

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

NOTICE OF THE UNITED STATES POSTAL SERVICE OF FILING
OF REVISIONS TO THE TESTIMONY OF WITNESS SMITH
(USPS-T-13) –ERRATA
(July 7, 2005)

The Postal Service hereby gives notice of the filing of revisions to the testimony of witness Van-Ty-Smith. The revisions are minor – dealing with the change of witness “Moser” to “Page”, typographical errors, or edits for clarity.

The changes are as following:

Pg. 1: Change from “Moser” to “Page”

Pg. 4: same as above

Pg 15: “category 15” changed to “category 14”

Pg 20: “very” changed to “vary”

Pg 31: “need to expanded” changed to “need to be expanded”

Pg 49: “pages 8 to 10” changed to “pages 7 to 9”; “page 10” changed to “page 9”;
“pages 8-10” changed to “pages 7-9”

Pg 50: “page 8” changed to “page 7”; “page 9” changed to “page 8”

Pg 51: “done by witness Moser” changed to “provided by witness Page”

Pg 52: “Moser” changed to “Page”; line 13 “...and Moser, USPS-T-23” changed to “Page, USPS-T-23 and Hatcher, USPS-T-22.”

Pg. 58: “Moser” changed to “Page”

The attached pages replace the corresponding pages originally filed in the testimony.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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1 **I. PURPOSE AND SCOPE OF TESTIMONY, AND GUIDE TO SUPPORTING**
2 **DOCUMENTATION**
3

4 There are five main purposes of my testimony. First, I provide a brief
5 analysis to show that the test year escrow funding of \$3.1 billion is non-volume
6 variable. This is used by witness Waterbury, USPS-T-10 in developing test year
7 costs. Second, I provide the study of Facility Space Usage in 1999, which
8 provides a profile of facility space usage by operation and function. This study
9 serves as a key input to my work on base year and test year facility-related costs.
10 Third, I provide methodology and inputs necessary to determine the volume
11 variable equipment and facility-related costs by subclass for both the base year
12 and test year for witnesses Meehan, USPS-T-9, and Waterbury, USPS-T-10.
13 Fourth, I provide piggyback factors which are used to incorporate indirect costs
14 into the cost avoidance estimates and for the purpose of computing final
15 adjustments. These factors are used by witnesses Abdirahman, USPS-T-21,
16 Cutting, USPS-T-26, Hatcher, USPS-T-22, Mayes, USPS-T-25, Miller, USPS-T-19
17 and USPS-T-20, Page, USPS-T-23, and Wesner, USPS-T-24. In addition, I apply
18 piggyback factors to assist witness Kay, USPS-T-18, in the determination of the
19 Priority Mail incremental costs for Priority Mail Processing Centers (PMPCs). The
20 fifth and final contribution of my testimony is the calculation of labor and indirect
21 mail processing unit costs by shape, by cost pool. These costs are used by
22 witnesses Abdirahman, USPS-T-21, Cutting, USPS-T-26, Miller, USPS-T-19 and
23 USPS-T-20, and Page, USPS-T-23, in determining the cost avoidance estimates.

1 (discussed in part III), updated using information on equipment deployments. I
2 also prescribe variabilities and distribution keys for these cost pools. This part of
3 my testimony is supported by USPS LR-K-54, "Equipment and Facility-Related
4 Costs."

5 Part V of my testimony presents piggyback and related factors. Piggyback
6 factors are employed in worksharing-related cost studies to add supervisor,
7 administration, facility-related and equipment-related costs to labor cost estimates.
8 A piggyback factor is, in general terms, the ratio of total volume variable costs to
9 volume variable labor costs for a specific function (e.g. city carrier) or operation
10 (e.g. OCR). Total costs, as contained in the numerator, include labor, supervisor,
11 administrative, facility-related and equipment-related costs. Labor costs, in the
12 denominator, are all non-supervisory, non-administrative labor cost associated with
13 the function or operation.

14 There are three sets of factors:

- 15 1. piggyback factors by major function,
- 16 2. piggyback factors used for final adjustments, and
- 17 3. mail processing cost pool and operation specific piggyback factors.

18 The first set of piggyback factors (or ratios) are for major functions (e.g.,
19 mail processing, window service, city delivery, rural delivery, and vehicle service
20 drivers) for each subclass³ for the test year. The second set of piggyback factors
21 is provided for the test year final adjustments performed by witness Page, USPS-
22 T-23. The third set of piggyback factors is provided for specific mail processing

³ These piggyback factors are computed for each row of the test year (before rates) segments and components report, which is USPS-10F.

