USPS-T-15

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

Postal Rate and Fee Changes, 2001	Docket No. R2001-1

DIRECT TESTIMONY OF MARC A. SMITH ON BEHALF OF THE UNITED STATES POSTAL SERVICE

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USPS-LR-J-52	Development of Piggyback and Related Factors
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AUTOBIOGRAPHICAL SKETCH

My name is Marc A. Smith. I have been employed by the Postal Service since February, 1987, as an Economist in the Cost Attribution group of Finance. In Docket No. R2000-1 I provided testimony, USPS-T-21, on mail processing costs by shape, the development of base year and test year plant and mail processing equipment costs, piggyback factors and other inputs needed for the worksharing avoided costs calculation.

In Docket No. R97-1 I provided testimony, USPS-ST-45, on mail processing costs by shape, piggyback factors and other inputs needed for the worksharing avoided costs and testimony, and USPS-ST-46, on Standard A dropship discount cost avoidances.

In Postal Rate Commission Docket No. MC95-1, I testified for the Postal Service, USPS-T-10, on First-Class letter mail processing costs. In Docket No. R94-1, I worked in support of the base year witness Dana W. Barker regarding facility-related and mail processing equipment-related costs. In Docket No. R90-1, I provided testimony on behalf of the Postal Service, USPS-T-8 and USPS-RT-3, to improve the development of plant and equipment costs and the new development of piggyback factors for specific mail processing operations to better determine the indirect costs for cost avoidance calculations. In Docket No. R87-1 I worked in support of Paul R. Kleindorfer's testimony on the peak load cost issue.

Prior to coming to the Postal Service, I was a Senior Economist with the New York Department of Public Service. I testified as an expert witness in numerous electric and telephone rate proceedings, primarily on the marginal costs of electricity. This

testimony was in support of both retail and co-generation electric rate proposals. In 1981, I served as an economist at the Interstate Commerce Commission. There, I worked on modifying railroad regulations to conform with the Staggers Rail Act of 1980.

I received a B.A. with honors in Economics from the George Washington University in 1975. I received a M.A. in Economics from the University of Michigan in 1978. While at the University of Michigan, I completed all requirements toward a Ph. D in Economics except the dissertation. As a graduate student, I served as a teaching fellow, in introductory economics and econometrics courses. I also worked as a research assistant at the Institute for Social Research in Ann Arbor, Michigan on a study of electric utility load management and peak load pricing experiments.

My papers and publications are as follows:

Evaluation of the Federal Energy Administration's Load Management and Rate Design Demonstration Projects, with Daniel Hill et al., Electric Power Research Institute,1979.

Analysis of Residential Response to Time-of-Day Prices, with Daniel Hill et al., Electric Power Research Institute, 1981.

"The Effect of Maintenance Requirements in Peak Load Pricing", with Mark Reeder. Presented at the Advanced Workshop in Regulation and Public Utility Economics, May, 1983.

"Pricing Rivalry Between Railroads in the Transportation of Coal in Western United States in the 1970s." Presented at the Advanced Workshop in Regulation and Public Utility Economics, May, 1984.

"Econometric Evaluation of Electric Utility Operation and Maintenance Expenses" in Proceedings of the Fifth NARUC Biennial Regulatory Information Conferences, National Regulatory Research Institute, September 3-5, 1986 pp. 1871 - 1912.

"Peak-Load Pricing in Postal Services" with Michael A. Crew and Paul R. Kleindorfer, Economic Journal, September, 1990.

"The Analytical Basis for Cost Measurement at the United States Postal Service" with Michael D. Bradley and Jeffrey L. Colvin. Presented at the Advanced Workshop in Regulation and Public Utility Workshop in Cooperstown, NY, May 1991.

"Measuring Product Costs for Ratemaking: The United States Postal Service," with Michael D. Bradley and Jeffrey L. Colvin, edited by Michael A. Crew and Paul R. Kleindorfer Regulation and the Nature of Postal and Delivery Service. Boston: Kluwer Academic Publishers, 1993, pp. 133-157.

"Peak Loads and Postal Services: Some Implications of Multi-Stage Production" with Michael A. Crew and Paul R. Kleindorfer, edited by Michael A. Crew and Paul R. Kleindorfer Managing Change in Postal and Delivery Industries. Boston: Kluwer Academic Publishers, 1997, pp. 42-64.

I. PURPOSE AND SCOPE OF TESTIMONY, AND GUIDE TO SUPPORTING DOCUMENTATION

There are three main purposes of my testimony. First, I provide methodology and inputs necessary to determine the volume variable equipment and facility-related costs by subclass for both the base year and test year for witnesses Meehan, USPS-T-11, and Patelunas, USPS-T-12. Second, I provide piggyback factors which are used to incorporate indirect costs into the cost avoidance estimates for the purposes of setting worksharing discounts as well as to compute final adjustments and I provide the premium pay factors which are used to compute cost avoidance estimates. These factors are used by witnesses Miller, USPS-T-22 and USPS-T-24, Eggleston, USPS-T-25, Mayes, USPS-T-23, Nieto, USPS-T-26, and Abdirahman, USPS-T-42. Third, I calculate labor and indirect mail processing costs by shape, by cost pool. These costs are used by witnesses Miller, USPS-T-22 and USPS-T-24, and Eggleston, USPS-T-25, in determining the cost avoidance estimates for developing worksharing discounts. This testimony updates my work in Docket No. R2000-1 in these same areas, using methods similar to, or the same as, I used in that Docket.

Part II of my testimony is on equipment and facility-related costs. I provide base year equipment-related costs for mail processing equipment depreciation (component 20.1[1]), interest expense (component 20.5), maintenance labor

[1] This component number refers to the numbering system for cost components used in the Summary Description, USPS LR-J-1, and in the segments and component report (e.g., see witness Meehan, USPS-T-11, Exhibit USPS-11A).

(component 11.2), and parts & supplies (component 16.3.2), accounting for about 2.8 percent of accrued costs. I apportion these costs by equipment type into 21 cost pools, using data from our accounting and engineering records. For each of these cost pools, I also provide the variabilities and distribution keys to relate these costs to subclasses. For the test year I apportion mail processing equipment depreciation into the 21 cost pools, based on data from our accounting system and capital budget.

The facility-related costs in the base year and test year are for space provision and space support. The space provision costs are rents (component 15.1), depreciation (component 20.3) and interest (component 20.5). The space support costs are fuel and utilities (component 15.2), custodial services labor (component 11.1), contract cleaners (component 11.1.2), building equipment maintenance labor (component 11.3), custodial supplies and services (component 16.3.1) and building security (component 18.1.2). I divide these costs into cost pools (or by activity) based on the FY1992 facility survey, updated using information on equipment deployments. I also prescribe variabilities and distribution keys for these cost pools. This part of my testimony is supported by USPS LR-J-54, "Equipment and Facility-Related Costs."

Part III of my testimony presents piggyback and related factors. Piggyback factors are employed in worksharing-related cost studies to add supervisor, administration, facility-related and equipment-related costs to labor cost estimates. A piggyback factor is, in general terms, the ratio of total volume variable costs to volume variable labor costs for a specific function (e.g. city carrier) or operation

(e.g. OCR). Total costs, as contained in the numerator, include labor, supervisor, administrative, facility-related and equipment-related costs. Labor costs, in the denominator, are all non-supervisory, non-administrative labor cost associated with the function or operation. The related factors include premium pay factors which are also used in worksharing-related cost studies.

There are four sets of factors:

1. piggyback factors by major function,
2. piggyback factors used for final adjustments,
3. mail processing operation specific piggyback factors, and
4. premium pay factors.

The first set of piggyback factors (or ratios) are for major functions (e.g., mail processing, window service, city delivery, rural delivery, vehicle service drivers, and accounting) for each subclass[2] for the test year. The second set of piggyback factors is provided for the test year final adjustments performed by witness Eggleston, USPS-T-25. The third set of piggyback factors is provided for specific mail processing operations, consistent with the cost pools for mail processing labor costs, for the test year. The final set of factors are the premium pay factors, which reflect the premium pay adjustment as described by witness Van-Ty-Smith, USPS-T-13, at pages 19-21. This part of my testimony is supported by USPS LR-J-52, "Development of Piggyback and Related Factors."

[2] These piggyback factors are computed for each row of the test year (before rates) segments and components report, which is USPS-12F.

Part IV of my testimony concerns Mail Processing Unit Costs by Shape for the test year. These costs are inputs in developing costs avoided due to worksharing. They are test year volume variable mail processing unit costs by shape and presort level. In addition, I provide separate automation and non-automation costs for First-Class and Standard presort letters and I also provide separate costs for metered and non-metered First-Class single-piece letters. These costs include piggyback or indirect costs as well. These costs are provided by cost pool. This part of my testimony is based on USPS LR-J-53, "Mail Processing Unit Costs by Shape."

II. EQUIPMENT AND FACILITY-RELATED COSTS IN THE BASE AND TEST YEAR

This part of my testimony relates to Attachments 1 to 9. Attachments 1-3, and 6-8 apportion, or can be used to apportion, the accrued equipment and facility-related costs by function in order to form cost pools (or costs by activity). The volume variability and distribution key for each cost pool as specified in Attachments 4, 5 and 9 are used by witnesses Meehan, USPS-T-11, and Patelunas, USPS-T-12, to relate these costs to the subclasses for the base year and test year. The variabilities and distribution keys in Attachments 4, 5, and 9 are also used by witness Patelunas, USPS-T-12, to distribute cost reductions and other program costs related to new equipment deployments and programs. The detailed calculations of the results shown in Attachments 1 to 9 are contained in USPS LR-J-54 and are summarized in sections II.A and II.B below.

A. Mail Processing Equipment-Related Costs

The mail processing equipment-related costs that I develop are mail processing equipment depreciation (component 20.1), interest expense (component 20.5)[3], maintenance labor (component 11.2), and parts & supplies (component 16.3.2). The accrued costs in the base year for depreciation, interest, maintenance labor, and parts & supplies are respectively in millions $656.9, $71.4,

[3] This refers to the portion of interest expense which is related to mail processing equipment. Interest expense is composed of three components: interest on retirement liabilities, interest on debt, and other interest. Interest on debt has the same variability and distribution as total depreciation on equipment, vehicles, land and buildings. As a result interest on debt can be apportioned to equipment, vehicles and facilities in proportion to depreciation expenses for these categories. See USPS LR-J-1, page 20-5.

$761.1, and $296.0, which is about 2.8 percent of accrued cost.[4] This is an update of the work presented in Docket No. R2000-1 in USPS LR-I-83.

1. Development of Cost Pools for Base Year and Test Year

The first step in determining the volume variable costs by subclass associated with any cost segment or component is to identify costs by cost pool or activity. Mail processing equipment, of course, includes many different types of equipment, with different purposes and uses. In my Docket No. R90-1 testimony, I identified twelve cost pools (see Exhibit USPS-8D). The number of cost pools has been updated as new types of equipment have been deployed. We currently have 21 categories as listed and described in USPS LR-J-54, pages IV-11 to IV-14.[5] These are the same cost pools used in Docket No. R2000-1, except that new equipment from actual and anticipated deployments has been included in these categories.[6] Each cost pool is intended to reflect a distinct "activity" as much as possible.

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[4] See USPS LR-J-52, pages III-14 to III-16.

[5] The testimony of witness Kingsley, USPS-T-39, contains a description of much of this equipment.

