explain.

b. Please confirm that the Revised Total BY 2004 Volume Variable cost for Registry of \$77,999,150 can be calculated as follows: $(\$81,268 - ((\$4,883 - \$2,101) * 1.175))$. If you do not confirm, please explain.

c. Please confirm that the piggyback factor of 1.175 applied to the difference between the as filed and revised BY 2004 C/S10 rural carrier costs of \$4,883,000 and \$2,101,000, respectively, accounts for all changes in each of the cost segments of Registered Mail.

d. To calculate the Revised Total BY 2004 Volume Variable cost for Registry of \$77,999,150, please provide an algebraic equation demonstrating that the piggyback factor of 1.175 applied to the difference between the as filed and revised BY 2004 C/S10 rural carrier costs of \$4,883,000 and \$2,101,000, respectively, accounts for all changes in each of the cost segments of Registered Mail. Please show all calculations and provide citations for all figures used.

RESPONSE:

a.-c. Answered by witness Meehan (USPS-T-9).

d. The rural carrier piggyback factor for Registry, 1.175, accounts for all changes, due to the decline in rural carrier costs, in each of the cost segments of Registry. The piggyback factors are designed to do exactly that (see my testimony page 47, lines 2-9).

The base year piggyback factor for rural carriers is calculated in USPS-LR-K-52, Excel workbook BYPBack.USPS.xls, worksheet Rural Dep, see columns A to AB in particular. Columns F to Y (or column

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numbers 3 to 22) of that worksheet shows the amount of cost in each dependent component that is considered to be related to rural carriers labor costs, as described in USPS-LR-K-1. The sum of the dependent component costs by mail class or service, plus the costs for rural carriers, divided by the rural carrier cost for that mail class or service, equals the piggyback ratio for the rural carrier mail class or service. The algebra for this calculation is contained in the formulas for each cell, and is documented at the top of each column. These calculations are the same or are based on the base year cost calculations, as contained in witness Meehan's testimony, USPS-T-9, and as documented in LR-K1, LR-K-4 and LR-K-5.

For instance, referring to worksheet Rural Dep, in column 2, the Registry rural carrier labor cost is \$4,883 (in thousands), as originally filed. The total dependent cost, as originally filed, is \$855 (in thousands) and is the sum of columns 3 to 22 (C3 to C22). The sum of the rural carrier labor costs and dependent costs for Registry is \$5,738 (in thousands) as shown in column 24 (C24). The ratio of C24 to C2 is the piggyback factor. That is $\$5,738/\$4,883 = 1.175$, is the piggyback factor.

An algebraic equation can be constructed as follows (please note all costs given below are in thousands of dollars). C24 is the sum of rural labor in C2 plus the dependent costs in C3 to C22. For registry this is:

$$5,738 = 4,883 + 54 + 41 + 14 + \dots + 0 \text{ or alternatively:}$$

$$C24 = C2 + C3 + C4 + C5 + \dots + C22.$$

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The costs C3 to C22 are all functions of C2, consistent with the calculations for the base year costs. Therefore, every dependent cost in C3 to C22 is of the form $C2 * k_i$, where i goes from 3 to 22. The k_i are parameters determined by base year costs. We can restate the above equation as:

$$C24 = C2 + C2 * k_3 + C2 * k_4 + C2 * k_5 + \dots + C2 * k_{22}$$

Thus the piggyback factor is:

$$C24/C2 = 1.175 = 1 + k_3 + k_4 + k_5 + \dots + k_{22}$$

The k_i reflect the costs and methods of the base year as shown below for k_3 , k_4 and k_5 . The costs listed below are the total accrued costs (in thousands of dollars) for each of the components except for the calculation in k_5 where total volume variable costs (VVC) are used for Higher Level Supervision (HLS) labor costs, as noted.

$$k_3 = \text{Rural Supervision} / \text{Rural Carrier Labor} = 52,672/4,749,020 = 0.01109113$$

$$k_4 = \text{Rural Carrier MVS Personnel} / \text{Rural Carrier Labor} = 40,312/4,749,020 = 0.0008488488$$

$$k_5 = (\text{HLS VVC} / \text{VVC of HLS Supervised Labor}) * (1 + k_3 + k_4) = (75,588/26,069,251) * (1 + k_3 + k_4) = 0.00295628$$

Citations for the above are provided below in Table 1.

The value of k_3 which equals 0.01109113, indicates that for every dollar of rural carrier labor costs there is 1.109113 cents of rural carrier supervision as calculated in the base year. This follows from the base

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year treatment of rural carrier supervision which takes on the variability and distribution of rural carrier labor, see LR-K-1, page 2-4. The product of k_3 and \$4,883 (C2) is 54, the same as shown in the piggyback factor calculations in C3 for Registry.

Things become more complicated for k_5 (for Higher Level Supervision) in that the amount of HLS is driven not only by rural carrier labor costs but also rural carrier supervision and rural carrier MVS labor costs. As a result, the formula for k_5 includes k_3 and k_4 .

The change in rural carrier cost for Registry, due to the correction in the Registry RCS volumes, is ($\$4,883 - \$2,101 =$) \$2,782. Multiplying this change in rural labor costs by the piggyback ratio of 1.175 provides the total change in Registry costs, \$3,269. This includes the change in cost for the dependent components as well as the change in rural carrier labor costs. As shown above, the piggyback factor, 1.175, is based on the base year costs of witness Meehan, USPS-T-9.

**Attachment to Response of Witness Smith
to OCA/USPS-T9-7d, Redirected from Witness Meehan**

Table 1: Base Year Sources for Calculations of k_3 , k_4 and k_5		
Labor Cost	Cost Segment or Component Number	Citation
Rural Carrier Supervision	2.4.2	LR-K-4, BY04.CRpt.xls, sheet CS2.
Rural Carrier Labor	10.1 + 10.2	LR-K-4, BY04.CRpt.xls, sheet CS10.
Rural Carrier MVS Personnel	rural carrier portion of 12.1, 0548	LR-K-4, BY04.B.xls, sheet CS12, column L, 0548.
Rural Carrier Labor	same as above.	
HLS VVC	2.5.2	LR-K-4, BY04.CRpt.xls, sheet CS2.
VVC of HLS Supervised Labor	0294	LR-K-52, BYPBack.USPS.xls, sheet Input-DK, cell D51. Also see LR-K-4, BY04.cntl.xls, sheet DK Addends, column H This last reference lists the CRA components of 0294

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the foregoing document in accordance with Section 12 of the Rules of Practice and Procedure.

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