1 and Vacant & Tenant. Most space, however, is reported as essentially generic
2 interior space, which can contain a wide variety of operations or functions, so
3 additional information must be obtained on the usage of this space.

4 In addition, the FMSWIN record for each facility includes the “Type of
5 Quarters” codes such as main office, station, branch, BMC, carrier annex or
6 Sectional Center Facility (SCF), VMF, CVS, Subleased and USPS District Office.
7 The last four are examples of facilities whose space can be directly related to
8 some of the categories on Table 1, categories 63 to 68. Most facilities, however,
9 have type of quarters codes which can contain a variety of operations and
10 functions. Additional data on facility space usage is needed for such facilities.

11 In addition, the data for each FMSWIN record on finance number and facility
12 name greatly supplement the facility type information. For instance, finance
13 number is used to identify the facilities that are Remote Encoding Centers. Such
14 facility space can be directly related to category 14 “LDC 15 – RBCS.” In addition,
15 finance no. is used to identify PDCs, PDFs, AMCs, AMFs, and other major
16 facilities. Finance number and facility name are also used as consistency checks
17 on the FMSWIN Type of Quarters and other data. In many cases “Type of
18 Quarters” codes were inaccurate, and duplicate records or missing data were
19 found as well. Thus, FMSWIN data were examined and edited for use in this
20 study. In some cases inconsistencies had to be resolved or missing data needed
21 to be obtained by contacting Area or District staff.

22 Table 2 shows the profile of facility space obtained from the work described
23 above. Table 2 shows in column 2 the amount of USPS Interior Square Feet by

1 annexes would likely be included with their “parent” facilities. This same approach
2 was also done for AMCs/AMFs, BMCs, “MODS” SCFs and Remote Encoding
3 Centers (RECs). This approach is consistent with the development of mail
4 processing labor cost pools. The remaining facilities (or FMSWIN records of
5 facilities/properties) were grouped on the basis of FMSWIN data on facility type
6 (type quarters code), facility name and facility size. Table 3 shows the strata.

7 For the P&DCs, P&DFs, AMCs/AMFs, BMCs and SCFs, the sample
8 selection was also done by finance number, so all facilities under a selected
9 finance number would be part of the sample. In this way annexes were essentially
10 combined with their “parent” facility as one unit. Different sampling rates were
11 developed for different strata based on an assessment of the extent to which
12 facilities within a stratum could vary from one another in total interior space and in
13 space usage. Higher sampling rates were desirable for strata that were
14 anticipated to contain higher variations facility to facility. A particular interest was
15 the large facilities and those where processing operations would be located.
16 Another factor in determining strata and sampling rates was the need to limit
17 workload of surveyors. Based on this 771 facilities were selected for sampling as
18 shown in Table 3. Fewer facilities were surveyed in this study, 771, as done in the
19 1992 study (nearly 1,000). The reduction was guided by the use of the variance
20 estimates from the 1992 study.

21 Table 3 shows the strata, the number of facilities and the associated
22 amount space selected to be surveyed for each strata. Three strata, AMCs,

1 rental rates and total rents by strata and for non-surveyed facilities, and the
 2 consolidation across strata to obtain Postal Service totals for the 68 categories for
 3 square feet and rents. These steps are summarized in this section of my
 4 testimony. A more detailed description and the calculations themselves are
 5 provided in USPS LR-K-62, Vol. 1, Section 4.

6 Expansion/Extrapolation of Results to Population Totals

7 To obtain results reflective of all facilities for each of the strata, survey
 8 results for the sample need to be expanded or extrapolated to the population. For
 9 this calculation, the survey results by strata, are expanded by multiplying by them
 10 by an expansion factor. The expansion factor is the ratio of FMSWIN total facility
 11 space for all facilities in the strata divided by the FMSWIN total facility space for
 12 the surveyed facilities.¹⁸ This approach provides estimates of the total amount of
 13 space as well as the shares of this space for the different operations.