[6] See below for a discussion of the additional types of equipment added. As discussed below the cost pool for ACDCS test year depreciation costs has been broadened to include additional types of equipment.

Attachment 1 shows the apportionment of costs for maintenance labor and parts & supplies into 20 of the 21 equipment categories for the base year.[7] This is done using Engineering's Maintenance Activity, Reporting and Scheduling (MARS) data for FY2000.[8] These data track maintenance work hours, parts and supplies by equipment type, for plants and other facilities. Maintenance labor costs by equipment category are calculated to include an apportionment of supervisor and administrative costs. The calculations are shown in USPS LR-J-54, part II (see pages II-4 and II-5 in particular), and summarized in Attachment 1.

Attachment 2 shows the base year depreciation costs for 20 of the 21 equipment categories.[9] The depreciation by equipment category is calculated using FY2000 equipment accounting records. Pages IV-11 to IV-14 of USPS LR-J-54 show the equipment contained in each of the 21 categories.

Attachment 3 shows the test year depreciation costs for 20 of the 21 categories. The test year depreciation is projected by category by augmenting base year costs with information from the capital budget. Significant deployments

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[7] Costs for the remaining category, the 17th, Tray Transport & Staging Systems are apportioned among certain piece distribution equipment based on the relative number of equipment by type as shown in USPS LR-J-54, page II-7. In the base year (BY) the types include OCR, MPBCS, DBCS, and LSM. In the test year (TY) FSM replaces LSM. The costs for all 21 categories are shown in USPS LR-J-54, Page II-6.

[8] A minor error was made on the maintenance labor for REC sites (part of RBCS). This is not corrected in the base year costs, but is corrected for the purposes of calculating the operation specific piggyback factors for the test year as discussed below.

[9] See USPS LR-J-54, page IV-2 to see the costs for all 21 categories.

are anticipated on flats sorting equipment, (for the Automated Flat Sorting Machine 100 or AFSM 100), and for tray handling equipment such as Robotic Tray Handling and Tray Management Systems (TMS) equipment. This equipment is described by witness Kingsley, USPS-T-39. Growth in projected depreciation in the ACDCS category is mainly due to projected deployments of Automated Airline Assignment (AAA) systems, Scan Where You Band (SWYB) and Surface-Air Management System (SAMS), which are successors to ACDCS. In addition, projected investment in AMC sorting equipment and in equipment for the Postal Service facilities taken over from Emery were also included in ACDCS test year depreciation since ACDCS (and the successor systems) are used for mail at or going to AMCs and Priority sorting facilities.

2. Variability of Mail Processing Equipment-Related Costs

My testimony continues the past practice of applying the cost variability of the labor operating the equipment to equipment-related costs.[10] This implies that the ratio of labor to equipment-related costs (for a type of equipment) would not change, other things equal, in response to a (small) change in volume on the margin.

The mail processing labor variabilities for the equipment categories are developed by using witness Bozzo's (USPS-T-14) econometric variabilities and non-econometric variabilities from witness Van-Ty-Smith, both of which are shown in witness Van-Ty-Smith's testimony, USPS-T-13, Table 1. The variabilities by

[10] See Docket No. R2000-1, USPS LR-I-83, Part III and USPS LR-I-1 at page 20-2.

equipment category, shown in my Attachment 4, either are identical to the labor variabilities in Table 1 of witness Van-Ty-Smith or represent an averaging of two or more of these variabilities.[11] The latter occurs for equipment categories for which the labor operating the equipment is contained in more than one of the labor cost pools.

3. Distribution of Mail Processing Equipment-Related Costs

My testimony continues the past practice of distributing equipment-related costs to subclass based on the distribution of costs for the labor operating the equipment.[12] For instance, in the case of automated letter sorting equipment (e.g., OCR, DBCS) I rely on the logic that the machine time by subclass is, for the most part, proportionate to the equipment operators' labor time by subclass. The time the operators spend loading and sweeping the mail from the equipment for each subclass is likely a good indicator for the machine time for each subclass. Therefore, the labor time by subclass should be a reasonable basis for equipment cost distribution. Attachment 5 shows the distribution keys used for each of the 20 equipment categories.[13]

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[11] Attachment 4 is supported by the calculations in USPS LR-J-54, part III.
[12] See my testimony in Docket No. R2000-1, USPS-T-21, Attachment 5, and Docket No. R97-1, LR-H-127, Page IV-8 and USPS LR-H-1 at page 20-2.
[13] See USPS LR-J-1 at page 11-3 for a description of these distribution keys and also see USPS LR-J-54, page IV-8.

4. Distribution of Cost Reductions and Other Programs Costs

Cost Reductions and Other Programs for FY2001 to FY2003 are generally associated with new equipment deployments. In some cases, they reflect management initiatives to improve operations in a certain area, as discussed in USPS LR-J-49. Cost reductions in mail processing labor (component 3.1) or mail processing equipment maintenance labor (component 11.2) from equipment deployments and initiatives are distributed to subclasses using the same variabilities and distribution keys as used for the equipment-related costs discussed above. In addition, because many equipment deployments reduce manual sorting costs, the distributions for manual letter sorting and manual flat sorting costs are used as distribution keys for the savings associated with equipment deployments. For example, deployment of the new Automated Flats Sorting Machine (AFSM 100) is anticipated to reduce the amount of manual sorting of flats.[14] As a result, the distribution of the projected manual flats sorting savings from the AFSM 100 is based on the proportions of labor time by subclass for the manual sorting of flats. Attachment 4, page 2 shows the variabilities I provided for manual letter sorting and manual flats sorting, to be used in the manual sorting distribution keys. These variabilities are calculated using the same procedure as described above for the variabilities for the equipment categories.[15]

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[14] See witness Kingsley, USPS-T-39 in Chapter II.B.3.

[15] See USPS LR-J-54, part III. Also, See witness Patelunas, USPS-T-12, Appendix A and LR-J-49 for more on Cost Reductions and Other Programs.

B. Facility-Related Costs

I develop, for the base year and test year, facility-related space provision and space support costs. The space provision costs are rents (component 15.1), depreciation (component 20.3) and interest (component 20.5).[16] The space support costs are fuel and utilities (component 15.2), custodial services labor (component 11.1), contract cleaners (component 11.1.2), building equipment maintenance labor (component 11.3), custodial supplies and services (component 16.3.1) and building security (component 18.1.2). The accrued costs in the base year for rents, depreciation and interest for space provision are respectively in millions, $720.9, $743.0, and $80.7. The accrued maintenance and custodial labor, contract cleaners, fuel & utilities, custodial building supplies, and USPS protection force costs in the base year are, respectively in millions, $1,338.3, $66.2, $466.3, $125.5 and $86.3. These space provision and space support costs account for over five percent of the base year accrued costs. As has been done since Docket No. R90-1 and earlier, the development of variable space provision costs by subclass employs imputed rents, capped at book cost, as described below.

1. Development of Cost Pools

The first step in the development of cost pools for facility-related costs involves determining the Postal Service facility space by activity or function and

[16] As noted above in footnote 3, this is for the portion of interest which is treated as variable and distributed the same as facility depreciation.

determining imputed rents (or market rental value) for this space. Attachments 6, 7 and 8 show the base year, FY2001 and test year estimated facility space and imputed rents for each function, or "Space Category." I provide space factors for the interim year, FY2001, to reflect the addition to facility space from bringing in-house the Priority Mail Processing Center (PMPC) operations previously contracted to Emery. The addition of this facility space is shown in USPS LR-J-54, pages I-13 to I-17.

The results in Attachments 6, 7 and 8 are based on the FY1992 facility survey.[17] The FY1992 estimates of facility space by space category are adjusted to reflect the base year and test year, based on information on equipment deployments and overall Postal Service facility space growth. For categories where we have information on equipment deployments, such as space categories 13 to 18 in Attachment 6, the estimated square footage is adjusted in proportion to the amount of deployment.[18] In the remaining categories, square footage is assumed to grow at the same rate as overall facility space, net of the space adjustments made for equipment deployments. The imputed rents for each category are updated from FY1992 to reflect the changes in facility space just discussed, and also to reflect changes in the rental rates, using the DRI rent-

[17] This work is described in Foster Associates, Inc., Facility Cost Development Update, December 1993, which is USPS LR-G-120 in Docket No R94-1.

[18] In addition, space categories for operations affected by equipment deployment (such as manual letter sorting) also are adjusted. For instance, an increase in the space allotment for Carrier Sequence Barcode Sorters (CSBCS) was assumed to lead to an offsetting reduction in manual letter sorting space. See Docket No. R97-1, USPS LR-H-127, page I-5.

residential index. The methods used to project base year and test year square footage and imputed rents by space category for Attachments 6, 7 and 8, are the same as used in Docket No. R2000-1.[19]

The square footage and imputed rent estimates in Attachments 6, 7 and 8 are used to determine the cost pools for both space provision and space support costs. The development of the space support costs by cost pool or space category is based on the square footage for each category shown in the Attachments. For instance, for the base year, the accrued costs of maintenance and custodial labor, contract cleaners, fuel & utilities, custodial building supplies, and USPS protection force are divided into cost pools on the basis of relative square footage in Attachment 6. Likewise the test year space support costs are divided into cost pools using the square footage from Attachment 8.

The determination of space provision costs by cost pool or space category, however, is more complex, reflecting the PRC's decisions in Docket Nos. R76-1 and R90-1. The base year space provision costs by space category are the imputed rents shown in Attachment 6, which are used in place of the accrued or "book" space provision costs (rents, depreciation, and interest), with the caveat that the total volume variable imputed rents[20] are capped at "book" costs. In other words, if total volume variable imputed rent for all space categories exceeds

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[19] This is an update of the work presented in Part 1 of the following library references, USPS LR-I-83 of Docket No. R2000-1, USPS LR-H-127 of Docket No. R97-1, and USPS LR-G-137 of Docket No. R94-1.

[20] Total volume variable imputed rents are computed by multiplying the variability for each space category, as described in the next section, by the category imputed rent, and summing results for all categories.

"book" costs, then volume variable imputed rent for each space category is reduced by the ratio of "book" costs to the total volume variable imputed rent. This sets it equal to "book" cost – thus capping imputed rent at "book" cost. FY2001 and test year space provision costs are based on the imputed rents in Attachments 7 and 8, respectively, in the same fashion. In both the base year and test year, the volume variable imputed rents exceed the "book" costs and are therefore capped at "book" cost.

2. Variability of Facility-Related Costs

My testimony provides the variabilities for each of the space categories. These are shown in Attachment 9 and also are described in the Summary Description, USPS LR-J-1, pages 15-2 and 15-3. These variabilities stem from procedures presented in Docket No. R76-1, USPS-T-9 and USPS-T-16. Variabilities for each new category stemming from the 1992 space survey were the same as the most similar former category. These variabilities are unchanged from those used in Docket No. R2000-1.[21]

[21] See my testimony, USPS-T-21, Attachment 8.