14 The reconciliation of the FMSWIN data and surveyor results indicated that
 15 there were definitely some important trends or directions of the differences by
 16 strata. For instance, in BMCs it appeared that FMSWIN understated actual space,
 17 while for most strata it was the opposite. This may reflect BMC facility expansions
 18 not included in FMSWIN data. Alternatively it appeared that for some customer

¹⁸ The following formula shows the calculation of the expansion factor for strata i.
 Expansion Factor_i =

$$\frac{\text{(Total Block 45 for all facilities in strata i)}}{\text{(Total Block 45 for all facilities used in computing survey results for strata i)}}$$

The numerator is the total (Interior USPS Occupied) space for all facilities in the population data base for strata i. The denominator is the equivalent space for all facilities that were selected randomly, for which acceptable survey data was supplied by surveyors. See USPS LR-K-62, Volume 1, Section IV for more detail.

1 **A. Piggyback Factors by Major Function and Subclass**

2 Attachment 8 contains the test year piggyback factors by major function and
3 subclass. The major functions are shown at the top of the columns. They are mail
4 processing, window service, city delivery carrier, vehicle service driver, rural carrier
5 and postmasters.³⁹ Subclasses are indicated in the rows of the attachment.

6 An example of the development of these factors is provided for the test year
7 mail processing piggyback factor for First-Class Mail, single-piece letters & parcels
8 of 1.548. Development of this piggyback factor requires identification of the
9 relevant volume variable costs from the Test Year from witness Waterbury. As
10 shown in LR-K-52 in part II, pages 7 to 9, the piggyback factor 1.548 is the ratio of
11 6,186,629 in column 29 (total estimated volume variable costs for mail processing)
12 to the sum of 3,994,719 and 1,769, columns 1 and 4 (total volume variable labor
13 costs). All of these costs are in thousands of dollars.

14 The volume variable labor costs of 3,994,719 and 1,769 (both in thousands)
15 are taken directly from witness Waterbury's exhibit USPS-10F at pages C-7 and C-
16 8. The 6,186,629 cost, from column 29 in page 9, which is total volume variable
17 costs for mail processing, is calculated by summing the different component costs
18 for labor, supervision, administrative, service-wide benefits, facility-related and
19 equipment-related for mail processing shown in pages 7-9.

³⁹ There are no longer any Clerk/Messengers, so there are no piggyback factors for them. In addition, a new category Postmasters was added, to be used in place of Accounting and Auditing.

1 Some of these costs, such as mail processing supervision costs of 262,871 (at
2 column 2 of page 7), are also taken directly from witness Waterbury's exhibit
3 USPS-10F at page C-4.

4 Often there is a need to disaggregate the component costs of witness
5 Waterbury. An example is the calculation of the mail processing portion of benefits
6 contained in component 18.3, which is found to be 283,465 in column 19 on page
7 8 of LR-K-52. Witness Waterbury provides the total benefits cost for First-Class
8 single-piece, letters & parcels of 495,442 as shown at USPS-10F, page C-24. To
9 calculate the mail processing portion of this cost for piggyback factor calculations,
10 it is necessary to consider the variability and distribution rules used in the
11 development of these costs for witness Waterbury's testimony. As indicated at
12 USPS LR-K-1 at pages 18-6 to 18-8, the non-institutional components of cost
13 segment 18.3 are variable to the same degree as composite postal labor costs and
14 are distributed based on the distribution of composite postal labor costs.

15 Therefore, the portion of the total benefits cost that is associated with mail
16 processing, for a given subclass, is the equal to the ratio of the volume variable
17 mail processing labor to total composite volume variable postal labor, for that
18 subclass. In this way, the disaggregation of test year costs, when necessary for
19 the piggyback factors, is done by employing the same methods used in computing
20 the test year costs.

21 Thus, the basis for the calculations of piggyback factors is provided in the
22 testimonies of witnesses Meehan, USPS-T-9, and Waterbury, USPS-T-10, and
23 those testimonies supporting their work. Piggyback factors are intended to reflect

1 the same procedures as used by those who develop to the base year and test year
2 costs.

3 Three changes are noted here. First, the calculations of all the piggyback
4 factors are now done in Excel instead of using SAS via the mainframe computer.
5 Second, the spreadsheets incorporate corrections indicated in my response to
6 POIR No. 8, Question 4, from Docket No. R2001-1, which eliminated the incorrect
7 test year treatment of some supervisor and administrative costs. Third, an error
8 concerning the facility related cost calculations for employee facilities and office
9 space was fixed. These corrections have very small impacts.