3. Distribution of Facility-Related Costs

My testimony also provides the distribution key for each of the space categories. These are shown in Attachment 9 and are also described in the Summary Description, USPS LR-J-1, pages 15-3 and 15-4. This continues the past practice of distributing facility-related costs to subclass based the distribution of costs for the labor using the space.[22] For example, in the case of a Delivery Barcode Sorter (DBCS), the facility space usage by subclass within the DBCS operation is taken to be proportionate to the equipment operators' labor time by subclass. If 40 percent of the DBCS operator time were spent loading and sweeping Standard Mail letters, then 40 percent of the utilization of DBCS would be for Standard Mail letters, and 40 percent of the DBCS space provision and space support costs would be distributed to Standard Mail letters. Space Category distribution key methodology is unchanged from those used in Docket No. R2000-1.[23]

[22] See Docket No. R97-1, USPS LR-H-127, Part I-9 and USPS LR-H-1 at page 15-4 to 15-5. There are, as in prior cases, some exceptions to this practice, For Example, Priority Mail manual sorting operations space is distributed to Priority Mail, without regard to the IOCS tally distribution within Priority Mail manual sorting operations. See Attachment 8 and the above cited references.

[23] See my testimony, USPS-T-21, Attachment 8.

III. PIGGYBACK FACTORS AND PREMIUM PAY FACTORS

Attachments 10 to 14 contain the various piggyback factors, premium pay factors, and related costs provided by my testimony. Piggyback factors are used to incorporate indirect costs into the cost avoidance estimates used to determine worksharing discounts and to compute final adjustments. For example, piggyback factors are employed in cost avoidance studies to augment labor cost estimates by adding the costs associated with supervisors, and administration, as well as facility-related costs and equipment-related costs, in the same way such costs are treated in the development of base year and test year costs by witnesses Meehan and Patelunas.

The costs used in calculating test year piggyback factors are those developed in the test year before rates costs of witness Patelunas, USPS-T-12.[24] Generally, piggyback factors are ratios of total volume variable cost to volume variable labor cost for specific functions or operations (e.g. city carriers or OCRs). Total costs, contained in the numerator, include labor, supervisor, administrative, service-wide benefits, facility-related and equipment-related costs. Labor costs, in the denominator, are all non-supervisory, non-administrative labor cost associated with the function or operation. Division of the numerator by the denominator produces a ratio that indicates the relationship between total costs and non-supervisory, non-administrative labor costs. The ratio is greater than 1.00, since the numerator includes all costs, while the denominator includes only the non-

[24] The specific costs referred to are the test year before rates costs (with mix adjustment) of witness Patelunas in Exhibit USPS-12F.

supervision, non-administrative labor costs. The amount by which the ratio is greater than 1.00 indicates the degree to which all costs exceed non-supervision and non-administrative labor costs.

For example, the test year mail processing piggyback factor for First-Class Mail, single-piece letters & parcels is 1.599. This ratio indicates that in the average mail processing operation, for every dollar of labor costs for First-Class single-piece letters & parcels, the Postal Service incurs 59.9 cents of supervision, administrative costs, service-wide benefits, facility-related costs and equipment-related costs.

There are four main sets of factors: piggyback factors by major function and subclass in Attachment 10 for the test year; piggyback factors used for final adjustments in Attachment 11; mail processing operation specific piggyback factors in Attachment 12 for the test year; and Premium pay factors, which are also used in developing cost avoidance estimates are provided in Attachment 14. Attachment 13 contains some additional piggyback factors and related costs, which are also used in developing cost avoidance estimates. The detailed calculations of the results shown in Attachments 10 to 14 are contained in USPS LR-J-52. The methodology used is essentially the same as that employed in Docket No. R2000-1 in USPS LR-I-77. I discuss each of these four main sets of factors below.

A. Piggyback Factors by Major Function and Subclass

Attachment 10 contains the test year piggyback factors by major function and subclass. The major functions are shown at the top of the columns. They are mail processing, window service, clerk/messenger, city delivery carrier, vehicle service driver, and rural carrier. Subclasses are indicated in the rows of the attachment.

Development of these factors generally parallels the development of the test year mail processing piggyback factor for First-Class Mail, single-piece letters & parcels of 1.599. Development of this piggyback factor requires identification of the relevant volume variable costs from the Test Year from witness Patelunas as shown in LR-J-52 at pages 2 and 4 to 9. The piggyback factor 1.599 shown at page 2 is the ratio of 7,437,097 in column 36 (total estimated volume variable costs for mail processing) on page 9 to the sum of 4,647,852 and 2,062, columns 1 and 3, respectively, on page 4 (total volume variable labor costs). All of these costs are in thousands of dollars.

The volume variable labor costs of 4,647,852 and 2,062 (both in thousands) are taken directly from witness Patelunas's exhibit USPS-12F at pages 19 and 25. The 7,437,097 cost, from column 36 of page 9, which is total volume variable costs for mail processing, is calculated by summing the different component costs for labor, supervision, administrative, service-wide benefits, facility-related and equipment-related for mail processing shown in pages 4 to 9. Some of these costs, such as mail processing supervision costs of 275,098 (at page 4, column 6 of LR-J-52),are also taken directly from witness Patelunas's exhibit USPS-12F at page 11.

Often there is a need to disaggregate the component costs of witness Patelunas. An example is the calculation of the mail processing portion of benefits contained in component 18.3, which is found to be 503,279 in column 22 on page 6 of LR-J-52. Witness Patelunas provides the total benefits cost for First-Class single-piece, letters & parcels, of 802,746 as shown at USPS-12F, page 63. To calculate the mail processing portion of this cost for piggyback factor calculations it is necessary to consider the variability and distribution rules used in the development of these costs for witness Patelunas's testimony. Component 18.3 benefits cost, as indicated at USPS LR-J-1 at pages 18-8 to 18-9, is essentially variable to the same degree as composite postal labor costs and is distributed based on the distribution of composite postal labor costs. Therefore, the portion of the total benefits cost that is associated with mail processing, for a given subclass, is the equal to the ratio of the volume variable mail processing labor to total composite volume variable postal labor, for that subclass. In this way, the disaggregation of test year costs, when necessary for the piggyback factors, is done by employing the same methods used in computing the test year costs.

Thus, the basis for the calulations of piggyback factors is provided in the testimonies of witnesses Meehan, USPS-T-11, and Patelunas, USPS-T-12, and those testimonies supporting their work. Piggyback factors are intended to reflect the same procedures as used by those who develop to the base year and test year costs.

B. Piggyback Factors for Final Adjustments

The piggyback factors for final adjustments, contained in Attachment 11, are applied to the labor cost changes associated with final adjustments done by witness Eggleston, USPS-T-25, to mirror the development of test year costs that occurs in the rollforward. The rollforward process for reflecting mail volume growth adjusts volume variable "direct" or craft labor cost in proportion to this growth. In addition, certain indirect costs such as supervision, quality control, equipment maintenance personnel, office and clerical, and time and attendance, are also adjusted proportionately.[25] The final adjustment piggyback factors applied by witness Eggleston reflect these same changes in indirect costs as would occur for mail volume changes in the rollforward process.[26]

C. Mail Processing Operation-Specific Piggyback Factors

Test year mail processing operation-specific piggyback factors, contained in Attachment 12, are developed for each of the 54 mail processing labor cost pools

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[25] 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.

[26] See USPS LR-J-52, page 10, which shows the calculation of the numerator of the mail processing final adjustment piggyback factors. For instance for First-Class, single-piece, letters & parcels the numerator is 5,522,639 (from column 42). It is the sum of the columns 11, 12, 13, 39, 40, and 41 on that page. In addition, column 11 is the sum of columns 1 to 10 on pages 4-5. The denominator is the same as discussed above in part A, it is the sum of 4,647,852 and 2,062 (which is 4,649,914) from page 4. The final adjustments piggyback factor for mail processing for this subclass is the ratio of 5,522,639 to 4,649,914, which is 1.188 as shown on page 10.

provided by witness Van-Ty-Smith.[27] In addition, some of the cost pool piggyback factors are disaggregated as shown in Attachment 12, page 2. These calculations are shown in detail in USPS LR-J-52, Part III.

Operation-specific piggyback factors are used in two ways. First, they are an input into the calculation of costs by shape as discussed in part IV of this testimony. Second, these piggyback factors are inputs for the mail processing cost models of witnesses Miller, USPS-T-22 and USPS-T-24, and Eggleston, USPS-T-25. The same basic method is used in these calculations as used in Docket No. R2000-1, USPS LR-I-77, Parts III and IV. The method was modified slightly, as discussed below, to increase the accuracy of certain piggyback factors, particularly for the purposes of the mail processing cost modeling by witnesses Miller and Eggleston.

To compute the operation-specific piggyback factors by cost pool I use the same multi-step procedure as employed in Docket No. R2000-1.[28] First, I develop operation-specific piggyback factors in the same form or "operations" as done prior to Docket No. R97-1.[29] This "old" set of operation-specific piggyback factors predates the development of the 54 mail processing labor cost pools introduced in Docket No. R97-1 and is a similar but shorter list of 29 operations.[30] Then I use these "old" factors to derive the operation-specific piggyback factor for each mail processing labor cost pool, using a so-called "cross-walk matrix" as discussed

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[27] See USPS-T-13, Table 1.
[28] See my Docket No. R2000-1 testimony, USPS-T-21, Part IIIC.
[29] See Docket No. MC95-1, USPS LR-MCR-9, part II.
[30] See USPS LR-J-52, page III-2 to see these 29 operations.

below. The use of the cross-walk matrix provides piggyback factors for each cost-pool which are a weighted average of the relevant "old" piggyback factors.

I perform the first of these two steps by determining the test year volume variable labor and indirect costs for each of the 29 "old" operation-specific categories. This is done separately for: the clerk and mail handler labor costs; supervisor, service-wide benefits and administrative costs; and facility-related and equipment related costs. Then these costs are combined to compute the 29 piggyback factors for the "old" operation-specific categories as shown on page page III-2 of USPS LR-J-52.

For clerk and mail handler labor costs, I begin by calculating the base year volume variable costs for each of these 29 "old" operation-specific categories. I obtain these costs from the "cross-walk matrix," which contains the volume variable labor costs for each of the mail processing labor cost pools developed by witness Van-Ty-Smith, divided up into the "old" 29 operations using IOCS.[31] This work provides the base year volume variable mail processing labor costs for each of the 29 operations. However, in a change from my Docket No. R2000-1 testimony, I didn't use these costs directly from witness Van-Ty-Smith. Instead, I modified the calculations of the labor cost for these 29 "old" operation-specific categories to develop piggyback factors consistent with the operational definition in the models of witnesses Eggleston, USPS-T-25 and Miller, USPS-T-22 and USPS-T-24. This consistency enhances the accuracy of the piggyback factors.

[31] See USPS LR-J-55, Part VI, Table 6 and see witness Van-Ty-Smith, USPS-T-13, Part C.2.1.

For example, the models of witness Eggleston defined the PSM operation consistent with the BMC cost pool, as done for the BMC PSM cost by witness Van-Ty-Smith. The "old" PSM category, however, was based on IOCS tallies on which PSM was selected on question 19, which is broader than the current definition in two ways.[32] First, the "old" category PSM labor cost includes much BMC "floor" staff time for tending the runouts of the PSM, which is included in the "BMC Other" cost pool. Second, the "old" PSM category labor cost includes plant labor costs associated with or likely associated with SPBS operations. I edited the cross-walk matrix by shifting the PSM runout related and plant SPBS related costs out of the "old" PSM category column. The PSM runout related costs were shifted from the "old" PSM category (or matrix column) to the "old" category of "Other Sorting" (or column), while remaining in the same cost pool of "BMC Other" (which is a row in the matrix). The plant SPBS related costs, found in many cost pools (or rows of the matrix), were shifted from the "old" category (or column) of PSM to the "old" SPBS category (or column), while keeping the totals the same for each cost pool (or row). The result of this editing is to lower the labor cost for the "old" PSM category, which raises the piggyback factor for the "old" PSM category and for the BMC PSM cost pool as well. Without this adjustment the piggyback factor for the BMC PSM cost pool would be too low.[33]

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[32] See USPS LR-J-55, Part VI, Table 6.

[33] The piggyback factors for the categories of OCR, MPBCS and DBCS were also significantly affected, while factors for NMO, Culling, SSM BMC, SSM Other, and SPBS were affected in a minor way. These edits are shown in USPS LR-J-52, pages III-24 to III-32.

To obtain the test year costs, these base year volume variable processing labor costs for the 29 "old" categories are "rolledforward" using an approximation of the methods used by witness Patelunas in his testimony. This calculation is done in USPS LR-J-52, Part III page III-3. This projection of test year costs (or alternatively disaggregation of witness Patelunas's costs) approximates the wage escalation, mail volume growth and cost reductions and other programs calculations done by witness Patelunas in his development of test year before rates costs which he presents in his Exhibit USPS-12F. The resulting test year volume variable mail processing labor costs by "old" category is shown in column 1 of page III-2 of USPS LR-J-52.

Test year supervisor, service-wide benefits and administrative costs for each of these 29 operations is shown in column 2 of page III-2 (of USPS LR-J-52). These are based on the calculations supporting the test year mail processing labor piggyback factors by subclass (these piggyback factors are in Attachment 10). Pages III-18 and III-19 show the calculation of the cost ratios needed to compute these costs for the 29 operations.

The calculation of equipment-related costs and facility related costs shown in the columns 3 to 7 of page III-2, of USPS LR-J-52, for the 29 "old" piggyback factors is accomplished in pages III-8 to III-16. Base year maintenance labor and parts & supplies costs (see Attachment 1) must be "rolledforward" to the test year, again paralleling the calculations of witness Patelunas, as shown on

pages III-15 and III-16 of USPS LR-J-52.[34] Attachment 3 contains the test year mail processing depreciation which I provide to witness Patelunas, as discussed above, which don't need to be "rolledforward." Attachments 1 and 3 provide costs broken down by the 20 equipment cost pools discussed above. Finally, Attachment 8 contains the facility space factors for the test year, which are used to apportion the test year space support and provision costs into the 54 facility space categories shown in Attachment 8.

We must next relate the equipment-related costs and facility-related costs from the 20 equipment costs pools and 54 facility space cost pools, respectively to the 29 "old" operation-specific categories. Fortunately, many of the equipment and facility cost pools, as shown in my Attachments 1,3, and 8, are the same as many of the 29 piggyback operations listed on page III-2. For example, "OCR" is a category for equipment-related costs (line 1 of Attachment 1) and it is a category for facility-related costs (line 13 of Attachment 8) as well as one of the 29 operations in the "old" piggyback factors (line 5 of page III-2). In that case there is straightforward assignment of costs into one of the 29 operations. However, equipment cost in the categories "General and Logistics, BMC", "General and

[34]The calculations of test year maintenance labor for remote encoding centers (REC) incorporates a correction for an error in the base year costs. Subsequent to the calculation of the base year costs, it was determined that FY2000 REC maintenance labor costs had been under reported by MARS by $9.4 million. This has an insignificant impact on the calculations of witnesses Meehan and Patelunas so it was not necessary to modify their costs for the base year and test year, respectively. However, this correction was significant for the piggyback factor for REC labor. This correction is shown in USPS LR-J-52, page III-15.

Logistics, Non-BMC", and "Mail Transport Equipment" must be computed for each of the 29 operations, based on their treatment (variability and distribution) in the base year cost development. For example, as shown in Attachment 5, line 18, "General and Logistics, BMC" costs are distributed to subclasses in proportion to their respective mail processing labor costs at BMCs. These costs are apportioned to the 3 operations out of the 29 which are for BMCs, shown on page III-2 of USPS LR-J-52, in proportion to the labor cost for each in column 1. These three operations are Platform-BMC, line 3, Parcel Sorting Machine & NMO Machine, line 11, and Sack Sorting Machine-BMC, line 15. A similar calculation must be done for the facility-related costs for Office Space, Employee Facilities, Mail Processing Equipment Maintenance, and Mail Transport Equipment Centers on page III-8 of USPS LR-J-52. Once we have all the costs on page III-2 computed we calculate the piggyback ratio in column 9, which is of course the total costs divided by the labor costs for each of the 29 operations[35].

The second step, as mentioned above, is to use these 29 "old" factors to derive the operation-specific piggyback factor by mail processing labor cost pool, using the "cross-walk matrix." The "cross-walk matrix" is used to take a weighted average of the 29 "old" operation-specific piggyback factors for each of the mail processing labor cost pools. This gives us the desired result of having the operation-specific piggyback factor for each of the 54 mail processing labor cost

[35] Costs for RCR were removed from the RBCS category and added to the OCR category to be consistent with witness Miller's letter models presented in USPS-T-22. See pages III-2 and III-2A of USPS LR-J-52.

pools listed in my Attachment 12. An example of this calculation is that for LDC 41, which is automated sorting at stations and branches. The cross-walk matrix at pages III-40 to III-43 of USPS LR-J-52 shows the percentage of the LDC 41 cost pool labor costs that is associated with each of the 29 "old" piggyback factor operations. In particular, three of these "old" operations, DBCS, CSBCS, and MPBCS account for the bulk of LDC 41 labor costs. The operation-specific piggyback factor for LDC 41, which is 1.881 (from Attachment 12), is mostly an averaging of the "old" piggyback factors for DBCS, CSBCS, and MPBCS, which are 1.974, 1.984, and 1.672 respectively (see page III-2 of USPS LR-J-52).[36]

D. Premium Pay Factors

Premium pay factors, contained in Attachment 14, are used in cost avoidance calculations to adjust mail processing labor costs to reflect the premium pay adjustment for each subclass in the same way as done in computing base year mail processing labor costs. The premium pay adjustment done for the base year processing costs is described by witness Van-Ty-Smith, in part C.1.2 of her testimony, USPS-T-13.

Page 1 of LR-J-52 shows the calculation of the premium pay factors. These factors are computed in a manner consistent with the methods presented by witness Van-Ty-Smith. They are the ratio of the adjusted to unadjusted mail processing labor costs as shown. The ratio is larger than 1.0 for those subclasses

[36] A new separation of the PSM cost pool piggyback into Primary PSM (PPSM) and Secondary PSM (SPSM) was added as shown on Attachment 12, page 2. This calculation is shown on page III-2A of USPS LR-J-52.

whose mail processing labor is increased by the premium pay adjustment and less than 1.0 for those subclasses whose mail processing labor costs is decreased by the premium pay adjustment. Premium pay ratios are provided in two forms: ratios that apply to all processing costs; and ratios that apply to non-BMC costs. Both sets of ratios can be used in the cost avoidance calculations.

IV. Mail Processing Unit Costs by Shape for Base and Test Year

Attachment 15 contains test year mail processing unit costs by shape, presort and other separations for a number of subclasses or CRA categories. These costs include piggyback or indirect costs. They are used by witnesses Miller, USPS-T-22 and USPS-T-24, and Eggleston, USPS-T-25, in determining the cost avoidance estimates for developing worksharing discounts. The detailed calculations of the results in Attachment 15 are contained in USPS LR-J-53.[37]

Mail processing unit costs by cost pool, shape, presort and other separations for the test year are a disaggregation of Witness Patelunas' test year costs. His test year costs are not prepared in all the detailed separations required by witnesses Miller and Eggleston. I calculate the detailed separations as follows. I start with the mail processing labor cost data by cost pool, disaggregated by shape and other characteristics mentioned above, and apply to these costs the same adjustments that witnesses Meehan and Patelunas apply to component 3.1 costs in their workpapers and models. The base year adjustments consist of adjusting BMC and non-MODS costs for the costs of clocking in and out and applying the premium pay adjustment on costs by subclass. Then I reflect the effects on costs of wage escalations, mail volume changes by subclass, for cost reduction programs, and other programs, to adjust base year costs to test year levels. The application of piggyback factors by cost pool adds in the indirect costs and completes the process. All of these calculations, including the calculation of

[37] This is an update of USPS LR-J-81 of Docket No. R2000-1.

the piggyback factors, involve approximations of the calculations done by witnesses Meehan and Patelunas. As a result, the costs I develop must be reconciled back to the test year costs and adjusted to be consistent at the subclass level. I discuss the above procedures in more detail below.

I use several inputs in performing the calculations. I obtain mail processing labor costs by shape, presort level, and other characteristics from witness Van-Ty-Smith, USPS-T-13, in USPS LR-J-55, part III, table III. This includes the division of non-carrier route presort letters and cards costs into automation and non-automation categories. This division is based on IOCS information on piece markings (such as whether or not the letter/card has "Automation" or "Auto" in the indicia or address label), or if the piece has a mailer applied 11-digit barcode. This division was done consistent with the "1999 IOCS method for dividing tallies between nonautomation and automation letters" utilized by the PRC in Docket No. R2000-1.[38] I also obtain volumes by shape, presort, automation vs. non-automation, and indicia from witness Loetscher, USPS-T-41, based on RPW and Permit-Bravis as shown in USPS LR-J-112.

The calculations are relatively straightforward. I start out with the mail processing labor costs by cost pool by shape, presort, and other breakdowns as developed by witness Van-Ty-Smith. I apply to these costs the same adjustments that witness Meehan applies in her workpapers and model. The workpaper adjustments apportion clocking in and out costs to BMC and Non-MODS cost

[38] See PRC Op., Docket No. R2000-1, Vol. I, at 242, [5095]. Also see USPS LR-J-10.

pools.[39] The premium pay adjustment is made for all non-BMC mail processing labor costs.[40]

Next, the labor costs for each cost pool are adjusted up or down consistent with the percentage change projected between the base year and the test year. This is to reflect or approximate wage escalation, mail volume changes by subclass, and cost reductions and other programs adjustments that witness Patelunas has employed in developing test year before rates costs. These projections by cost pool are made using the same information and process used in developing the operation-specific piggyback factors (see USPS LR-J-52, part III). At this stage, costs are summed by subclass and reconciled for any differences with test year costs (component 3.1) of witness Patelunas, in Exhibit USPS-12F, pages 19-20. This reconciliation will impart the class specific distribution of cost reductions and other programs as well as the effects of volume growth.

Piggyback factors are applied to the reconciled labor costs to reflect total mail processing costs, rather than just labor costs alone, and the results are divided by subclass volumes to obtain unit costs by subclass. The final step is a reconciliation of these unit costs with the test year mail processing (labor and indirect) cost of witness Patelunas. These calculations are shown in USPS LR-J-53 and the results are shown in Attachment 15 of this testimony.

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[39] Witness Meehan USPS-T-11, WP B-3, W/S 3.1.1, pages 1-4.

[40] This is done by using the premium pay factors for non-BMC contained in Attachment 14 and discussed in my testimony in part III.D.

V. SUMMARY

This testimony has described the methodology, rationale and calculations for:

1. volume variable equipment and facility-related costs for the base year and test year,

2. piggyback factors and premium pay factors, and

3. mail processing (labor and indirect) unit costs by shape, presort, indicia, as well as for automation and non-automation categories.