10 **B. Piggyback Factors for Final Adjustments**

11 The piggyback factors for final adjustments, contained in Attachment 9, are
12 applied to the labor cost changes associated with final adjustments provided by
13 witness Page, USPS-T-23, to mirror the development of test year costs that occurs
14 in the roll forward. The roll forward process for reflecting mail volume growth
15 adjusts volume variable "direct" or craft labor cost in proportion to this growth. In
16 addition, certain indirect costs such as supervision, quality control, equipment
17 maintenance personnel, office and clerical, and time and attendance, are also
18 adjusted proportionately.⁴⁰ The final adjustment piggyback factors applied by

⁴⁰ This proportional treatment of certain indirect costs reflects mail volume changes, while holding operational procedures the same. While appropriate for changes in mail volume, this treatment is not necessarily correct for all changes in direct labor costs. For instance, the reduction in manual sorting costs through automation would generally involve significant changes to the operational environment, making invalid any assumption of proportionality between changes in direct labor costs and indirect costs.

1 witness Page, USPS-T-23, reflect these same changes in indirect costs as would
2 occur for mail volume changes in the roll forward process.⁴¹

3 **C. Mail Processing Operation-Specific Piggyback Factors**

4 Test year mail processing operation-specific piggyback factors, contained in
5 Attachment 10, are developed for each of the 53 mail processing labor cost pools
6 provided by witness Van-Ty-Smith.⁴² In addition, some of the cost pool piggyback
7 factors are disaggregated as shown in Attachment 10, page 2. These calculations
8 are shown in detail in USPS LR-K-52, Part III.

9 Operation-specific piggyback factors are used in two ways. First, they are
10 an input into the calculation of costs by shape as discussed in part VI of this
11 testimony. Second, these piggyback factors are inputs for the mail processing cost
12 models of witnesses Abdirahman, USPS-T-21, Miller, USPS-T-19 and USPS-T-
13 20, Page, USPS-T-23 and Hatcher, USPS-T-22. Much the same method is used
14 in these calculations as used in Docket No. R2001-1, USPS LR-J-52, Part III,
15 though some important changes were made.

16 The main change is that the two step process of deriving an initial set of 29
17 piggyback factors and then using the “cross-walk matrix” to get piggyback factors
18 by cost pool is no longer used. Instead there is essentially a “one-step” process

⁴¹ See USPS LR-K-52, last section in Part II, which shows the calculation of the mail processing final adjustment piggyback factors. For instance for First-Class, single-piece, letters & parcels the numerator is 4,841,935 (from column 30). It is the sum of the columns 1 to 28. The denominator is the same as discussed above in part A, it is the sum of 3,994,719 and 1,769 (which sum to 3,996,488). The final adjustments piggyback factor for mail processing for this subclass is the ratio of 4,841,935 to 3,996,488, which is 1.212 as shown in column 31. Also note that final adjustment piggyback factors are also calculated in Excel and the POIR No. 8 corrections also apply to final adjustments.

⁴² See USPS-T-11, Table 1.

1 **VI. MAIL PROCESSING UNIT COSTS BY SHAPE FOR TEST YEAR**

2 Attachment 14 contains test year mail processing unit costs by shape,
3 presort and other separations for a number of subclasses or CRA categories.
4 These costs include piggyback or indirect costs and are provided separately by
5 cost pool in USPS LR-K-53, part VI. They are used by witnesses Abdirahman,
6 USPS-T-21, Miller, USPS-T-19 and USPS-T-20, and Page, USPS-T-23, in
7 determining the cost avoidance estimates. The detailed calculations of the results
8 in Attachment 14 are contained in USPS LR-K-53.⁴⁵

9 Mail processing unit costs by cost pool, shape, presort and other
10 separations for the test year are a disaggregation of witness Waterbury's test year
11 costs. Her test year costs are not prepared in all the detailed separations required.
12 I calculate the detailed separations as follows. I start with the mail processing
13 labor cost data by subclass, cost pool, disaggregated by shape and other
14 characteristics mentioned above, and apply to these costs the same adjustments
15 that witnesses Meehan, USPS-T-9, and Waterbury, USPS-T-10, apply to
16 component 3.1 costs in their workpapers and models. The base year adjustment
17 is applying the premium pay adjustment on costs by subclass. Then I reflect the
18 effects on costs of wage escalations, mail volume changes by subclass, for cost
19 reduction programs, and other programs, to adjust base year costs to test year
20 levels. The application of piggyback factors by cost pool adds in the indirect costs
21 and completes the process. All of these calculations, including the calculation of
22 the piggyback factors, involve approximations of the calculations

⁴⁵ This is an update of USPS LR-J-53 of Docket No. R2001-1.

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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