In general my work in these areas follows past practice and has been accepted by the Postal Rate Commission (PRC) as noted above. The current treatment of equipment and facility-related costs is essentially as emerged from the Docket No. R90-1 consideration of my testimony.[41] Since that Docket, the treatment of these costs has been enhanced through further refinement of the equipment and facility categories.[42] The 21 equipment categories and 54 facility space categories provide a strong basis for relating equipment and facility-related costs to subclass. These refinements of equipment and facility-related costs, along with the

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[41] The PRC did not explicitly address the cost pools that I proposed in Docket No. R90-1. However, their development of equipment and facility-related costs appeared to have utilized my proposed cost pools. In addition, the PRC's endorsement of the new operation-specific piggyback factors at III-1 and their modifications to these in Appendix M of the Decision make explicit use of the equipment and facility-related costs with my proposed cost pools.

[42] As noted above, the number of equipment categories in R90-1 was 12, as shown in Appendix M, page 6. The number in this Docket is 21; see Attachment 1. The number of facility related categories, in mail processing alone, was 9 as shown at Appendix M, page 18. The current treatment divides mail processing space up into approximately 30 categories as can be seen in the calculation of operation–specific piggyback factors in USPS LR-J-52, page III-9.

development of mail processing labor cost pools, have allowed significant improvement in the development of piggyback factors and costs by shape as well.

List of Attachments

1. Maintenance Labor, And Parts And Supplies For Mail Processing Equipment By Equipment Category For FY 2000
2. Mail Processing Equipment Depreciation By Category For FY 2000
3. Mail Processing Equipment Depreciation Costs By Category For FY 2003
4. Mail Processing Equipment Category Variabilities
5. Distribution Keys for Mail Processing Equipment Capital, Maintenance, and Supplies
6. Facility Space Factors For FY 2000
7. Facility Space Factors For FY 2001
8. Facility Space Factors For FY 2003
9. Variabilities and Distribution Keys for Facility Space Categories
10. Test Year Piggyback Factors by Major Function
11. Test Year Piggyback Factors for Final Adjustments
12. Test Year Mail Processing Cost Pool Piggyback Factors
13. Additional Piggyback Factors and Other Costs
14. Premium Pay Ratios For Mail Processing Labor Costs
15. Test Year Mail Processing Unit Costs by Shape

MAINTENANCE LABOR, AND PARTS AND SUPPLIES FOR MAIL PROCESSING EQUIPMENT BY CATEGORY _1/

ATTACHMENT 1

Fiscal Year 2000

Equip. Group	--- Equipment Description ---	Maintenance Labor Costs (CS 11)	Parts & Supplies Costs (CS 16)
1	OCRs	80,318,729	13,578,676
2	MPBCSs	53,078,148	6,157,269
3	DBCSs	228,402,029	25,645,203
4	CSBCSs	6,701,589	7,302,571
5	LSMs	4,955,153	492,171
6	FSMs	68,513,416	7,084,632
	RBCS: WORKROOM	20,044,355	5,650,078
	RBCS: REMOTE ENCODING CENTERS	5,757,608	1,011,603
7	RBCS TOTAL	25,801,963	6,661,681
8	CFS	13,774,884	4,132,674
9	EDGE, FACE, & CANCEL - LETTERS	95,570,136	14,664,896
10	EDGE, FACE, & CANCEL - FLATS	2,268,600	175,622
11	CULLING	4,910,373	139,376
12	SSMs	20,337,051	5,062,442
13	SPBMs	39,104,469	23,050,986
14	PSMs	19,965,603	4,089,283
15	ACDCS	3,403,180	1,311,628
16	STRAPPING	11,031,101	779,210
18	GENERAL AND LOGISTICS: BMC _2/	22,171,202	1,882,270
19	GENERAL AND LOGISTICS: NON-BMC	21,013,191	1,581,250
20	MAIL TRANSPORTATION EQUIPMENT	6,495,584	168,876,941
21	POWERED EQUIPMENT	32,288,054	3,103,682
	TOTAL FOR MAIL PROCESSING EQUIPMENT	760,104,455	295,772,463
	NON-MAIL PROCESSING EQUIPMENT	395,656,421	98,992,273
	TOTAL EQUIPMENT	1,155,760,876	394,764,736

_1/ REFER TO USPS LR-J-54, PAGE II-8. THE CRA INPUT REFLECTING THESE COSTS IS THE PERCENTAGE OF COST BY CATEGORY, SEE USPS LR-J-54, PAGE II-9.

_2/ CATEGORY 17 IS TRAY TRANSPORT AND STAGING, WHICH HAS BEEN APPORTIONED TO THE CATEGORIES OF OCR, MPBCS, DBCS AND LSM.

MAIL PROCESSING EQUIPMENT DEPRECIATION BY CATEGORY _1/ **ATTACHMENT 2**

Fiscal Year 2000

Equip. Group	--- Equipment Description ---	Depreciation Costs (CS 20.1)
1	OCRs	60,914,366
2	MPBCSs	11,061,372
3	DBCSs	179,939,818
4	CSBCSs	28,768,913
5	LSMs	5,969,149
6	FSMs	36,706,048
	RBCS: WORKROOM	88,920,339
	RBCS: REMOTE ENCODING CENTERS	0
7	RBCS TOTAL	88,920,339
8	CFS	5,367,105
9	EDGE, FACE, & CANCEL - LETTERS	63,553,345
10	EDGE, FACE, & CANCEL - FLATS	556,232
11	CULLING	2,286,014
12	SSMs	5,131,985
13	SPBMs	33,129,188
14	PSMs	13,382,513
15	ACDCS	203,278
16	STRAPPING	2,749,205
18	GENERAL AND LOGISTICS: BMC _2/	52,390,020
19	GENERAL AND LOGISTICS: NON-BMC	56,138,397
20	MAIL TRANSPORTATION EQUIPMENT	0
21	POWERED EQUIPMENT	9,745,909
	TOTAL FOR MAIL PROCESSING EQUIPMENT	656,913,196
	NON-MAIL PROCESSING EQUIPMENT	113,019,024
	TOTAL EQUIPMENT	769,932,220

_1/ SEE USPS LR-J-54, PAGE IV-4. THE CRA INPUT REFLECTING THESE COSTS IS THE PERCENTAGE OF COST BY CATEGORY, SEE USPS LR-J-54, PAGE IV-9.

_2/ CATEGORY 17 IS TRAY TRANSPORT AND STAGING, WHICH HAS BEEN APPORTIONED TO THE CATEGORIES OF OCR, MPBCS, DBCS AND LSM.

MAIL PROCESSING EQUIPMENT DEPRECIATION BY CATEGORY _1/

ATTACHMENT 3

FY2003

Equip. Group	--- Equipment Description ---	Depreciation Costs (CS 20.1)
1	OCRs	32,409,281
2	MPBCSs	10,304,956
3	DBCSs	214,159,361
4	CSBCSs	35,744,959
5	LSMs	0
6	FSMs	106,415,673
	RBCS: WORKROOM	92,415,239
	RBCS: REMOTE ENCODING CENTERS	0
7	RBCS TOTAL	92,415,239
8	CFS	8,512,587
9	EDGE, FACE, & CANCEL - LETTERS	68,348,228
10	EDGE, FACE, & CANCEL - FLATS	556,232
11	CULLING	3,045,204
12	SSMs	6,065,238
13	SPBMs	38,427,475
14	PSMs	23,023,092
15	ACDCS/AMC _2/	28,591,155
16	STRAPPING	2,755,210
18	GENERAL AND LOGISTICS: BMC _3/	65,313,900
19	GENERAL AND LOGISTICS: NON-BMC	49,720,260
20	MAIL TRANSPORTATION EQUIPMENT	0
21	POWERED EQUIPMENT	9,745,909
	TOTAL FOR MAIL PROCESSING EQUIPMENT	795,553,959
	NON-MAIL PROCESSING EQUIPMENT	787,527,815
	TOTAL EQUIPMENT	1,583,081,774

_1/ SEE USPS LR-J-54, PAGE IV-7. THE CRA INPUT REFLECTING THESE COSTS IS THE PERCENTAGE OF COST BY CATEGORY, SEE USPS LR-J-54, PAGE IV-10.

_2/ ACDCS/AMC INCLUDES REPLACEMENTS FOR ACDCS AS WELL AS EQUIPMENT FOR AMCS AND PRIORITY MAIL PROCESSING CENTERS.

_3/ CATEGORY 17 IS TRAY TRANSPORT AND STAGING, WHICH HAS BEEN APPORTIONED TO THE CATEGORIES OF OCR, MPBCS, DBCS AND LSM.

Mail Processing Equipment Category Variabilities
Fiscal Year 2000

Equip. Group	(1) Category	(2) Variability	(3) % Change in Distribution Key Total Cost
1	OCRs	0.77	0.29870130
2	MPBCSs	0.94	0.06382979
3	DBCSs	0.87	0.14942529
4	CSBCSs	0.87	0.14942529
5	LSMs	0.9	0.11111111
6	FSMs	0.74	0.35135135
7	RBCS: WORKROOM	1	0.00000000
	RBCS: REMOTE ENCODING SITE	1	0.00000000
8	CFS	0.98	0.02040816
9	EDGE, FACE, & CANCEL - LETTERS	0.97	0.03092784
10	EDGE, FACE, & CANCEL - FLATS	0.97	0.03092784
11	CULLING	0.97	0.03092784
12	SSMs	0.96	0.03790191
13	SPBMs	0.707	0.41519007
14	PSMs	1.00	0.00000000
15	ACDCS	0.91	0.09890110
16	STRAPPING	0.932	0.07291368
17	TRAY TRANSPORT & STAGING SYSTEMS	N/A	
18	GENERAL AND LOGISTICS: BMC	0.978	0.02271925
19	GENERAL AND LOGISTICS: NON-BMC	0.813	0.23058835
20	MAIL TRANSPORTATION EQUIPMENT	0.821	0.21814521
21	POWERED TRANSPORT EQUIPMENT	0.932	0.07291368

Source: USPS LR-J-54, Page III-1.

Test Year Cost Reductions and Other Programs:
Additional Variabilities

--- Equipment Description ---

(1) Category	(2) Variability	(3) % Change in Distribution Key Total Cost
MANUAL LETTERS	0.750	0.33417664
MANUAL FLATS	0.885	0.12970831

Source: USPS LR-J-54, Page III-7.

DISTRIBUTION KEYS FOR MAIL PROCESSING EQUIPMENT CAPITAL, MAINTENANCE, AND SUPPLIES

LINE NO.	EQUIPMENT CATEGORY	DISTRIBUTION KEY _1/
1	OPTICAL CHARACTER READERS (OCRs)	IOCS TALLIES FOR OCR OPERATION
2	MAIL PROCESSING BARCODE SORTERS (MPBCSs)	IOCS TALLIES FOR MPBCS OPERATION
3	DELIVERY BARCODE SORTERS (DBCSs)	IOCS TALLIES FOR DBCS OPERATION
4	CARRIER SEQUENCE BARCODE SORTERS (CSBCSs)	IOCS TALLIES FOR CSBCS OPERATION
5	LETTER SORTING MACHINE (LSMs)	IOCS TALLIES FOR LSM OPERATION
6	FLAT SORTING MACHINE (FSMs)	IOCS TALLIES FOR FSM OPERATION
7	REMOTE BARCODING SYSTEM	IOCS TALLIES FOR MPBCS OPERATION, IN OSS MODE
8	COMPUTER FORWARDING SYSTEM	IOCS TALLIES FOR CFS OR MARKUP OPERATION
9	EDGER/FACER/CANCELER - LETTERS	IOCS TALLIES FOR LETTER FACER/CANCELER OPERATION
10	EDGER/FACER/CANCELER - FLATS	IOCS TALLIES FOR FLAT FACER/CANCELER OPERATION
11	CULLING	IOCS TALLIES FOR CULLING OPERATION
12	SACK SORTING MACHINE (SSMs)	IOCS TALLIES FOR SSM OPERATION
13	SMALL PARCEL AND BUNDLE SORTER (SPBS)	IOCS TALLIES FOR SPBS OPERATION
14	PARCEL SORTING MACHINE (PSM) /NON-MACHINABLE OUTSIDE MACHINE (NMO)	IOCS TALLIES FOR PSM OR NMO OPERATION
15	AIR CONTRACT DATA COLLECTION SYSTEM (ACDCS)	IOCS TALLIES FOR ACDCS OPERATION
16	STRAPPING	IOCS TALLIES FOR STRAPPING OPERATION
17	TRAY TRANSPORT AND STAGING SYSTEMS	N/A
18	GENERAL AND LOGISTICS, BMC	ALL BMC MAIL PROCESSING LABOR
19	GENERAL AND LOGISTICS, NON-BMC	ALL NON-BMC MAIL PROCESSING LABOR
20	MAIL TRANSPORTATION EQUIPMENT	ALL MAIL PROCESSING LABOR
21	POWERED EQUIPMENT	IOCS TALLIES FOR FORKLIFTS, TOW MOTORS, ETC.

_1/ SEE USPS LR-J-54, PAGE IV-8 FOR MORE DETAILS.

ATTACHMENT 6

FACILITY SPACE FACTORS
FOR FY2000

LINE NO.	SPACE CATEGORY	(1) SQUARE FEET	(2) RENTAL VALUE ($ 000)
1	WINDOW SERVICE	22,100,993	212,370
2	SELF-SERVICE POSTAL CENTER	2,548,278	26,190
3	POST OFFICE BOXES	28,917,727	283,935
4	PRIORITY MAIL	1,983,044	20,130
5	EXPRESS MAIL	1,089,108	11,432
6	MAILGRAMS	-	0
7	COMPUTER FORWARDING SYSTEM	2,333,228	19,012
8	BULK MAIL ACCEPTANCE UNIT	1,735,057	15,263
9	REGISTRY	1,467,804	13,372
10	CLAIMS & INQUIRY	531,576	4,797
11	OTHER ACCOUNTABLES	1,150,938	10,558
12	OTHER NON-ACCOUNTABLES	414,123	3,961
13	OPTICAL CHARACTER READERS (OCRs)	2,434,751	19,893
14	MAIL PROCESSING BARCODE SORTERS (MPBCSs)	3,535,504	28,690
15	DELIVERY BARCODE SORTERS (DBCSs)	9,970,250	82,120
16	CARRIER SEQUENCE BARCODE SORTER (CSBCS)	2,063,589	19,829
17	LETTER SORTING MACHINE (LSMs)	98,647	790
18	FLAT SORTING MACHINE (FSMs)	5,583,295	45,458
19	PARCEL SORTING MACHINE & NMO MACHINE	3,787,748	32,236
20	FACER/CANCELER - LETTERS	2,553,414	20,759
21	FACER/CANCELER - FLATS	388,373	2,928
22	CULLING	1,871,813	15,522
23	SACK SORTING MACHINE (SSMs)	2,835,463	23,416
24	SMALL PARCEL AND BUNDLE SORTER	6,211,895	48,578
25	REMOTE BARCODING SYSTEM	958,551	20,528
26	MULTISLIDE	1,037,498	8,295
27	AIR CONTRACT DATA COLLECTION SYSTEM	481,665	3,963
28	CENTRAL BANDING OPERATION - LETTERS	678,587	5,598
29	CENTRAL BANDING OPERATION - FLATS	338,211	2,803
30	OTHER EQUIPMENT	1,789,595	14,711
31	SORTING TO LETTER CASES	7,097,089	62,467
32	SORTING TO FLAT CASES	7,782,054	69,762
33	SORTING TO HANGING SACKS	4,520,129	38,423
34	SORTING TO ROLLING CONTAINERS	11,724,044	106,048
35	SORTING TO PALLETS	460,598	3,438
36	OTHER SORTING OPERATIONS	2,295,631	21,325
37	REWRAP	306,504	2,602
38	POSTAGE DUE	514,526	4,592
39	OTHER MANUAL OPERATIONS	2,787,478	24,524
40	CITY CARRIER	38,649,724	400,885
41	RURAL CARRIER	9,611,994	87,288
42	SPECIAL DELIVERY	213,208	1,877
43	ACCOUNTABLES CAGE	855,011	8,685
44	INTERIOR & EXTERIOR PLATFORM	38,400,251	255,069
45	OFFICE SPACE	38,697,152	343,051
46	MAIL PROCESSING EQUIPMENT MAINTENANCE	3,837,013	32,863
47	OTHER EQUIPMENT MAINTENANCE	772,894	6,925
48	EMPLOYEE FACILITIES	23,878,169	220,581
49	VMF	7,399,782	70,729
50	CVS	5,556,449	39,584
51	VACANT & TENANT	6,875,374	60,737
52	HQ, HQ-FIELD RELATED, AND REGIONAL OFFICES	5,795,556	92,005
53	MAIL TRANSPORTATION EQUIPMENT CENTERS	1,209,252	10,285
54	STORAGE FACILITIES	9,074,769	77,182
	TOTAL	339,205,375	3,058,065

SOURCE: USPS LR-J-54, PAGE I-9.
NOTE: CRA INPUT IS THE PERCENTAGE OF SQ. FT. AND RENT BY CATEGORY, SEE USPS LR-J-54, PAGE I-11.

ATTACHMENT 7

FACILITY SPACE FACTORS
FOR FY2001

LINE NO.	SPACE CATEGORY	(1) SQUARE FEET	(2) RENTAL VALUE ($ 000)
1	WINDOW SERVICE	22,263,783	222,647
2	SELF-SERVICE POSTAL CENTER	2,567,048	27,458
3	POST OFFICE BOXES	29,130,728	297,676
4	PRIORITY MAIL	3,624,249	38,289
5	EXPRESS MAIL	1,097,131	11,986
6	MAILGRAMS	-	0
7	COMPUTER FORWARDING SYSTEM	2,350,414	19,932
8	BULK MAIL ACCEPTANCE UNIT	1,747,837	16,002
9	REGISTRY	1,478,615	14,019
10	CLAIMS & INQUIRY	535,492	5,030
11	OTHER ACCOUNTABLES	1,159,416	11,069
12	OTHER NON-ACCOUNTABLES	417,173	4,153
13	OPTICAL CHARACTER READERS (OCRs)	2,434,751	20,703
14	MAIL PROCESSING BARCODE SORTERS (MPBCSs)	3,535,504	29,859
15	DELIVERY BARCODE SORTERS (DBCSs)	9,970,250	85,465
16	CARRIER SEQUENCE BARCODE SORTER (CSBCS)	2,063,589	20,637
17	LETTER SORTING MACHINE (LSMs)	98,647	822
18	FLAT SORTING MACHINE (FSMs)	5,583,295	47,309
19	PARCEL SORTING MACHINE & NMO MACHINE	3,815,455	33,794
20	FACER/CANCELER - LETTERS	2,572,221	21,763
21	FACER/CANCELER - FLATS	391,233	3,070
22	CULLING	1,885,600	16,273
23	SACK SORTING MACHINE (SSMs)	2,856,349	24,549
24	SMALL PARCEL AND BUNDLE SORTER	6,211,895	50,557
25	REMOTE BARCODING SYSTEM	964,132	21,489
26	MULTISLIDE	1,045,140	8,697
27	AIR CONTRACT DATA COLLECTION SYSTEM	485,213	4,154
28	CENTRAL BANDING OPERATION - LETTERS	683,585	5,869
29	CENTRAL BANDING OPERATION - FLATS	340,702	2,938
30	OTHER EQUIPMENT	1,802,776	15,423
31	SORTING TO LETTER CASES	7,157,820	65,568
32	SORTING TO FLAT CASES	7,839,375	73,138
33	SORTING TO HANGING SACKS	4,553,424	40,282
34	SORTING TO ROLLING CONTAINERS	11,810,401	111,180
35	SORTING TO PALLETS	463,991	3,605
36	OTHER SORTING OPERATIONS	2,312,540	22,357
37	REWRAP	308,762	2,728
38	POSTAGE DUE	518,316	4,814
39	OTHER MANUAL OPERATIONS	2,808,010	25,710
40	CITY CARRIER	38,934,409	420,285
41	RURAL CARRIER	9,682,794	91,512
42	SPECIAL DELIVERY	214,779	1,968
43	ACCOUNTABLES CAGE	861,309	9,105
44	INTERIOR & EXTERIOR PLATFORM	38,683,099	267,413
45	OFFICE SPACE	38,982,187	359,653
46	MAIL PROCESSING EQUIPMENT MAINTENANCE	3,865,275	34,453
47	OTHER EQUIPMENT MAINTENANCE	778,587	7,261
48	EMPLOYEE FACILITIES	24,054,051	231,255
49	VMF	7,454,288	74,152
50	CVS	5,597,377	41,500
51	VACANT & TENANT	6,926,016	63,676
52	HQ, HQ-FIELD RELATED, AND REGIONAL OFFICES	5,838,245	96,458
53	MAIL TRANSPORTATION EQUIPMENT CENTERS	1,218,159	10,783
54	STORAGE FACILITIES	9,141,612	80,917
	TOTAL	343,117,046	3,221,403

SOURCE: USPS LR-J-54, PAGE I-16.
NOTE: CRA INPUT IS THE PERCENTAGE OF SQ. FT. AND RENT BY CATEGORY, SEE USPS LR-J-54, PAGE I-18.

ATTACHMENT 8

FACILITY SPACE FACTORS
FOR FY 2003

LINE NO.	SPACE CATEGORY	(1) SQUARE FEET	(2) RENTAL VALUE ($ 000)
1	WINDOW SERVICE	23,000,443	244,296
2	SELF-SERVICE POSTAL CENTER	2,651,986	30,127
3	POST OFFICE BOXES	30,094,600	326,619
4	PRIORITY MAIL	4,871,576	54,662
5	EXPRESS MAIL	1,133,432	13,151
6	MAILGRAMS	-	0
7	COMPUTER FORWARDING SYSTEM	2,428,184	21,870
8	BULK MAIL ACCEPTANCE UNIT	1,805,669	17,558
9	REGISTRY	1,527,539	15,382
10	CLAIMS & INQUIRY	553,210	5,519
11	OTHER ACCOUNTABLES	1,197,778	12,146
12	OTHER NON-ACCOUNTABLES	430,977	4,556
13	OPTICAL CHARACTER READERS (OCRs)	2,290,761	20,688
14	MAIL PROCESSING BARCODE SORTERS (MPBCSs)	3,535,504	31,713
15	DELIVERY BARCODE SORTERS (DBCSs)	10,485,005	95,458
16	CARRIER SEQUENCE BARCODE SORTER (CSBCS)	2,063,589	21,918
17	LETTER SORTING MACHINE (LSMs)	4,110	36
18	FLAT SORTING MACHINE (FSMs)	5,718,402	51,462
19	PARCEL SORTING MACHINE & NMO MACHINE	3,791,671	35,669
20	FACER/CANCELER - LETTERS	2,657,331	23,880
21	FACER/CANCELER - FLATS	404,178	3,369
22	CULLING	1,947,991	17,855
23	SACK SORTING MACHINE (SSMs)	2,950,859	26,936
24	SMALL PARCEL AND BUNDLE SORTER	6,211,895	53,696
25	REMOTE BARCODING SYSTEM	633,120	14,987
26	MULTISLIDE	1,079,721	9,542
27	AIR CONTRACT DATA COLLECTION SYSTEM	501,267	4,558
28	CENTRAL BANDING OPERATION - LETTERS	706,203	6,439
29	CENTRAL BANDING OPERATION - FLATS	351,975	3,224
30	OTHER EQUIPMENT	1,862,426	16,922
31	SORTING TO LETTER CASES	6,914,125	67,268
32	SORTING TO FLAT CASES	5,539,408	54,889
33	SORTING TO HANGING SACKS	4,704,087	44,199
34	SORTING TO ROLLING CONTAINERS	12,201,181	121,990
35	SORTING TO PALLETS	479,343	3,955
36	OTHER SORTING OPERATIONS	2,389,057	24,531
37	REWRAP	318,978	2,993
38	POSTAGE DUE	535,466	5,282
39	OTHER MANUAL OPERATIONS	2,900,921	28,210
40	CITY CARRIER	40,222,663	461,150
41	RURAL CARRIER	10,003,177	100,410
42	SPECIAL DELIVERY	221,885	2,159
43	ACCOUNTABLES CAGE	889,807	9,990
44	INTERIOR & EXTERIOR PLATFORM	39,963,038	293,414
45	OFFICE SPACE	40,272,022	394,622
46	MAIL PROCESSING EQUIPMENT MAINTENANCE	3,993,169	37,803
47	OTHER EQUIPMENT MAINTENANCE	804,349	7,966
48	EMPLOYEE FACILITIES	24,849,947	253,741
49	VMF	7,700,934	81,361
50	CVS	5,782,582	45,535
51	VACANT & TENANT	7,155,183	69,868
52	HQ, HQ-FIELD RELATED, AND REGIONAL OFFICES	6,031,420	105,837
53	MAIL TRANSPORTATION EQUIPMENT CENTERS	1,258,465	11,831
54	STORAGE FACILITIES	9,444,088	88,785
	TOTAL	351,466,699	3,502,029

SOURCE: USPS LR-J-54, PAGE I-27.
NOTE: CRA INPUT IS THE PERCENTAGE OF SQ. FT. AND RENT BY CATEGORY, SEE USPS LR-J-54, PAGE I-29.

ATTACHMENT 9

VARIABILITIES AND DISTRIBUTION KEYS FOR FACILITY SPACE CATEGORIES

LINE NO.	SPACE CATEGORY	VARIABILITIES	DISTRIBUTION KEY
1	WINDOW SERVICE	WINDOW LABOR	WINDOW LABOR
2	SELF-SERVICE POSTAL CENTER	0%	N/A
3	POST OFFICE BOXES	100%	DIRECT TO SUBCLASS
4	PRIORITY MAIL	100%	DIRECT TO SUBCLASS
5	EXPRESS MAIL	100%	EXPRESS MAIL OPERATIONS LABOR
6	MAILGRAMS	N/A	N/A
7	COMPUTER FORWARDING SYSTEM (CFS)	80%	CFS AND MARKUP LABOR
8	BULK MAIL ACCEPTANCE UNIT	80%	ACCEPTANCE LABOR
9	REGISTRY	100%	MODS REGISTRY LABOR DISTRIBUTION KEY
10	CLAIMS & INQUIRY	CLAIMS & INQUIRY LABOR	CLAIMS & INQUIRY LABOR
11	OTHER ACCOUNTABLES	80%	OTHER ACCOUNTABLES LABOR
12	OTHER NON-ACCOUNTABLES	80%	OTHER NON-ACCOUNTABLES LABOR
13	OPTICAL CHARACTER READERS (OCRs)	80%	OCR LABOR
14	MAIL PROCESSING BARCODE SORTERS (MPBCSs)	80%	MPBCS LABOR
15	DELIVERY BARCODE SORTERS (DBCSs)	80%	DBCS LABOR
16	CARRIER SEQUENCE BARCODE SORTER (CSBCS)	80%	CSBCS LABOR
17	LETTER SORTING MACHINE (LSMs)	80%	LSM LABOR
18	FLAT SORTING MACHINE (FSMs)	80%	FSM LABOR
19	PARCEL SORTING MACHINE & NMO MACHINE	70%	PSM & NMO MACHICE LABOR
20	FACER/CANCELER - LETTERS	80%	LETTER FACER CANCELER LABOR
21	FACER/CANCELER - FLATS	80%	FLAT FACER CANCELER LABOR
22	CULLING	80%	CULLING LABOR
23	SACK SORTING MACHINE (SSMs)	70%	SSM LABOR
24	SMALL PARCEL AND BUNDLE SORTER	70%	SPBS LABOR
25	REMOTE BARCODING SYSTEM	80%	MPBCS LABOR -- FOR OSS MODE ONLY
26	MULTISLIDE	70%	MULTISLIDE LABOR
27	AIR CONTRACT DATA COLLECTION SYSTEM (ACDCS)	80%	ACDCS LABOR
28	CENTRAL BANDING OPERATION - LETTERS	80%	CENTRAL BANDING LETTERS LABOR
29	CENTRAL BANDING OPERATION - FLATS	80%	CENTRAL BANDING FLATS LABOR
30	OTHER EQUIPMENT	80%	OTHER EQUIPMENT LABOR
31	SORTING TO LETTER CASES	80%	LETTER CASING LABOR
32	SORTING TO FLAT CASES	80%	FLAT CASING LABOR
33	SORTING TO HANGING SACKS	80%	SORTING TO HANGING SACKS LABOR
34	SORTING TO ROLLING CONTAINERS	70%	SORTING TO ROLLING CONTAINERS LABOR
35	SORTING TO PALLETS	80%	SORTING TO PALLETS LABOR
36	OTHER SORTING OPERATIONS	80%	OTHER SORTING OPERATIONS LABOR
37	REWRAP	80%	REWRAP LABOR
38	POSTAGE DUE	80%	POSTAGE DUE LABOR
39	OTHER MANUAL OPERATIONS	80%	OTHER MANUAL OPERATIONS LABOR
40	CITY CARRIER	CITY CARRIER LABOR	CITY CARRIER LABOR
41	RURAL CARRIER	RURAL CARRIER LABOR	RURAL CARRIER LABOR
42	SPECIAL DELIVERY	SPECIAL DELIVERY LABOR	SPECIAL DELIVERY LABOR
43	ACCOUNTABLES CAGE	AVE. OF ROWS 40-42	ACCOUNTABLES CAGE LABOR
44	INTERIOR & EXTERIOR PLATFORM	100%	PLATFORM LABOR DISTRIBUTION KEY
45	OFFICE SPACE	NON-HQ OFFICE LABOR	NON-HQ OFFICE LABOR
46	MAIL PROCESSING EQUIPMENT MAINTENANCE	SAME AS MAINTENANCE LABOR	MAINTENANCE LABOR
47	OTHER EQUIPMENT MAINTENANCE	0%	N/A
48	EMPLOYEE FACILITIES	ALL EMPLOYEES	ALL EMPLOYEE LABOR COSTS
49	VMF	COST SEGMENT 12	COST SEGMENT 12
50	CVS	0	N/A
51	VACANT & TENANT	0	N/A
52	HQ, HQ-FIELD RELATED, AND REGIONAL OFFICES	0	N/A
53	MAIL TRANSPORTATION EQUIPMENT CENTERS	ALL MAIL PROCESSING LABOR	ALL MAIL PROCESSING LABOR
54	STORAGE FACILITIES	0	N/A

SEE USPS LR-J-54, PAGE I-12 FOR MORE INFORMATION.

Attachment 10

TEST YEAR PIGGYBACK FACTORS BY MAJOR FUNCTION

CLASSES, SUBCLASSES, SPECIAL SERVICES	MAIL PROCESSING	WINDOW SERVICE	CLERK/ MESSENGER	CITY DELIVERY CARRIER	VEHICLE SERVICE DRIVER	RURAL CARRIER
FIRST-CLASS :-SINGLE PC. LTRS	1.599	1.465	1.821	1.366	1.583	1.247
PRESORTED LETTERS	1.622	1.465	1.811	1.363	1.536	1.244
TOTAL LETTERS	1.605	1.465	1.832	1.365	1.562	1.245
SINGLE-PIECE CARDS	1.543	1.465	1.611	1.367	1.581	1.246
PRESORTED CARDS	1.588	1.465	1.750	1.368	1.542	1.245
TOTAL CARDS	1.552	1.465	1.769	1.367	1.563	1.245
TOTAL FIRST-CLASS MAIL	1.603	1.465	1.831	1.365	1.562	1.245
PRIORITY MAIL	1.472	1.465	1.818	1.402	1.555	1.245
EXPRESS MAIL	1.516	1.465	1.828	1.428	1.544	1.244
MAILGRAMS	1.471	-	1.800	1.462	1.000	1.067
PERIODICALS: WITHIN COUNTY	1.498	-	1.000	1.371	1.573	1.247
PERIODICALS: OUTSIDE THE COUNT	1.539	1.464	1.545	1.364	1.569	1.246
TOTAL PERIODICALS	1.538	1.464	1.500	1.365	1.569	1.246
STANDARD: ENHANCED CARR. RTE.	1.574	1.464	1.333	1.369	1.553	1.245
STANDARD: REGULAR	1.590	1.464	1.500	1.360	1.539	1.244
TOTAL STANDARD MAIL	1.589	1.465	1.600	1.363	1.545	1.245
PACKAGE SERVICES: PARCELS	1.579	1.465	1.619	1.423	1.516	1.243
BOUND PRINTED MATTER	1.606	1.461	1.000	1.441	1.548	1.245
MEDIA MAIL	1.647	1.464	1.000	1.457	1.633	1.251
TOTAL PACKAGE SERVICES	1.595	1.465	1.609	1.435	1.528	1.244
US POSTAL SERVICE	1.576	1.464	1.600	1.361	1.567	1.246
FREE MAIL	1.632	-	-	1.367	1.553	1.245
INTERNATIONAL MAIL	1.527	1.465	1.828	1.398	1.527	1.244
TOTAL ALL MAIL	1.581	1.465	1.828	1.368	1.548	1.245
SPECIAL SERVICES: -REGISTRY	1.722	1.465	1.870	1.372	-	1.249
CERTIFIED	1.688	1.465	-	1.360	-	1.244
INSURANCE	1.391	1.465	-	1.361	-	1.244
C.O.D.	1.765	1.463	1.500	1.364	-	1.250
MONEY ORDERS	1.286	1.465	-	-	-	1.242
STAMPED ENVELOPES	1.266	1.464	-	-	-	-
SPECIAL HANDLING	3.314	1.458	-	-	-	-
POST OFFICE BOX	1.287	1.465	-	1.348	-	-
OTHER	1.840	1.465	1.545	1.342	-	1.200
TOTAL SPECIAL SERVICES	1.724	1.465	1.833	1.356	-	1.245
TOTAL VOLUME VARIABLE	1.583	1.465	1.828	1.367	1.548	1.245
Source: LR-J-52, Part II, Page:	9	42	111	141	172	199

Attachment 11

TEST YEAR PIGGYBACK FACTORS FOR FINAL ADJUSTMENTS

CLASSES, SUBCLASSES, SPECIAL SERVICES	MAIL PROCESSING	WINDOW SERVICE	CLERK/ MESSENGER	CITY DELIVERY CARRIER	VEHICLE SERVICE DRIVER	RURAL CARRIER
FIRST-CLASS :-SINGLE PC. LTRS	1.188	1.128	1.322	1.108	1.159	1.038
PRESORTED LETTERS	1.200	1.128	1.325	1.107	1.147	1.037
TOTAL LETTERS	1.191	1.128	1.326	1.108	1.154	1.038
SINGLE-PIECE CARDS	1.173	1.129	1.222	1.109	1.165	1.038
PRESORTED CARDS	1.190	1.128	1.375	1.108	1.151	1.038
TOTAL CARDS	1.176	1.128	1.308	1.109	1.159	1.038
TOTAL FIRST-CLASS MAIL	1.190	1.128	1.323	1.108	1.154	1.038
PRIORITY MAIL	1.108	1.128	1.318	1.115	1.152	1.038
EXPRESS MAIL	1.116	1.128	1.324	1.128	1.149	1.038
MAILGRAMS	1.084	-	1.400	1.148	1.000	1.000
PERIODICALS: WITHIN COUNTY	1.148	-	1.000	1.109	1.157	1.038
PERIODICALS: OUTSIDE THE COUNTY	1.169	1.128	1.273	1.107	1.156	1.038
TOTAL PERIODICALS	1.169	1.128	1.250	1.107	1.156	1.038
STANDARD: ENHANCED CARR. RTE.	1.174	1.128	1.333	1.108	1.151	1.038
STANDARD: REGULAR	1.182	1.128	1.500	1.106	1.147	1.037
TOTAL STANDARD MAIL	1.181	1.128	1.400	1.107	1.149	1.038
PACKAGE SERVICES: PARCELS	1.159	1.129	1.190	1.125	1.141	1.037
BOUND PRINTED MATTER	1.174	1.128	1.000	1.131	1.150	1.038
MEDIA MAIL	1.181	1.128	1.000	1.137	1.173	1.040
TOTAL PACKAGE SERVICES	1.166	1.128	1.217	1.129	1.145	1.037
US POSTAL SERVICE	1.166	1.128	1.400	1.106	1.156	1.038
FREE MAIL	1.200	-	-	1.108	1.154	1.037
INTERNATIONAL MAIL	1.152	1.128	1.324	1.119	1.145	1.038
TOTAL ALL MAIL	1.177	1.128	1.324	1.108	1.150	1.038
SPECIAL SERVICES: -REGISTRY	1.127	1.129	1.391	1.109	-	1.039
CERTIFIED	1.112	1.128 -		1.105	-	1.038
INSURANCE	1.113	1.128 -		1.106	-	1.038
C.O.D.	1.144	1.128	1.500	1.106	-	1.040
MONEY ORDERS	1.106	1.128	-	-	-	1.037
STAMPED ENVELOPES	1.095	1.128	-	-	-	-
SPECIAL HANDLING	2.169	1.126	-	-	-	-
POST OFFICE BOX	1.107	1.128	-	1.101	-	-
OTHER	1.250	1.128	1.273	1.090	-	1.033
TOTAL SPECIAL SERVICES	1.170	1.128	1.361	1.101	-	1.038
TOTAL VOLUME VARIABLE	1.176	1.128	1.324	1.108	1.150	1.038
Source: LR-J-52, Part II, Page:	10	43	112	142	173	200

TEST YEAR MAIL PROCESSING
COST POOL PIGGYBACK FACTORS

COST POOL	PIGGYBACK FACTOR	COST POOL	PIGGYBACK FACTOR
BMCS NMO	1.567	MODS 17 1SACKS_H	1.593
BMCS OTHR	1.482	MODS 17 1SCAN	1.985
BMCS PLA	1.784	MODS 18 BUSREPLY	1.457
BMCS PSM	2.701	MODS 18 EXPRESS	1.575
BMCS SPB	1.645	MODS 18 MAILGRAM	1.512
BMCS SSM	2.075	MODS 18 REGISTRY	1.576
MODS 11 BCS/	1.787	MODS 18 REWRAP	1.481
MODS 11 BCS/DBCS	1.944	MODS 18 1EEQMT	1.609
MODS 11 OCR/	2.213	MODS18 FUNC1_SUPPORT	1.571
MODS 12 FSM/	1.639	MODS 19 INTL	1.589
MODS 12 FSM/1000	1.630	MODS 41 LD41	1.881
MODS 12 LSM/	1.499	MODS 42 LD42	1.641
MODS 13 MECPARC	1.500	MODS 43 LD43	1.422
MODS 13 SPBS OTH	1.676	MODS 44 LD44	1.406
MODS 13 SPBSPRIO	1.647	MODS 48 LD48 EXP	1.583
MODS 13 1SACKS_M	1.844	MODS48 FUNC4_SUPPORT	1.549
MODS 14 MANF	1.398	MODS 48 LD48_SSV	1.543
MODS 14 MANL	1.365	MODS 49 LD49	1.560
MODS 14 MANP	1.501	MODS 79 LD79	1.678
MODS 14 PRIORITY	1.547	NON MODSALLIED	1.473
MODS 15 LD15	1.616	NON MODSAUTO/MEC	1.891
MODS 17 1BULK PR	1.627	NON MODSEXPRESS	1.592
MODS 17 1CANCMPP	2.156	NON MODSMANF	1.389
MODS 17 1OPBULK	1.545	NON MODSMANL	1.349
MODS 17 1OPPREF	1.556	NON MODSMANP	1.458
MODS 17 1PLATFRM	1.655	NON MODSMISC	1.529
MODS 17 1POUCHNG	1.598	NON MODSREGISTRY	1.592

SOURCE: USPS LR-J-52, PAGE III-44 AND III-45

TEST YEAR MAIL PROCESSING
COST POOL PIGGYBACK FACTORS

Disaggregated Cost Pool Piggyback Factors for BCS, FSM, RBCS and PSM

Disaggregated of BCS Cost Pool Piggyback Factor:

Line #		Cost Pool Piggyback Factor
1	MPBCS	1.787
2	DBCS	1.943
3	CSBCS	1.953

Disaggregated of FSM Cost Pool Piggyback Factor:

Line #		Cost Pool Piggyback Factor
4	FSM 881	1.416
5	FSM 1000	1.587
6	AFSM 100	1.746

RBCS COSTS

Line #		Piggyback Factors
7	RBCS: LMLM	2.567
8	RBCS: OTHER WORKROOM	INCLUDED IN OCR
9	RBCS: REMOTE ENCODING	1.459

Disaggregation of PSM into PPSM and SPSM

Line #		Piggyback Factors
10	PRIMARY PSM	2.140
11	SECONDARY PSM	6.419

			Remaining TY keying labor for SPSM:	
			W/o keying labor	W/keying Labor
12	SECONDARY PSM:	Costs	55,647,705	65,917,121
13		Costs/pc. (in cents)	5.35	6.34

Source: USPS LR-J-52, Pages III-46 and III-47.

Attachment 13

Additional Piggyback Factors and Other Costs

Test Year Accounting and Auditing Piggyback Factor	1.529
(Source: LR-J-52, page 66)	
Test Year Window Service Piggyback Factor:	
All subclasses & Spec. Ser. Except P.O. Box	1.465
All subclasses & Spec. Ser. Except P.O. Box, excluding space related	1.264
(Source: LR- J-52, page 35)	
Test Year City Carrier Piggyback Factor, Using Total Special Services Costs:	
Office	1.345
Street	1.360
Total	1.356
(Source: LR- J-52, page 133)	
Test Year Cost per Square Foot:	
Rent	9.02
Facility-Support	6.92
Total	15.95
(Source: LR- J-52, page III-11)	

ATTACHMENT 14

PREMIUM PAY RATIOS FOR MAIL PROCESSING LABOR COSTS

Base Year 2000
U.S.P.S. Version

	Premium Pay Ratios	
	Non-BMC	All Facilities
	(1)	(2)
First-Class Mail:		
Single-piece letters	1.01205	1.01203
Presorted letters	1.01051	1.01050
Total letters	1.01172	1.01170
Single-piece cards	1.02996	1.02996
Presorted cards	1.00881	1.00881
Total cards	1.02624	1.02623
Total First-Class Mail	1.01219	1.01218
Priority Mail	1.00968	1.00952
Express Mail	0.98854	0.98854
Mailgrams	1.02113	1.02113
Periodicals:		
In-county	1.00161	1.00159
Outside the county	1.01933	1.01834
Total periodicals	1.01891	1.01795
Standard Mail:		
Enhanced Carrier Route	0.96713	0.96977
Regular	0.96687	0.97039
Total standard mail	0.96690	0.97032
Package Services:		
Parcel post	0.98293	0.99200
Bound printed matter	0.97016	0.98180
Media mail	0.96964	0.98687
Total package services	0.97637	0.98820
U.S. Postal Service	1.00662	1.00565
Free mail	1.02371	1.01836
International mail	1.00264	1.00215
Total all mail	1.00000	1.00000

Source: LR-J-52, Page 1 (in Part I)

TEST YEAR MAIL PROCESSING UNIT COSTS BY SHAPE

(CENTS/PIECE)

Subclass	Letters/Cds.	Flats	Parcels/IPPs	All Shapes Row Average	Subclass Average
FC--LTRS SGL PC	12.35	38.75	89.83	15.52	15.52
FC LTR_P C_RT	2.29	-	-	2.29	5.01
FC LTR_P NC_RT	4.62	28.45	270.32	5.08	5.01
FC CARDS SGL PC	10.70	-	-	10.70	10.70
FC CRD_P C_RT	3.76	-	-	3.76	2.28
FC CRD_P NC_RT	2.24	-	-	2.24	2.28
IN COUNTY	4.92	2.84	18.86	2.96	2.96
OUT COUNTY	5.70	11.83	302.80	12.06	12.06
Periodicals Total	5.64	11.06	278.59	11.28	11.28
STD (A) ENH.CAR	1.54	1.47	205.95	1.59	1.59
STD (A) REG	5.13	12.52	65.56	8.06	8.06
STD (B) PARCELS				153.00	153.00
STD (B) BD PRINT				44.74	44.74
STD (B) MEDIA ML				80.11	80.11

SOURCE: USPS LR-J-53, PAGE I-1

TEST YEAR MAIL PROCESSING UNIT COSTS BY SHAPE

(CENTS/PIECE)

	Unit Cost
F-C Single Piece Metered Letters	10.83
F-C Presort Automated Letters	3.63
F-C Presort Non-Automated Letters	14.21
F-C Presort Automated Cards	1.89
F-C Presort Non-Automated Cards	3.23
Standard: Regular Letters Automated	3.82
Standard: Regular Letters Non-Automated	12.35
F-C Automated (both CR and non-CR)- Letters	3.59
F-C Automated (both CR and non-CR)- Cards	1.97

SOURCE: USPS LR-J-53, PAGE I-2